

CURRICULUM VITAE

Desineni *Subbaram* Naidu, PhD, Life Fellow IEEE¹

May 26, 2022

- **Name:** Desineni “Subbaram” Naidu
- **Citizenship:** United States of America (USA)
- **Office Address:**
 - Minnesota Power Jack Rowe Endowed Chair**
 - Professor of Electrical Engineering
 - University of Minnesota Duluth (UMD)
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 - Professor-Emeritus**, Idaho State University
- **Educational Qualifications**
 1. **PhD**, Thesis Title, *Applications of Singular Perturbation Technique to Problems in Control Systems*, Department of Electrical Engineering, Indian Institute of Technology (IIT), Kharagpur, India.
 2. **MTech/MS**, Control Systems Engineering, Indian Institute of Technology (IIT), Kharagpur, India.
 3. **BE/BS**, Electrical Engineering, Sri Venkateswara University, Tirupati, India.

¹The Institute of Electrical and Electronics Engineers, “the world’s largest professional association for the advancement of technology”. IEEE was formed by the merger (on 01 January 1963) of The American Institute of Electrical Engineers (AIEE), founded in 1884, a United States based organization of electrical engineers, with the Institute of Radio Engineers (IRE), founded in 1912, a United States based organization of radio/electronic engineers.

● Teaching/Administrative Experience

1. August 25, 2014 to present: **Minnesota Power Jack Rowe Endowed Chair**, and Professor of Electrical Engineering, University of Minnesota Duluth (UMD), Duluth, Minnesota, USA
Minnesota Power, Duluth, Minnesota established the first endowed chair at the University of Minnesota Duluth, the Minnesota Power Jack F. Rowe Chair of Engineering in honor of Jack F. Rowe, former Minnesota Power Chairman, President, and Chief Executive Officer.
2. January - May 2017: **Satish Dhawan Endowed Visiting Professor**, Department of Aerospace Engineering (AE), Indian Institute of Science (IISc), Bengaluru, Karnataka, India.
Professor Satish Dhawan (1920-2002) had BS degrees in Physics and Mathematics, and Mechanical Engineering and MS in English Literature from University of the Punjab in Lahore, India (now Pakistan), MS degree in Aerospace Engineering from University of Minnesota, Minneapolis, USA in 1947 and PhD degrees in Mathematics and Aerospace Engineering from California Institute of Technology, Pasadena, CA, USA in 1951. Professor Dhawan was Professor and Head of the Department of Aerospace Engineering at IISc and then Director (1962-1981) of Indian Institute of Science (IISc), Bengaluru, India and chairman (1972-2002), Indian Space Research Organization (ISRO).
Indian Institute of Science (IISc), Bengaluru, also called **Tata Institute**, founded in 1909 by the joint efforts of famous industrialist **J. N. Tata** and the Government of India, and is “the premier institute for advanced scientific and technological research and education in India.
“IISc becomes the first Indian university to be ranked (8th) among the top 10 best small universities in the world”, (with Caltech (USA) as rank # 1), according **Times Higher Educations World University Rankings 2016-17**, 07 March 2017.
The **Department of Aerospace Engineering (DoAE)** at IISc, was established in 1942, and the biggest aerospace department in the country”. The department offers a senior graduate-level course AE 361 Applied Optimal Control and State Estimation - AOCSE and lists my book **Optimal Control Systems - 2003** as number 1 out of 7 other books!
3. July 01, 2013 - June 30, 2014: Professor of Electrical Engineering, Director, Measurement and Control Engineering Research Center, Idaho State University, Pocatello, Idaho, USA.
4. July 01, 2010 - June 2013: Founding Director, School of Engineering, and Associate Dean, College of Science and Engineering, Idaho State University, Pocatello, Idaho. Responsible for all activities relating to both academics and administration of the School of Engineering and reports to Dean of the College of Science and Engineering (CoSE).
5. Appointed as *Affiliate Faculty* with the Center for Advanced Energy Systems Studies (CAES), Idaho National Laboratory (INL), Idaho Falls, ID, effective March 2010, 2011, 2012, 2013, 2014, 2015.

6. August 1996 - June 30, 2010: Associate Dean, College of Engineering, Idaho State University, Pocatello, Idaho – Member of the administration team of the College assisting Dean of Engineering in all areas. Also, as assigned by Dean, acts on all administrative matters of the College during the absence of the Dean of Engineering from the campus, including representing the College at the University Academic Council meetings and Deans Council meetings.
7. Fall 2009: As Associate Dean led the efforts in preparation of the report (86 pages) for and the visit by the External Review of the College of Engineering during fall semester of 2009.
8. March-2006 to August - 2006: Interim Chair of Civil and Environmental Engineering program, College of Engineering, Idaho State University.
9. August - 1999 - August - 2006: Associate Dean of Graduate Studies, College of Engineering, Idaho State University, Pocatello, Idaho – Member of the administration team of the College, administration of graduate studies, programs etc. Also, as assigned, acts on all administrative matters of the College during the absence of the Dean of Engineering from the campus, including representing the College at the University President’s Staff meetings and Deans Council meetings.
10. August 1998- July 1999: Interim Associate Dean for Graduate Studies, College of Engineering, Idaho State University, Pocatello, Idaho, – Member of the administration team of the College, administration of graduate studies, programs etc. Also, as assigned, acts on all administrative matters of the College during the absence of the Dean of Engineering from the campus, including representing the College at the University President’s Staff meetings and Deans Council meetings.
11. January - July - 1999: Interim Associate Dean of Graduate Studies, College of Engineering, Idaho State University, Pocatello, Idaho – Administration of graduate students, program etc.
12. Director (July 1998-June 2014) and Founding Co-Director (Aug. 1993 to June 1998), Measurement and Control Engineering Research Center (one of the three recognized and approved by the Idaho State Board of Education on January 1994), College of Engineering, Idaho State University, Pocatello, Idaho.
13. July 22, 1990 - June 2014: Professor (Tenured w.e.f. 8/13/1992), College of Engineering, Idaho State University, Pocatello, ID – Teaching and Research.
14. June - 1997 - June 2005: Coordinator/Chair, Electrical Engineering, College of Engineering, Idaho State University, Pocatello, Idaho – coordinates activities of Electrical Engineering program in the College.
15. 1978-85: Assistant Professor, Indian Institute of Technology (IIT), India – Teaching and Research.
16. 1968-78: Lecturer, Indian Institute of Technology (IIT), India – Teaching and Research.
17. 1964–65: Associate Lecturer, Sri Venkateswara University, Tirupati – Teaching.

● Research Experience

1. Invited and accepted the position as **Coordinator, Core Research Capability (CRC) in Industrial Control Cyber Security (ICCS)** Center for Advanced Energy Studies (CAES), 995 University Blvd., Idaho Falls, ID 83401, November, 2013 to June 2014. <https://gust.com/companies/atheropoint>
2. Invited Member, Scientific Advisory Board, **AtheroPointTM**, Monitoring Made Simple, Rocklin, CA, 95765, since November, 2013, 2014,
3. Visited (by invitation) to conduct research on time scales for networked control systems at the Center for Applied and Interdisciplinary Mathematics, Department of Mathematics, East China Normal University (ECNU), Shanghai, China, during December 10, 2011 to December 31, 2011.
4. Visited (by invitation) the Center for Applied and Interdisciplinary Mathematics, Department of Mathematics, East China Normal University (ECNU), Shanghai, China, December 12-24, 2009. In addition to research collaboration, three presentations were made on the following research topics: “Research in Singular Perturbations and Time Scales (SPaTS) for Aerospace”, “Fusion of Soft and Hard Control Strategies for Biomedical Engineering”, and “Research Experiences in Singular Perturbations and Time Scales (SPaTS)- Overview”.
5. Spring 2008: As part of sabbatical conducted research on *Control Applications to Biomedical Engineering with Particular Reference to Prosthetics* field at the Dept. of Electrical Engineering, the University of Western Australia, Crawley, Perth, Australia, during March 15 to April 12, 2008.
6. Spring 2008: As part of sabbatical conducted research on *Applications of Linear Programming Approach to Nonlinear Optimal Control Problems* at the Center for Industrial and Applied Mathematics (CIAM), Institute of Sustainable Systems and Technologies (ISST), Division of Information Technology (IT), Engineering and Environment, University of South Australia, Adelaide, Australia, during February 23 to March 15, 2008.
7. May 2007: Visited (by invitation) Nantong University (NTU), Nantong, Jiangsu, China to collaborate with Dept. of Electrical Engineering at NTU. Also conducted a week long graduate level short course - Optimal Control Systems based on my book, Optimal Control Systems, CRC Press, 2003. Also initiated research collaboration in the area of Networked Control for Singularly Perturbed Systems, with Professor Zhiming M. Wang, Center for Applied and Multidisciplinary Mathematics, Department of Mathematics, East China Normal University, Shanghai, China.
8. June 13-August 12, 2005: Academic Guest at Measurement and Control Laboratory (IMRT:Institut fr Mess- und Regeltechnik) at Swiss Federal Institute of Technology (ETH: Eidgenssische Technische Hochschule), Zurich, Switzerland, during June 13 Aug. 12, 2005. Also invited to conduct a week-long (July 11-15, 2005) short/block course on Nonlinear Control Systems to doctoral students in ETH.

9. May 15 - August 14, 2004: Norwegian Research Council (NRC) fellowship to work at the Center of Excellence for Ships and Ocean Structures at Norwegian University of Science and Technology (NTNU), Trondheim, Norway, during the period May 15 - August 14, 2004. Conducted research on Order Reduction in System Modeling, Analysis and Control via Singular Perturbations and Time Scales: Applications to Flexible Beam Systems and Gantry Cranes.
10. 1998-99: National Academy of Sciences (NAS)-*National Research Council (NRC) Senior Research Associateship Award* at the Center of Excellence in Advanced Flight Research, at US Air Force Research Laboratory (AFRL), Wright-Patterson Air Force Base (WPAFB), Ohio. Conducted research on guidance and control strategies for hypersonic vehicles.
11. 1987-90: Research Associate Professor, NASA Langley Research Center, Hampton, VA and Old Dominion University, Norfolk, VA – Research and teaching.
12. 1985-87: National Research Council (NRC) Senior Research Investigator and Professor, NASA Langley Research Center, Hampton, VA, on leave from Indian Institute of Technology (IIT), Kharagpur. Conducted research on singular perturbation methodology for digital flight control systems.

● Awards/Honors

1. Elected as the *Fellow* of NAT (National Academy of Technology), Hongkong and Denver, CO (USA) 15 March 2022.
2. Elected as the *Distinguished Fellow* of IETI (International Engineering and Technology Institute), Hongkong and Denver, CO (USA) 15 March 2022.
3. Based on Research Profile, "Lifetime Achievement Award" in the International Scientist Awards on Engineering, Science and Medicine was awarded, 21 January 2022.
4. Invited and elected as Fellow of Asia-Pacific Artificial Intelligence Association (AAIA) (<https://www.aaia-ai.org/>). Hong Kong, effective from 15 June 2021.
5. Invited and elected as Distinguished Fellow of the IDSAI (Institute of Data Science and Artificial Intelligence), Hong Kong and Denver, USA, on 12 January 2021. <http://www.idsai.org/new/detail.aspx?id=185>
6. Invited and elected as one of the two Vice Presidents (during 2020-2024) by the The Institute of Data Science and Artificial Intelligence (IDSAI), Hong Kong and Denver, USA, November 2020.
7. Nominated and accepted for the IEEE Fellow Committee Member position, on 18 May 2020. The IEEE Fellow committee, consists of not more than 52 members, evaluates the IEEE Fellow nominations recommended by 39 technical societies of the IEEE.
8. Nominated for the election to Membership of the National Academy of Engineering (NAE) of the United States National Academies, Washington, DC, 2018.
9. January - May 2017: **Satish Dhawan Endowed Visiting Professor**, Department of Aerospace Engineering (AE), Indian Institute of Science (IISc), Bengaluru, Karnataka, India.

Professor Satish Dhawan (1920-2002) had BS degrees in Physics and Mathematics, and Mechanical Engineering and MS in English Literature from University of the Punjab in Lahore, India (now Pakistan), MS degree in Aerospace Engineering from University of Minnesota, Minneapolis, USA in 1947 and PhD degrees in Mathematics and Aerospace Engineering from California Institute of Technology, Pasadena, CA, USA in 1951. Professor Dhawan was Professor and Head of the Department of Aerospace Engineering at IISc and then Director (1962-1981) of Indian Institute of Science (IISc), Bengaluru, India and chairman (1972-2002), Indian Space Research Organization (ISRO),.

Indian Institute of Science (IISc), Bengaluru, also called **Tata Institute**, founded in 1909 by the joint efforts of famous industrialist **J. N. Tata** and the Government of India, and is "the premier institute for advanced scientific and technological research and education in India.

"Indian Institute of Science (IISc) becomes the first Indian university to be ranked (8th) among the top 10 best small universities in the world", (with California Institute of Technology (CalTech) USA as rank # 1), according **Times Higher Educations World University Rankings 2016-17**, 07 March 2017.

Indian Institute of Science (IISc) “has been declared as the best among all categories of institutions in India for the second consecutive year” as per the Ministry of Human Resource Development (HRD), India, adopting the National Institutional Ranking Framework (NRIF), 03 April 2017.

The **Department of Aerospace Engineering** (DoAE) at IISc, was established in 1942, and the biggest aerospace department in the country”. The department offers a senior graduate-level course AE 361 Applied Optimal Control and State Estimation - AOCSE and lists my book **Optimal Control Systems - 2003** as number 1 out of 7 other books!

10. Delivered a TED Talk entitled, *3-D Printed Prosthetic Hand for the World* for TEDxMinneapolis, Minneapolis, MN (www.TEDxMinneapolis.com) at Tedd Mann Concert Hall, a world-class concert auditorium, (<http://campusmaps.umn.edu/tedd-mann-concert-hall>) located in the School of Music, on West Campus of University of Minnesota, Twin Cities (address: 2128 4th Street S Minneapolis, MN, 55455) during the annual IN SIGHT event scheduled from 4:00 PM to 11:00 PM on Friday, August 12, 2016. “TED is a nonprofit devoted to spreading ideas, usually in the form of short, powerful talks (18 minutes or less). TED began in 1984 as a conference where Technology, Entertainment and Design (TED) converged, and today covers almost all topics from science to business to global issues”.
This TEDx Video is available for public at
<https://www.youtube.com/watch?v=rXyy5XN2oY0>
11. Awarded *Professor Emeritus* status by President, Idaho State University (ISU) for “years of service to the Idaho State University community”, 26 March 2015.
12. Biography included (by invitation) in the **Who’s Who in the World 2015 (32nd Edition)**, published by Marquis Who’s Who, New Providence, New Jersey, 20 November 2014.
13. Biography included (by invitation) in the **Who’s Who in America-2015 (70th) Platinum Anniversary Edition**, published by Marquis Who’s Who, New Providence, New Jersey, 20 November 2014.
14. “Best Symposium Paper” award in the International Symposium on Resilient Control Systems at Resilient Week-2014, held in Denver, Co during August 19-21, 2014 for the paper - Yan Zhang, **D.S. Naidu**, Chenxiao Cai, Yun Zou “Time Scale Analysis and Synthesis for Model Predictive Control under Stochastic Environments”, Proceedings of the 7th International Symposium on Resilient Control Systems (ISRCS), August 19-21, 2014, Denver, CO, pp. 1-6, 2014.
15. By invitation, served as Chair of Special Track on **Industrial Control Systems (ICS) Cyber Security** at the 7th International Symposium on Resilient Control Systems (ISRCS) - Resilient Week - 2014, August 19-21, 2014, Denver, CO, pp. 1-6, 2014.
16. Invited *Webinar* (through Go-To-Meeting) on “Our Institution and Twinning Programs, for Indo US Collaboration for Engineering Education (IUCEE) (www.iucee.org) on 17 December, 2013.
17. Invited *Webinar* (through Go-To-Meeting) on “Outcomes Based Engineering Education, for Indo US Collaboration for Engineering Education (IUCEE) (www.iucee.org)

on 17 November, 2013.

18. Biography included (by invitation) in the **Who'Who in America-2014** (68th) Edition, published by Marquis Who's Who, New Providence, New Jersey, 12 June 2013.
19. Selected as *Rotarian of the Year: 2011-12* and presented a plaque with "sincere appreciation and recognition of distinguished service, loyalty and devotion to the ideals of Rotary", on 20 September 2012.
20. Biography included (by invitation) in the **Who'Who in America-2013** (67th) Edition, published by Marquis Who's Who, New Providence, New Jersey, May 2012.
21. Invited to give a short course on Optimal Control Systems at the Center for Applied and Interdisciplinary Mathematics at East China Normal University (ECNU), Shanghai, China, December 13 - 30, 2011.
22. Biography included in the **Who'Who in America-2012** (66th) Edition, published by Marquis Who's Who, New Providence, New Jersey - March 14, 2011.
23. Received a letter and a certificate "in recognition of and appreciation for 20 years of dedicated and valuable service to the citizens of Idaho", from Idaho Governor C.L. "Butch" Otter, dated June 04, 2010.
24. Biography, "distinguishes you as one of the leading professionals in your field from around the world", included in 2011-2012 Edition of **Who'Who in Science and Engineering**, published by Marquis Who's Who, New Providence, New Jersey, - June 2010.
25. "Because of the reference value of (your) outstanding achievements", Marquis Who'Who -2011 selected my biography for inclusion in the 2011 Edition of Marquis **Who'sWho in America**, the primary source of information on outstanding men and women in America, published by Marquis Who's Who, New Providence, New Jersey - February 2010.
26. "Because of the reference value of (your) outstanding achievements", Marquis Who'Who -2010 selected my biography for inclusion in the 64rd Edition of Marquis **Who'sWho in America**, the primary source of information on outstanding men and women in America, published by Marquis Who's Who, New Providence, New Jersey - April 2009.
27. Financial award (\$15,000) for sabbatical during Spring 2008 to conduct research on Control Applications to Biomedical Engineering with particular reference to prosthetics field at the Dept. of Electrical Engineering, the University of Western Australia, Crawley, Perth, Australia, during March 15 to April 12, 2008.
28. Financial award (\$5,000) for sabbatical during Spring 2008 to conduct research on Applications of Linear Programming Approach to Nonlinear Optimal Control Problems at the Center for Industrial and Applied Mathematics (CIAM), Institute of Sustainable Systems and Technologies (ISST), Division of Information Technology (IT), Engineering and Environment, University of South Australia, Adelaide, Australia, during February 23 to March 15, 2008.

29. Biography selected for inclusion in the 2010th Edition of **WHO'S WHO IN AMERICA**, the primary source of information on outstanding men and women in America, published by Marquis Who's Who, New Providence, New Jersey - February 2009.
30. "Because of the reference value of (your) outstanding achievements", Marquis Who'Who -2009 selected my biography for inclusion in the 63rd Edition of Marquis **Who'sWho in America**, the primary source of information on outstanding men and women in America, published by Marquis Who's Who, New Providence, New Jersey - May 2008.
31. Nominated for Idaho State University **Outstanding Teacher Award** during 2007-08.
32. Biography selected for inclusion in the 24th Edition of **WHO'S WHO IN THE WORLD**, the primary source of information on outstanding men and women in America, published by Marquis Who's Who, New Providence, New Jersey - February 2006.
33. Academic Guest at Measurement and Control Laboratory (IMRT:Institut fr Mess- und Regeltechnik) at Swiss Federal Institute of Technology (ETH: Eidgenössische Technische Hochschule), Zurich, Switzerland, during June 13 Aug. 12, 2005. Also invited to conduct a week-long (July 11-15, 2005) short/block course on Selected Topics in Nonlinear Control Systems to doctoral students in ETH.
34. Received an award "in recognition and appreciation of 12 years of dedicated service to Graduate Council", by The Office of Graduate Studies, Idaho State University, Pocatello, Idaho, May 04, 2005.
35. Biography selected for inclusion in the 60th Diamond Edition of **WHO'S WHO IN AMERICA**, the primary source of information on outstanding men and women in America, published by Marquis Who's Who, New Providence, New Jersey - May 2005.
36. Invited to be included in a data base of experts, "based on published literature and/or colleague recommendation, the Kentucky Science and Engineering Foundation (KSEF) has included you in our database of experts that we rely on for identifying potential reviewers" - 08 November, 2004.
37. A research fellowship was awarded by the **Norwegian Research Council (NRC) to work at the Center of Excellence for Ships and Ocean Structures** at Norwegian University of Science and Technology (NTNU), Trondheim, Norway, during the period May - August 2004.
38. A plaque was presented "D. Subbaram Naidu in Recognition for Your Outstanding Dedication as Chair of the Fellow Evaluation Committee, 1997-2001" by Board of Governors, Aerospace and Electronic Systems Society (AESS), Institute of Electrical and Electronic Engineers (IEEE), New York, NY - May 23, 2003.
39. Duly elected as **Fellow of the World Innovation Foundation** on 28 March, 2002, The World Innovation Foundation (WIF), Huddersfield, 1XJ, United Kingdom. The motto of WIF is "harnessing leading edge global innovative thought for the good of all human kind in the 21st century and beyond".

40. Listed in the **American Men & Women of Science**, a premier biographical reference on North American scientists, published by Gale, Farmington Hills, MI, USA, April 25, 2002.
41. Selected as an Institute of Electrical and Electronics Engineers (IEEE) Electrical Engineering (EE) program evaluator for the IEEE endorsed Accreditation Board for Engineering and Technology (ABET) Engineering Accreditation Commission (EAC), on 13 February 2002.
42. A plaque with “*Survey Paper Citation*” was presented by American Institute of Aeronautics and Astronautics (AIAA) for publishing a **survey paper**, “Singular perturbations and time scales in guidance and control of aerospace systems: a survey,” AIAA Journal of Guidance, Control and Dynamics, Vol. 24, Nr. 6, pp. 1057-1078, November-December 2001 [412 references] (Invited Survey Paper)-February 5, 2002.
43. Published as “An ISU Engineering professor was recognized as the Distinguished Researcher of the Year after working on NASA spacecraft control projects such as space launch to Mars”, in LOOK FORWARD: DREAM, Centennial 1901-2001, Idaho State University, Pocatello, Idaho, 2001.
44. Name and picture published on three pages: page 146 (picture titled, Engineering Professor Subbaram Naidu in 1995), page 151 (... the College boasted the 1994-95 Distinguished Researcher of the Year, Professor D. Subbaram Naidu...) and page 289 (under Distinguished Faculty Award Winners: Distinguished Researcher: 1995 Subbaram Naidu, Engineering) in **Idaho State University: A Centennial Chronicle** by Diane Olson, produced and published in 2000 by Idaho State University, Pocatello, Idaho, in celebration of Centennial Anniversary 1901-2001.
45. As “one of the leading researchers in the world in the field of singularly perturbed control systems and their applications ...”, I was invited to contribute a paper to the special issue on *Singularly Perturbed Dynamic Systems in Control Technology* for the journal *Dynamics of Continuous, Discrete and Impulse Systems: An International Journal for Theory and Applications*, October 8, 2000.
46. Invited to be a co-author for Benjamin Kuo’s *Automatic Control Systems*, 7/E, for the forthcoming Eighth Edition “with a unique opportunity to take an active role in shaping this **classic text for the future in control system curricula** ... looking for professors with research interests in the field and a strong commitment to teaching”, to be published by John Wiley & Sons, New York, NY, June 15, 2000.
47. Invited for inclusion of biography in *2000 Outstanding Scholars of the 20th Century*, International Biographic Institute, Cambridge, England, May 2000.
48. Invited for inclusion of biography in *Directory of International Biography*, Twenty-Ninth Edition, International Biographic Institute, Cambridge, England, May 2000.
49. Nominated and selected for recognition as *Multiple Year Honoree* in *Who’s Who Among America’s Teachers* - The Best Teachers in America Selected by the Best Students, Sixth Edition, published by Educational Communications, Inc., Lake Forest, IL, May 24, 2000.

50. Selected as a potentially qualified candidate for inclusion in the 2000 edition of *International WHO'S WHO of Professionals*, December 3, 1999.
51. Awarded *The National Aviation and Space Exploration Wall of Honor* certificate, "in grateful acknowledgment of your outstanding support in helping to create The National Air and Space Museum Dulles Center", inducting as an Air and Space Friend of the Dulles Center, by Smithsonian's National Air and Space Museum, Washington, DC, on 14 October, 1999.
52. Repeat Recipient of the National Research Council (NRC) of the National Academies of Sciences, Engineering and Medicine *Senior Research Associateship Award* during 1998-99 tenable at the Center of Excellence in Advanced Flight Control Research, at US Air Force Research Laboratory (AFRL), Wright-Patterson Air Force Base (WPAFB), Ohio. These awardees, "join the ranks of distinguished scholars who have been chosen to participate in the Research Associateship Program to provide postdoctoral scientists and engineers of unusual promise and ability opportunities for research".
53. Nominated and Selected for recognition in *Who's Who Among America's Teachers* - The Best Teachers in America Selected by the Best Students, Fifth Edition, published by Educational Communications, Inc., Lake Forest, IL 1998 - citation on the plaque reads "Desineni Subbaram Naidu has been selected by a student of merit who "made a difference" in the life of that student and is therefore acknowledged for excellence as a distinguished educator in *Who's Who Among America's Teachers*".
54. Listed in the Sixth Edition of *Five Thousand Personalities of the World*, published by The American Bibliographical Institute, Inc., Raleigh, NC, USA, December 1997.
55. Listed in the 1998 Edition of *International Who's Who of Contemporary Achievement*, published by The American Biographical Institute, Inc., Raleigh, NC, July 1997.
56. Honorary appointment to the *Research Board of Advisors*, published by The American Biographical Institute, Inc., Raleigh, NC, July 1997.
57. Recipient of *The 20th Century Award for Achievement* Diploma of Honor, in recognition of outstanding achievements in the field of Guidance and Control Systems Engineering, published by International Biographical Center, Cambridge, England, July 1997.
58. Recipient of Associated Western Universities (AWU)-Idaho National Engineering and Environmental Laboratory (INEEL), Idaho Falls, Idaho, *Summer Fellowship* during Summer of 1997.
59. IEEE Idaho Section *Service Award* in honor, recognition and appreciation of dedication and esteemed service as *Secretary/Treasurer*, May 31, 1997.
60. Listed in the **American Men & Women of Science**, published by R. R. Bowker Data Collection Center, Oldsmar, FL, USA, May 1997.
61. Listed in the sixth edition of *The International Directory of Distinguished Leadership*, published by The American Bibliographical Institute, Inc., Raleigh, NC, USA, 1997.

62. Listed in the seventh edition of *Who's Who in Technology (WWT)*, a biographical reference source published by Gale Research Inc., Detroit, Michigan – March 1996.
63. Received the *IEEE Fellow Certificate* from the President of the IEEE Control Systems Society at the Annual Awards Banquet at the 34th IEEE Conference on Decision and Control, on December 14, 1995 in New Orleans, LA.
64. Recipient of Associated Western Universities (AWU)-Idaho National Engineering Laboratory (INEL), Idaho Falls, Idaho, Summer Fellowship during Summer of 1995.
65. Recipient of the *highest research recognition* at Idaho State University, the *Distinguished Researcher Award* for 1994-'95 – May 13, 1995.
66. **Elected as a Fellow** of the Institute of Electrical and Electronics Engineers (IEEE)², Inc., New York, New York, USA, effective January 01, 1995 (first person to be elected in the State of Idaho). The Fellow is "*the highest grade of membership in the IEEE*" and "*one of the Institute's most prestigious honors*" conferred on "*less than one in a thousand members of the IEEE*". The citation of the IEEE Fellow is "*for contributions to the theory of singular perturbations in discrete-time control systems and for development of control strategies for aeroassisted orbital transfer*", for the research work done at Indian Institute of Technology (IIT), Kharagpur and the Guidance and Control Division, NASA Langley Research Center, Hampton, VA, USA.
67. Recipient of 1994-'95 Idaho State University **Outstanding Researcher Award** – March 1995.
68. Received **Distinguished Electrical Engineer** award in recognition of advancement to **IEEE Fellow** from IEEE Idaho Section, Pocatello, Idaho, January, 1995.
69. Biography selected for inclusion in the Silver Anniversary 25th Edition of **WHO'S WHO IN THE WEST**, the primary source of information on outstanding men and women in the region, published by Marquis Who's Who, New Providence, New Jersey – August 1994.
70. Winner of 1993-'94 Idaho State University **Outstanding Researcher Award** – March 1994.
71. Winner of **Best Paper Presentation** at the 1993 American Control Conference (ACC), San Francisco, CA – June 1993.
72. Admitted to the grade of **Associate Fellow** of the American Institute of Aeronautics and Astronautics (AIAA), Washington, DC – September 1991.
73. Recipient of the National Research Council (NRC) of the National Academies of Sciences, Engineering and Medicine, Washington, DC, *Senior Research Associate-ship Award* during 1985 and 1986 at NASA Langley Research Center, Hampton, Virginia, USA. These awards are made by National Research Council based on an "*international competition to outstanding senior scientists and engineers with established records of research for tenure as guest investigators on problems of their own choice at the United States Federal Laboratories and Centers*".

²Institute of Electrical and Electronics Engineers, "the world's largest professional association for the advancement of technology, with over 426,000 members from 160 countries".

● Invited and Accepted - Plenary/Keynote Talks/Presentations

1. Invited and accepted as a Plenary Speaker for the 2022 7th International Conference on Intelligent Information Processing (ICIIP), hosted by Romanian-American University, Bucharest, ROMANIA, during September 29-30, 2022 in Bucharest, Romania.
2. Invited and accepted as Keynote Speaker with title as “Fusion of Hard and Soft Computing for a Robotic/Prosthetic Hand”, at the 2022 International Conference on Mechanical, Aerospace and Automotive Engineering (CMAAE 2022), to be held on December 2-4, 2022, organized by the Hong Kong Society of Robotics and Automation (HKSRA) and the Central South University and technically sponsored by IEEE CCS Wuhan Chapter, and hosted by Central South University, 07 March 2022.
3. Invited and accepted as Conference Chair of the 2022 International Conference on Mechanical, Aerospace and Automotive Engineering (CMAAE 2022), to be held on December 2-4, 2022, organized by the Hong Kong Society of Robotics and Automation (HKSRA) and the Central South University and technically sponsored by IEEE CCS Wuhan Chapter, and hosted by Central South University, 07 March 2022.
4. Invited, accepted and presented a talk (via online) titled, “*Artificial Intelligence (Machine Learning) for a Robotic/Prosthetic Hand*”, at the International Conference on Data and Intelligent Science and Technology (DIST), the official conference of Institute of Data Science and Artificial Intelligence (IDSAI), Singapore, 31 December 2020.
5. Invited, accepted, and presented a keynote address (via online), titled, “*Advanced Control Strategies for Electrical Energy Systems*”, presented at the 21st International Conference Science, Engineering & Technology 2020 (ICSET-2020), Vellore Institute of Technology (VIT), Vellore, Tamil Nadu, India on 30 Nov. 2020.
6. Invited, accepted and presented a keynote talk titled, “Fusion of Hard and Soft (AI) Control Strategies for a Smart Prosthetic/Robotic Hand”, at the International Conference on Robotics and Smart Manufacturing (ICRSMA), Marrakesh, Morocco, 12-13 March 2020.
7. Invited, accepted and presented an invited lecture titled, “*Convergence and Integration of Mathematics and Engineering (Optimal Control Systems)*”, Department of Mathematics, Birla Institute of Technology and Science (BITS), Goa, India, on 07 January 2020.
8. Invited, accepted and presented an invited lecture titled, “*Fusion of Hard and Soft (AI) Control Strategies for a Smart Prosthetic/Robotic Hand*”, at the Division of Electrical Sciences, Indian Institute of Technology (IIT), Goa, India, on 06 January 2020.
9. Invited, accepted and presented a keynote talk titled, “Convergence, Integration, and Collaboration Igniting Innovation in Sciences, Engineering, Technology and Beyond: Benchmarks with Robotic Hand and Infectious Diseases”, at the International Conference on Science, Engineering and Technology, Goa, India, 30-31

December 2019.

A certificate was presented for presenting the keynote address to Professor Naidu by the conference organizers. Another certificate was presented to Professor Naidu for chairing the session at the conference.

10. Invited, accepted, and presented a plenary talk titled, “*Divide and Defend Control Strategies for Raising Resiliency in Cyber-Physical Systems - Proof of the Concept: Overhead Power Transmission Lines*”, 51st North American Power Symposium (NAPS), Wichita State University, Wichita, Kansas, October, 1315, 2019.
11. Invited, accepted and presented a keynote talk titled, “*Fusion of Hard and Soft (AI) Control Strategies for a Robotic/Prosthetic Hand*”, Department of Automatic Control, School of Electrical Engineering, Hanoi University of Science and Technology (HUST), Hanoi, Vietnam, on June 20, 2019.
12. Invited, accepted and presented a keynote talk titled, “*Fusion of Hard and Soft (AI) Control Strategies for a Robotic/Prosthetic Hand*”, School of Engineering and Technology, Tra Vinh University, Tra Vinh city, Tra Vinh Province, Vietnam, on June 17, 2019. A *Certificate of Appreciation* was awarded to Professor Naidu for his *phenomenal and worthy keynote presentation*.
13. Invited, accepted and presented a keynote talk titled, “*Fusion of Hard and Soft (AI) Control Strategies for a Robotic/Prosthetic Hand*”, Mechatronics Group, Department of Industrial Systems Engineering, School of Engineering and Technology Asian Institute of Technology (AIT), Bangkok, Thailand, June 13, 2019.
14. Invited, accepted and presented a plenary talk titled, “*Convergence and Integration of Life Sciences and Engineering - Infectious Diseases*”, at the 2nd Global Congress on Bacteriology and Infectious Diseases: Theme-Developing novel technologies & treatment to cure Infectious Diseases, June 12-13, 2019 in Bangkok, Thailand, 12 June 2019. A *Certificate of Recognition* was presented to Professor Naidu for his *phenomenal and worthy keynote presentation*.
15. Invited, accepted and presented a plenary talk titled, “*Fusion of Hard and Soft (AI) Control Strategies for a Robotic/Prosthetic Hand*”, 19th Annual IEEE International Conference on Electro Information Technology (EIT), Brookings, South Dakota, USA, May 20-22, 2019. A *plaque* was awarded to Professor Naidu “*in appreciation of your significant contributions as a Keynote Speaker*”.
16. Invited, accepted and presented a keynote talk titled, “*Convergence and Integration of Life Sciences and Engineering*”, IEEE Students’ Branch, University of Minnesota Duluth (UMD), on 16 April 2019.
17. Invited, accepted and presented a talk titled, “*Advanced Control Strategies For Smart Grid and Clean Energy*, Electrical and Computer Engineering Department, Khalifa University, Abu Dhabi, United Arab Emirates (UAE), 15 November 2018.
18. Invited, accepted and presented a plenary talk titled, “*Research Experiences in Biomedical Sciences and Engineering: Prosthetic/Robotic Hand*”, at the 2nd World Biotechnology & Health Care Congress, on the theme “To Share Innovative Challenges, Emerging Issues and practical Experiences in Biotechnology

and Healthcare, held in Dubai, United Arab Emirates (UAE), 12-Nov-2018 to 14-Nov-2018. A *Certificate of Appreciation* was awarded to Professor Naidu for his *phenomenal and worthy keynote presentation*.

19. Invited, accepted and presented a plenary talk titled, “*Research Experiences in Biomedical Sciences and Engineering: Prosthetic/Robotic Hand*”, on 25 October 2018, at the 2nd World Congress on Biotechnology, held in Frankfurt, Germany, October 25-26, 2018. A *Certificate of Recognition* was awarded to Professor Naidu for *phenomenal and worthy keynote presentation*.
20. Invited, accepted and presented a plenary talk titled, “*Fusion of Hard and Soft Control Strategies for a Smart Prosthetic/Robotic Hand*”, on 23 October 2018, at the International Conference on Robotics and Automation, held in Frankfurt, Germany, October 22-23, 2018. A *Certificate of Recognition* was awarded to Professor Naidu for *phenomenal and worthy keynote presentation*.
21. Invited, accepted and presented a plenary talk titled, “*Fusion of Hard and Soft Control Strategies for a Smart Prosthetic/Robotic Hand*”, on 23 October 2018, at the International Conference on Robotics and Automation, Mercure Hotel Kaiserhof, Frankfurt City Center, October 22-23, 2018. A *Certificate of Recognition* was awarded to Professor Naidu for *phenomenal and worthy keynote presentation*.
22. Invited, accepted and presented a plenary talk titled, “*Research Experiences in Biomedical Sciences and Engineering: Prosthetic/Robotic Hand*”, on 22 October 2018, at the International Conference on Biomedicine & Pharmacotherapy, Frankfurt, Germany, October 22-23, 2018. A *Certificate of Recognition* was awarded to Professor Naidu for *phenomenal and worthy keynote presentation*.
23. Invited, accepted and presented a seminar/lecture titled, “*Nonlinear, Closed-Loop, Optimal Regulation and Tracking via SDREs*”, Federal Research Center (FRC), Computer Science and Control (CSC), Institute of Control Sciences (ICS), Russian Academy of Sciences (RAS), Moscow, Russia, 3:00 PM, 05 July 2018. SDREs: State-Dependent Riccati Equations.
24. Invited, accepted and presented seminar/lecture titled, “*Fusion of Hard and Soft Control Strategies for Prosthetic/Robotic Hand*”, V. A. Trapeznikov Institute of Control Sciences (ICS), Russian Academy of Sciences (RAS), Moscow, Russia, 11:30 AM, 05 July 2018.

“*The Russian Academy of Sciences (RAS) consists of the national academy of Russia; a network of scientific research institutes from across the Russian Federation; and additional scientific and social units ... located at Leninsky Ave, 14, Moskva, Russia, 119991, Founder: Peter the Great, Founded: February 8, 1724, Saint Petersburg, Russia*”.

“(V.A. Trapeznikov) Institute of Control Sciences (ICS), Russian Academy of Sciences was founded in 1939. The Institute was named after Academician Vadim Alexandrovich Trapeznikov (1905 - 1994) and Institute Director in 1951 - 1987, in 1998”.

The accommodation at discounted rates was provided for 3 nights (of July 4,5,6) at the Foreign Guest Rooms of the Steklov Mathematical Institute (SMI), Division

of Mathematical Sciences (DMS), Russian Academy of Sciences (RAS), Moscow, Russia.

25. Invited, accepted and presented an invited lecture titled, “*Fusion of Hard and Soft Control Strategies for Prosthetic/Robotic Hand*”, the 19th International Conference of Young Specialists on Micro/Nanotechnologies and Electron Devices, EDM 2018, (June 29 - July 3, 2018) in **Erlagol**, Altai Province, Siberia, Russia, Organized by Novosibirsk (*New Siberian*) State Technical University (NSTU) and IEEE Russia Siberia Section, Novosibirsk (New Siberia), Russia, 30 June 2018.
26. Invited, accepted and presented a lecture titled, “*Fusion of Hard and Soft Control Strategies for a Smart Prosthetic/Robotic Hand (Part-2)*”, Novosibirsk (*New Siberian*) State Technical University (NSTU), Novosibirsk (New Siberia), Russia, 27 June 2018.
“Siberian Branch of the Russian Academy of Sciences is the largest integrator and the main expert of research and development, scientific educational, experimental design and industrial organizations in the Eastern Russia”.
27. Invited, accepted and presented a lecture titled, “*Advanced Control Strategies For Smart Grid and Clean Energy*”, Conference on Electric Power Supply Systems, Novosibirsk (*New Siberian*) State Technical University, Novosibirsk (New Siberia), Russia, 26 June 2018.
28. Invited, accepted and presented a lecture titled, “*Lecture for students Fusion of Hard and Soft Control Strategies for a Smart Prosthetic/Robotic Hand (Part-1)*”, Novosibirsk (*New Siberian*) State Technical University (NSTU), Novosibirsk (New Siberia), Russia, 25 June 2018.

The expenses for boarding and lodging during the period (13 days) of stay at NSTU during June 22, 2018 to July 3, 2018 were born by the Department of Automatic Control Systems of the Faculty of Automation and Computer Engineering, and the Department of Electrotechnology of the Faculty of Mechatronics and Automation, of the host institution NSTU.

Novosibirsk (*New Siberian*) State Technical University (NSTU), Novosibirsk, Russia (<http://en.nstu.ru/>) “*is one of the leading universities in Russia and is one of the largest universities in Siberia. The university offers about 120 programs of study in technical, economic, and humanitarian fields at the Bachelors, Masters, Ph. D., and post-doctoral levels. Approximately 3000 faculty members and employees work at the university. Total number of enrolled students exceeds 25 thousand*”.

29. Invited, accepted and presented a keynote presentation on “*Fusion of Hard and Soft Control Strategies in Biomedical Engineering: Robotic /Prosthetic hand*”, at the 5th International Summit on Medical Biology & Bioengineering, held during September 27-28, 2017 in Chicago, IL, USA, on 28 September 2017. A Certificate of Recognition was presented after the presentation for “his phenomenal and worthy keynote presentation”.
30. Invited, accepted and presented a lecture, “*Biomedical Engineering: 3-D Printed Prosthetic Hand TED Talk (12 Aug. 2016) Reenacted*”, Indian Institute of Technology (IIT), Madras, Chennai, India, on 28 April 2017.

31. Invited, accepted and presented a lecture, “Closed-loop, Optimal Control of Non-linear Systems via State-Dependent Riccati Equation (SDRE)”, Indian Institute of Science (IISc), Bengaluru, India, on 18 April 2017.
32. Invited, accepted and presented a lecture, “State-Dependent Riccati Equations (SDREs) for closed-loop optimal control of nonlinear systems under stochastic environment”, Indian Institute of Science (IISc), Bengaluru-560 012, India, on 24 April 2017.
33. Invited, accepted and presented a keynote address, “Startup Strategies in USA and India”, International Conference on Trends in Innovation and Entrepreneurship, Sri Padmavathi Mahila (Women) Visvavidyalayam (University), Tirupati, Andhra Pradesh, India, March 29-31, 2017.
The mission of the Women’s University is “Emancipation of Women through acquisition of knowledge and Empowerment through skill up-gradation, involvement and participation in various occupations in the society, towards the end of establishing a progressive egalitarian society”.
34. Invited, accepted and presented a lecture, “Singular Perturbations and Time Scales (SPaTS) in Control Theory and Applications: Part 3 of 3”, Indian Institute of Science (IISc), Bengaluru-560 012, India, on 21 March 2017.
35. Invited, accepted and presented a lecture, “Singular Perturbations and Time Scales (SPaTS) in Control Theory and Applications: Part 2 of 3”, Indian Institute of Science (IISc), Bengaluru-560 012, India, on 14 March 2017.
36. Invited, accepted and presented a lecture, “Time Scales in Control of Wind Energy Conversion Systems”, Department of Electrical Engineering, Indian Institute of Science (IISc), Bengaluru-560 012, India, on 23 March 2017.
37. Invited, accepted and presented a lecture, “Time Scales in Control Theory and Applications”, Vellore Institute of Technology (VIT), Vellore, Tamil Nadu, INDIA, on 11 March 2017.
38. Invited, accepted and presented a lecture, “Biomedical and Prosthetic Hand Technology for the World”, Vellore Institute of Technology (VIT), Vellore, Tamil Nadu, INDIA, on 10 March 2017.
VIT, established in 1984, with over 25,000 students in 53 undergraduate and graduate programs, is ranked as # 1, ”among all Private Engineering Institutions of India”, in 2016.
39. Invited, accepted and presented a lecture, “Biomedical and Prosthetic Hand Technology for the World”, Amrita University, Ettimadai, Amritanagar, Coimbatore, Tamil Nadu, India, on 03 March 2017.
40. Invited, accepted and presented a lecture, “Biomedical and Prosthetic Hand Technology for the World”, Amrita University, Ettimadai, Amritanagar, Coimbatore, Tamil Nadu, India, on 03 March 2017.
Amrita University was started in 2003 by a renowned humanitarian leader and spiritual teacher, Sri Mata Amritanandamayi.
41. Invited, accepted and presented a lecture, “Biomedical and Prosthetic Hand Technology for the World”, PSG Institute of Technology, Coimbatore, Tamil Nadu, India, on 02 March 2017.

PSG College of Technology “is one of the foremost institutions founded by the PSG & Sons’ Charities Trust (1926). The College was established in the year 1951 and the Founders wisely decided to locate it in the same campus as the PSG Industrial Institute for effective industry-institute interaction”.

42. Invited, accepted and presented a lecture, “Singular Perturbations and Time Scales (SPaTS) in Control Theory and Applications: Part 1 of 3”, Indian Institute of Science (IISc), Bengaluru-560 012, India, on 28 February 2017.
43. Invited, accepted and presented a lecture, “Biomedical and Prosthetic Hand Technology Part 2 of 2”, Indian Institute of Science (IISc), Bengaluru-560 012, India, on 21 February 2017.
44. Invited, accepted and presented a lecture, “Control Systems: Industrial Applications”, Acharya Institute of Technology (AIT), Acharya Dr. Sarvepalli Radhakrishnan Road, Bangalore-560 107, India, on 16 February 2017. The Sanskrit word “Acharya” means “TEACHER”, epitomizes the quintessential values of Acharya Institution, where traditional respect for teachers is of paramount importance.
45. Invited, accepted and presented a lecture, “Biomedical and Prosthetic Hand Technology Part 1 of 2”, Indian Institute of Science (IISc), Bengaluru, India, on 14 February 2017.
46. Invited, accepted and presented a lecture, “Biomedical and Prosthetic Hand Technology for the World”, on the occasion of the Research Scholars Day, Department of Electrical Engineering, Indian Institute of Technology (IIT), Kharagpur, India, on 11 February 2017. I was an alumnus of IIT-Kharagpur having got my MTech and PhD degrees.
IIT-Kharagpur was the first IIT, started in May 1950 (soon after India got independence in 1947) in Hijli, Kharagpur, in the eastern part of India. “IIT Kharagpur started its journey in the old Hijli Detention Camp where some of India’s great freedom fighters toiled and sacrificed their lives for the independence of the country. The history of IIT Kharagpur is thus intimately linked with the history of the Hijli Detention Camp. This is possibly one of the very few Institutions all over the world which started life in a prison house”.
47. Invited, accepted and presented a lecture, “My Research Experiences from IIT-KGP(INDIA) to Uni.Minnesota (USA)”, to faculty of Indian Institute of Technology, Tirupati (IIT-P), India, on 08 February 2017.
48. Invited, accepted and presented a lecture, “My Educational Experiences from SVUCE (INDIA) to Uni.Minnesota (USA)”, Sri Venkateswara University College of Engineering (SVUCE), Tirupati, India, on 07 February 2017. I am an alumnus of SVUCE having got my BE in Electrical Engineering in December 1963 (first batch of graduates).

“A university stands for humanism, for tolerance, for reason, for the adventure of ideas and for the search for truth. It stands for the onward march of the human race towards even higher objectives. If the universities discharge their duties adequately then it is well with the nation and the people.” Jawaharlal Nehru (1889–1964), the first prime minister of India (from 1947 - until his death

in 1964), while laying the foundation stone for the college Main Building on 13th October, 1959.

49. Invited, accepted and delivered a TED Talk entitled, *3-D Printed Prosthetic Hand for the World* for TEDxMinneapolis, Minneapolis, MN (www.TEDxMinneapolis.com) at Tedd Mann Concert Hall, a world-class concert auditorium, (<http://campusmaps.umn.edu/ted-mann-concert-hall>) located in the School of Music, on West Campus of University of Minnesota, Twin Cities (address: 2128 4th Street S Minneapolis, MN, 55455) during the annual IN SIGHT event scheduled from 4:00 PM to 11:00 PM on Friday, August 12, 2016. “TED is a nonprofit devoted to spreading ideas, usually in the form of short, powerful talks (18 minutes or less). TED began in 1984 as a conference where Technology, Entertainment and Design (TED) converged, and today covers almost all topics from science to business to global issues”.
This TEDx Video is available for public at <https://www.youtube.com/watch?v=rXyy5XN2oY0>
50. Invited, accepted and presented a lecture, “Recent Results on Nonlinear, Optimal Regulation and Tracking: Theory and Applications”, 1st International Conference on: Applied Physics, System Science and Computers (APSAC '16), Dubrovnik, Croatia, 28-30, September, 2016.
51. Invited, accepted and presented a keynote lecture titled, “My Journey of Educational Experiences from IIT to UMD” (IIT: Indian Institute of Technology - KGP and UMD: University of Minnesota Duluth), Department of Electrical Engineering, Government College of Engineering, Aurangabad, Maharashtra, India, 15 January 2015.
52. Invited, accepted and presented a keynote lecture titled, “My Journey of Educational Experiences in Control Systems Engineering from IIT to UMD” (IIT: Indian Institute of Technology - KGP and UMD: University of Minnesota Duluth), 2014 International Conference on Power, Control and Embedded Systems (ICPCES), Department of Electrical Engineering, Motilal Nehru National Institute of Technology, Allahabad, Uttar Pradesh, India, 26-28 December 2014.
53. Invited, accepted and presented a *Webinar* (through Go-To-Meeting) on “Our Institution and Twinning Programs, for Indo US Collaboration for Engineering Education (IUCEE) (www.iucee.org) on 17 December, 2013.
54. Invited, accepted and presented a *Webinar* (through Go-To-Meeting) on “Outcomes Based Engineering Education, for Indo US Collaboration for Engineering Education (IUCEE) (www.iucee.org) on 17 November, 2013.
55. Invited Plenary Lecture titled, “Research Experiences in Control Systems Engineering from IIT 1965) to ISU (2012)”, WSEAS³ Proceedings of the WSEAS-NAUN⁴ 4th International Conference on CIRCUITS, SYSTEMS, CONTROL, SIGNALS (CSCS '13), Valencia, Spain, pp. 11, August 6-8, 2013

³World Scientific and Engineering Academy and Society

⁴North Atlantic University Union

56. Invited, accepted and presented a talk titled, “Smart Prosthetic Hand Technology at Idaho State University”, at Control Engineering Department, Istanbul Technical University (ITU), Istanbul, Turkey, August 24, 2012 (ITU one of the top technical universities in the world, was established in 1773 (compared to MIT established in 1861 in USA).
57. Invited, accepted and presented a talk titled, “Singular Perturbations and Time Scales (SPaTS) in Control Theory and Applications”, at Department of Mathematics, Faculty of Physics, M.V. Lomonosov Moscow State University, Moscow, Russia, June 24, 2012.
58. Invited, accepted and presented *Plenary Lecture2* titled, “Singular Perturbations and Time Scales (SPaTS) in Control Theory and Applications”, 12th WSEAS⁵ International Conference on Advances in Systems Theory, Signal Processing and Computational Science, pp. 124-129, Istanbul, Turkey, August 21-23, 2012.
59. Invited, accepted and presented *plenary lecture1* titled, “Smart Prosthetic Hand Technology at Idaho State University”, at the 6th International Conference on Circuits, Systems and Signals (CSS’11), Vouliagmeni Beach, Athens, Greece, March 7-9, 2012
60. Invited, accepted and presented a talk titled, “Smart Prosthetic Hand Technology at Idaho State University”, at the Institute of Systems Science, Academy of Mathematics and Systems Science, Chinese Academy of Sciences (CAS), Beijing, China, December 26, 2011.
61. Invited, accepted and presented a talk titled, “Singular Perturbations and Time Scales (SPaTS) in Control Theory and Applications”, at Department of Mathematics, Shanghai Jiao-Tong University (SJTU), Shanghai, China, December 22, 2011.
62. Invited, accepted and presented a talk titled, “Smart Prosthetic Hand Technology at Idaho State University”, at Nantong University, Nantong, China, December 17, 2011.
63. Invited, accepted and presented a talk titled “My Research Experiences from IIT, ... ,ISU: An Overview”, at the International Conference on Aerospace, Electronics, Communications and Instrumentation (ASECI) organized by the Dept. of Electronics & Instrumentation Engineering, V.R.Siddhartha Engineering College, and P.V.P.Siddhartha Institute of Technology, Vijayawada, Andhra Pradesh, India, January 6-7, 2010.
64. Invited, accepted and presented a talk titled, “Guidance and Control Strategies for Aerospace Systems: An Overview”. Jiangsu College of Information Technology, Wuxi, Jiangsu, China, December 22, 2009.
65. Invited, accepted and presented a talk titled, “Research Experiences in Singular Perturbations and Time Scales (SPaTS)- Overview”, at the Center for Applied and Interdisciplinary Mathematics, Department of Mathematics, East China Normal University (ECNU), Shanghai, China, December 14, 2009.

⁵World Scientific and Engineering Academy and Society

66. Invited, accepted and presented a talk titled, “Fusion of Soft and Hard Control Strategies for Biomedical Engineering”, at the Center for Applied and Interdisciplinary Mathematics, Department of Mathematics, East China Normal University (ECNU), Shanghai, China, December 13, 2009.
67. Invited, accepted and presented a talk titled, “Research in Singular Perturbations and Time Scales (SPaTS) for Aerospace”, at the Center for Applied and Interdisciplinary Mathematics, Department of Mathematics, East China Normal University (ECNU), Shanghai, China, December 12, 2009.
68. Invited, accepted and presented a talk titled, “Research Experiences in Automatic Control Systems”, Dept. of Electrical Engineering, the University of Western Australia, Crawley, Perth, Australia, during March 17, 2008.
69. Invited, accepted and presented a talk titled, “Research Experiences in Automatic Control Systems”, at the Center for Industrial and Applied Mathematics (CIAM), Institute of Sustainable Systems and Technologies (ISST), Division of Information Technology (IT), Engineering and Environment, University of South Australia, Adelaide, Australia, 05 March 2008.
70. Invited, accepted and presented a talk titled, “Research Experiences in Singular Perturbations and Time Scales (SPaTS)- Overview”, Department of Mathematics, Nantong University (NTU), Nantong, Jiangsu, China, May 2007.
71. Invited, accepted and presented a talk titled, “Research Experiences in Singular Perturbations and Time Scales (SPaTS)- Overview”, Department of Electrical Engineering, Nantong University (NTU), Nantong, Jiangsu, China, May 2007.
72. Invited, accepted and presented a talk titled, “Overview of Research at Measurement and Control Engineering Research Center (MCERC), Idaho State University (ISU) USA, at Measurement and Control Laboratory (IMRT:Institut fr Mess- und Regeltechnik) at Swiss Federal Institute of Technology (ETH: Eidgenössische Technische Hochschule), Zurich, Switzerland, July 04, 2004.
73. Invited, accepted and presented a talk titled, “Overview of Research at Measurement and Control Engineering Research Center (MCERC), Idaho State University (ISU) USA, at the Department of Electrical Engineering, Norwegian University of Science and Technology (NTNU), Trondheim, Norway, June 15, 2004.
74. Invited, accepted and presented a talk titled, “Overview of Research at Measurement and Control Engineering Research Center (MCERC), Idaho State University (ISU) USA, at the Center of Excellence for Ships and Ocean Structures at Norwegian University of Science and Technology (NTNU), Trondheim, Norway, June 08, 2004.

● **External and Development Activities**

1. Visited (upon invitation) the company Vigyan Electronics Private Limited (invited by Managing Director and Director - a former student) and held discussion for possible consultancy and collaboration with the company, Antheri (E), Mumbai, India, 10 December 2014.
2. Hosted the Idaho Joint (BSU, ISU, and UI) Engineering Advisory Board (JEAB) meeting in ISU Meridian Campus, Idaho, January 25, 2012.
3. Visited RAMBUS, Sunnyvale, California, for possible collaboration and support to VLSI lab, internships, etc. April 11-12, 2011
4. Attended the Joint (BSU, ISU, and UI) Engineering Advisory Council meeting in Boise, Idaho, January 21, 2011
5. Worked on ISU-INL Joint Appointments for CEE dept and EE dept during the year of 2011.

- **CHEA Regional Accreditation**

Participated (on behalf of the department, school, college) in the regional accreditation processes conducted under the Council for Higher Education Accreditation (CHEA) by the Higher Learning Commission (HLC) covering the state of Minnesota where University of Minnesota Duluth (UMD) is located during 2014-2021, and the Northwest Commission on Colleges and Universities (NWCCU) covering the state of Idaho, where Idaho State University (ISU) is located during 1990-2014.

- **ABET and Related Experience**

1. As Director of School of Engineering, led all the activities relating to ABET visit by Computing Accreditation Commission (CAC) and Engineering Accreditation Commission (EAC) of the ABET to one Computer Science program and four (Civil, Electrical, Mechanical and Nuclear) engineering programs at the College of Science and Engineering, during October 1-4, 2011. The activities include requesting ABET for the visit (January 2011), leading the preparation of Self-Study Reports and submission by July 1, 2011, working on the visit logistics of the ABET Team visit during October, 2011, and subsequent 7-day response.
2. Representing the Dean of the College of Science and Engineering of ISU, attended the meeting between the ABET Team Chairs for both Computing Accreditation Commission (CAC) and Engineering Accreditation Commission (EAC), Washington, DC, July 13-15, 2011.
3. Coordinates at the college level all activities relating to ABET - since July 2006 to May 2014.
4. Received a plaque “in appreciation of service as an IEEE/ABET Educational Activities Board (EAC) Program Evaluator”, from IEEE, New York, NY, 29 May 2008.
5. As ABET Program Evaluator (PEV) for Electrical Engineering (EE), visited the University of Texas at El Paso (UTEP), El Paso, TX November 4-6, 2007.
6. Member of College administrative team leading to a successful ABET Interim Visit for all the five programs: Civil Engineering (CE), Computer Science (CS), Electrical Engineering (EE), Mechanical Engineering (ME) and Nuclear Engineering (NE - first time), October 2007.
7. Awarded a certificate to recognize successful completion of the five day Institute for the Development of Excellence in Assessment Leadership (IDEAL) as an IDEAL Scholar, conducted by Gloria Rogers of ABET, at Marriott Inner Harbor Hotel, Baltimore, MD, during July 29 - August 3, 2007.
8. Represented the College at the Institutional Representative Orientation meeting conducted by ABET Computing Accreditation Commission (EAC), at Crystal Gateway Marriott Hotel, Arlington, VA, on July 19, 2007.
9. As Chair of Planning and Accreditation Committee (PAC) for the College of Engineering, leads all the aspects of ABET accreditation activities for all the five programs (CE, SC, EEG, ME, NE), August 2006 to August 2008.

10. As ABET Program Evaluator (PEV) for Electrical Engineering (EE), visited University of Wisconsin - Platteville, WI, October 29-31, 2006.
11. As member of ABET Working Group (WAG), led the ABET assessment activities for all the programs (CEO, SC, EEG, ME, NE) in the College of Engineering, November - 2005 to June 30, 2006.
12. As ABET Program Evaluator (PEV) for Electrical Engineering (EE), visited San Jose State University, San Jose, CA, October 16-18, 2005.
13. As Associate Dean of Graduate Studies, College of Engineering, represented College Administration during the Accreditation Board for Engineering and Technology (ABET) Visit to the College of Engineering, October 9-11, 2005. 2
14. Participated in an electronic survey on "National College Assessment Study", conducted by P. C. Rossini College of Engineering & Applied Science, Lehigh University, Bethlehem, PA, July 25, 2002.
15. Attended IEEE/ABET EAC 2000 Electrical Engineering (EE) Program Evaluator training held in Montreal, Canada, along with ASEE Annual Conference and Exposition, on June 16, 2002.
16. Selected as an Institute of Electrical and Electronics Engineers (IEEE) Electrical Engineering (EE) program evaluator for the IEEE endorsed Accreditation Board for Engineering and Technology (ABET) Engineering Accreditation Commission (EAC), on 13 February 2002.
17. As Coordinator of Electrical Engineering program, actively involved in providing 14-day response to Accreditation Board for Engineering and Technology ABET visit (in December 2001) to the College of Engineering, Idaho State University, Pocatello, December 9-11, 2001.
18. As Associate Dean of Graduate Studies, College of Engineering, represented College Administration during the Accreditation Board for Engineering and Technology (ABET) Interim-Visit to the College of Engineering, December 9-11, 2001.
19. As Coordinator of Electrical Engineering (EE) program, represented the EE program, at Idaho State University, during Accreditation Board for Engineering and Technology (ABET) Interim-Visit to the College of Engineering, December 9-11, 2001.
20. As Coordinator of Electrical Engineering program, actively involved in providing response to Preliminary (Draft) Report by Accreditation Board for Engineering and Technology (ABET) (for the visit in September 1999) to the College of Engineering, Idaho State University, Pocatello, Idaho, March 2000.
21. As Coordinator of Electrical Engineering program, actively involved in providing 14-day response to Accreditation Board for Engineering and Technology ABET visit (in September 1999) to the College of Engineering, Idaho State University, Pocatello, Idaho, October 12, 1999.
22. As Coordinator of Electrical Engineering program, actively involved in the preparation to Accreditation Board for Engineering and Technology ABET visit to the College of Engineering, Idaho State University, Pocatello, Idaho, in September 1999.

23. As Associate Dean of Graduate Studies, College of Engineering, represented College Administration during the Accreditation Board for Engineering and Technology (ABET) visit to the College of Engineering, September 26-28, 1999.
24. As Coordinator of Electrical Engineering (EE) program, represented the EE program, at Idaho State University, during Accreditation Board for Engineering and Technology (ABET) visit to the College of Engineering, September 26-28, 1999.
25. Attended 14th Annual Meeting of the National Electrical Engineering Departments Heads Association (NEEDHA) including ABET EAC 2000 training workshop held at Turtle Bay Hilton, Oahu, Hawaii, March 13-17, 1998.

● **Activities: Recognition, Publicity, Marketing, etc.**

(Some of the recent activities are listed below)

1. Delivered a TED Talk entitled, *3-D Printed Prosthetic Hand for the World* for TEDxMinneapolis, Minneapolis, MN (www.TEDxMinneapolis.com) at Tedd Mann Concert Hall, a world-class concert auditorium, (<http://campusmaps.umn.edu/tedd-mann-concert-hall>) located in the School of Music, on West Campus of University of Minnesota, Twin Cities (address: 2128 4th Street S Minneapolis, MN, 55455) during the annual IN SIGHT event scheduled from 4:00 PM to 11:00 PM on Friday, August 12, 2016. “TED is a nonprofit devoted to spreading ideas, usually in the form of short, powerful talks (18 minutes or less). TED began in 1984 as a conference where Technology, Entertainment and Design (TED) converged, and today covers almost all topics from science to business to global issues”.

This TEDx Video is available for public at

<https://www.youtube.com/watch?v=rXyy5XN2oY0>

2. **Minnesota Business Magazine** “*Inspiration for Growing Companies*, (Tiger Oak Media, One Tiger Oak Plaza, 900 South Third Street, Minneapolis, MN, 55415): Featured article, “*Reaching for Dollars*”, regarding Professor Naidus research on commercialization of Prosthetic Hand appeared in **Minnesota Business Magazine (MBM): Special Issue: THE MONEY GAME**, cover page and pp. 10-13, July 2016.

<http://edition.pagesuite-professional.co.uk//launch.aspx?eid=3edcbee3-1cab-4f72-98f8-d94aa2c5ffd8>

3. Participated in preparing the video for Electrical Engineering (EE) as part of Strategic Enrollment Management (SEM) by Office of Admissions, University of Minnesota Duluth (UMD), on 17 March 2016.
<http://www.d.umn.edu/vcaa/sem/>
4. Attended to provide support and encouragement to Mr. Austin Carter and Ms. Kelli Fuchs at their Senior Design Project on Prosthetic/Robotic Hand at the local IEEE Arrowhead Section meeting, held during 6:30 to 8:30 PM at Tycoons Ale House, 132 E. Superior Street, Duluth MN 55802, on Wednesday, March 16, 2016.
5. Univ. of Minnesota (U-of-M) **Driven to Discover: D. Subbaram Naidu** - featuring Naidu’s research on Prosthetic Hand. UMN News item “To Better Grasp the Future: Discoveries at the U of M will transform prosthetic hands”, dated March 02, 2016. <https://driven-to-discover.umn.edu/content/naidu.html> and <https://driven-to-discover.umn.edu/content/d-subbaram-naidu>.
6. Professor Naidu’s Academic Activities profile during January - December 2015 was published in UMD (Univ. of Minnesota Duluth) Currents - A NEWSLETTER FOR FACULTY AND STAFF AT Univ. of Minnesota Duluth (UMD) - Volume 33, Number 5, 02 February 2016.
<http://www.d.umn.edu/currents/2015-2016/3305.html>

7. Univ. of Minnesota (U-of-M) Driven to Discover campaign launches statewide - featuring Naidu's research on prosthetic hand - U of M Brief (November 4, 2015). UMN News item "To Better Grasp the Future: Discoveries at the U of M will transform prosthetic hands", dated 04 November 2015.
<http://driven-to-discover.umn.edu/content/naidu.html> and
<http://driven-to-discover.umn.edu/content/d-subbaram-naidu>.
8. News item regarding Professor Naidu's research on Prosthetic Hands **BHS alum working with UMD team to create prosthetic hand that is more affordable** appeared in *The Bemidji Pioneer - Northern Plains Business Resource* on 12 May 2015 - a reprint from the article that appeared in *Duluth News Tribune* on 07 May 2015.
<http://www.bemidjipioneer.com/news/region/3743118-bhs-alum-working-umd-team-create-prosthetic-hand-more-affordable>
9. News item regarding Professor Naidu's research on Prosthetic Hands **UMD Strives to Create Prosthetic Hand** regarding the research work-in-progress by undergraduate and graduate students Austin Carter and graduate students - Ibrahim Baz Khallouff, Syed Salik Hafeez under the supervision of Professor Naidu, appeared in *Duluth News Tribune* on 06 May 2015.

<http://www.duluthnewstribune.com/news/3739443-umd-strives-create-prosthetic-hand>
10. News item Professor Naidu's research on Prosthetic Hands **UMD Students Design Affordable, Functional Robotic Hand** regarding the research work-in-progress by undergraduate student Austin Carter and graduate students - Ibrahim Baz Khallouff, Syed Salik Hafeez under the supervision of Professor Naidu, appeared in *KBJR 6 & Range 11 — KDLH 3, Duluth MN / Superior WI / Northland*, on 06 May 2015.
<https://www.youtube.com/watch?v=TtwE5qYZvXQ>
11. UMD External Affairs News Release regarding Professor Naidu's research on prosthetic hands - "Minnesota Power Jack Rowe Endowed Chair to present prosthetic hand research" - dated April 28, 2015.
<https://duluth.umn.edu/news/2015/04/28/prosthetic-hand/>
12. News item, **ISU School of Engineering Director Naidu travels widely for scholastic endeavors; visits Turkey, Russia, China, Greece**, published on *ISU Headlines*, on 29 November, 2012.
13. News item, **Improving prosthetics - ISU gets \$842,000 grant to develop robotic hand ...** appeared in Idaho State Journal, Pocatello, Idaho, September 21, 2007.
14. News item, "Professor D. Subbaram Naidu's summer (June 13 - Aug. 13, 2005) tenure as Academic Guest at Swiss Federal Institute of Technology, Zurich, Switzerland and presenting a paper at IFIP Conference in Turin, Italy, appeared in *News & Notes* (A News Letter for ISU Faculty and Staff Published by University Relations) Vol. 20, No. 25, dated September 12, 2005.

15. News item, **Professor Profile: D. Subbaram Naidu** appeared in Idaho State Journal, Pocatello, Idaho, December 27, 2004.
16. News item, “Professor D. Subbaram Naidu ... recently published his fifth book”, regarding the publication of the fifth book, **Modeling, Sensing and Control of Gas Metal Arc Welding** jointly authored with Selahattin Ozcelik and Kevin L. Moore, by Elsevier Science Limited, 2003, appeared in *News & Notes* (A News Letter for ISU Faculty and Staff Published by University Relations) Vol. 18, No. 35, dated December 1, 2003.
17. News item, “Professor D. Subbaram Naidu received a plaque in recognition of outstanding dedication as Chair of the Fellow Evaluation Committee, 1997-2001” by the Board of Governors, Aerospace and Electronic Systems Society (AESS), Institute of Electrical and Electronic Engineers (IEEE), New York, NY, appeared in *News & Notes* (A News Letter for ISU Faculty and Staff Published by University Relations) Vol. 18, No. 26, dated September 22, 2003.
18. News item, “CRC Press published the fourth book of Dr. D. Subbaram Naidu”, regarding the publication of the fourth book, **Optimal Control Systems**, by CRC Press, 2003, appeared in *News & Notes* (A News Letter for ISU Faculty and Staff Published by University Relations) Vol. 18, No. 6, dated February 17, 2003.
19. News item, “Professor D. Subbaram Naidu published an invited overview paper”, regarding the publication of the overview paper, “Singular perturbations and time scales in control theory and applications: An Overview,” *Dynamics of Continuous, Discrete and Impulsive Systems Journal*, Volume 9, Number 2, Pages 233-278, June 2002 [467 references], appeared in *News & Notes* (A News Letter for ISU Faculty and Staff Published by University Relations) Vol. 17, No. 29, dated October 7, 2002.
20. News item, “Professor D. Subbaram Naidu elected as a Fellow of the World Innovation Foundation, Huddersfield, United Kingdom” appeared in *News & Notes* (A News Letter for ISU Faculty and Staff Published by University Relations) Vol. 17, No. 24, dated September 2/3, 2002.
21. News item, regarding selection and attending the first **Scientists Helping America Conference** during March 11-13, 2002, sponsored by the Defense Advanced Research Projects Agency (DARPA) and hosted by Naval Research Laboratory (NRL) in Washington, DC, appeared in *News & Notes* (A News Letter for ISU Faculty and Staff Published by University Relations) Vol. 17, No. 12, dated April 8, 2002.
22. News item, “Professor D. Subbaram Naidu...elected as an ABET/EAC IEEE evaluator...”, regarding the selection as an Institute of Electrical and Electronics Engineers (IEEE) Electrical Engineering (EE) program evaluator for the IEEE endorsed Accreditation Board for Engineering and Technology (ABET) Engineering Accreditation Commission (EAC) under the new ABET/EAC Criteria 2000 - Professor Naidu is the first faculty member from ISU College of Engineering to be selected as an EE Evaluator, appeared in *News & Notes* (A News Letter for ISU Faculty and Staff Published by University Relations) Vol. 17, No. 8, dated March 4, 2002.

23. News item, “Professor D. Subbaram Naidu... ”, regarding the citation award for publication of the survey paper, “Singular perturbations and time scales in guidance, navigation and control (GNC) of aerospace systems: a survey,” AIAA Journal of Guidance, Control and Dynamics, Vol. 24, Nr. 6, pp. 1057-1078, November-December 2001 [412 references] (Invited Survey Paper), appeared in *News & Notes* (A News Letter for ISU Faculty and Staff Published by University Relations) Vol. 17, No. 6, dated February 18, 2002.
24. News item, “Professor D. Subbaram Naidu published a survey paper”, regarding the publication of the survey paper, “Singular perturbations and time scales in guidance, navigation and control (GNC) of aerospace systems: a survey,” AIAA Journal of Guidance, Control and Dynamics, Vol. 24, Nr. 6, pp. 1057-1078, November-December 2001 [412 references] (Invited Survey Paper), appeared in *News & Notes* (A News Letter for ISU Faculty and Staff Published by University Relations) Vol. 17, No. 2, dated January 21, 2002.
25. Participated and represented College of Engineering at the Faculty & Staff Book Festival on the occasion of Idaho State University Centennial Celebrations at Bonneville Park, Pocatello, September 18, 2001.
26. Honored by the Idaho State University President at the President’s Annual Donor Recognition Dinner for induction into Garnet Society, Pocatello, Idaho, on September 22, 2000.
27. News item, “Students urged to be innovative”, appeared in THE HINDU, a national newspaper in India, in connection with a keynote address on *Engineering Education in USA* at the **Millennium Sigmoid 2000**, A Technical Symposium, at Sri Venkateswara University, Tirupati, AP, India. Dated December 24, 2000.
28. Presented with a memento as a token of appreciation for all the efforts to remember during the 50th Anniversary of IEEE Aerospace and Electronic Systems (AESS) Society, by President of AESS Society, December 2000.
29. Naidu’s Web site included under **Singular Perturbation on the Web** at <http://www.ima.umn.edu/~milik/singdir.html#apl:con>, since August 14, 2000.
30. News item, “Naidu honored by National Science Academy”, regarding the award of National Research Council Senior Research Associateship tenable at US Air Force Research Laboratory, Wright-Patterson Air Force Base, OH during May - Dec. 1998 and May - August 1999, appeared in *News & Notes* (A News Letter for ISU Faculty and Staff Published by University Relations) Vol. 15, No. 3, dated April 10, 2000.
31. News item, “ISU Professor honored by National Academy of Sciences”, in connection with the award of National Research Council Senior Research Associateship tenable at US Air Force Research Laboratory, Wright-Patterson Air Force Base, OH during May - Dec. 1998 and May - August 1999, appeared in *The Idaho State Journal*, dated April 3, 2000.
32. Invited to be a member of *Centennial Featured Speakers* for Idaho State University Centennial Celebrations, August 18, 1999.

33. News item, "Faculty/Staff Update", regarding the **sabbatical tenure** at Air Force Research Laboratory (AFRL), during Jun 1- December 31, 1998, at Wright-Patterson Air Force Base, OH, appeared in *News & Notes* (A News Letter for ISU Faculty and Staff Published by University Relations) Vol. 14, No. 5, dated February 8, 1999.
34. Picture was published on page 89 under the College of Engineering in Graduate Catalog of Idaho State University, 1998-99.
35. A one-page biosketch "Recognizing the Achievers Amongst US: Professor Desineni Subbaram Naidu" by Paranandi Lakshmi Narasimham, appeared in Telugu Association of North America (TANA) Patrika, page 6, November 1997.
36. Honored by the Idaho State University President at the President's Annual Donor Recognition Dinner for induction into Jade Society on September 26, 1997, at Quality Inn, Pocatello, Idaho.
37. Picture was published on page 89 under the College of Engineering in Graduate Catalog of Idaho State University, 1997-98.
38. Invited to be the Guest Speaker to present the talk entitled, "Aeroassisted Orbital Transfer for Mars Mission", at the Sigma, Xi Society, ISU Chapter, held on April 19, 1996.
39. Picture was published on page 89 under the College of Engineering in Graduate Catalog of Idaho State University, 1996-97.
40. Picture was published on page 89 under the College of Engineering in Graduate Catalog of Idaho State University, 1995-96.
41. Letter of appreciation from Mr. Michael D. Crapo, Member of House of Representative from the State of Idaho, Congress of the United States, regarding my letter concerning National Aeronautics and Space Administration (NASA), August 10, 1995.
42. As winner of the **highest research recognition** at Idaho State University, the *Distinguished Researcher Award* for 1994-95, participated in a panel discussion at New Faculty Orientation, held in Pond Student Union, Idaho State University, on August 28, 1995.
43. "Professor Subbaram Naidu Honored", appeared in College of Engineering New Letter, Idaho State University, Vol. 2, No. 1, July 1995, in connection with the election as an IEEE Fellow and being a recipient of the Idaho State University **highest research recognition**, the Distinguished Research Award for 1994-95.
44. Honored by IEEE by publishing a picture and bibliographical information in **IEEE Control Systems Magazine**, in connection with the honor of being elected as an IEEE Fellow, page 87, June 1995.
45. News item, "Distinguished Faculty", regarding the highest research recognition award of *1995 Idaho State University Distinguished Researcher*, appeared in *OUT-LOOK*, a news letter published by Idaho State University for friends and alumni of Idaho State University, Spring 1995.

46. Honored by President and Faculty of Idaho State University by being extended a *special invitation* to attend the 1995 Commencement Program as a *platform guest* and recognized as the recipient of the **highest research recognition** award, the *Idaho state University Distinguished Researcher for 1994–'95*, on May 13, 1995.
47. Honored by President of Idaho State University (Dr. Richard Bowen) at a dinner at the President's residence on selection as the **highest research recognition** award at Idaho State University, the *Distinguished Researcher*, on May 12, 1995.
48. News item, "1,702 Students Will Receive Degrees, Certificates on May 13", regarding the **highest research recognition** at Idaho State University, the *Distinguished Researcher* at graduation, appeared in *News & Notes* (A News Letter for ISU Faculty and Staff Published by University Relations) Vol. 9, No. 17, dated May 8, 1995.
49. News item, "Distinguished Faculty Members to be Honored at Commencement", regarding the **highest research recognition** award of Distinguished Researcher for 1994–'95, appeared in *News & Notes* (A News Letter for ISU Faculty and Staff Published by University Relations) Vol. 9, No. 15, dated April 24, 1995.
50. News item, "Creme de la campus earn honorariums: Top professors in spotlight during ISU graduation ceremony", in connection with the award of 1995 Idaho State University Distinguished Researcher, appeared in *The Idaho State Journal*, dated April 18, 1995.
51. Interviewed with *Television Channels 3(CBS), 6(ABC), 8(NBC)* News team in connection with **the highest research recognition** award of *1995 Idaho State University Distinguished Researcher* on April 17, 1995. The program was aired the same day during the evening news.
52. News item, "Outstanding researchers: Four get honor", in connection with the award of 1995 Idaho State University Outstanding Researcher, appeared in *The Idaho State Journal*, dated April 2, 1995.
53. News item, "Thirteen Outstanding Faculty Members Honored at Dinner", regarding Outstanding Researcher for 1994–'95, appeared in *News & Notes* (A News Letter for ISU Faculty and Staff Published by University Relations) Vol. 9, No. 11, dated March 27, 1995.
54. News item, "ISU researchers: Aerobraking would save fuel to Mars", in connection with a research paper being accepted for publication in the journal, CONTROL: Theory and Advanced Technology (C-TAT), appeared in *The Idaho State Journal*, dated February 21, 1995.
55. News item, "Engineering prof earns national honor", appeared in *The Idaho State Journal*, dated January 30, 1995.
56. News item, "First Idahoan Awarded IEEE Fellow - Most Prestigious Honor", appeared in *News & Notes* (A News Letter for ISU Faculty and Staff Published by University Relations) Vol. 30, No. 4, dated January 30, 1995.
57. News item, "Engineering Researchers Present Papers at Conference", regarding presentation of papers at various conferences, appeared in *News & Notes* (A News

- Letter for ISU Faculty and Staff Published by University Relations) Vol.8, No.37, dated December 5, 1994.
58. News item, "ISU Scientists want to see return trip", appeared in the special edition on the occasion of 25th Anniversary of Moon Landing, brought out by *The Idaho State Journal*, dated July 17, 1994.
 59. News item, "Top teachers, researchers, public servants named", on the occasion of receiving ISU Outstanding Researcher Award for 1994, appeared in *The Idaho State Journal*, dated April 6, 1994.
 60. News item, "Engineering Professor Publishes Third Book", regarding my book 'Aeroassisted Orbital Transfer: Guidance and Control Strategies', appeared in *News & Notes* (A News Letter for ISU Faculty and Staff Published by University Relations) Vol.7, No.38, dated December 6, 1993.
 61. News item, "Engineering Professor Takes Part in International Conference", regarding my presentation of the paper appeared in *News & Notes* (A News Letter for ISU Faculty and Staff Published by University Relations) Vol.6, No.23, dated August 23, 1993.
 62. News item, "Engineering Professor Speaks at Mars Workshop", regarding **keynote guest speaker** on "Aeroassisted Orbital Transfer to Mars mission", (at a banquet at Marriott Hotel, Salt Lake City, Utah, in connection with **Pathway to Mars** Workshop arranged by Rocky Mountain NASA Space Grant Consortium, Logan, Utah, on June 17, 1993) appeared in *News & Notes* (A News Letter for ISU Faculty and Staff Published by University Relations) Vol.6, No.21, dated July 6, 1993.
 63. News item "...gain insight to Mars", appeared in *BULLETIN, Rocky Mountain NASA Space Grant Consortium Newsletter*, regarding my invited talk on *Aeroassisted Orbital Transfer to Mars mission* at a banquet at Marriott Hotel, Salt Lake City, Utah, in connection with **Pathway to Mars** workshop arranged by Rocky Mountain NASA Space Grant Consortium, Logan, Utah, on June 17, 1993. The news item went on to say, "... His rapport with the audience and expertise were a perfect combination for an enlightening lecture". The BULLETIN is dated Summer 1993.
 64. News item, "Space Travel to Mars is Prof's Dream!" with a picture describing my research on Aerobraking Technology appeared in the special edition (July 4, Independence day) brought out by *The Idaho State Journal*, dated July 4, 1993.
 65. Picture with Space Station background was published on page 89 under the College of Engineering in Graduate Catalog of Idaho State University, 1992-93.
 66. Visited National Aeronautical Laboratory, Bangalore, India, on December 9, 1992.
 67. Visited Center for Artificial Intelligence and Robotics (CAIR), Bangalore, India, on December 10, 1992.
 68. News item, "Engineering Professor Invited to Editorial Board", regarding the invitation to join the Editorial Advisory Board of the International Journal *Mechanics: Mechanics, Electronics, Control*, published by Pergamon Press, Oxford,

- UK, appeared in *News & Notes* (A News Letter for ISU Faculty and Staff Published by University Relations) Vol.5, No.36, dated November 9, 1992.
69. Research news appeared in **Midflight**, page 37, September-October 1992, under an article about Pocatello, Idaho, “The Way America Used to be”, published in **SkyWest Airlines magazine - a subsidiary of Delta Air Lines**, describing my research on NASA Mars mission.
 70. Research news appeared in Idaho State University: *Report of the President-1991* under the item “Research from Inner to Outer Space”, describing my research activities connected with Mars mission by NASA.
 71. News item, “Engineering Professor Upgraded in AIAA to Associate Fellow”, regarding to elevation to the grade of *Associate Fellow* of the American Institute of Aeronautics and Astronautics (AIAA), New York, NY, appeared in *News & Notes* (A News Letter for ISU Faculty and Staff Published by University Relations) Vol.4, No.32, dated October 21, 1991. Also the news item, “Naidu named Associate Fellow” regarding the elevation to the grade of Associate Fellow of the American Institute of Aeronautics and Astronautics (AIAA), New York, NY, appeared in *The Idaho State Journal*, dated October 13, 1991.
 72. News item entitled, “Naidu presents paper” regarding presentation of a paper entitled, “Neighboring Optimal Guidance for Aeroassisted Noncoplanar Orbital Transfer”, at AIAA Atmospheric Flight Mechanics Conference, New Orleans, LA during August 12-14, 1991, appeared in *The Idaho State Journal*, dated April 4, 1991.
 73. News item entitled, “Naidu selected to Serve on Journal’s Editorial Board”, appeared in *News & Notes* (A News Letter for Idaho State University Faculty and Staff), Vol., 4, July 22, 1991. It refers to the International Journal, Control-Theory and Advanced Technology.
 74. Interviewed with *Television Channel 8* News team (local NBC) regarding my research project entitled, *Guidance and Control Strategies with Aerobraking for Mars Mission*, on March 19, 1991. The program was aired the same day during the evening news.
 75. Article entitled, “Naidu proposes aerobraking research”, appeared in *The Idaho State Journal* on March 15, 1991. The article highlights my research project on “Guidance and Control Strategies with Aerobraking for Mars Mission”.
 76. News item entitled, “Slow Down, There!! Braking in Space: Theme of Research”, appeared in *News & Notes* (A News Letter for Ida State University Faculty and Staff), Vol., 4, March 11, 1991.
 77. Interviewed with *Television Channel 3* News team (local CBS) regarding my research project entitled, *Guidance and Control Strategies with Aerobraking for Mars Mission*, on Feb. 26, 1991. The program was aired the same day during the evening news.
 78. Interviewed with United States Information Service (USIS) on the subject of *Indian Scientists in U.S. Aerospace Research*, and *High Tech Indian Brains* in August 1986, which appeared in more than two languages in India.

● Teaching Experience: New Courses Development, Short Courses Conducted

1. Invited and Participated (along with my host) in conducting by giving some selected lectures, a senior graduate level, 2-week short course on *Applied Optimal Control and State Estimation*, under “Quality Improvement Program (QIP)” sponsored by AICTE (All India Council for Technical Education), at the Center for Continuing Education (CCE), Indian Institute of Science (IISc), Bengaluru, India, May 08 to May 19, 2017. All the participants of the workshop were distributed with a copy of **Special Indian Edition (2015)** of the senior graduate level textbook by D.S. Naidu titled, “Optimal Control Systems”, 2003, CRC Press of Taylor & Francis, Abingdon, United Kingdom.
2. Conducted (by invitation) a senior graduate level, 2-day short course on selected topics in *Optimal Control Systems* based on my own book: Optimal Control Systems, (CRC Press (USA)/Taylor & Francis (UK), 2003, Second Edition in progress) at the Acharya Institute of Technology, Bengaluru, India during 24-25, March 2017.
3. Developed a new senior/graduate level course, “EE5161 Linear State Space Control Systems”, accepted by EE department, SCSE Curriculum Committee and Graduate School of UMD and taught for the first time at EE Dept, UMD during fall 2016.
4. Participating via web in the development of a new course - Resilient Control Systems in collaboration with Idaho National Laboratory, University of Idaho, etc. Fall 2013, Spring 2014, Fall 2014, Spring 2015 - present
5. Upon invitation taught a graduate level, one-week, short course on selected topics in *Optimal Control Systems* based his (Naidu’s) own book: Optimal Control Systems, (CRC Press (USA)/Taylor & Francis (UK), 2003, a Revised and Expanded Edition in progress) at the Department of Instrumentation and Control Engineering (established in the year 1965), College of Engineering (established in 1854), Pune (COEP), Maharashtra, India, during January 05 to January 09, 2015. A plaque was presented by CoPE to Professor Naidu “*in gratitude for excellent teaching and presentation on Optimal Control Systems*”.

This short course was attended by 40 participants (From host institution COEP:24 and from other institutions:17 or Faculty:12 and Research Students:29) was conducted by invitation from the Department of Instrumentation and Control Engineering, College of Engineering, Pune, (COEP) Maharashtra, India, under Faculty Development Program (FDP) sponsored by the Center of Excellence in Smart Renewable Energy Systems Technical Education Quality Improvement Program (TEQIP) PHASE-II and arranged through the IUCEE (Indo US Collaboration for Engineering Education) (Indo US Collaboration for Engineering Education)⁶.

⁶A non-profit organization established by over 150 leaders of engineering education and businesses from US and India in 2007 with the vision of IUCEE as to improve the quality and global relevance of engineering education and research in India and related benefits to US engineering educators, with focus on faculty development, student development, curriculum development, as well as improved teaching technologies & research.

6. Developed a new senior/graduate level course, “EE5533 Grid: Resilience, Efficiency and Technology”, accepted by EE department November 13, 2014 and later by SCSE Curriculum Committee on November 23, 2014. This new course was approved by UMD Academic Affairs and taught for the first time during Spring 2016. The course was supplemented as follows:
 - (a) Guest lectures from Peter Peterson of Computer Science Dept of UMD, Tom Furgeson of Electrical Engineering Dept of UMD, Craig Rieger of Idaho National Lab (INL), Idaho Falls, Idaho, and Manimaran Govindarasu of Iowa State University.
 - (b) Remote access to the Cyber Security Testbed from Iowa State University and conducting experiments on cyber security of electric grid.
 - (c) Field trip to Minnesota Power Rowe Energy Control Center (RECC) located at 3217 Persons St, Duluth, MN 55811.
7. Taught (by invitation) a graduate level, 2-week, short course on selected topics in *Optimal Control Systems* based his own book: *Optimal Control Systems*, (CRC Press (USA)/Taylor & Francis (UK), 2003, Second Edition in progress) at the Center for Applied and Interdisciplinary Mathematics, Department of Mathematics, East China Normal University (ECNU), Shanghai, China, during December 10, 2011 to December 31, 2011.
8. Developed a new senior/graduate level course, “EE5161: Linear State Space Control Systems”, accepted by Electrical Engineering (EE) Dept on 04 November 2015, accepted later by SCSE Curriculum Committee and finally approved by UMD Academic Affairs and taught for the first time during Fall 2016.
9. Taught (by invitation) a graduate level, 1-week, short course on selected topics in *Optimal Control Systems* based his own book: *Optimal Control Systems*, (CRC Press (USA)/Taylor & Francis (UK), 2003, Second Edition in progress) at Electrical Engineering Department, Nantong University, Nantong, China - May 21 - 25, 2007.
10. Short/block course on Selected Topics in Nonlinear Control Systems to doctoral students at Measurement and Control Laboratory (IMRT:Institut fr Mess- und Regeltechnik) at Swiss Federal Institute of Technology (ETH: Eidgenössische Technische Hochschule), Zurich, Switzerland, July 11-15, 2005.
11. **Undergraduate Teaching:** Taught courses such as Electrical Engineering, Introduction to Computers, Electrical Circuits, Electrical Networks, Circuit Simulation (PSpICE), Electrical Devices, Electrical Devices Laboratory (taught and developed the Lab and Lab Manual: 1990-95) Measurements and Instrumentation, Dynamics of Physical Systems, Signals and Systems, Mechatronics (new course developed and team taught: 1997-99), Feedback Control Systems, Digital Control Systems and so on to undergraduate students in Electrical, Electronics and other disciplines of Engineering.
12. **Graduate Teaching:** Taught courses such as Advanced Control Systems, State Variable Analysis (developed and taught), Optimal Control Systems (developed, taught, and wrote a textbook with Solutions Manual, 2003, Second Edition under preparation), Control System Components, Intelligent Control Systems (new

course developed and team taught:2003-present), Nonlinear Control Systems (new course developed and taught:2001-present) and so on to graduate students in Electrical, Electronic and other disciplines in Engineering.

● Research Experience

1. Director, Measurement and Control Engineering Research Center, College of Engineering, Idaho State University, Pocatello, Idaho, June 1998 - June 2014 (Co-Director during August 1993 - June 1998).
2. Continue with research collaboration in the area of Networked Control for Singularly Perturbed Systems, with Professor Zhiming M. Wang, Center for Applied and Multidisciplinary Mathematics, Department of Mathematics, East China Normal University, Shanghai, China, 2007, 2008, 2009.
3. As part of sabbatical during Spring 2008, conducted research on Control Applications to Biomedical Engineering with particular reference to prosthetics field at the Dept. of Electrical Engineering, the University of Western Australia, Crawley, Perth, Australia, during March 15 to April 12, 2008.
4. As part of sabbatical during Spring 2008, conducted research on Applications of Linear Programming Approach to Nonlinear Optimal Control Problems at the Center for Industrial and Applied Mathematics (CIAM), Institute of Sustainable Systems and Technologies (ISST), Division of Information Technology (IT), Engineering and Environment, University of South Australia, Adelaide, Australia, during February 23 to March 15, 2008.
5. Research conducted at Measurement and Control Laboratory (IMIT: Institut für Mess- und Regeltechnik) at Swiss Federal Institute of Technology (ETH: Eidgenössische Technische Hochschule), Zurich, Switzerland, during June 13 - Aug. 12, 2005. Also conducted a week-long short/block course on Nonlinear Control Systems to doctoral students in ETH.
6. Norwegian Research Council (NRC) fellowship to conduct research at the Center of Excellence for Ships and Ocean Structures at Norwegian University of Science and Technology (NTNU), Trondheim, Norway, during the period May - August 2004.
7. Received National Academy of Sciences (NAS)-*National Research Council (NRC) Senior Research Associateship Award* during sabbatical period 1998-99 tenable at the Center of Excellence in Advanced Flight Research, at US Air Force Research Laboratory (AFRL), Wright-Patterson Air Force Base (WPAFB), Ohio and performed research in the area of "Guidance and Control Strategies for Hypersonic Vehicles".
8. Associate Professor (Research) with Old Dominion University, Norfolk, VA, during 1987-90, on full-time research at NASA Langley Research Center, Hampton, USA.
9. Worked as Research Associate Professor, NASA Langley Research Center, Hampton, VA and Old Dominion University, Norfolk, VA - Research and teaching, during 1987-1990.
10. National Academy of Sciences - **National Research Council (NRC)** Senior Research Investigator, tenable at NASA Langley Research Center, Hampton, VA, and performed research in "Guidance and Control Strategies for Aeroassisted Orbital Transfer", during 1985-'87.

11. Completed **PhD Thesis** entitled, “Applications of Singular Perturbation Technique to Problems in Control Systems”, in November 1977.

- **Supervision of Post-Doctoral Fellows and Visiting Scholars**

1. Supervising Visiting (J1-visa) Scholar - Muhammad Wasim - a doctoral student from Department of Electrical Engineering, University of Engineering and Technology (UET), Taxila, Pakistan, fully financed by Higher Education Commission (HEC), Pakistan, January - May 2021.
2. Supervised Visiting Research Scholar - Yan Zhang - School of Automation, Nanjing University of Science and Technology, Nanjing, China - August 2012 to July 2013, and July 2014
3. Supervised two Visiting Research Scholars/Faculty sponsored from Egyptian Military College, Cairo, Egypt, September 2011 to March 2012.
4. Supervised a post-doctoral fellow in the area of intelligent control of prosthetic hand since 2009.
5. Served as an Advisor in the area of *Fusion of Model Reference Adaptive Speed Control and Fuzzy Logic* to Dr. Heuhan Yoo, Visiting Scholar from Korea Maritime University, South Korea, February 2004 - June 2005.
6. Supervised a Post-Doctoral Research Fellow (Dr. Selahaddin Ozelik from Istanbul Technical University and Rensselaer Polytechnic Institute) in the area of *Control of Gas Metal Arc Welding* in Measurement and Control Engineering Research Center, College of Engineering, Idaho State University, Pocatello, Idaho, during August 1997-May 1998.
7. Supervised a Post-Doctoral Research Fellow (Dr. Aydin Yesildirek from Istanbul Technical University and University of Texas at Arlington) in the area of *Control of Gas Metal Arc Welding* in Measurement and Control Engineering Research Center, College of Engineering, Idaho State University, Pocatello, Idaho, during May 1996-July 1997.
8. Supervised a Post-Doctoral Research Fellow (Dr. Lyndon Brown from University of Waterloo and Univ. of Illinois) in the area of *Control of Gas Metal Arc Welding* in Measurement and Control Engineering Research Center, College of Engineering, Idaho State University, Pocatello, Idaho, during October 1, 1995 - March, 1996.
9. Supervised a Post-Doctoral Research Fellow (Dr. C. Charalambous from Old Dominion University) in the area of *Risk-Sensitivity of Control Systems* in Measurement and Control Engineering Research Center, College of Engineering, Idaho State University, Pocatello, Idaho, during August 1993-July 1995.

- **Graduate (PhD) Student Supervision**

1. Served as Major Advisor for (15th) PhD dissertation, titled, “Time Scale Analysis and Synthesis in Electrical Energy and Life Sciences”, by Shaleena Jaison (Idaho State University), final dissertation defense completed on 13 November 2017.
2. As Major Advisor supervised (14th/11th at ISU) PhD Dissertation titled, “Advanced Tracking Strategies for Linear and Nonlinear Control Systems: Theory and Applications”, by Ahmed Mohamed Abdelhady Khamis (from Egypt), Dept. of Electrical Engineering and Measurement and Control Engineering Research Center, School of Engineering, Idaho State University, Pocatello, Idaho, May 2014.
3. As Major Advisor supervised (13th/10th at ISU) PhD Dissertation titled, “Simulation and Real-Time Control of a Smart Prosthetic Hand”, by Amir Fassih (from Iran), Dept. of Electrical Engineering and Measurement and Control Engineering Research Center, School of Engineering, Idaho State University, Pocatello, Idaho, December 2013.
4. As Co-Major Advisor supervised (12th/9th at ISU) PhD Dissertation titled, “Real-Time Embedded Framework for Force and Position, Estimation and Control Strategies for the Smart Prostheses”, by Chandrasekhar Potluri (from India), Dept. of Electrical Engineering and Measurement and Control Engineering Research Center, School of Engineering, Idaho State University, Pocatello, Idaho, May 2013.
5. As Major Advisor supervised (11th/8th at ISU) PhD Dissertation titled, “Advanced Control Strategies for Wind Energy Conversion Systems”, by Hoa Minh Nguyen (from Vietnam), Dept. of Electrical Engineering and Measurement and Control Engineering Research Center, School of Engineering, Idaho State University, Pocatello, Idaho, May 2013.
6. As Major Advisor supervised (10th/7th at ISU) PhD Dissertation titled, “Reliability Improvement of Integrated Circuit Bond Pads Having Al-SiO₂ Interconnect For Circuit Under Pad”, by Stevan G. Hunter (from USA), Dept. of Electrical Engineering and Measurement and Control Engineering Research Center, College of Engineering, Idaho State University, Pocatello, Idaho, December 2012/May 2013.
7. As Major Advisor supervised (9th/6th at ISU) PhD Dissertation titled, “Hybrid Control Strategies for Smart Prosthetic Hand”, by Cheng-Hung Chen (from Taiwan), Dept. of Electrical Engineering and Measurement and Control Engineering Research Center, College of Engineering, Idaho State University, Pocatello, Idaho, May 2009.
8. As Major Advisor supervised (8th/5th at ISU) PhD Dissertation titled, “Advanced Control Strategies for Heating, Ventilation and Air Conditioning (HVAC) Systems in Critical Building Structures”, by Craig Rieger (USA), Dept. of Electrical Engineering and Measurement and Control Engineering Research Center, College of Engineering, Idaho State University, Pocatello, Idaho, August 2008.

9. As Major Advisor supervised (7th/4th at ISU) PhD Dissertation titled, “Unified Approach for Optimal Control Systems”, by Yoshiko Imura (Japan), Dept. of Electrical Engineering and Measurement and Control Engineering Research Center, College of Engineering, Idaho State University, Pocatello, Idaho, August 2007.
 10. As Major Advisor supervised (6th/3rd at ISU) PhD Dissertation titled, “Fusion of Hard and Soft Control Techniques in Biomedical Engineering”, by Vidya Nandikolla (from India), Electrical Engineering Program and Measurement and Control Engineering Research Center, College of Engineering, Idaho State University, Pocatello, Idaho, December 2005.
 11. As Major Advisor supervised (5th/2nd at ISU) PhD Dissertation titled, “Unified Approach to Optimal Control Systems with State Constraints”, by Martin Murillo (from Bolivia) Electrical Engineering Program, Measurement and Control Engineering Research Center, College of Engineering, Idaho State University, Pocatello, Idaho, August 2002.
 12. Actively involved the in supervision of PhD student (Hardev Singh) and served as a member of the Doctoral Dissertation Committee, for his thesis entitled, *Unified Approach to Singularly Perturbed Control Systems*, jointly with Dept. of Elect. Engineering, Marquette University, Milwaukee, WI during August 1996 - May 2001. (Mr. Singh was an undergraduate and graduate student in the Measurement and Control Engineering program at ISU)
 13. As Major Advisor supervised (4th/1st at ISU) PhD Dissertation in Nuclear Science and Engineering, entitled, *Model-Motivated Advanced Control Strategies for Nuclear Reactors*, by Mohamed Abdelrahman (from Egypt), College of Engineering, Idaho State University, Pocatello, Idaho, May 1996.
 14. As Major Advisor initiated and supervised (third) PhD thesis titled, “Time-Scale Analysis and Design of Time-Optimal and Quadratic Regulator Problems”, by S. Sen (from India), Department of Electrical Engineering, Indian Institute of Technology (IIT), Kharagpur, January 1990.
 15. As Major Advisor, initiated and supervised (second) PhD thesis titled, “Singular Perturbation Analysis of Multiparameter Discrete-Time Control Systems”, by M.S. Krishna-rayalu (from India), Department of Electrical Engineering, Indian Institute of Technology (IIT), Kharagpur, October 1988.
 16. As Major Advisor supervised (first) PhD thesis titled, “Singular Perturbation Analysis of Difference Equations with Applications to Control Problems”, by A. Kailasa Rao (from India), Department of Electrical Engineering, Indian Institute of Technology (IIT), Kharagpur, October 1982.
- (*) Completed later as I moved to USA in January 1985.

- **Graduate (MS/MTech) Student Supervision:**

Supervised several graduate students in their MS theses in the areas of Electrical Engineering, Power Systems, Instrumentation, Control Systems, Optimal Control, Singular Perturbations, Microprocessors, Regional Pole Assignment, H_∞ Optimal Control, Digital Control Systems, and Guidance and Control of Aerospace Systems.

Titles of the **some of the recent** MS theses and non-theses supervised are given below.

1. Supervised as Major Adviser for MS (in Electrical Engineering) Thesis titled “Classification and Feature Extraction of Different Hand Movements from the EMG Signal using Machine Learning based Algorithms”, by Ms. Bipasha Kundu, Department of Electrical Engineering, University of Minnesota Duluth (UMD), successfully defended on 03 August 2021.
2. Supervised as Major Adviser for MS (in Electrical Engineering) Thesis titled “Advanced Optimal Control Strategies for Nonlinear Systems with Application to Wind Energy”, by Sudipta Paul, Department of Electrical Engineering, University of Minnesota Duluth (UMD), successfully defended on 24 May 2021.
3. Supervised as Major Adviser for MS (in Electrical Engineering) Thesis titled “INTEGRATION OF LIFE SCIENCES AND ENGINEERING - HIGHLY INFECTIOUS DISEASES IN POPULATION: CONTROL SYSTEM ANALYSIS AND SYNTHESIS”, by Srijita Battacharjee, Dept. of Electrical Engineering, Univ. of Minnesota Duluth (UMD), successfully defended on 29 July 2020.
4. Supervised as Major Adviser for MS (in Electrical Engineering) Thesis titled “Infinite and Finite-horizon Linear-Quadratic Control for Linear and Nonlinear Systems by State Dependent Riccati Equation”, by Syed Salik Hafeez, Dept. of Electrical Engineering, Univ. of Minnesota Duluth (UMD), successfully defended on 25 November 2019.
5. Supervised as Major Adviser for MS (in Electrical Engineering) Thesis titled “Advanced Modeling and Control Strategies for Charging Electric Vehicle Batteries”, by Murtaza Kamal Pasha Khan, Dept. of Electrical Engineering, Univ. of Minnesota Duluth (UMD), successfully defended on 08 October 2019.
6. Supervised as Major Adviser for MS (in Electrical Engineering) Thesis titled “Finger Movement Classification via Machine Learning using EMG Armband”, by Shayan Ali Bhatti, Dept. of Electrical Engineering, Univ. of Minnesota Duluth (UMD), successfully defended on 25 September 2019.
7. Supervised as Major Adviser for MS (in Electrical Engineering) Thesis tentatively titled “Analysis and Synthesis of Smart Wires in an Electric Power System”, by Allan Rieger Bekkala, Dept. of Electrical Engineering, Univ. of Minnesota Duluth (UMD), successfully defended on 30 November 2018.
8. Supervised as Major Adviser for MS (in Electrical Engineering) Thesis tentatively titled “Time Scale Analysis and Synthesis for Wind Energy Conversion Systems”, by Shanmukha Reddy Modugula, Dept. of Electrical Engineering, Univ. of Minnesota Duluth (UMD), successfully defended on 28 March 2018.

9. Supervised as Adviser for MS (in Electrical Engineering) Thesis titled “Advanced Control Strategies for the Robotic Hand”, by Ibrahim Baz Khallouf, Dept. of Electrical Engineering, Univ. of Minnesota Duluth (UMD), successfully defended on 06 December 2017.
10. Supervised as Major Advisor for MS (in Electrical Engineering) Project titled, “SOLAR ENERGY: COMPUTATION OF SOLAR PANELS AND COST”, by Sandhya Rani Nadipalli, Dept. of Electrical Engineering, Univ. of Minnesota Duluth (UMD), successfully defended on 04 December 2017.
11. Supervised as Co-Advisor for MS (in Applied and Computational Mathematics) Project, titled, “Applications of the Inverse LQR Problem to a Wind Energy Conversion System”, Dept. of Mathematics & Statistics, Univ. of Minnesota Duluth (UMD), May 2016.
12. Supervised as Major Adviser for MS Special Project (non-thesis) titled, “Implementation and Analysis of Extraction, Transforming and Loading in Modern day Data Warehouses using Informatica”, by Jamie Manchala, Dept. of Electrical Engineering, Measurement and Control Engineering Research Center, Idaho State University, Pocatello, Idaho, September 2013.
13. Supervised as Major Adviser for MS Thesis titled, “Time Scale Analysis and Synthesis of Unmanned Aerial Vehicles”, by Enobong Archibong, Dept. of Electrical Engineering, Measurement and Control Engineering Research Center, Idaho State University, Pocatello, Idaho, September 2013.
14. Supervised as Major Adviser for MS Thesis titled, “Neuro-Kalman Sliding Mode Control of a Hybrid Stepper Motor with Position Feedback”, by Anil Kumar Vangara, Measurement and Control Engineering Research Center, College of Engineering, Idaho State University, Pocatello, Idaho, May 2013.
15. Supervised as Major Adviser for MS Thesis titled, “Kinematics, Dynamics and Control of Prosthetic Hand with Extended Degrees of Freedom”, by Paul Ikenna Ezenwa, Measurement and Control Engineering Research Center, College of Engineering, Idaho State University, Pocatello, Idaho, May 2013.
16. Supervised as Major Adviser for MS Thesis titled, “Time Scale Analysis and Synthesis of Wind Energy Conversion Systems”, by Shaleena Jaison, Measurement and Control Engineering Research Center, College of Engineering, Idaho State University, Pocatello, Idaho, December 2012.
17. Supervised as Co-Major Adviser for MS Thesis titled, “Surface EMG Sensor Fusion For Estimating Finger Forces Using Genetic Algorithm”, by Chandrasekhar Potluri, Measurement and Control Engineering Research Center, College of Engineering, Idaho State University, Pocatello, Idaho, December 2010.
18. Supervised as Co-Advisor for MS Thesis titled, “Time Domain Surface EMG Sensor Fusion For Estimating Finger Force”, by Madhavi Anugolu, Measurement and Control Engineering Research Center, College of Engineering, Idaho State University, Pocatello, Idaho, December 2010.
19. Supervised as Major Adviser MS Special Project (non-thesis option) titled, “Reliability Issues in Probed IC Bond Pads”, by Stevan G. Hunter, Measurement

- and Control Engineering Research Center, College of Engineering, Idaho State University, Pocatello, Idaho, April 2010.
20. Supervised (as Co-Advisor) MS Thesis titled, "Quantification of Stress History in Type 304L Stainless Steel using Positron Annihilation Spectroscopy", by Thomas W. Walters, Measurement and Control Engineering Research Center, College of Engineering, Idaho State University, Pocatello, Idaho, May 2007.
 21. Supervised (as Major Advisor) PhD Dissertation titled, "Fusion of Hard and Soft Control Techniques in Biomedical Engineering", by Vidya Nandikolla, Measurement and Control Engineering Research Center, College of Engineering, Idaho State University, Pocatello, Idaho, December 2005.
 22. Supervised (as Major Advisor) MS Thesis titled, "Modeling Outer and Inner Hair Cells of Human Cochlea using Neural Networks and Fuzzy Logic", by Balaje Thumati, Measurement and Control Engineering Research Center, College of Engineering, Idaho State University, Pocatello, Idaho, December 2005.
 23. Supervised (as Major Advisor) MS Thesis titled, "Autonomous Smart Robotic Vehicle", by Pankaj Shere, Measurement and Control Engineering Research Center, College of Engineering, Idaho State University, Pocatello, Idaho, December 2005.
 24. Supervised (as Major Advisor) MS Special Project titled, "Semi-Automatic Control of Paint Thickness Using a Human Operated Spray Paint Gun", by Jeffrey Waddoups, Measurement and Control Engineering Research Center, College of Engineering, Idaho State University, Pocatello, Idaho, August 2005.
 25. Supervised (as major advisor) MS Special Project titled, "Embedded Systems Control of an Antenna Tuner", by Larry Babb, Measurement and Control Engineering Research Center, College of Engineering, Idaho State University, Pocatello, Idaho, December 2004.
 26. Supervised (as Major Advisor) MS Thesis titled, "Fusion of Hard and Soft Computing for Guidance, Navigation, and Control of Uninhabited Aerial Vehicles", by Randy Hoover, Measurement and Control Engineering Research Center, College of Engineering, Idaho State University, Pocatello, Idaho, December 2004.
 27. Supervised (as Major Advisor) MS Special Project titled, "Experimental Setup for Automatic Control of Stepper Motor Using ASIC/CPLD with Position Feedback", by Andrew Wong, Measurement and Control Engineering Research Center, College of Engineering, Idaho State University, Pocatello, Idaho, July 2001.
 28. Supervised (as Major Advisor) MS thesis titled, "An enhanced control system for electric arc furnace precipitator heater", by Kent R. Hendricks, Measurement and Control Engineering Research Center, College of Engineering, Idaho State University, Pocatello, Idaho, April 1999.
 29. Supervised (as Major Advisor) MS thesis titled, "Optimal Control of Photolithographic Process in Semiconductor Manufacturing", by Martin Murillo, Measurement and Control Engineering Research Center, College of Engineering, Idaho State University, Pocatello, Idaho, December 1997.

30. Supervised (as co-advisor) MS thesis titled, "Design, Construction, and Modeling of an Automated Gas Metal Arc Welding Facility for Controller Research", by Robert F. Yender, Measurement and Control Engineering Research Center, College of Engineering, Idaho State University, Pocatello, Idaho, October 1997.
31. Supervised (as Major Advisor) MS thesis titled, "Model-Based Control of the Gas Metal Arc Welding", by J. Tyler, Measurement and Control Engineering Research Center, College of Engineering, Idaho State University, Pocatello, Idaho, August 1997.
32. Supervised (as Major Advisor) MS thesis titled, "Optimal Control Maneuver with Aerobraking for Mars Mission", by L. Li, Measurement and Control Engineering Research Center, College of Engineering, Idaho State University, Pocatello, Idaho, May 1995.
33. Supervised (as Co-Advisor) MS thesis titled, "Conceptual Design of an Automatic Center Pivoting Irrigation System", by S.A. Razvi, Measurement and Control Engineering Research Center, College of Engineering, Idaho State University, Pocatello, Idaho, May 1995.
34. Supervised (as Major Advisor) MS thesis titled, "Guidance of Aeroassisted Vehicle by Feedback Linearization", by R.M. Jaber, Measurement and Control Engineering Research Center, College of Engineering, Idaho State University, Pocatello, Idaho, May 1995.
35. Supervised (as Major Advisor) MS thesis titled, "Neural Network Technology for Environmental Surveillance", by M.A. Abdelrahman, Measurement and Control Engineering Research Center, College of Engineering, Idaho State University, Pocatello, Idaho, December 1994.
36. Supervised (as Major Advisor) MS thesis titled, "Regional Pole Assignment via Linear Quadratic Regulator Theory", by H. Singh, Measurement and Control Engineering Research Center, College of Engineering, Idaho State University, Pocatello, Idaho, December 1994.
37. Supervised (as Co-Advisor) MS thesis titled, "A Real-Time Adaptive Linear Quadratic Regulator using Neural Networks", by M. Siddaiah, Measurement and Control Engineering Research Center, College of Engineering, Idaho State University, Pocatello, Idaho, December 1993.
38. Supervised (as Major Advisor) MS thesis titled, "Stability and Optimal Control of an Electrical Power System", by M.A. Lpizra, Measurement and Control Engineering Research Center, College of Engineering, Idaho State University, Pocatello, Idaho, September 1993.
39. Supervised (as Major Advisor) MS thesis titled, "Analysis and Design of Hopfield-Type Neural Networks", by S. Srinivasan, Measurement and Control Engineering Research Center, College of Engineering, Idaho State University, Pocatello, Idaho, August 1992.

- **Areas of Interest**

Electrical Engineering, Biomedical Engineering, Control Systems, Neural Networks, Measurements and Instrumentation, Mechatronics, Guidance and Control in Aerospace Systems, Trajectory Optimization, Aerobraking, Orbital Mechanics, Singular Perturbations and Time Scales (SPaTS) in Control Theory and Applications, Optimal Control Systems, Nonlinear Control Systems, Intelligent Control Systems, Digital Control Systems, Geometric Control Theory and Applications and Modeling, Sensing and Control of Gas Metal Arc Welding (GMAW).

● Research Grants

Research grants totaling \$4,702,300 from US Army Medical Command, National Research Council, Washington, DC, US Air Force Research Laboratory (AFRL), Wright-Patterson Air Force Base (WPAFB), Ohio, NASA Langley Research Center, Hampton, VA, Westinghouse Idaho Nuclear Company (WINCO), Idaho National Engineering Laboratory (INEL), Associated Western Universities (AWU), Idaho Space Grant Consortium, Idaho State University, etc.

A. Proposals Funded

1. Proposal entitled, “An Integrated Framework for the Optimal Control of Vehicle-to-Grid Systems, jointly prepared by Dr. Ona Egbue - Co-PI (formerly MIE, UMD and now Univ. of South Carolina- Upstate) and Dr. D.Subbaram Naidu Co-PI (EE, UMD) and funded by ENERGY, POWER, CONTROL AND NETWORKS (EPCN), Division of Electrical, Communications and Cyber Systems⁷, National Science Foundation (NSF), Washington, DC, total funding amount \$363,059. Subcontracted by Univ. of South Carolina to UMD, D. Subbaram Naidu, PI, UMD share \$75,075, for three year period during Sept. 15, 2017 to Aug. 31, 2020 (Extended to Aug. 31, 2021 due to COVID-19).
2. As Co-PI (with Arshia Khan, PI, CS Dept, UMD; Dr. Mary Boylan, Co-PI, cardio thoracic surgeon at St. Lukes Hospital, Duluth, MN; and Dr. Kristine Snyder, Co-PI, Math Department, UMD; University of Minnesota Duluth (UMD), for the Whiteside⁸ Grant titled, “Explore innovative simulations of Recovery Buddy to promote recovery in patients following open heart surgery or percutaneous coronary intervention following myocardial infarction”, \$20,000, 06 February, 2016.
3. An interdisciplinary research project in Biomedical Sciences and Engineering titled Smart Prosthetic Hand Technology during 2006-13 at the Measurement and Control Engineering Research Center (MCERC), Idaho State University (ISU), funded (\$2.243M) and managed by Telemedicine & Advanced Technology Research Center (TATRC), United States Army Medical Research and Material Command (USAMRMC), Department of Defense (DoD). This truly interdisciplinary research project exemplifying The Third Revolution: The Convergence of Life Sciences, Physical Sciences, and Engineering (The First Revolution: Molecular and Cellular Biology and The Second Revolution: Genomics - MIT Report 2011 and NRC Report 2014), consisted of a team of seven faculty members and graduate (MS & PhD) students from Electrical, Mechanical and Civil and Environmental Engineering disciplines, Computer Science, Biomedical Sciences, and Physical and Occupational Therapy at ISU.
4. As PI, ISU Federal Appropriation Program funding for Measurement and Control Engineering Research Center (MCERC) for proposal on “Smart Prosthetic Hand Technology - Phase II of III”, funded by Telemedicine & Advanced Technology Research Center (TATRC), of the United States Army Medical Research and Material Command (USAMRMC), Department of Defense (DOD) - in the area of

⁷which (“addresses fundamental research issues underlying device and component technologies, power, controls, computation, networking, communications and cyber technologies”)

⁸The Whiteside Institute for Clinical Research, St. Luke Hospital, Duluth, MN

- Biomedical Engineering involving 6 other Co-PIs from 6 depts from 3 colleges across ISU. This is the largest single grant ever awarded in the College of Engineering, January 2012 to December 2012, Naidu's portion of the budget during this period \$69,704.
5. As PI, ISU Federal Appropriation Program funding for Measurement and Control Engineering Research Center (MCERC) for proposal on "Smart Prosthetic Hand Technology - Phase II of III", funded by Telemedicine & Advanced Technology Research Center (TATRC), of the United States Army Medical Research and Material Command (USAMRMC), Department of Defense (DOD) - in the area of Biomedical Engineering involving 6 other Co-PIs from 6 depts from 3 colleges across ISU. This is the largest single grant ever awarded in the College of Engineering, January 2011 to December 2012, Naidu's portion of the budget during this period \$69,704.
 6. As PI, ISU Federal Appropriation Program funding for Measurement and Control Engineering Research Center (MCERC) for proposal on "Smart Prosthetic Hand Technology - Phase II of III", funded by Telemedicine & Advanced Technology Research Center (TATRC), of the United States Army Medical Research and Material Command (USAMRMC), Department of Defense (DOD) - in the area of Biomedical Engineering involving 6 other Co-PIs from 6 depts from 3 colleges across ISU. This is the largest single grant ever awarded in the College of Engineering, January 2010 to December 2010, Naidu's portion of the budget during this period \$69,704.
 7. As PI, ISU Federal Appropriation Program funding for Measurement and Control Engineering Research Center (MCERC) for proposal on "Smart Prosthetic Hand Technology - Phase II of III", funded by Telemedicine & Advanced Technology Research Center (TATRC), of the United States Army Medical Research and Material Command (USAMRMC), Department of Defense (DOD) - in the area of Biomedical Engineering involving 6 other Co-PIs from 6 depts from 3 colleges across ISU. This is the largest single grant ever awarded in the College of Engineering - 21 April 2010 to 20 December 2012, \$1,401,000, (Naidu's portion of the budget \$209,382). This total budget is shown year-wise in the above item 6 for year 2010, in the above item 5 for year 2011, and in the above item 4 for year 2012.
 8. As PI for a proposal entitled, "Advanced Control Strategies for Heating, Ventilation, and Air-Conditioning (HVAC) Systems in Critical Building Structures", from Battelle Energy Alliance (BEA) - Idaho National Laboratory (INL) \$30,566.00, for the period January 22, 2008 to September 30, 2008.
 9. ISU Federal Appropriation Program funding for Measurement and Control Engineering Research Center (MCERC), for proposal on "Smart Prosthetic Hand Technology - Phase I of III", funded by Telemedicine & Advanced Technology Research Center (TATRC), of the United States Army Medical Research and Material Command (USAMRMC), Department of Defense (DOD) - in the area of Biomedical Engineering involving 4 other Co-PIs from 6 depts from 3 colleges across ISU, January 2009 to December 2009, Naidu's portion of the budget \$67,360.

10. ISU Federal Appropriation Program funding for Measurement and Control Engineering Research Center (MCERC), for proposal on “Smart Prosthetic Hand Technology - Phase I of III”, funded by Telemedicine & Advanced Technology Research Center (TATRC), of the United States Army Medical Research and Material Command (USAMRMC), Department of Defense (DOD) - in the area of Biomedical Engineering involving 4 other Co-PIs from 6 depts from 3 colleges across ISU, January 2008 to December 2008, Naidu’s portion of the budget \$67,360.
11. ISU Federal Appropriation Program funding for Measurement and Control Engineering Research Center (MCERC), for proposal on “Smart Prosthetic Hand Technology - Phase I of III”, funded by Telemedicine & Advanced Technology Research Center (TATRC), of the United States Army Medical Research and Material Command (USAMRMC), Department of Defense (DOD) - in the area of Biomedical Engineering involving 4 other Co-PIs from 6 depts from 3 colleges across ISU, 22 July 2007 to December 2007, Naidu’s portion of the budget \$33,680.
12. As PI, ISU Federal Appropriation Program funding for Measurement and Control Engineering Research Center (MCERC), for proposal on “Smart Prosthetic Hand Technology - Phase I of III”, funded by Telemedicine & Advanced Technology Research Center (TATRC), of the United States Army Medical Research and Material Command (USAMRMC), Department of Defense (DOD) - in the area of Biomedical Engineering involving 4 other Co-PIs from 6 depts from 3 colleges across ISU. This is the largest single grant awarded in the College of Engineering - 22 July 2007 to 15 August, 2009, \$842,000 (Naidu’s portion of the budget \$168,400). This total budget is shown year-wise in the above item 11 for year 2007, in the above item 10 for year 2008, and in the above item 9 for year 2009.
13. Financial award (\$15,000) for sabbatical during Spring 2008 to conduct research on Control Applications to Biomedical Engineering with particular reference to prosthetics field at the Dept. of Electrical Engineering, the University of Western Australia, Crawley, Perth, Australia, during March 15 to April 12, 2008.
14. Financial award (\$5,000) for sabbatical during Spring 2008 to conduct research on Applications of Linear Programming Approach to Nonlinear Optimal Control Problems at the Center for Industrial and Applied Mathematics (CIAM), Institute of Sustainable Systems and Technologies (ISST), Division of Information Technology (IT), Engineering and Environment, University of South Australia, Adelaide, Australia, during February 23 to March 15, 2008.
15. As Director of MCERC along with Dr. Marco P. Schoen (as Associate Director), obtained funding for Renovation of Engineering Research Complex (ERC) to house Measurement and Control Engineering Research Center (MCERC), from ISU Administration, FY 2008, \$575K.
16. As Director of MCERC along with Dr. Marco P. Schoen (as Associate Director), obtained funding for Renovation of Engineering Research Complex (ERC) to house Measurement and Control Engineering Research Center (MCERC), from ISU Administration, FY 2007, \$120K.
17. Norwegian Research Council (NRC) fellowship to work as Visiting Professor to

- conduct research on “Order Reduction in System Modeling, Analysis and Control via Singular Perturbations and Time Scales: Applications to Flexible Beam Systems and Gantry Cranes”, at the Center of Excellence for Ships and Ocean Structures (CESOS) at Norwegian University of Science and Technology (NTNU), Trondheim, Norway, during the period May, 15 - August, 14, 2004, \$16,600.
18. As PI for a proposal entitled, “Intelligent Technique for Human Hearing Implant”, for infrastructure funds from the Office of Research, ISU, under the Department of Defense (DoD) EPSCoR program, July 16, 2004, \$28,742.
 19. As PI (with Marco Schoen as Co-PI) for a proposal entitled, “Intelligent Autonomous Control Strategies for Uninhabited Combat Aerial Vehicles”, from NSF EPSCoR Student Enhancement Funds from Office of Research, ISU, May 4, 2004, \$5,000.
 20. As Co-PI (with Dr. Mike Ellis as PI and Dr. Marco P. Schoen as Co-PI) for a proposal entitled, “Enhancing Science Literacy in Southeast Idaho with Community-Based Projects and University/K-12 Partnership”, Inland Northwest Research Alliance (INRA), Idaho Falls, ID, 12-17-2003, \$24,000.
 21. As PI (with Marco Schoen as Co-PI) for a proposal entitled, “Autonomous Intelligent Mechatronics Systems”, for infrastructure funds from the Office of Research, ISU, under the Department of Defense (DoD) EPSCoR program, August 4, 2003, \$24,777.
 22. As PI (with Mr. Craig Rieger, Ph.D. Candidate): NSF EPSCoR Doctoral Student Program Enhancement grant entitled, “Advanced Control Strategies for Heating Ventilation and Air Conditioning (HVAC) Systems in Critical Building Structures”, under the Office of Research, Idaho State University, Pocatello, Idaho - March 14, 2003, of \$7,000.
 23. As PI: US Air Force Research Laboratory, Wright-Patterson Air Force Base, Ohio, through National Research Council (NRC), National Academy of Sciences, Washington, DC, “Guidance and Control Strategies for Hypersonic Vehicles”, June 1-December 31, 1998 and May 17 - August 13, 1999, Stipend \$56,080 + other travel and relocation charges and overhead to NRC = \$84,782.41.
 24. Obtained a grant \$3,811.50 for proposal preparation for “Release Time Support for External Funding”, from Research Coordination Council (RCC), Idaho State University, Pocatello, Idaho, May 6, 1999.
 25. As Co-PI (with Dr. Kevin L. Moore as PI): The INEL/MIT University Research Consortium, “Advanced Welding Control Technology”, July '95–Sept. '97, \$614,794. This is an interdisciplinary research project in Physical Sciences and Engineering titled, Advanced Welding Control Technology during 1995-97 under the MIT University Research Consortium (of 24 universities in 17 states) for the Lockheed Martin Idaho Technologies Company, the management and operations contractor for the Idaho National Engineering Laboratory (INEL) of the US Dept. of Energy (DoE), the consortium consisted of 23 universities in 17 states. This project mainly involved post-doctoral fellows and graduate students.
 26. Associated Western Universities (AWU) Summer Research Fellowship at Idaho

- National Engineering Laboratory (INEL), Idaho Falls, Idaho, May - June 1995, \$12,182.
27. As PI: Idaho Space Grant Consortium, Moscow, Idaho, Research Initiation Program, " H_∞ Optimal Control for Singularly Perturbed Large Space Structure System", May '94–February 1995, \$11,500.
 28. As PI (with Dr. Kevin L. Moore as Co-PI): Westinghouse Idaho Nuclear Company (WINCO), INEL, Idaho Falls, ID, "Development of a Neural Network for Process Monitoring at the ICPP Tank Farm-Modification 2", May–November 1994, \$29,732.
 29. As PI (with Dr. Kevin L. Moore as Co-PI): Westinghouse Idaho Nuclear Company (WINCO), INEL, Idaho Falls, ID, "Development of a Neural Network for Process Monitoring at the ICPP Tank Farm-Modification 1", April–September 1993, \$24,873.
 30. As PI (with Dr. Kevin L. Moore as Co-PI): Westinghouse Idaho Nuclear Company (WINCO), INEL, Idaho Falls, ID, "Development of a Neural Network for Process Monitoring at the ICPP Tank Farm", April–December 1992, \$30,034.
 31. As PI (with Dr. Kevin L. Moore as Co-PI): Westinghouse Idaho Nuclear Company (WINCO), INEL, Idaho Falls, ID, "Distillation Column/Reboiler System: Neural Network Model", April–December 1992, \$34,888.
 32. National Science Foundation Travel Grant for attending IEEE Conference on Decision and Control, in Brighton, UK, December 11–13, 1991, \$520.
 33. As PI: Idaho State University College of Engineering, Pocatello, Idaho, "Guidance and Control Strategies with Aerobraking for Mars Mission", May–July 1991, \$2,000.
 34. As PI: Idaho State University Faculty Research Committee, Pocatello, Idaho, "Guidance and Control Strategies with Aerobraking for Mars Mission", January–May 1991, \$2,444.
 35. As PI: NASA Langley Research Center, Hampton, Virginia, NAG1-736, Supplement No. 4, through Old Dominion University Research Foundation, Norfolk, Virginia, "Guidance and Control Strategies for Aerospace Vehicles", October '89–July 1990, \$66,993.
 36. As PI: NASA Langley Research Center, Hampton, Virginia, NAG1-736, Supplement No. 3, through Old Dominion University Research Foundation, Norfolk, Virginia, "Guidance and Control Strategies for Aerospace Vehicles", January–October 1989, \$80,000.
 37. As PI: NASA Langley Research Center, Hampton, Virginia, NAG1-736, Supplement No. 1, through Old Dominion University Research Foundation, Norfolk, Virginia, "Guidance and Control Strategies for Aerospace Vehicles", January–December 1988, \$80,000.
 38. As PI: NASA Langley Research Center, Hampton, Virginia, NAG1-736, through Old Dominion University Research Foundation, Norfolk, Virginia, "Guidance and Control Strategies for Aerospace Vehicles", January–December 1987, \$75,355.

39. As PI: NASA Langley Research Center, Hampton, Virginia, through National Research Council (NRC), National Academy of Sciences, Washington, DC, “Singular Perturbation Technique in Discrete Control Theory with Applications to Aerospace System”, January–December 1986, \$73,000.
40. As PI: NASA Langley Research Center, Hampton, Virginia, through National Research Council (NRC), National Academy of Sciences, Washington, DC, “Singular Perturbation Technique in Discrete Control Theory with Applications to Aerospace System”, January–December 1985, \$70,000.

B. Other Proposals Submitted/Pending/Not funded: Approximate Value \$25,174,393

1. As Principal Investigator (PI), submitted a research proposal titled, “Cyber-Physical Control Systems in Electric Power and Energy: An Overview”, for the duration of October, 2018 to September, 2019, to Idaho National Laboratory (INL), US Department of Energy (DoE), Idaho Falls, Idaho 83415-1625, of budget \$175,000, on October 01, 2018.
2. As a consultant to the research proposal titled, “Advanced Control Strategies: Theory and Applications to Real-World Problems, a joint Indo-Russian collaborative project administered by Department of Science & Technology (DST), Government of India and Russian Science Foundation (RSF), of budget \$200,000, submitted on 14 September 2018.
3. As Co-Investigator (with PI Arshia Khan, CS Dept, UMD) submitted a proposal titled, “Design of an ethically sensitive Recovery Buddy to aid in recovery after open heart surgery”, for the duration of April 01, 2019 to March 31, 2022, and budget \$299,891, to National Institute of Health (NIH), Washington, DC, on June 12, 2018.
4. As United States (US) partner/ collaborator/ team with Indian partner /collaborator /team (Indian Institute of Technology (IIT), Madras, Chennai, India; MS Ramaiah Institute of Technology (MSRIT), Bangalore, India; IMOV Technologies LLP, Bangalore, India) for a project titled, “ExoFES - A Customizable partial-Exoskeleton fused with Functional Electrical Stimulation (FES)”, under Commercializing Technologies for Societal Impact for the United States - India Science and Technology Endowment Fund (USISTEF), Indo-U.S. Science and Technology Forum (IUSSTF), pre-proposal (Tentative Budget: India Team \$231,000 and USA Team \$152,300) submitted on 31 July 2017.
5. As United States (US) partner/collaborator with Indian partner/collaborator from Vellore Institute of Technology (VIT) University, Vellore, Tamil Nadu, India, for a project titled, “Smart Prosthetic Hand Using 3D Printer Technology”, under Commercializing Technologies for Societal Impact for the United States - India Science and Technology Endowment Fund (USISTEF), Indo-U.S. Science and Technology Forum (IUSSTF), pre-proposal submitted on 09 June 2016.
6. As Co-PI (with Dr. Arshia Khan as PI from CS Dept. - UMD and Dr. Mary Boylan, as Co-PI, St. Luke Medical Center, Duluth, MN, and Dr. Danesh Alam, as Co-PI Northwestern Medicine, Chicago), proposal titled, “Recovery Buddy to

- assist patients following Open Heart Surgery submitted to NIH (National Institute of Health) with a budget of \$426,084.00 for 3 years, on 25 February 2016.
7. As Co-PI (with Dr. Arshia Khan as PI from CS Dept. - UMD and Dr. Mary Boylan, as Co-PI, St. Luke Medical Center, Duluth, MN, and Dr. Danesh Alam, as Co-PI Northwestern Medicine, Chicago) submitted proposal for Whiteside Institute Research Grant titled, “Explore innovative simulations of Recovery Buddy to promote recovery in patients following open heart surgery or percutaneous coronary intervention following myocardial infarction. with a budget of \$29,512, on 06 November 2015.
 8. As Co-PI (with Dr. Arshia Khan as Co-PI from CS Dept. - UMD and Dr. Mary Boylan, St. Luke Medical Center, Duluth, MN) submitted Letter-of-Intent (LOI) titled, “Design, develop, and build an innovative “Recovery Buddy to promote readjustment and recovery of daily life in patients following Open Heart Surgery (OHS) or Percutaneous Coronary Intervention (PCI) following myocardial infarction”, with a budget of \$30,000, to Association Wide AWRP Winter 2016 Collaborative Sciences Award, administered by American Heart Association (AHA), on 06 November 2015.
 9. As Co-PI (with Dr. Ona Egbu, PI from MIE Dept. -UMD) submitted proposal titled, “Dynamic Modelling and Design of Vehicle-to-Grid Systems for Plug-in Electric Vehicles”, with a budget of \$345,153, to ECCS Energy, Power, Control and Networks (EPCN) Program, National Science Foundation (NSF), Washington, DC, on 02 November, 2015.
 10. As Co-PI (with Dr. C.R. Rieger - Idaho National Lab and others) submitted proposal titled, “National Workshop on Resilience Research (NWRR) for Critical Infrastructure: Current Status and Challenges with budget of \$95,000, submitted to National Science Foundation as a member of the Organizing Committee of NWRR, on 27 April 2015.
 11. As PI (with Dr. Zhou as Co-PI) submitted a proposal titled, “Smart Prosthetic Hand Technology: Hardware in the Loop Testing with Cyber Glove”, to MNDRIVE RSAM⁹ Exploratory Grant, Univ. of Minnesota, Minneapolis, MN, \$50,000 on 30 September 2014.
 12. As Co-PI (with Dr. Chiu as PI) submitted a proposal, “Real-Time Reliability, Resiliency and Security Analytics for the Smart Grid”, to Cyber-Enabled Sustainability Science and Engineering (CyberSEES) - Type 1, of National Science Foundation, Arlington, VA, \$300,000) on February, 2014.
 13. As Co-PI (with Univ. of Idaho) submitted a proposal, “Orchestrated, Secure Demand Response that Retains Human Comfort and Performance Assurance in Commercial and Institutional Buildings”, to Cyber-Enabled Sustainability Science and Engineering (CyberSEES) - Type 2, of National Science Foundation, Arlington, VA, ISU budget \$311,686 (total budget \$1,190,587) on February 05, 2013.

⁹MN DRIVE: Minnesota Discovery, Research and Innovation Economy; RSAM: Robotics, Sensors and Advanced Manufacturing

14. As Co-PI (with Dr. Chiu as PI and Corey Schou as Co-PI) submitted a Letter of Intent for a proposal, “Real-Time Reliability, Resiliency and Security Analytics for the Smart Grid”, to Cyber-Enabled Sustainability Science and Engineering (CyberSEES) - Type 1, of National Science Foundation, Arlington, VA, \$300,000, on December 04, 2012.
15. As Co-PI (with Univ. of Idaho) submitted a Letter of Intent for a proposal, “Orchestrated, Secure Demand Response that Retains Human Comfort and Performance Assurance in Commercial and Institutional Buildings”, to Cyber-Enabled Sustainability Science and Engineering (CyberSEES) - Type 2, of National Science Foundation, Arlington, VA, ISU budget \$311,686 (total budget \$1,190,587) on December 04, 2012.
16. As Co-PI (with others - Univ. of Idaho, Ohio State University, Univ. of California, Berkeley) submitted a Letter of Intent (LOI) for “Center for Resilient Control Architectures and Systems (ReCAS)”, under Industry/University Cooperative Research Centers (I/UCRC) of the National Science Foundation (NSF), on 24 June 2011.
17. As Co-PI with General Energy Efficiency (GEE), Inc, Reno, Nevada, submitted ISU Mini-Proposal on “Reflector Light Bulb (RLB)” under Small Business Innovative Research (SBIR) to National Science Foundation (NSF). \$50,000, 15 May 2011.
18. As Co-PI (with others from ISU College of Technology, Idaho National Lab, University of Idaho and Colorado School of Mines) a proposal entitled, “Resilient Control System Toolset for Role-based, 3D Situational Awareness of Optimal Energy Usage at Diverse DoD Facilities”, submitted to The Environmental Security Technology Certification Program (ESTCP), Arlington, VA, \$1,500,000 and ISU Engineering share is \$300,000, 24 March 2011.
19. As Co-PI (with others from Idaho National Lab, and Colorado School of Mines) a proposal entitled, “Smart Design Technology for Secure Vendor-neutral, On site Evaluation of HVAC Systems to Produce Tailored Energy Efficiency”, submitted to The Environmental Security Technology Certification Program (ESTCP), Arlington, VA, \$1,000,000 and ISU share is \$450,000, 02 February 2010.
20. As Co-PI (with Lawrence Beaty of College of Technology as PI and Dr. Marco P. Schoen and Dr. Arya Ebrahimpour as Co-PIs) a proposal, “Southeastern Idaho Wind Energy Consortium (SIWEC) R&D Program”, along with Nordic Windpower, City of Pocatello, to U.S. Department of Energy Recovery Act: Wind Energy Consortia between Institutions of Higher Learning and Industry, DE-FOA-0000090, \$11,999,487M (ISU Share \$4M) for 2 years, submitted on July 29, 2009
21. As Co-PI (with Boise State University, Idaho National Lab, and others) a pre-proposal (notice of intent) entitled, “Assessing the Functional Use of Habitat by Wildlife in the Sagebrush Steppe Using Small Unmanned Aerial Vehicles”, submitted to National Science Foundation (NSF) - Major Research Instrumentation (MRI) program, the total amount of \$2,950,000, ISU share @ \$100K, June 01, 2009.

22. As Co-PI (with others from Idaho National Lab, and Colorado School of Mines) a proposal entitled, “Smart Design Technology for Onsite Evaluation of HVAC Systems and Tailored Energy Efficiency Improvement”, submitted to The Environmental Security Technology Certification Program (ESTCP), Arlington, VA, \$1,000,000 and ISU share is \$400,000, 04 March 2009.
23. As Co-PI (with others from Idaho National Lab, Univ. of Idaho, South Dakota School of Mines) a pre-proposal entitled, “Secure and Collaborative Data Fusion Repository (DFR) to Extend Reactor Life”, submitted under Nuclear Energy University Programs (NEUP) program through the Center of Advanced Energy Studies (CAES), Idaho Fall, ID, ISU share \$250,000, 21 January, 2009.
24. As Co-PI along with others (Dr. Wei Pan, and Dr. Hossein Mousavinezhad) a pre-proposal, “Electronic Packaging for Extreme Environments”, jointly with Boise State University, and University of Idaho for Idaho EPSCoR program, for 3 years \$1,410,268 and ISU share \$296,435, November 10, 2008.
25. As PI (with Dr. Marco P. Schoen as Co-PI), for a **full proposal** entitled, “Smart Prosthetic Hand Technology - Phase I”, submitted (under ISU federal initiative program) to Telemedicine and Advanced Technology Research Center (TATRC), U.S. Army Medical Research & Material Command (USAMRMC), Washington, DC, \$842,000, June - December 2006.
26. As PI (with Dr. Marco P. Schoen as Co-PI), for a **pre-proposal** entitled, “Smart Prosthetic Hand Technology”, submitted (under ISU federal initiative program) to Telemedicine and Advanced Technology Research Center (TATRC), U.S. Army Medical Research & Material Command (USAMRMC), Washington, DC, \$842,000, January - June 2006.
27. As Co-PI (with Mr. Scott Beck as PI and Dr. Curtis Smith as Co-PI of INL) for a proposal entitled, “Estimation of Control System Reliability using a Bayesian Methodology” submitted to LDRD, Idaho National Laboratory, 25 April 2006, \$330,000 for 2 years.
28. As Co-PI (with Dr. Swamy Laxminarayan as PI, Dr. Jim Lai as other Co-PI) and Chair of the Committee for preparation of a proposal entitled, “Biomedical Science and Engineering Research Training Program” submitted to Howard Hughes Medical Institute (HHMI) and National Institute of Biomedical Imaging and Bioengineering (NIBIB) Interfaces Initiative for Interdisciplinary Graduate Research Training, Chevy Chase, MD, \$1.0M for 3 years. Collaborated Institute of Rural Health (IRH), College of Pharmacy, Dept. of Biological Sciences, Portneuf Medical Center, Pocatello, Idaho and outside experts. Worked on this proposal during January - June 2005.
29. As a member of the ISU team (along with Inst. of Rural Health, Physics, Pharmacy) in developing Idaho Cancer Imaging Research Consortium with ImQuant, Inc., Boise, Idaho, in collaboration with St. Alphonsus Regional Medical Center, Boise, Idaho, Boise State University, and Idaho National Laboratory, Idaho Falls, Idaho - since October 2004.
30. As PI (with Dr. Marco P. Schoen as Co-PI) for a proposal entitled, “Research on Smart Prosthetic Devices Technology” submitted to Federal Line Item Request

- to Federal Agencies, December 16, 2004 - February 01, 2005, \$2.0M for 3 years.
31. As PI (with Dr. Marco P. Schoen as Co-PI) for a proposal entitled, “Adaptive, Intelligent Control Systems for Military Systems” submitted to Federal Line Item Request to Federal Agencies, December 3, 2003 - January 27, 2004, \$2.0M for 3 years.
 32. As PI for a proposal entitled, “Autonomous Intelligent Mechatronics Systems (AIMS)” submitted to Federal Line Item Request to Federal Agencies, December 9, 2002 - January 28, 2003, \$3.5M for 3 years.
 33. As PI (with Dr. Marco Schoen as Co-PI) for a proposal entitled, “Intelligent Autonomous Control Strategies for Uninhabited Combat Aerial Vehicles”, submitted to Department of Defense (DoD) EPSCoR, Idaho State University, Pocatello, September 20, 2003, \$813,773 for three years.
 34. As PI (with Dr. Marco Schoen as Co-PI) for a pre-proposal entitled, “Intelligent Control Strategies for Uninhabited Combat Aerial Vehicles”, submitted to Department of Defense (DoD) EPSCoR, ISU, Pocatello, August 11, 2003, \$750,000 for three years.
 35. As consultant to NSF proposal “Towards a Hands-On Engineering System to Facilitate Student Learning Through a Multi-Perspective Approach”, a proposal submitted by Dr. Mohamed Abdelrahman, PI, Tennessee Technological University, Cookeville, TN, 06-18-2003. Total budget \$100,000, ISU share \$2,000.
 36. As Faculty Partner (no funding) for a proposal entitled, “Track 1 GK-12: Enhancing Science Literacy in Southeastern Idaho with Community-Based Projects and University/K-12 Partnerships”, a Proposal submitted to the National Science Foundation, June 16, 2003, \$1,900,834 for 3 years. (This funding is not included in my total above)
 37. As PI (with Marco Schoen as Co-PI) for a proposal entitled, “Autonomous Intelligent Mechatronics Systems”, for infrastructure funds submitted to the Office of Research, ISU, for the Department of Defense (DoD) EPSCoR program, May 30, 2003, \$25,620.
 38. As PI for a proposal entitled, “Autonomous Intelligent Mechatronics Systems (AIMS)” to Federal Line Item Request to Federal Agencies, December 9, 2002, \$3.5M for 3 years.
 39. A joint proposal (with Jay Kunze and Gene Stuffle) entitled, “Interdisciplinary Approach to Engineering Education at Idaho State University”, submitted to The William and Flora Hewlett Foundation, October 17, 2002, \$750,000 for 3 years.
 40. As Co-PI (Dr. Marco Schoen as PI) for a proposal entitled, “Identification and Robust Control of Large Flexible Space Structures”, submitted to Department of Defense (DoD) EPSCoR, ISU, Pocatello, September 30, 2002, \$750,000 for three years.
 41. As PI for a pre-proposal entitled, “Autonomous Intelligent Mechatronics Systems”, submitted to Department of Defense (DoD) Experimental Program for Stimulation of Competitive Research (EPSCoR), July 8, 2002, \$329,000 for three years.

42. As PI for a proposal entitled, “Intelligent Strategies for HVAC Systems in Critical Building Structures”, submitted to Inland Northwest Research Alliance (INRA), Idaho Falls, ID, April 22, 2002, \$175,678 for three years.
43. As PI for a proposal entitled, “Intermountain Center for Infrastructure Security (ICIS)/Adaptive Control Umbrella for Tactical Environments (ACUTE)”, a joint proposal submitted by Idaho State University (ISU), Pocatello, Idaho, Utah State University (USU), Logan, UT, Montana State University (MSU), Bozeman, MT, and Idaho National Engineering and Environmental Laboratory (INEEL), Idaho Falls, ID, to Federal Line Item Request to Federal Agencies, February 26, 2002, \$10.1M (ISU share: \$2.0M) for 3 years.
44. As PI for a proposal entitled, “Smart Strategies for Hazardous Material Management”, a joint proposal submitted by Idaho State University (ISU), Pocatello, Idaho, Utah State University (USU), Logan, UT, and Idaho National Engineering and Environmental Laboratory (INEEL), Idaho Falls, ID, to Federal Line Item Request to Federal Agencies, January 7, 2002, \$2.0M (ISU share: \$1.3M) for 3 years.
45. As PI for a proposal entitled, “Unified Approach to H_2 and H_∞ Optimal Control Systems with State and Control Constraints”, submitted to Department of Defense (DoD) EPSCoR, ISU, Pocatello, August 31, 2000, \$335,000 for three years.
46. As PI for a pre-proposal entitled, “Unified Approach to Optimal Control Systems with State and Control Constraints”, submitted to Department of Defense (DoD) EPSCoR, ISU, Pocatello, July 7, 2000, \$326,100 for three years.
47. As PI for a proposal entitled, “Unified Approach to H_2 and H_∞ Optimal Control Systems with State and Control Constraints”, submitted to Air Force Office of Scientific Research (AFOSR), Arlington, VA, February 28, 2000, \$292,869 for three years (Jan. 1, 2001 to Dec. 31, 2003).
48. As a subcontractor with Dr. Hans Seywald, Analytical Mechanics Associates, Inc., Hampton, VA for an SBIR¹⁰ proposal entitled, “Desensitized Optimal Guidance and Control” submitted to US Air Force Research Laboratory, Wright Patterson Air Force Base, OH, January 26, 2000, ISU share is \$26,000 out of a total grant of \$100,000.
49. As Co-PI: Touraj Assefi (UI, EE), Dean B. Edwards (UI,EE), Joseph J. Feeley (UI, EE), Desineni S. Naidu (ISU, EE), and James N. Peterson (UI, EE), NASA EPSCoR Idaho Space Grant Consortium, white paper entitled, “Intelligent Fuzzy Logic Systems”, May 1, 1999, \$25,000: ISU share \$6,000.
50. As Co-PI: Stephen Parke (BSU, EE), Susan Burkett (BSU, EE), Siddhartha Duttgupta (BSU, EE), Brion Johnson (UI, EE), D. Subbaram Naidu (ISU, EE), “SBOE Technology Initiative Grant entitled, “SHort course Access to REsearch labs (SHARE): The Idaho Engineering Lab Camp Program”, March 1999, \$183,000: ISU share \$29,959 (7/1/99 - 12/31/00).

¹⁰SBIR: Small Business Innovative Research

51. as Co-PI with John Knox (ISU, PI), Jay Kunze (ISU, Co-PI), Frank Harmon (ISU, Co-PI), Maribeth Watwood (ISU, Co-PI): National Science Foundation (NSF) Proposal, “Integrated Graduate Education and Research Training Programs (IGERT)”, Sept. 8, 1997, \$2,530,000 (5 years).
52. As PI: Department of Defense (DoD) Experimental Program to Stimulate Competitive Research (EPSCoR) Proposal, “A Unified Approach to H_2 and H_∞ Optimal Control of Singularly Perturbed Systems Arising in Structures”, June 1997, \$273,740 (for 3 years).
53. As PI: Idaho State Board of Education (SBOE) proposal, “Development Design and Implementation of an Intelligent Control Framework”, December 1995, \$34,977 (for one year).
54. As PI: Idaho-NASA EPSCoR program, Moscow, ID, proposal, “A Unified Approach to H_2 and H_∞ Optimal Control of Singularly Perturbed Systems Arising in Aerospace Structures”, July 1995, \$195,100 (for three years).
55. As PI: Air Force Office of Scientific Research (AFOSR), Bolling AFO, DC, “A Unified Approach to H_2 and H_∞ -Optimal Control of Singularly Perturbed Systems Arising in Aerospace Structures”, June 1995, \$173,100 (for two years).
56. As PI: MIT/INEL University Research Consortium Prospectus, “On-Line Chemical Analysis of Mixed Waste Radioactive Streams”, April 13, 1995, \$244,000 (for 3 years).
57. As PI: State Board of Education (SBoE), Higher Education Research Council, Boise, Idaho, “Risk-Sensitive Control of Distributed Parameter Systems and Differential Games”, November, 1994, \$35,000.
58. As PI: State Board of Education (SBoE), Higher Education Research Council, Boise, Idaho, “Partially Observable Risk-Sensitive Control: Dynamic Programming Approach”, November, 1994, \$35,000.
59. As Co-PI (with Dr. Kevin L. Moore as PI): National Science Foundation (NSF), Washington, DC, Proposal, “Artificial Neural Networks for Control: Generation of Optimal Training Sets”, January 1994, \$176,390 (for 2 years).
60. :As Co-PI, and Dr. K. L. Moore as PI): National Science Foundation (NSF), Washington,DC, Proposal, “Artificial Neural Networks for Control: Analysis and Design Using Singular Perturbations and Time Scales”, January 1994, \$176,390 (for 2 years).
61. As Co-PI (and Dr. K. L. Moore as PI): Idaho–DoD EPSCoR Program, “Robust Stability and Performance for Nonlinear Feedback Control of Aerospace Vehicles”, January 1994, \$284,346 (for 3 years).
62. As Co-PI, and Dr. K. L. Moore as PI): Idaho–DoD EPSCoR Program, “Learning Control of Stochastic Systems: Complete and Partial Information”, January 1994, \$454,245 (for 3 years).
63. As Co-PI (with Dr. Kevin L. Moore as PI): Idaho–NASA EPSCoR Program, “Artificial Neural Networks for the Adaptive Control of Flexible Space Structure Systems”, July 1993, \$118,622 (for 3 years).

64. As PI (with Dr. Kevin L. Moore as Co-PI): Idaho–NASA EPSCoR Program, “Guidance and Control Strategies for Aeroassisted Mars Mission”, July 1993, \$118,622 (for 3 years).
65. As PI: Idaho Space Grant Consortium (ISGC), “Singular Perturbation Technique for the Control of Flexible Spacecraft System”, May 1993, \$12,000.
66. As Co-PI (with Dr. Kevin L. Moore as PI): Idaho–DoE EPSCoR Program, Idaho, “Intelligent Control of Multiregion Nuclear Reactors”, 1992–93, \$150,000.
67. As Co-PI: Idaho–DoE EPSCoR Program, Idaho, “Advanced Control Techniques for Nuclear Reactor Systems”, May 1992, \$45,000.
68. As Co-PI: Idaho–DoE EPSCoR Program, Idaho, “Neural Network Technology for Chemical Process Control Systems”, May 1992, \$50,000.
69. As PI: National Science Foundation (NSF), Washington, DC, “Singular Perturbations and Time Scales in Control Theory and Applications: Survey 1984-1992”, March 1992, \$41, 641
70. As Co-PI: Idaho–DoE EPSCoR Program, Idaho, “Intelligent Signal Processing with Applications to Environmental Monitoring”, May 1992, \$50,000.
71. As PI (with Dr. Kevin L. Moore as Co-PI): National Science Foundation (NSF), Washington, DC, “Artificial Neural Networks: Analysis and Design using Singular Perturbations and Time Scales”, December 1991, \$71,780.
72. As PI: State Board of Education (SBoE), Higher Education Research Council, Boise, Idaho, “Singular Perturbations and Time Scales in Nuclear Reactor Kinetics and Control”, October, 1991, \$32,599.
73. As PI: State Board of Education (SBoE), Higher Education Research Council, Boise, Idaho, ”Singular Perturbations and Time Scales in Nuclear Reactor Kinetics and Control”, October, 1990, \$33,974.

● Publications

Published/Presented over 400 items including

- 9 books: 6 authored books (2 research monographs, 3 reference books, and 1 **graduate level text book along with a solutions manual**), 1 edited book (with two contributed chapters), and 2 edited books,
- 8 articles/chapters in books,
- over 78 peer reviewed, archival journal articles,
- over 195 peer reviewed conference publications (based on full length manuscripts),
- over 110 research reports, and
- over 110 book reviews published in refereed journals and web media such as Amazon.com.

The complete list is given on request or attached separately under the List of Publications.

● Review of Proposals for Funding

(Some of the recent activities are listed below)

1. Review of the funding proposal, “Master Controller for Dispatchable Nuclear Hybrid Energy System” for the US (United States) DOE (Dept. of Energy)-NE (Nuclear Engineering) Consolidated Innovative Nuclear Research FOA (Funding Opportunity Announcement), was completed on 17 April 2019.
2. Review of the funding proposal, “Multi-Timescale Nuclear-Renewable Hybrid Energy Systems Operations to Improve Electricity System Resilience, Reliability, and Economic Efficiency” for the US (United States) DOE (Dept. of Energy)-NE (Nuclear Engineering) Consolidated Innovative Nuclear Research FOA (Funding Opportunity Announcement), was completed on 17 April 2019.
3. Review of the funding proposal, “CFA-15-8549: Information, Instrumentation and Control Systems (II&C): Computer Vision and Image Processing Technologies for Nuclear Power Plant Workers” for *Nuclear Engineering University Program (NEUP)* of the DOE-NE’s Consolidated Innovative Nuclear Research FOA (Funding Opportunity Announcement), was completed on 15 April 2015.

● Review of Book Manuscripts, or Proposals

(Some of the recent activities are listed below)

1. Review of the book proposal titled, “Handbook of Research on Human-Machine Systems”, submitted to Wiley - IEEE Press series, Hoboken, NJ, completed on 03 June 2021.
2. Review of the book proposal titled, “Artificial Intelligence for Smarter Power Systems”, submitted to IET (Institute of Engineering and Technology), London, United Kingdom (UK), completed on 25 April 2021.
3. Review of the book proposal titled, “Tactile Sensing, Skill Learning and Robotic Dexterous Manipulation”, submitted to Elsevier, Amsterdam, The Netherlands, completed on 18 August 2020.
4. Review of the book proposal titled, “Embedded Control for robotic applications”, submitted to John Wiley & Sons Publishing Company, Hoboken, NJ, completed on 26 February 2020.
5. Review of the book proposal titled, “Control Systems: Analysis and Design”, submitted to McGraw-Hill Publishing Company, New York, NY, completed on 12 December 2019.
6. Review of the book proposal titled, “IDENTIFICATION OF CONTINUOUS-TIME SYSTEMS Linear and Robust Parameter Estimation”, submitted to CRC Press (USA) of Taylor & Francis Group (UK), completed on 29 April 2019.
7. Review of the book proposal titled, “Intelligent Operation and Control of HVAC and Refrigeration Systems”, submitted to Springer, Switzerland, completed on 15 April 2019.
8. Review of the book proposal titled, “Supervisory Control and Scheduling of Resource Allocation Systems -Reachability Graph Perspective”, submitted to Wiley & IEEE Press Series on Systems Science and Engineering, completed on 25 January 2019.
9. Review of the book proposal titled, “Signal Analysis: A Concise Guide”, submitted to McGraw Hill Publishing Company, New York, NY, completed on 12 October 2018.
10. Review of the book proposal titled, “IoT and Low Power Wireless: Circuits, Architectures, and Techniques”, submitted to CRC Press Taylor & Francis Group, Boca Raton, FL, was completed on 20 June 2017.
11. Review of the book proposal titled, “Frequency Weighted Model Order Reduction”, submitted by faculty from University of Western Australia, Perth, for The Institution of Engineering and Technology (IET), London, UK, completed on 09 December 2014.
12. Reviewed book proposal manuscript titled, “Multi-Stage Flash (MSF) Desalination: Modeling, Simulation and Adaptive Control”, submitted to CRC Press, Boca Raton, FL, on 09 September, 2014.

13. Reviewed book manuscript titled, "Signals and Systems", by M. Sadiku, submitted to CRC Press, completed on 07 March 2014.
14. Reviewed manuscript titled, "Signals and Systems," by M.J. Roberts, submitted to McGraw Hill, New York, NY, completed on 26 April 2014.
15. Reviewed manuscript titled, "Nonlinear Control of Multiple Time Scale Systems," by Anshu Siddarth and John Valasek, submitted to SIAM, Philadelphia, PA, completed on 29 January, 2013.
16. Reviewed manuscript titled, "Nonlinear Control of Multiple Time Scale Systems," by Anshu Siddarth and John Valasek, submitted to Wiley, New York, NY, completed on 28 January, 2013.
17. Reviewed manuscript titled, "Nonlinear Control of Multiple Time Scale Systems," by Anshu Siddarth and John Valasek, submitted to Springer-Birkhauser, New York, NY, completed on 10 January, 2013.
18. Reviewed manuscript titled, " H_2 and H_∞ performance optimization of singularly perturbed switched systems," submitted to SIAM Journal on Control and Optimization, 02 February, 2012.
19. Reviewed manuscript proposal titled, *Control Engineering with MATLAB* for CRC Press, Boca Raton, FL. Review completed on 18 April 2011.
20. Reviewed manuscript titled, *Tensor Product (TP) Model Transformation in Polytopic Model-Based Control*, for CRC Press, Boca Raton, FL. Review completed on 02 December 2008.
21. Review of Scholarpedia article "Optimal control", completed on 16 January 2008.
22. Reviewed manuscript titled, *Control System Engineering, 5/E*, for John Wiley, New York, NY. Review completed on May 14, 2005.
23. Reviewed manuscript titled, *A Mathematical Introduction to Control Theory*, for CRC Press, Boca Raton, FL. Review completed on October 30, 2004.
24. Reviewed manuscript titled, *Chemical Process Control*, for Prentice Hall, Englewood Cliffs, NJ. Review completed on September 18, 2004.
25. Reviewed manuscript titled, *Signals and Systems*, for McGraw Hill, New York. Review completed on April 26, 2004.
26. Reviewed graduate/research level manuscript titled, *The Evolution of Feedback Control Theory - A Historical Perspective*, for John Wiley & Sons, Chichester, UK. Review completed on March 08, 2004.
27. Reviewed graduate/research level manuscript titled, *Robust Control Systems Design*, for Marcel Dekker, Inc., New York, NY. Review completed on March 24, 2003.
28. Reviewed manuscript titled, *Modern Control Systems, Ninth Edition*, by R. C. Dorf and R. H. Bishop, Prentice-Hall Inc., Upper Saddle River, NJ, 2001. Acknowledged in the preface of the book published in 2001.
29. Reviewed manuscript titled, "*Fully Tuned Radial Basis Function Neural Networks for Flight Control*", authored by N. Sundararajan, P. Saratchandran, Yan Li, The

- Kluwer International Series on Asian Studies in Computer and Information Science, Beijing, China. Review completed on December 12, 2000.
30. Reviewed manuscript titled, *Feedback in Amplifiers and Oscillators*, Addison Wesley Longman Limited, Hartlow, Essex, UK, June 1999.
 31. Reviewed manuscript titled, *Electromechanical Systems, Electrical Machines, and Applied Mechatronics*, John Wiley & Sons, Sussex, England, UK, February 26, 1999.
 32. Reviewed manuscript titled, *Engineering with MATLAB*, by J. King, Addison-Wesley Publishing, Menlo Park, CA, February 13, 1999.
 33. Reviewed manuscript titled, *Linear Systems and Signals*, Addison-Wesley Publishing Company, Menlo Park, CA, October, 1998.
 34. Reviewed manuscript titled, *Control of Linear Systems*, by J. F. Dorsey and Z. Qu, John-Wiley, April 1998.
 35. Reviewed manuscript titled, *Signals, Systems and Transforms with Applications*, Addison-Wesley Publishing Company, Menlo Park, CA, December 1997.
 36. Reviewed the manuscript titled, *Robust Model-Based Fault Diagnosis for Dynamical Systems*, J. Chen and R. J. Patton, John-Wiley, London, November 1997.
 37. Reviewed manuscript titled, *Introduction to Electrical Engineering*, Irwin/Kerns, Prentice Hall, Upper Saddle River, NJ, October 1997.
 38. Reviewed manuscript titled, *Programmable Controllers*, L. Henry and M.O'Callaghan, Addison-Wesley Longman, London, UK, July 1997.
 39. Reviewed manuscript titled, *Basic Control Systems Engineering*, by P. Lewis and C. Yang, Prentice Hall, Englewood Cliffs, NJ, 1997.
 40. Reviewed manuscript titled, *Modern Control Systems, Eighth Edition*, by R. C. Dorf and R. H. Bishop, Addison-Wesley Publishing Company, Reading, MA, January-March 1997. Acknowledged in the preface of the book published in 1998.
 41. Reviewed manuscript titled, *Signals and Systems*, Addison-Wesley Longman, Menlo Park, CA, July 1996.
 42. Reviewed manuscript titled, *Computer Controlled Systems*, John Wiley & Sons, New York, NY, December 1995.
 43. Reviewed manuscript titled, *Modeling of Biomedical Systems with Fuzzy Logic*, by A. Nebot, Springer-Verlag, New York, NY, April 1995.
 44. Reviewed final manuscript titled, *Modern Control Systems, Seventh Edition*, by R. C. Dorf, Addison-Wesley Publishing Company, Reading, MA, November 1993.
 45. Reviewed final manuscript titled, *Linear Control Systems: Analysis and Design, 4th Edition*, by D. A'zzo and C. H. Houpis, McGraw Hill, New York, November 1993.
 46. Reviewed manuscript titled, *Electrical Circuits*, by N. Balbanian, McGraw Hill, New York, NY, August 1993.

● Professional Societies/Boards/Awards/Honors

1. Invited and accepted to be a member of Editorial Board of *Current Scientific Research in Biomedical Sciences (CSRBS)*, published by Chembio Publishers, Troy, MI, USA, on 24 November 2020.
2. Invited and accepted to be Editorial Board Member of peer reviewed *Journal of Current Trends in Clinical and Biomedical Research*, (<https://katalystpub.com>), KATALYST PUBLISHING GROUP, Lawrenceville, GA, USA, on 19 May 2020.
3. Invited and accepted to serve as Guest Editor for Special Issue, “Recent Development of Intelligent Instrumentation and Control System”, for publication in the journal *Applied Sciences*, Section *Robotics and Automation*, published by MDPI¹¹, Basel, Switzerland, on 18 May 2020.
(<https://www.mdpi.com/journal/applsci/special-issues/Recent-Development-Intelligent-Instrumentation-Control-System>)
4. Invited and accepted to serve as Guest Editor for Special Issue, “Advanced Non-linear Optimal Control for Cyber, Physical, and Life Systems”, with last date for manuscript submission as 30 June 2020, for publication in the journal *Mathematics*, published by MDPI¹², Basel, Switzerland, on 07 November 2019.
(<https://www.mdpi.com/journal/mathematics/special-issues/Advanced-Nonlinear-Optimal-Control-Cyber-Physical-Life-Systems>)
5. Invited and accepted to join the Editorial Board of the technical journal, **Power Supply** of the Association of Developers, Manufacturers and Consumers of Power Supplies, Moscow, Russia, on 04 July 2018.
6. Andrew P. Sage, Heinz Unbehauen, **D.S. Naidu** and Hugues Garnier: **Series Co-Editors**, and Ganti Prasada Rao: Series Editor, *Engineering Systems and Sustainability Series*, CRC Press, A Taylor & Francis Group, London, UK, published in June, 2014, ..., 2018 to - present.
7. Served as Chair of Editorial Board for *Special Issue on Optimal Control in Diabetes* International Journal **Optimal Control: Applications & Methods**, John-Wiley, UK, January 2009 - December 2010.
8. **Elected as a Fellow** of the Institute of Electrical and Electronics Engineers (IEEE), Inc., New York, New York, USA, effective January 01, 1995. The Fellow is “*the highest grade of membership in the IEEE*” and “*one of the Institute’s most prestigious honors*” conferred on “*less than one in a thousand members of the IEEE*”. The citation of the IEEE Fellow is “*for contributions to the theory of singular perturbations in discrete-time control systems and for development of control strategies for aeroassisted orbital transfer*”. (Senior Member August 1985 - December 1989, Member April 1978-present). Dr. Naidu was the *first* IEEE Fellow in the State of Idaho.
9. Duly elected as **Fellow of the World Innovation Foundation** on 28 March, 2002, The World Innovation Foundation (WIF), Huddersfield, 1XJ, United King-

¹¹Multidisciplinary Digital Publishing Institute (MDPI)

¹²Multidisciplinary Digital Publishing Institute (MDPI)

dom. The motto of WIF is “harnessing leading edge global innovative thought for the good of all human kind in the 21st century and beyond”.

10. **Associate Fellow**, American Institute of Aeronautics and Astronautics, (AIAA), Inc., Reston, VA, USA, September 1991 - August 2008 (Senior Member July 1990, Member since September 17, 1986).
11. Membership in IEEE Control Systems Society, since April 1980 and membership in IEEE Aerospace and Electronic Systems (AES) Society since November 1988.
12. Member, Society for Industrial and Applied Mathematics (SIAM), Philadelphia, PA, November, 1999 - December 2003.
13. Member, American Society of Engineering Education (ASEE), Washington, DC, USA March 1991 - May 2014.
14. Member, National Air & Space Museum, Smithsonian Institution, Washington, DC, USA, 1992-2003.
15. Member of National Space Society (NSS), Washington, DC, USA, 1992-2003.
16. Member Sigma Xi, The Scientific Research Honor Society for Science and Engineering, Research Triangle Park, NC, USA, since April 21, 2000.
17. Member, **Pi, Beta and Tau** Society, College of Engineering, Idaho State University, Pocatello, Idaho since December 1994 and Member, **Tau, Beta, Pi** Society, College of Engineering, Idaho State University, Pocatello, Idaho since 17 January 2004.
18. Secretary/Treasurer, IEEE Idaho Section, Pocatello, ID, USA, June 1993-May 1997.
19. Registered Professional Engineer (PE), State of Idaho, No. 7568, June 1994-present.
20. Member, Executive Committee, IEEE Subsection, Kharagpur, India, during 1980-85.
21. Member, Institution of Engineers (India), Calcutta, India, during 1980-85.

● International Conferences/Workshops Committees and Other Professional Activities

1. Invited and accepted as a General Chair of 2022 7th International Conference on Intelligent Information Processing(ICIIP), hosted by Romanian-American University, Bucharest, ROMANIA, during September 29-30, 2022 in Bucharest, Romania.
2. Invited and accepted as General Chair, 2021 6th International Conference on Intelligent Information Processing (ICIIP), Bucharest, Romania, July 29-31, 2021, <http://www.iciip.hk/committee.html>
3. Invited and accepted to be a member of the Organizing Committee, International Conference on Biotechnology and Bioscience, April 22-13, 2021, Prague, Czech Republic.
4. Invited and accepted to be a member of the Organizing Committee of the 2020 Artificial Intelligence, Machine Learning And Data Science (AIMD) Conference, Bucharest, Romania, December 01-02, 2020. “We are honored to have your presence as plenary speaker and Organizing Committee Member of our conference”.
5. Invited and accepted “to be an Organizing Committee Member (OCM) and Keynote for the International Conference On Biomedical Engineering & Instrumentation which is going to be organized during November 09-10, 2020, Paris, France”.
6. Invited and accepted “In light of your greatness and your examination enthusiasm for the satisfactory field of Robotics, we would like to respect you as an Organizing Committee Member (OCM) for the 2020 World Congress on Robotics and Automation, September 23-24, 2020, San Francisco, USA”.
7. Invited and accepted as an Organizing Committee Member for the International Conference and Exhibition on Biomedical Electronics and Devices, Venice, Italy, August 13-14th, 2020
8. Invited and accepted to be a member of the International Technical Committee of the 2020 International Workshop on Industrial Informatics (IWoII 2020 www.iwoii.org), Prague, Czech Republic, June 19-21, 2020. “The conference is organized by HKSRA (Hong Kong Society of Robotics and Automation) and technical supported by many universities and institutes. All over the world are to take part in this conference, Own to your expertise, and on behalf of the organizing committee of HKSRA, we would like to invite you to join IWoII 2020 Technical Committee”.
9. Invited and accepted to be a member of Advisory Committee, Sixth International Conference on Science Technology Engineering and Mathematics (ICONSTEM-2020), March 26-27, 2020.
10. Invited and accepted to be a Member in the International Scientific Committee (IPC) of the International Conference on Mathematical Models & Computational Techniques in Science & Engineering (MMCTSE), London, UK, February 22-24, 2020.

11. Invited (and accepted) to be a member of Organizing Committee of the International Conference on *2nd World Congress on Biotechnology*, Frankfurt, Germany, 25-26 October, 2018.
12. Invited (and accepted) to be a member of Organizing Committee of the International Conference on *Biomedicine & Pharmacology*, Frankfurt, Germany, 22-23 October, 2018. A Certificate of Special Recognition was awarded for support as *Member of Organizing Committee*
13. Invited (and accepted) to be a member of INTERNATIONAL ADVISORY COMMITTEE, 1st International Conference on Advances in Engineering and Technology (ICAET) to be held at Karpagam University, Coimbatore, Tamil Nadu, India, (to be held on October 5th and 6th, 2017,) on 16 February 2017.
14. Invited (and accepted) to be a member of International Program Committee (IPC) for the fourth International Conference on Control, Decision and Information Technologies (CoDIT'17), held in Barcelona, Spain, during April 5-7, 2017.
15. Invited (and accepted) to be a member of International Advisory Committee (IAC) for the 2nd international conference Devices for Integrated Circuits (DevIC 2017), to be held at Kalyani Government Engineering College, Kalyani, West Bengal, India, from March 23-24, 2017.
16. Invited (and accepted) to serve as a member of the Editorial Board of the IET International Book Series on Sensors, The Institute of Engineering and Technology (IET), Michael Faraday House, Six Hills Way, Stevenage, Hertfordshire, SG1 2AY, UK, since 14 March 2016, (2017, 2018,) to present.
17. Invited (and accepted) to serve as member of International Advisory Editorial Board of the Journal of Russian Electrical Engineering, published by Springer, Berlin, Germany, since November 2015, 2016, 2017.
18. Invited (and accepted) to serve as member of Steering Committee of the International Conference on Trends in Automation, Communication and Computing Technologies (ITACT2015), 21st - 22nd December, 2015, Bangalore, India.
19. Invited (and accepted) to serve as member of Steering Committee of the International Conference on Industrial Instrumentation and Control (ICIC 2015), College of Engineering Pune between 28th to 30th May 2015.
20. Invited (and accepted) to serve as member of the Editorial Board of Smart Grid and Renewable Energy (SGRE) Journal, published by Scientific Research: An Academic Publisher (SCIRP), since June 2014, 2015, 2016, 2017 - present.
<http://www.scirp.org/Index.aspx>
21. Invited (and accepted) to serve as Guest Editor for the Special Issue on *Singularly Perturbed Systems* for the *Mathematical Problems in Engineering* Journal, published by Hindawi Publishing Corporation, New York, NY, on 03 December 2013.
22. Invited (and accepted) to serve on the “(new) Editorial Board of the WSEAS¹³ Transactions on Circuits and Systems”, Athens, Greece, 25 August 2013, to 2016,

¹³World Scientific and Engineering Academy and Society

- 2017 - present.
<http://www.wseas.org/cms.action?id=4>
23. Member of the Board of IUCEE (Indo US Collaboration for Engineering Education)¹⁴, June 2013, to 2016, 2017 - present.
<http://iucee.org/iucee/about.php>
 24. Invited (and accepted) to be a member of International Program Committee (IPC) for the International Conference on Engineering Education 2012 iNEER(ICEE 2012), held in Turku, Finland, during July 30 - August 3, 2012. Also reviewed five papers.
 25. Invited and accepted to serve as Associate Editor for the 2012 IEEE Multiconference on System and Control, October 3-5, 2012, Dubrovnik, Croatia, February - October, 2012.
 26. Invited and accepted to serve as a member of the Technical Program Committee (TPC), 4th International Symposium on Resilient Control Systems (ISRCS), Boise Center, Boise, ID, August 9-11, 2011.
 27. Member (by invitation) of Pocatello Rotary Club since May 2011.
 28. Invited and accepted to serve as a member of the Advisory Board, 3rd International Symposium on Resilient Control Systems (ISRCS), University Place, Idaho Falls, ID, August 10-12, 2010.
 29. Invited and accepted to serve as a member of the Advisory Board, 3rd International Symposium on Resilient Control Systems (ISRCS), University Place, Idaho Falls, ID, August 11-13, 2009.
 30. Invited and served as a member of the International Program Committee (IPC) for the 2011 Conference on Control Applications (CCA), part of the Multi-Systems Conference on Systems and Control, September 28-30, 2011 Denver, CO 80202, USA.
 31. Invited and accepted as a member of the International Program Committee (IPC), IFAC Workshop on Networked Robotics, to be held during October 6-8, 2009, Golden, Colorado USA.
 32. Member (by invitation) of the Technical Committee for Control The International Association of Science and Technology for Development (IASTED), Calgary, Canada, 14 April 2009 - 2016, – present.
 33. Participated in the Committee on Examinations for Professional Engineers (PE) workshop for Electrical Engineering for National Council of Examiners for Engineering and Surveying (NCEES), Clemson, SC, USA, July 13-14, 2001. Dr. Naidu was credited with 16 hours of direct contact Continuing Professional Competency (CPC).

¹⁴a non-profit organization established by over 150 leaders of engineering education and businesses from US and India in 2007 with the vision of IUCEE as to improve the quality and global relevance of engineering education and research in India and related benefits to US engineering educators, with focus on faculty development, student development, curriculum development, as well as improved teaching technologies & research.

34. Served as *Volunteer Question Writer* for National Council of Examiners for Engineering and Surveying (NCEES), Clemson, SC, USA, October 7, 2000.
35. Member of the Conference Editorial Board, *1993 IEEE Conference on Decision and Control (CDC)*, San Antonio, Texas, December, 1993.
36. Member of the Conference Editorial Board, *1993 American Control Conference (ACC)*, San Francisco, California, June 2–4, 1993.
37. Member of the Conference Editorial Board, *1992 IEEE Conference on Decision and Control (CDC)*, Tucson, Arizona, December, 1992.

● Editorial Boards

1. Invited and accepted to be Co-Editor-in-Chief of the journal WSEAS¹⁵ Transactions on Systems and Control, Athens, Greece, on 15 March 2020 - present.
2. Invited and accepted to be Associate Editor, WSEAS Transactions on Circuits and Systems, Athens, Greece, since 15 January, 2004, 2005 to - present
3. Invited and accepted to be Associate Editor, WSEAS Transactions on Systems and Control, Athens, Greece, since 15 May, 2005, 2005 to - present
4. Invited and accepted to be Editor-in-Chief, International Journal of Biology and Biomedical Engineering, NAUN (North Atlantic University Union), since 2019-2020, - present.
5. Member of Editorial Board of ISRN¹⁶, Biomedical Engineering Journal, published by Hindawi Publishing Corporation, New York, NY, USA, since October 2012 to 2020 - present.
<https://www.hindawi.com/>
6. Member of Editorial Board for the *Open Journal of Optimization (OJOp)*, Scientific Research Publishing, Irvine, CA, USA, December, 2012 - 2020, present.
(<http://www.scirp.org/journal/ojop/>)
7. Guest Editor, Special Issue on Optimal Control in Diabetes to be published in *Optimal Control: Applications & Methods*, Wiley & Sons, New York, NY, 2009, 2010, appeared in 2011.
8. Associate Editor, *International Journal of Information and Systems Sciences*, the Institute for Scientific Computing and Information, Edmonton, Alberta, Canada (2009 - 2020 -present).
<https://www.math.ualberta.ca/ijiss/>
9. Member of Editorial Advisory Board (1992-2001), Book Review Editor (1992 - 2009), and Associate Editor (2009-2011) *Mechatronics: The Science of Intelligent Machines, An International Journal*, Pergamon Press, Oxford, UK, April 1992 - December 2010.
10. Member (by invitation) of the Editorial Board of the Journal of Advanced Research in Dynamical and Control Systems (JARDCS) , published by the Institute of Advanced Scientific Research(IASR), a Scientific, Academic and Non-profit Organization based on Irvine, CA, U.S.A, since 07 January 2009, 2010, 2011, 2012 - 2016, 2017 present.
11. Member (by invitation) of the Editorial Board of the International Review of Automatic Control (IREACO), published by Praise Worthy Prize (PWP) Inc., 2959 Ruth Rd., Wantag, NY 11793-1055 U.S.A, since 18 April 2008, 2009, 2010, 2011, 2012, 2013, 2014 - present.
12. Participated (10th time) in the Committee on Examinations for Professional Engineers (PE) workshop for Electrical and Computer Engineering for National Council of Examiners for Engineering and Surveying (NCEES), Clemson, SC, January

¹⁵World Scientific and Engineering Academy and Society

¹⁶International Scholarly Research Network

- 28-29, 2005. Dr. Naidu was credited with 16 hours of direct contact Continuing Professional Competency (CPC).
13. Member of Editorial Board/Steering Committee of Automatic Control and Systems Engineering (ACSE) and The International Congress for Global Science and Technology (ICGSC), Tuebingin, Germany, June 2004 -2016, 2017 - present.
 14. Subject Editor for Optimal Control Theory and Applications for *International Journal of Optimal Control: Applications and Methods (OCAM)*, John Wiley & Sons, Chichester, UK during March 2009 - 2019, - present.
<https://mc.manuscriptcentral.com/ocam-wiley>
 15. Editor for Technical Notes, Book Reviews and Correspondence for *International Journal of Robust and Nonlinear Control*, John Wiley & Sons, Chichester, UK during March 1996 - 2009.
 16. Member (1995-'96), Chair (1997 - 2001) and Past Chair (2002-'03) of the IEEE Aerospace and Electronics Systems (AES) Society Committee for *Evaluation of IEEE Fellow Grade Candidates*.
 17. Member of the Technical Editorial Board and Associate Editor for Book Reviews for *IEEE Transactions on Automatic Control*, New York, NY, USA, from January 1992 to December 1999.
 18. Member of the Editorial Board of the International Journal of *Control-Theory and Advanced Technology (C-TAT)*, published by Mita Press, Tokyo, Japan, during 1991-1995.

1. Reviewer for the following journals:

- AIAA Journal of Guidance, Control, and Dynamics, USA.
- AIAA Journal of Spacecrafts and Rockets, USA.
- Applied Bionics and Biomechanics, Taylor & Francis, UK.
- ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers).
- Asian Journal of Control (ASC), China
- ASME Journal of Dynamic Systems, Measurement and Control, USA,
- ASME Journal of Manufacturing Science and Engineering, USA.
- Computers & Electrical Engineering: An International Journal, USA
- Dynamics and Control: An International Journal, USA.
- Dynamics of Continuous, Discrete and Impulsive Systems (DCDIS) Journal, Canada.
- IEEE Transactions on Automatic Control, USA.
- IEEE Transactions on Control System Technology, USA.
- IEEE Transactions on Circuits and Systems, USA.
- IEEE Transactions on Robotics and Automation, USA.
- IEEE Transactions on System, Man and Cybernetics, USA.
- IEEE Control Systems Magazine, USA.
- IEE Proceedings Control Theory and Applications, UK.
- IEE Electronics Letters: An International Publication, UK.
- IFAC Journal of Automatica, UK/USA.
- THE INTERNATIONAL JOURNAL OF ARTIFICIAL ORGANS, Milan, Italy.
- International Journal of Control, UK.
- International Journal of Modeling and Simulation, Canada.
- International Journal of Systems Science (IJSS), UK.
- International Journal of Robust and Nonlinear Control, UK.
- International Network for Engineering Education and Research (iNEER).
- Journal of Franklin Institute, USA.
- Control Theory and Advanced Technology (C-TAT), Japan.
- Journal of the Astronautical Sciences, USA.
- Journal of Intelligent & Fuzzy Systems, USA.
- Journal of Circuits, Systems and Computers, USA.
- Mechatronics: The Science of Intelligent Machines, UK.
- Nonlinear Dynamics: An International Journal of Nonlinear Dynamics and Chaos in Engineering Systems.
- Nuclear Technology: A Journal of American Nuclear Society.
- Optimal Control: Applications & Methods (OCAM), USA.
- Proceedings of the Institution of Mechanical Engineers (IMEchE): Part I: Journal of Systems and Control Engineering (JSCE)

- SIAM Journal on Control and Optimization.
- *ISRN¹⁷, Biomedical Engineering Journal, published by Hindawi Publishing Corporation, New York, NY, USA*
- *Applied Mathematics and Computation*, published by Elsevier, The Netherlands.
- Journal of Russian Electrical Engineering, Springer, Germany.
- Journal: Annual Reviews in Control, Elsevier, Amsterdam, The Netherlands.
- and others

¹⁷International Scholarly Research Network

Recent reviews for journals and/or conferences are

1. Review of the paper entitled "A single solution to the HJB equation for optimal regulation control of Euler-Lagrange systems" for the journal Cybernetics and Systems completed on 28 Jan. 2022.
2. Review of the manuscript entitled "Recent approaches on Classification and Feature Extraction of EEG Signal: A Review", for Robotica (An Official Journal of the International Federation of Robotics, published by Cambridge University Press, Cambridge, UK), completed on 01 June 2020.
3. Review of the manuscript titled, "Stability and Reachability analysis for a controlled heterogeneous population of cells", for Optimal Control, Applications and Methods (OCAM), was completed on 08 May 2020.
4. Review of the manuscript titled, "THE PROBLEM OF STARTING CONTROL WITH TWO INTERMEDIATE MOMENTS OF OBSERVATION IN THE BOUNDARY VALUE PROBLEM FOR THE HYPERBOLIC EQUATION", for Optimal Control, Applications and Methods (OCAM), completed on 02 May 2020.
5. Review of the manuscript titled, "A minimum time control problem for aerobic degradation processes in biocell composting plants" submitted for the Optimal Control Applications and Methods (OCAM) (Wiley), completed on 09 February 2020.
6. Received a certificate from International Journal on Optimal Control: Applications and Methods (OCAM), published by Wiley, New York, NY, inscribing, "GRATEFUL TO DESINENI SUBBARAM NAIDU FOR REVIEWING 11 MANUSCRIPTS IN 2019".
7. Review of the manuscript titled, "A minimum time control problem for aerobic degradation processes in biocell composting plants" submitted for the Optimal Control Applications and Methods (OCAM) (Wiley), was completed on 06 December 2019.
8. Review of the manuscript titled, "Optimal Control Analysis of an HIV/AIDS Epidemic Model with an Antiretroviral Treatment" submitted for the Optimal Control Applications and Methods (OCAM) (Wiley), was completed on 06 December 2019.
9. Review of the manuscript titled, "Novel Conditions of Euclidean Space Controllability for Singularly Perturbed Systems with Input Delay", submitted for the Numerical Algebra, Control and Optimization (NACO) of American Institute of Mathematical Sciences (AIMS), Springfield, Missouri, USA, was completed on 03 November 2019.
10. Review of the manuscript titled, "Optimal drug control in a four-dimensional HIV infection model", submitted for the Optimal Control Applications and Methods (OCAM) (Wiley), was completed on 11 October 2019.
11. Review of the manuscript titled, "The Spectral Linear Filter method for a Stochastic Optimal Control problem of Partially observable Systems", submitted for the Acta Astronautica (Elsevier), was completed on 07 October 2019.

12. Review of the manuscript titled, “Quaternion-based adaptive attitude control of asteroid-orbiting spacecraft via immersion and invariance”, submitted for the *Acta Astronautica* (Elsevier), was completed on 22 September 2019.
13. Review of the manuscript titled, “The Spectral Linear Filter method for a Stochastic Optimal Control problem of Partially observable Systems”, submitted for the *Optimal Control Applications and Methods (OCAM)* (Wiley), was completed on 20 September 2019.
14. Review of the manuscript titled, “Analytical Solutions to Aeroassisted Orbital Transfer Problem, submitted to the *IEEE Transactions on Aerospace and Electronic Systems (TAES)*, was completed on 18 September, 2019.
15. Review of the manuscript entitled “Ascent Trajectory Optimization for Air-Breathing Vehicles in Consideration of Launch Window”, submitted for the *Optimal Control Applications and Methods (OCAM)* (Wiley), was completed on 06 Sept. 2019.
16. Review of the manuscript entitled “Euler-Lagrange equation: case of energy-optimal approach for induction machine”, submitted for the *Optimal Control Applications and Methods (OCAM)* (Wiley), was completed on 04 July 2019.
17. Review of the manuscript entitled “Ascent Trajectory Optimization for Air-Breathing Vehicles in Consideration of Launch Window submitted for the *Optimal Control Applications and Methods (OCAM)* (Wiley), was completed on 04 July 2019.
18. Review of the manuscript entitled “Comparative study of optimal Long Short Term Memory Networks (LSTMs) for one day ahead solar irradiance hourly forecast”, submitted to the 6th Indian Control Conference (ICC), held during 18-20 December 2019, Indian Institute of Technology (IIT), Hyderabad, India, was completed on 26 June 2019.
19. Review of the manuscript entitled “Euler-Lagrange equation: the case of energy-optimal approach for induction machine”, submitted for the *Optimal Control Applications and Methods (OCAM)* (Wiley), was completed on 04 June 2019.
20. Review of the manuscript entitled “Angiogenic Inhibition Therapy, An Optimal Control Adventure”, submitted for the *Computer Methods and Programs in Biomedicine* (Elsevier), was completed on 31 May 2019.
21. Review of the manuscript entitled “Inverse Optimal Neural Control via Passivity Approach for Nonlinear Anaerobic Bioprocesses with Biofuels Production”, submitted for the *Optimal Control Applications and Methods (OCAM)* (Wiley), was completed on 19 Apr. 2019.
22. Review of the manuscript entitled “Inverse Optimal Neural Control via Passivity Approach for Nonlinear Anaerobic Bioprocesses with Biofuels Production for Optimal Control, Applications and Methods.”, submitted for the *Optimal Control Applications and Methods (Wiley)*, was completed on 19 Apr. 2019.
23. Review of the manuscript titled, “Optimal Feedback Control for the Hypersonic Re-Entry Problem”, submitted to *IEEE Conference on Decision and Control (CDC)*, (held in Nice, France, during December 11th-13th 2019), completed on 27 March 2019.

24. Review of the manuscript titled, “Multirate State Feedback Control Design for Three-Time-Scale System via Sequential Observer”, submitted to IEEE Transactions on Automatic Control, USA, completed on 18 March 2019.
25. Review of the manuscript, “Investigation of the Optic Nerve Head Morphology Influence to the Optic Nerve Head Biomechanics Population Specify Model”, submitted to the 41st International Engineering in Medicine and Biology Conference, to be held in Berlin, Germany from July 2327, 2019. completed on 17 March 2019.
26. Review of the manuscript entitled, “Complete Controllability Conditions for Linear Singularly Perturbed Time-Invariant Systems with Multiple Delays via Chang Type Transformation”, submitted to MDPI (Multidisciplinary Digital Publishing Institute), Basel, Switzerland, completed on 04 March 2019.
27. Review of the manuscript titled, “Distributed Control of an Uncertain Singularly Perturbed System under Communication Constraints”, submitted to European Journal of Control, Amsterdam, The Netherlands, completed on 09 February 2019.
28. Review of the manuscript entitled “On the co-infection of dengue fever and zika virus”, submitted for the Optimal Control Applications and Methods (Wiley), was completed on 07 Dec. 2018.
29. Review of the manuscript entitled “Aerodynamic Model Identification of an Autonomous Aircraft for Airborne Wind Energy”, submitted for the Optimal Control Applications and Methods (Wiley), was completed on 07 Dec. 2018.
30. Review of the manuscript entitled “Optimal Control of a Delayed SIRC Epidemic Model with Saturated Incidence Rate”, submitted for the Optimal Control Applications and Methods (Wiley), was completed on 07 Dec. 2018.
31. Review of the manuscript entitled “Dissipativity of Singularly Perturbed Lure Systems”, submitted for the IEEE Transactions on Circuits and Systems II: Express Briefs, was completed on 18 November 2018.
32. Review of the manuscript entitled, “Optimal Control of Immunosuppressants in Renal Transplant Recipients Susceptible to BKV Infection”, for the Optimal Control Applications and Methods (Wiley), was completed on 02 Nov. 2018.
33. Review of the manuscript entitled, “Optimal Control of a Delayed SIRC Epidemic Model with Saturated Incidence Rate”, submitted for Optimal Control Applications and Methods (Wiley), was completed on 02 Nov. 2018.
34. Review of the manuscript titled, “Feedback stabilization of discrete time singularly perturbed systems with communication constraints”, submitted to Asian Journal of Control, published by John Wiley & Sons, Inc, USA, was completed on 15 October 2018.
35. Review of the manuscript titled, “Dissipativity of Singularly Perturbed Lure Systems” for the IEEE Transactions on Circuits and Systems II: Express Briefs, was completed on 05 October 2018.
36. Review of the manuscript titled, “Energy-optimal approach for induction machine based on a comprehensive dynamic modeling and parameters estimation”, for

- International Journal of **Adaptive Control and Signal Processing (ACSP)**, Wiley, was completed on 18 August 2018.
37. Review of the manuscript # Sensors-22982-2018 entitled “Online Surge Detection Method Based on Axial Displacement Sensor of MSCC”, submitted to the IEEE Sensors Journal, was completed on 15 August 2018.
 38. Review of the manuscript titled, *Surface electromyography during isometric contractions: assessment of the low-frequency spectral content*, submitted to the journal, **Computers in Biology and Medicine**, ELSEVIER, was completed on 31 July 2018.
 39. Review of the manuscript titled “*Surface electromyography: a frequency content analysis*”, submitted to *Computers in Biology and Medicine*, published by Elsevier, was completed on 30 March 2018.
 40. Review of the manuscript titled “*Interval Quadratic Regulator Control and Its Application for Speed Control of DC Motor with Interval Uncertainties*”, for *Optimal Control Applications and Methods (OCAM)*, Wiley International Journal, was completed on 09 March 2018.
 41. Review of the manuscript titled “*A note on the sufficiency of the maximum principle for infinite horizon optimal control problems*”, for *Optimal Control Applications and Methods (OCAM)*, Wiley International Journal, was completed on 02 March 2018.
 42. Review of the manuscript titled, “*Repeatability of EMG activity during exoskeleton assisted walking in children with cerebral palsy: implications for real time adaptable control*”, submitted to the 40th International Engineering in Medicine and Biology Conference (EMBC), organized by the IEEE Engineering in Medicine and Biology Society, held in Honolulu, Hawaii, July 17-21, 2018, was completed on 28 February, 2018.
 43. Review of the manuscript titled, “*Design of a Passive Sit-to-Stand In-Home Body Weight Support System*”, submitted to the 40th International Engineering in Medicine and Biology Conference (EMBC), organized by the IEEE Engineering in Medicine and Biology Society, held in Honolulu, Hawaii, July 17-21, 2018, was completed on 28 February, 2018.
 44. Review report on Research Article titled “*Tensor Product Based Algebraic Approach for the Optimization of Nonlinear Singularly Perturbed Systems*”, submitted to the Journal of Complexity, Hindawi Publishers, London, UK, was completed on 22 February 2018.
 45. Review of the revised manuscript titled “*PID Controller singularly perturbing impulsive differential equations and optimal control problem*”, for the Journal of Mathematical Problems in Engineering, Hindawi Publishing Corporation, New York, NY 10017, USA, was completed on 08 September 2017.
 46. Review of the manuscript entitled “*Controller Design for Personalized Drug Administration in Cancer Therapy: Successive Approximation Approach*”, submitted to Optimal Control, Applications and Methods (OCAM)-Wiley International Journal, was completed on 29 September 2017.

47. Review of the manuscript entitled “Insulin Injections and Exercise Scheduling for Diabetics: An Optimal Control Model”, submitted to Optimal Control, Applications and Methods (OCAM)-Wiley International Journal, was completed on 29 September 2017.
48. Review of the manuscript titled “PID Controller singularly perturbing impulsive differential equations and optimal control problem”, for the Journal of Mathematical Problems in Engineering, Hindawi Publishing Corporation, New York, NY 10017, USA, was completed on 08 September 2017.
49. Review of the manuscript entitled, “Title: Tutorial and review on the state-dependent Riccati equation”, submitted to Journal: Annual Reviews in Control - Elsevier, was completed on 03 July 2017.
50. Review of the manuscript entitled “Partially observed time-inconsistent stochastic linear-quadratic control with random jumps”, submitted to Optimal Control, Applications and Methods (OCAM)-Wiley International Journal, was completed on 02 June 2017.
51. Review of the manuscript entitled “Cooperative receding horizon strategies for the multi-vehicle routing problem for Optimal Control”, submitted to Optimal Control, Applications and Methods (OCAM)-Wiley International Journal, was completed on 02 June 2017.
52. Review of the manuscript entitled “Combination of optimal control approaches for aircraft conflict avoidance via velocity regulation”, submitted to Optimal Control, Applications and Methods (OCAM)-Wiley International Journal, was completed on 26 May 2017.
53. Review of the manuscript entitled “Insulin Injections and Exercise Scheduling for Diabetics: An Optimal Control Model”, submitted to Optimal Control, Applications and Methods (OCAM)-Wiley International Journal, was completed on 26 May 2017.
54. Review of the manuscript entitled “An Optimal Algorithm for Resilient Upgrade of PMU Networks”, submitted to Resilience Week 2017: ICS/SCADA¹⁸ and Cyber Security across Critical Infrastructure, held in Wilmington, Delaware, USA, during September 18-22, 2017, was completed on 26 May 2017.
55. Review of the manuscript entitled “Electricity Distribution System Resilient Control System Metrics”, submitted to Resilience Week 2017: ICS/SCADA and Cyber Security across Critical Infrastructure, held in Wilmington, Delaware, USA, during September 18-22, 2017, was completed on 26 May 2017.
56. Review of the manuscript titled, “Modeling Ebola Virus Disease Outbreak from Dec-2014 to Nov-2015 in Sierra Leone”, submitted to Optimal Control for Optimal Control, Applications and Methods (OCAM) published by Wiley International Journal, was completed on 23 April 2017.
57. Review of the manuscript entitled, “Nonlinear control systems: A brief overview of historical and recent advances” for possible publication in *Nonlinear Engineering*

¹⁸ICS: Industrial Control Systems; SCADA: Supervisory Control and Data Acquisition

- Modeling and Application (NLENG)*, published by Walter de Gruyter GmbH, was completed on 19 April 2017.
58. Review of the article entitled, “A comparative Study of Soft Computing Methods to solve inverse kinematics problem”, for possible publication by the *Journal of Robotics and Autonomous Systems*-Elsevier, was completed on 05 April 2017.
 59. Review of the article entitled “Indirect optimal approach applied to H1N1 spread through Moroccan regions”, submitted to be considered for publication in the International Journal of Modelling, Identification and Control (IJMIC), was completed on 05 April 2017.
 60. Review of the manuscript entitled “Analysis of Statistical Time Domain Features Effectiveness in Identification of Bearing Faults from Vibration Signal”, for the IEEE Sensors Journal, was completed on 05 March 2017.
 61. Review of the manuscript entitled “Nonlinear control systems: A brief overview of historical and recent advances”, for Nonlinear Engineering Modeling and Application, De Gruyter Publishing Company, Berlin, Germany, was completed on 27 February 2017.
 62. Review of the manuscript titled, “Optimization Design of T-S cloud reasoning network and Application Research on Flatness Control System”, for the International Journal Optimal Control: Applications and Methods (OCAM), was completed on 02 December 2016.
 63. Review of the manuscript titled, “Indefinite LQ Optimal Control for Discrete-Time Uncertain Systems”, for the International Journal Optimal Control: Applications and Methods (OCAM), was completed on 02 December 2016.
 64. Review of the manuscript titled, “Comparison on Wavelets Techniques for Solving Fractional Optimal Control Problems”, for the International Journal Optimal Control: Applications and Methods (OCAM), was completed on 02 December 2016.
 65. Review of the manuscript titled, “Cooperative receding horizon strategies for the multi-vehicle routing problem”, for the International Journal Optimal Control: Applications and Methods (OCAM), was completed on 02 December 2016.
 66. Review of the manuscript titled, “Robust Optimal Attitude Controller for MIMO Uncertain Hexarotor MAVs: Disturbance Observer-based”, for the International Journal Optimal Control: Applications and Methods (OCAM), was completed on 02 December 2016.
 67. Review of the manuscript titled, “Stability Analysis of a General Class of Hybrid Singularly Perturbed Systems”, submitted to IEEE Transactions on Automatic Control (TAC), we completed on 14 September 2016.
 68. Review of Research Article 5626148 titled “Asymptotic Solution for a Class of Linear Singularly Perturbed Optimal Control Problem”, for the Journal Discrete Dynamics in Nature and Society, Hindawi Publishing Corporation, was completed on 10 May 2016.
 69. Review of the revised manuscript entitled, “Measurement Sensitivity Analysis of Information Embedded Power Systems using ABCD Matrices”, submitted to 2016

- Resilience Week: Transforming the Resilience of Cognitive and Cyber-Physical System, to be held in Chicago, IL, during 16-18, August 2016, was completed on 10 May 2016.
70. Review of the revised manuscript entitled, “Testbed-based Performance Evaluation of Attack-Resilient Control for AGC”, submitted to 2016 Resilience Week: Transforming the Resilience of Cognitive and Cyber-Physical System, to be held in Chicago, IL, during 16-18, August 2016, was completed on 10 May 2016.
 71. Review of the revised manuscript, “Angular Rate Damping Algorithm of the SamSat-218D Nanosatellite”, submitted to 2016 IEEE 17th International Power Electronics and Motion Control Conference (PEMC), to be held in VARNNA, BULGARIA, during 25 to 30, September 2016, was completed on 10 March 2016.
 72. Review of the revised manuscript, “Position Control of a Robotic Catheter using Experimentally-based Kinematic model”, for the Intl. Journal of Mechatronics: The Science of Intelligent Machines (Elsevier, UK), was completed on 08 March 2016.
 73. Review of the manuscript entitled, “Controller Design for a Class of Nonlinear Fractional-order Systems”, submitted to the International Journal on Chaos, Solitons & Fractals, published by Elsevier, Oxford, UK, was completed on 18 January 2016.
 74. Review of the manuscript entitled “Necessary Conditions for Control Effort Minimization of Euler-Lagrange Systems”, submitted to AIAA Journal of Guidance, Control, and Dynamics, was completed on 11 December 2015.
 75. As member of International Advisory Editorial Board of Journal of Russian Electrical Engineering, Review of the manuscript titled “Modeling of a Directly Coupled PV Water Pumping System using Soft Computing techniques” was completed on 26 November 2015.
 76. Review of the manuscript, “Immune Therapy using Optimal Control with L1 Type Objective”, submitted to 2016 American Control Conference (ACC), July 6-8, 2016, Boston, MA, was completed on 04 November 2015.
 77. Review of the manuscript “OCAM-14-0093.R1A grid-based tool for optimal performance monitoring of a glycemc regulator” for Optimal Control, Applications and Methods (OCAM), Wiley International Journal, on 18 October 2015.
 78. Review of the manuscript, “Position Control of a Robotic Catheter using Experimentally-based Kinematic model”, for the Intl. Journal of Mechatronics: The Science of Intelligent Machines (Elsevier, UK), was completed on 08 October 2015.
 79. Review of the manuscript titled, “Observer Design for Singularly Perturbed Systems with Multirate Sampled and Delayed Measurements”, submitted to ASME Journal of Dynamic Systems, Measurement and Control, was completed on 06 September 2015.
 80. Review of the manuscript entitled, “Control of a Solid Oxide Fuel Cell / Gas microTurbine hybrid system using a unique power converter for rural microgrid integration”, submitted to Energy Conversion and Management (Elsevier), was completed on 19 July 2015.

81. Review of a manuscript entitled, “A Novel Approach to Exact Slow-Fast Decomposition of Linear Singularly Perturbed Systems with Small Delays” , submitted to SIAM Journal of Control and Optimization, was completed on 17 July 2015.
82. Review of a manuscript entitled “ review of a manuscript entitled Demand-supply Balancing using Multi-agent System for Bus-oriented Microgrids”, submitted to International Symposium on Resilient Control Systems of 2015 Resilience Week, Philadelphia, PA, August 18 - 20, 2015, was completed on 05 June 2015.
83. Review of a manuscript entitled “Exploratory Analysis of Modbus and general IT network flows in Water SCADA System”, submitted to International Symposium on Resilient Control Systems of 2015 Resilience Week, Philadelphia, PA, August 18 - 20, 2015, was completed on 05 June 2015.
84. Review of the manuscript, “ELL-2015-0854.R1 ’New Method for Accurate Prediction of CO2 in the Smart Home calculated from the temperature and relative humidity”, submitted to IET Electronic Letters, was completed on 28 May 2015.
85. Review of the manuscript, “Blood Glucose Regulation of Type 1 Diabetes Mellitus Using SDRE-SMC Approach for Optimal Control, Applications and Methods”, submitted to Wiley International Journal *Optimal Control: Applications and Methods*, was completed on 30 April 2015.
86. Review of the manuscript, “STATISTICAL ANALYSIS OF WIND CHARACTERISTICS AND WIND ENERGY POTENTIAL IN HONG KONG”, submitted to *Energy Conversion and Management*, was completed on 29 April 2015.
87. Review of the manuscript, “Design and analysis of different types of rotors for Pico-turbine”, submitted to *Smart Grid and Renewable Energy*, Scientific Research Publishing Inc, was completed on 28 April 2015.
88. Review of the manuscript, “An analytical approach to optimal control of nonlinear systems with input constraints, submitted to *ASME Journal of Dynamic Systems, Measurement and Control*, was completed on 24 April 2015.
89. Review of the proposal, “CFA-15-8549: Information, Instrumentation and Control Systems (II&C): Computer Vision and Image Processing Technologies for Nuclear Power Plant Workers” for *Nuclear Engineering University Program (NEUP)* of the DOE-NE’s Consolidated Innovative Nuclear Research FOA (Funding Opportunity Announcement), was completed on 15 April 2015.
90. Review of the manuscript, “A Multi - Agent Decentralized Energy Management System based on Distributed Intelligence for the design and control of Autonomous Polygeneration Microgrids”, submitted to *Energy Conversion and Management (Elsevier)*, was completed on 01 April 2015.
91. Review of the manuscript, “Chang Transformation for Decoupling of Singularly Perturbed Linear Time-Varying Systems”, submitted to the *IEEE Transactions on Automatic Control*, was completed on 01 April 2015.
92. Review of the manuscript, “A grid-based tool for optimal performance monitoring of a glycemic regulator”, submitted to the *International Journal - Optimal Control: Applications and Methods (Wiley International Journal)*, was completed on 25 March 2015.

93. Review of the manuscript, “MPPT OF MAGNUS WIND SYSTEM”, submitted for publication in *Journal of Wind Energy* published by Hindawi Publishing Corporation, was completed on 17 March 2015.
94. Review of the manuscript, “Robust state estimation for Singularly Perturbed Systems”, submitted for publication in *IET (Institution of Engineering and Technology, London, UK) Control Theory and Applications (CTA)*, was completed on 02 February 2015.
95. Review of the manuscript, “Maximum principle for optimal control of anticipated forward backward stochastic differential delayed systems with regime-switching”, submitted for possible publication in *Optimal Control: Applications and Methods*, was completed on 19 December 2014.
96. Review of the manuscript, “Quadratic and linear controls developing an optimal treatment for the use of BCG immunotherapy in superficial bladder cancer”, submitted for possible publication in *Optimal Control: Applications and Methods*, was completed on 19 December 2014.
97. Review of the manuscript, entitled “Solving boundary value problems for second order singularly disturbed delay differential equations by e-approximate fixed-point method”, for *Mathematical Modelling and Analysis*, was completed on 09 December 2014.
98. Review of the manuscript, “Linear quadratic based optimal current control of BLDC motor minimizing control error and considering accurate finite element model”, submitted for possible publication in *Optimal Control: Applications and Methods*, was completed on 20 November 2014.
99. Review of the manuscript entitled “Singular Perturbation Margin and Generalized Gain Margin for Nonlinear Time-Invariant Systems” for the *International Journal of Control*, completed on 08 November 2014.
100. Reviewed the manuscript, “Spatial Statistical Point Prediction Guidance For Heating-Rate-Limited Aeroassisted Orbital Transfer”, submitted to *Acta Astronautica* (Elsevier), on 15 October 2014.
101. Review of the manuscript, “Attitude Control of Full Vehicle using Variable Stiffness Suspension Control”, submitted for possible publication in *Optimal Control: Applications and Methods*, was completed on 14 October 2014.
102. Review of the manuscript, “Robust Hybrid EKF Approach for State Estimation in Multi-Scale Nonlinear Singularly Perturbed Systems”, submitted for possible presentation at the Conference on Decision and Cocontrol (CDC), to be held at Los Angeles, California, USA during December 15-17, 2014, was completed on 29 April 2014.
103. Review of the manuscript, “RPA-14-6286: A Novel Framework for Prognostics-Enhanced Resilience Design for Nuclear Power Plants Control Systems” in performing peer reviews for the FY14 CINR (NEUP/NEET)¹⁹ FOA²⁰ Pre-Applications, was completed on 20 January, 2014.

¹⁹Nuclear Energy University Programs (NEUP) and Nuclear Energy Enabling Technologies (NEET).

²⁰Funding Opportunity Announcement

104. Review of the manuscript titled, “A Magnetic Levitation System for Advanced Control Education”, submitted to *The 19th World Congress of the International Federation of Automatic Control (IFAC)*, Cape Town, South Africa, during 24-29 August 2014, was reviewed on 20 January, 2014.
105. Review of the manuscript, “RPA-14-6286: A Novel Framework for Prognostics-Enhanced Resilience Design for Nuclear Power Plants Control Systems” in performing peer reviews for the FY14 CINR (NEUP/NEET)²¹ FOA ²² Pre-Applications, was completed on 20 January, 2014.
106. Review of the manuscript titled, “Contact positions estimation of sensing structure using adaptive neuro-fuzzy inference system”, submitted to the *International Journal on Neurocomputing*, published by Elsevier, was reviewed on 06 December, 2013.
107. Review of the manuscript titled, “Teaching an Analytical or a Programming Engineering Course with the IPython Notebook”, submitted to International Conference on Transformations in Engineering Education (ICTIEE) co-organized with IUCEE (Indo US Collaboration for Engineering Education’ to be held at BVB College of Engineering and Technology, in Hubli, Karnataka, India on January 16-18, 2014, was reviewed on 26 November, 2013.
108. Review of the manuscript titled, “A PRAGMATIC INCLUSIVE APPROACH TOWARDS A SUSTAINABLE TRANSFORMATION IN ENGINEERING EDUCATION”, submitted to International Conference on Transformations in Engineering Education (ICTIEE) co-organized with IUCEE (Indo US Collaboration for Engineering Education’ to be held at BVB College of Engineering and Technology, in Hubli, Karnataka, India on January 16-18, 2014, was reviewed on 26 November, 2013.
109. Review of the manuscript titled, “PROMINENT ASSESSMENT OF STUDENTS LEARNING AND STATISTICAL ANALYSIS OF QUIZZES”, submitted to International Conference on Transformations in Engineering Education (ICTIEE) co-organized with IUCEE (Indo US Collaboration for Engineering Education’ to be held at BVB College of Engineering and Technology, in Hubli, Karnataka, India on January 16-18, 2014, was reviewed on 26 November, 2013.
110. Review of the manuscript titled, “High-order sliding mode design based on geometric homogeneity and fast terminal sliding mode”, submitted to WSEAS²³ Transactions on SYSTEMS and CONTROL, was reviewed on 24 October, 2013.
111. Review of the manuscript titled, “Slow and Fast Dynamics of a Natural Gas Hydrogen Reformer”, submitted to *International Journal of Hydrogen Energy*, published by Elsevier, was completed on 26 June 2013.
112. Review of the manuscript titled, “Slip effects on pulsatile flow of blood through a stenosed arterial segment under periodic body acceleration”, submitted to *ISRN*²⁴,

²¹Nuclear Energy University Programs (NEUP) and Nuclear Energy Enabling Technologies (NEET).

²²Funding Opportunity Announcement

²³World Scientific and Engineering Academy and Society

²⁴International Scholarly Research Network

Biomedical Engineering Journal, published by Hindawi Publishing Corporation, New York, NY, USA, was completed on 26 June 2013.

113. Review of the manuscript titled, "ASYMPTOTIC SOLUTION OF A LINEAR-QUADRATIC PROBLEM WITH DISCONTINUOUS COEFFICIENTS AND CHEAP CONTROL", submitted to *Applied Mathematics and Computation*, published by Elsevier, was completed on May 31, 2013.
114. Review of the manuscript titled, "0.5V Cardiac Sense Amplifier Realization Using Log-Domain Filtering", submitted to *ISRN²⁵, Biomedical Engineering Journal*, published by Hindawi Publishing Corporation, New York, NY, USA, was completed on 28 May 2013.
115. Review of the manuscript titled, "Fuzzy Controller Design for Refrigerators", submitted to *International Journal of Refrigeration*, Elsevier, was completed on 29 December, 2012.
116. Review of the manuscript titled, "Optimal Guaranteed Cost Control of Nonlinear Time-Varying Delay Systems via Static Output Feedback for Optimal Control", submitted to the Intl. Journal: *Optimal Control: Applications & Methods*, was completed on December 21, 2012.
117. Review of the manuscript titled, "Necessary and sufficient conditions of optimality for an optimal control problem with nonlocal boundary conditions and quadratic functional", submitted to the Intl. Journal: *Optimal Control: Applications & Methods*, was completed on November 24, 2012.
118. Review of the manuscript titled, "Approximately Optimal Trajectory Tracking for Continuous Time Nonlinear Systems", submitted to *2013 American Control Conference (ACC)*, was completed on November 13, 2012.
119. Review of the manuscript titled, "Robust sampled-data H_∞ control of uncertain singularly perturbed systems using time-dependent Lyapunov functionals", submitted to *SIAM Journal on Control and Optimization*, was completed on August 28, 2012.
120. Review of the manuscript titled, "MULTICRITERIA ANALYSIS OF AN L1 ADAPTIVE FLIGHT CONTROL SYSTEM", submitted to *Proceedings of the Institution of Mechanical Engineers, Part I, Journal of Systems and Control Engineering*, was completed on June 8, 2012
121. As Associate Editor for 2012 IEEE Multiconference on System and Control, to be held in October 3-5, 2012, Dubrovnik, Croatia, conducted review for 3 conference papers during February - April, 2012.
122. Review of the manuscript titled, " H_2 and H_∞ performance optimization of singularly perturbed switched systems," submitted to *SIAM Journal on Control and Optimization*, completed on 02 February, 2012.
123. Review of the manuscript *Model-based robust temperature control for VAV air-conditioning system*, submitted to *ASHRAE²⁶* completed on 23 November, 2011

²⁵International Scholarly Research Network

²⁶American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.

124. Review of the manuscript *Tracking Control Design for Non-Standard Nonlinear Singularly Perturbed Systems*, submitted to the 2012 American Control Conference (ACC), Fairmont Queen Elizabeth, Montral, Canada, June 27-June 29, 2012, was completed on November 08, 2011.
125. Review of the manuscript *Feedback Control of a Rotary Left Ventricular Assist Device Supporting a failing Cardiovascular System*, submitted to the 2012 American Control Conference (ACC), Fairmont Queen Elizabeth, Montral, Canada, June 27-June 29, 2012, was completed on November 08, 2011.
126. Review of the revised manuscript *A novel hybrid controller for a direct expansion air conditioning system to simultaneously control indoor air temperature and humidity*, submitted to Energy Conversion and Management, was completed on October 19, 2011.
127. Review of the revised manuscript *NEW OPTIMUM HUMANOID HAND DESIGN FOR PROSTHETIC APPLICATIONS*, submitted to the THE INTERNATIONAL JOURNAL OF ARTIFICIAL ORGANS (IJAO), Milan, Italy, was completed on October 06, 2011.
128. Review of the manuscript *Optimizing a class of non-standard nonlinear singularly perturbed systems using SDRE technique* submitted to Mathematical and Computer Modelling (Elsevier Publishers), was completed on August 31, 2011.
129. Review of the manuscript *NEW OPTIMUM HUMANOID HAND DESIGN FOR PROSTHETIC APPLICATIONS*, submitted to the THE INTERNATIONAL JOURNAL OF ARTIFICIAL ORGANS (IJAO), Milan, Italy, was completed on May 30, 2011.
130. Review of the manuscript *Fuzzy Guaranteed Cost Tracking Control for A Flexible Air-breathing Hypersonic Vehicle*, submitted to the IET Control Theory and Applications (UK), was completed on May 02, 2011.
131. Review of the manuscript *3D Path Planning in a Threat Environment*-Paper No. 383, by Boris Miller, Karen Stepanyan, Alexander Miller, Mikhail Andreev, submitted to the 50th IEEE Conference on Decision and Control and European Control Conference, Orlando, FL, USA, during December 12-15, 2011, completed on 27 April 2011.
132. Review of the manuscript *On the Robustness of the SDRE Method used to Design the Control System and Observer for a Satellite Attitude Simulator*-Paper No. 1824, by Luiz Carlos Gadelha DeSouza, the 50th IEEE Conference on Decision and Control and European Control Conference, Orlando, FL, USA, during December 12-15, 2011, completed on 27 April 2011.
133. Review of the manuscript *Optimal control in an HIV infection model* submitted to IET Control Theory & Applications, completed on June 09, 2010.
134. Review of the manuscript *Oscillatory Tracking Control of Second-Order Systems* submitted to ASME Journal of Dynamic Systems, Measurement, and Control (DSMC), completed on 02 June 2010.
135. Review of the manuscript *Fractional Calculus, Delay Dynamics and Networked Control Systems* submitted to 3rd International Symposium on Resilient Control

- Systems (ISRCS), August 10-12, 2010, in Idaho Falls, ID, completed on 27 May 2010.
136. Review of the manuscript *Notional Examples and Benchmark Aspects Of a Resilient Control System* submitted to 3rd International Symposium on Resilient Control Systems (ISRCS), to held during August 10-12, 2010, in Idaho Falls, ID, completed on 27 May 2010.
 137. Review of the manuscript *Towards Resilient Multicore Architectures for Real-time Controls* submitted to 3rd International Symposium on Resilient Control Systems (ISRCS), to held during August 10-12, 2010, in Idaho Falls, ID, completed on 27 May 2010.
 138. Review of the manuscript *A Vision-Based Adaptive Guidance Law for Intercepting a Maneuvering Target* submitted to The Institution of Engineering and Technology (IET) Control Theory & Applications, completed on 27 May 2010.
 139. Review of the manuscript *A Soft Body Under-actuated Approach to Multi Degree of Freedom Biomimetic Robots: A stingray example* submitted to The third IEEE RAS / EMBS International Conference on Biomedical Robotics and Biomechanics BioRob 2010,, to be held in Tokyo, Japan, during September 26-29, 2010, completed on 23 May 2010.
 140. Review of the manuscript *Automatic Segmentation of Conductivity Changes in Electrical Impedance Tomography Images* submitted to 32nd Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC) “Merging Medical Humanism and Technology”, to be hled during August 31 - September 4, 2010, at Buenos Aires Sheraton Hotel, Buenos Aires, Argentina, completed on 15 May 2010.
 141. Review of the manuscript *A 64-Channel Readout ASIC for Nanowire Biosensor Array with Electrical Calibration Scheme* submitted to 32nd Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC) “Merging Medical Humanism and Technology”, to be hled during August 31 - September 4, 2010, at Buenos Aires Sheraton Hotel, Buenos Aires, Argentina, completed on 15 May 2010.
 142. Review of the manuscript *Towards a closed-loop system for stimulation and recording: an in vitro approach with embryonic cardiomyocytes* submitted to 32nd Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC) “Merging Medical Humanism and Technology”, to be hled during August 31 - September 4, 2010, at Buenos Aires Sheraton Hotel, Buenos Aires, Argentina, completed on 15 May 2010.
 143. Review of the manuscript *A capacitive ECG array with visual patient feedback* submitted to 32nd Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC) “Merging Medical Humanism and Technology”, to be hled during August 31 - September 4, 2010, at Buenos Aires Sheraton Hotel, Buenos Aires, Argentina, completed on 15 May 2010.
 144. Review of the manuscript *AC BIOSUSCEPTOMETRY AS A METHOD FOR MEASURING GASTRIC CONTRACTION* submitted to 32nd Annual International Conference of the IEEE Engineering in Medicine and Biology Society

- (EMBC) “Merging Medical Humanism and Technology”, to be held during August 31 - September 4, 2010, at Buenos Aires Sheraton Hotel, Buenos Aires, Argentina, completed on 15 May 2010.
145. Review of the manuscript *he Telemetric and Holter ECG Warehouse Initiative (THEW): a Data Repository for Quantitative Electrocardiography and Cardiac Safety* submitted to 32nd Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC) “Merging Medical Humanism and Technology”, to be held during August 31 - September 4, 2010, at Buenos Aires Sheraton Hotel, Buenos Aires, Argentina, completed on 15 May 2010.
 146. Review of the manuscript *50 years Research on Surgical Lasers: Reviewing the Patent-trail towards the modern Operating Room* submitted to 32nd Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC) “Merging Medical Humanism and Technology”, to be held during August 31 - September 4, 2010, at Buenos Aires Sheraton Hotel, Buenos Aires, Argentina, completed on 15 May 2010.
 147. Review of the manuscript, *Optimal Operating Conditions for a Batch Fluidized Bed Dryer*, submitted to IET Control Theory & Applications-UK, completed on 24 November, 2009.
 148. Review of the manuscript, *Solving the Singularly Perturbed Matrix Differential Riccati Equation: A Lyapunov Equation Approach*, submitted to the 201 American Control Conference, completed on 09 November, 2009.
 149. Review of the manuscript, *Subsystem Level Optimal Control and Filtering of Non-Classically Damped Matrix Second-Order Linear Mechanical Stochastic Systems*, submitted to the ASME Journal of Dynamic Systems, Measurement and Control, completed on 08 September, 2009.
 150. As Associate Editor, the review of the manuscript entitled, *Sliding Mode Attitude Control with L2-gain Performance and Vibration Reduction of Flexible Spacecraft with Actuator Dynamics*, submitted to Mechatronics: The Science of Intelligent Machines - A Journal of IFAC, the International Federation of Automatic Control, completed on 08 September, 2009.
 151. As Associate Editor, the review of the manuscript entitled, *On Constraints to Synthesize Feedback Control Loop for Active Maglev Bearing Systems*, submitted to Mechatronics: The Science of Intelligent Machines - A Journal of IFAC, the International Federation of Automatic Control, completed on 03 September, 2009.
 152. Review of the manuscript, *Low-Thrust Analytical Optimal Guidance Scheme for Orbital Maneuver*, submitted to the Proceedings of the Institution of Mechanical Engineers, Part I, Journal of Systems and Control Engineering., completed on 22 August 2009.
 153. As Associate Editor, the review of the manuscript entitled, *On-line optimal tracking control of continuous-time systems*, submitted to Mechatronics: The Science of Intelligent Machines - A Journal of IFAC, the International Federation of Automatic Control, completed on 14 July 2009.
 154. Review of the manuscript, *Phase-Space Reconstruction: a Path Towards the Next Generation of Nonlinear Differential Equation Based Models and Its Implications*

- Towards Non-Uniform Sampling Theory*, submitted to the ISRCS 2009 2nd International Symposium on Resilient Control Systems August 11-13, 2009, Idaho Falls, Idaho, completed on 01 July 2009.
155. Review of the manuscript, *A Passivity-Based Framework for Resilient Cyber Physical Systems*, submitted to the ISRCS 2009 2nd International Symposium on Resilient Control Systems August 11-13, 2009, Idaho Falls, Idaho, completed on 01 July 2009.
 156. Review of the manuscript, *DISCRETE-MODEL IDENTIFICATION FOR NON-LINEAR LASER WELDING PROCESS*, submitted to the ASME Journal of Dynamic Systems, Measurement and Control, completed on 01 July 2009.
 157. Review of the manuscript, *Extreme Point Result for Robust Stability of Interval Polynomials to the Special Left Sector*, submitted to the ISRCS 2009 2nd International Symposium on Resilient Control Systems August 11-13, 2009, Idaho Falls, Idaho, completed on 29 June 2009.
 158. Review of the manuscript, *Orthogonal Functions Approach to Analysis of Linear Optimal Control Systems Incorporating Observers*, submitted to the INTERNATIONAL JOURNAL OF Systems, Control and Communications (IJSCC), completed on 29 June 2009.
 159. Review of the manuscript, *Extreme Point Result for Robust Stability of Interval Polynomials to the Special Left Sector*, submitted to the 2nd International Symposium on Resilient Control Systems (ISRCS), August 11-13, 2009, completed on 13 June 2009.
 160. Review of the manuscript, *Epidemic Synchronization in Robotic Swarms*, submitted to 2009 IFAC Workshop on Networked Robotics (NetRob 2009) to be held in Golden, CO, October 6-8, 2009, completed on 29 May 2009, completed on 01 June 2009
 161. Review of the manuscript of the revised version of, *Optimal Operating Conditions for a Batch Fluidized Bed Dryer*, submitted to IET Control Theory & Applications (UK), completed on 29 May 2009.
 162. Review of the manuscript, *Tracking Control of a VTOL Aircraft with Delayed Roll Angle Measurement and without Roll Rate Measurement*, submitted to the journal: IET Control Theory & Applications (UK), completed on 29 May 2009.
 163. Review of the manuscript, *REAL TIME BLOOD VISCOSITY ESTIMATION FOR HEART ASSISTED DEVICES*, submitted to 2nd Annual Dynamic Systems and Control Conference October 12-14, 2009, Hollywood, CA, USA, completed on 18 May 2009.
 164. Review of the manuscript, *Analysis of Epicardial Mapping Electrogram of Sustained Atrial Fibrillation Using Shannon Entropy*, submitted to The 31st Annual International IEEE EMBS Conference, Sept. 2-6, 2009, Hilton Minneapolis, MN, USA, completed on 18 May 2009.
 165. Review of the manuscript, *A Limiting Property of the Matrix Exponential with Application to Multi-loop Control*, submitted to 48th IEEE Conference on Decision

- and Control, to be held during December 16-18, 2009, Shanghai, P.R. China, completed on 29 April 2009.
166. Review of the manuscript, *On the Model-Based Networked Control for Singularly Perturbed Systems with Nonlinear Uncertainties*, submitted to 48th IEEE Conference on Decision and Control, to be held during December 16-18, 2009, Shanghai, P.R. China, completed on 29 April 2009.
 167. Review of the manuscript for a book proposal, *The Theory of Fast and Robust Adaptation*, for publication by SIAM, Philadelphia, PA, completed on 18 April 2009.
 168. Review of the manuscript, *Stabilization of linear systems with state dependent noise via output feedback and its application to robust control design*, submitted for possible presentation at the 14th IFAC International Conference on Methods and Models in Automation and Robotics (MMAR 2009), Amber Baltic Hotel, Miedzyzdroje, Poland, 19-21 August 2009, completed on 14 March 2009.
 169. Review of the manuscript, *Optimal Operating Conditions for a Batch Fluidized Bed Dryer*, submitted for possible publication in the Institution of Engineering and Technology (IET) Control Theory & Applications, completed on 14 March 2009.
 170. As Associate Editor, the review of the manuscript entitled, *Microgravity Suppression by Maglev Control Feedbacks*, submitted to Mechatronics: The Science of Intelligent Machines - A Journal of IFAC, the International Federation of Automatic Control, completed on 25 February, 2008.
 171. Review of the manuscript *Human Factors and Data Fusion as Part of Control Systems Resilience* submitted to submitted to 2nd International Conference on Human System Interaction (HSI09), University of Catania, Catania, Italy, May 21-23, 2009, completed on 17 February 2009.
 172. Review of the manuscript *Critical Infrastructure Modeling: An Approach to Characterizing Interdependencies of Complex Networks & Control Systems* submitted to submitted to 2nd International Conference on Human System Interaction (HSI09), University of Catania, Catania, Italy, May 21-23, 2009, completed on 28 January 2009.
 173. Review of the manuscript *Resilient Control Systems: Next Generation Design Research* submitted to submitted to 2nd International Conference on Human System Interaction (HSI09), University of Catania, Catania, Italy, May 21-23, 2009, completed on 28 January 2009.
 174. Review of the manuscript *Smooth Solution Space of Slow Subsystem in Nonstandard Singular Perturbation Problem* submitted to Journal of Advanced Research in Dynamical and Control Systems (JARDCS), completed on 06 January 2009.
 175. As Associate Editor, the review of the manuscript entitled, *On Constraints to Synthesize Feedback Control Loop for Active Maglev Bearing Systems*, submitted to Mechatronics: The Science of Intelligent Machines - A Journal of IFAC, the International Federation of Automatic Control, completed on 08 February 2008.

176. Review of the manuscript *L2-Stabilizability Conditions For A Class Of Nonstandard Singularly Perturbed Functional-Differential Systems* Submitted for possible publication in Dynamics of Continuous, Discrete and Impulsive Systems (DCDIS) Journal, completed on 31 December 2007.
177. Review of the manuscript *Oscillatory adaptive yaw plane control of biorobotic AUV using pectoral-like fins* submitted to Applied Bionics and Biomechanics. completed on 10 December 2007.
178. Review of the revised manuscript, *Kalman filter design for two-time-scale systems by unified approach using delta operators*, submitted to International Journal of Systems Science (IJSS), completed on 10 December 2007.
179. Review of the manuscript, *Control Design and Stabilisation Analysis of Nonlinear Systems using Angular Representations*, submitted for possible publication in the Proceedings of the Institution of Mechanical Engineers (IMEchE): Part I: Journal of Systems and Control Engineering (JSCE), completed on 20 November 2007.
180. Review of the revised manuscript, *General Transformation for Block Diagonalization of Multi-Time Scale Singularly Perturbed Linear Systems*, submitted for possible publication as a Technical Note in the IEEE Transactions on Automatic Control, completed on 20 November 2007.
181. Review of the manuscript, *Discrete-Time Synergistic Optimal Control of Nonlinear Systems*, submitted for possible publication in the IEEE Transactions on Automatic Control, completed on 17 November 2007.
182. As Associate Editor, the review of the manuscript entitled, *On Constraints to Synthesize Feedback Control Loop for Active Maglev Bearing Systems*, submitted to Mechatronics: The Science of Intelligent Machines - A Journal of IFAC, the International Federation of Automatic Control, completed on 08 August 2007.
183. Review of the revised manuscript, *H-infinity Control for Nonstandard Discrete-time Singularly Perturbed Systems*, submitted to IFAC Journal Automatica, completed on 29 June 2007.
184. Review of the manuscript, *Model Predictive Static Programming: A Computationally Efficient Technique for Suboptimal Control Design* submitted to AIAA Journal of Guidance, Control, and Dynamics, completed on May 16, 2007.
185. Review of the manuscript, *MODERN AND ADVANCED FORM OF BANG-BANG HYSTERESIS CONTROL (BBHC) TECHNIQUE*, submitted for possible publication in the journal: Acta Press - Control and Intelligent System, completed on 30 April 2007.
186. Review of the manuscript, *Asymptotic Solution Of Control Problems For Discrete Weakly Controllable Systems*, submitted for possible presentation at 3rd IFAC SYMPOSIUM on SYSTEM, STRUCTURE and CONTROL, October 17 - 19, 2007, Foz do Iguau, Brazil, completed on 21 April 2007.
187. Review of the manuscript, *General Transformation for Block Diagonalization of Multi-Time Scale Singularly Perturbed Linear Systems*, submitted for possible publication in the Institution of Engineering and Technology (IET) Control Theory & Applications, completed on 08 April 2007.

188. Review of the manuscript, *General Transformation for Block Diagonalization of Multi-Time Scale Singularly Perturbed Linear Systems*, submitted for possible publication as a Technical Note in the IEEE Transactions on Automatic Control, completed on 10 February 2007.
189. Review of the manuscript, *Stability Margin of Discrete Systems*, submitted to Electronic Letters, Institution of Engineering and Technology (IET), UK, completed on 27 December 2006.
190. Review of the manuscript, *A New Poles Region for LQ-Optimal Discrete Time Systems*, submitted to Optimal Control: Applications & Methods (OCAM), completed on 09 December 2006.
191. Served as Editor for conducting the review process for the manuscript, *Integrated Design of Trajectory Planning and Control for Micro Air Vehicles*, submitted to Mechatronics: The Science of Intelligent Machines, 14 May 2006 to 14 November 2006.
192. Review of the manuscript, *Kalman filter design for two-time-scale systems by unified approach using delta operators*, submitted to International Journal of Systems Science (IJSS), completed on 12 October 2006.
193. Review of the manuscript, *Robust Control for Singularly Perturbed Electromagnetic Suspension*, submitted to Journal of the Franklin Institute, completed on 28 July 2006.
194. Review of the manuscript, *Performance Measurement of 802.11 Wireless Links between UAV and Ground Nodes with Various Antenna Orientations*, submitted to International Conference on Computer Communications and Networks 2006, completed on 17 June 2006.
195. Review of the manuscript, *H-infinity Control for Nonstandard Discrete-time Singularly Perturbed Systems*, submitted to IFAC Journal Automatica, completed on 23 May 2006.
196. Review of the manuscript, *Design of Controllers and Observer-based Controllers for Time-Delay Singularly Perturbed Systems via Composite Control*, submitted to IEE Proceedings on Control Theory and Applications, completed on 22 April 2006.
197. Review of the manuscript, *Haar Wavelet-Based Optimal Control of Time-Varying State-Delayed Systems: A Computational Method*, submitted to Joint IEEE International Conference on Control Applications (CCA), IEEE International Symposium on Computer-Aided Control Systems Design (CACSD), and IEEE International Symposium on Intelligent Control (ISIC), Technische Universitt Mnchen, Munich, Germany, October 4-6, 2006, completed on 20 March 2006.
198. Review of the manuscript, *Convergence in the Boundary Layers for Singularly Perturbed Control Systems*, submitted to SIAM Journal on Control and Optimization, completed on 04 March 2006.
199. Review of the manuscript, *Low-Cost Simulated Control Experimentation Conducted in Electrical Engineering Department of National Yunlin University of Science and Technology*, submitted to Special Volume on INNOVATIONS 2006:

- WORLD INNOVATIONS IN ENGINEERING EDUCATION AND RESEARCH, for International Network for Engineering Education and Research (iNEER), completed on 08 February 2006.
200. Review of the manuscript, *Longitudinal Axis Flight Control Law Design by Adaptive Backstepping*, submitted to IEEE Transactions on Aerospace and Electronic Systems (TAES), completed on January 26, 2006.
 201. Review of the manuscript, *Parametric Optimization and Optimal Control using Algebraic Geometry*, submitted to Special Issue of the International Journal of Control, on the Use of Computer Algebra Systems for Computer Aided Control System Design, completed on December 13, 2005.
 202. Review of the manuscript, *CONFIDENCE LEVEL BASED OPTIMAL ESTIMATION OF ON-LINE MEASUREMENT*, submitted to International Journal of Adaptive Control and Signal Processing, Wiley International Journal-UK, completed on December 13, 2005.
 203. Review of the manuscript, *NEURAL NETWORKS BASED MODEL PREDICTIVE CONTROL USING NON-DERIVATIVE OPTIMIZATION* submitted for publication in the Control and Intelligent Systems - Acta Press, Canada, completed on December 13, 2005.
 204. Review of the manuscript, *On finding complex roots of polynomials using the Routh array* submitted for publication in the IEE Electronic Letters (UK), completed on October 29, 2005.
 205. Review of the manuscript, *Design and implementation of high g control law of an unmanned aircraft* submitted for publication in the JOURNAL OF THE INDIAN INSTITUTE OF SCIENCE, completed on October 27, 2005.
 206. Review of the manuscript, *Computer based control of a friction welding machine* submitted for publication in the ASME Journal of Dynamic Systems, Measurement and Control, completed on August 05, 2005.
 207. Review of the manuscript, *Optimal SISO performance with regional pole constraint* submitted for publication in IEE Electronic Letters, UK, complied on May 18, 2005.
 208. Review of the manuscript, *Design of Controllers and Observer-based Controllers for Time-Delay Singularly Perturbed Systems via the Composite Control* submitted for publication in IFAC Journal AUTOMATICA, complied on May 12, 2005.
 209. Review of the manuscript, *Singular perturbation methods for a class of boundary value problems in multi-parameter multi-time-scale digital control systems* submitted for publication in Journal of Differential Equations and Applications (JDEA), complied on April 25, 2005.
 210. Review of the manuscript, *Adaptive Autopilot Design of Time-varying Uncertain Ships with Completely Unknown Control Coefficient* submitted for publication in 2005 IEEE Conference on Decision and Control (CDC) - European Control Conference (ECC), complied on April 25, 2005.
 211. Review of the manuscript, *Implicit Quasi Steady State Approximation and Application to a Power Plant Evaporator* submitted for publication in IFAC Journal Automatica, completed on April 25, 2005.

212. Review of the manuscript, *New Algorithm for Discrete-Time Linear Quadratic Control with Inequality Constraints* submitted for publication in Journal of Dynamics of Continuous, Discrete, & Impulsive Systems: Series B: Applications & Algorithms, completed on March 15, 2005.
213. Review of the manuscript, *PID Tracking Control Design for Uncertain Spacecraft Systems Using a Cerebellar Model Articulation Controller* submitted for publication in IEE Proceedings in Control Theory & Applications (UK), completed on March 5, 2005.
214. Review of the manuscript, *Attractive Regions in Power Systems by Singular Perturbation Analysis* for publication in a book, Differential Equations with Symbolic Computation, completed on March 04, 2005.
215. Review of the manuscript, *Asymptotic Analysis of Quasi-Equilibrium Glide in Lifting Entry Flights* submitted to AIAA Journal of Guidance, Control, and Dynamics, completed on March 03, 2005.
216. Reviewed the manuscript, *ASP-BASED PID CONTROLLER DESIGN FOR THE PM DC MOTOR* submitted to International Journal of Modeling and Simulation. Review completed on November 16, 2004.
217. Reviewed the manuscript, *Nonlinear PI Control of a Class of Nonlinear Singularly Perturbed Systems* submitted to IEE Control Theory & Applications. Review completed on October 08, 2004.
218. Reviewed the manuscript, *Fault Tolerant Robust Automatic Landing Control Design* submitted to AIAA Journal of Guidance, Control, and Dynamics. Review completed on September 28, 2004.
219. Reviewed the manuscript, *New Algorithm for Continuous Linear-Quadratic Control Problem with Inequality Constraints* submitted to the International Journal on Automatic Control and Systems Engineering (ACSE) of The International Congress for Global Science and Technology (ICGSC), Tuebingin, Germany. Review completed on August 28, 2004.
220. Reviewed the manuscript, *Neural Network-based Fault Detection with Application to Ink Jet Printer* submitted to Automatic Control and Systems Engineering (ACSE) of The International Congress for Global Science and Technology (ICGSC), Tuebingin, Germany. Review completed on August 28, 2004.
221. Reviewed the manuscript, *On the Value Function of Singularly Perturbed Optimal Control Systems* submitted to 2004 IEEE Conference on Decision and Control (CDC), Paradise Island, Bahamas. Review completed on April 24, 2004.
222. Reviewed the manuscript, *Linear Neural Model-Based Predictive Controller Design for Flexible Link Robot* submitted to 2004 COCA/SIC/CACSD Conference, Taipei, Taiwan. Review completed on March 24, 2004.
223. Reviewed the manuscript, *Generation of launch vehicle abort trajectories using a hybrid optimization method* submitted to AIAA Journal of Guidance, Control, and Dynamics. Review completed on March 2, 2004.
224. Reviewed the manuscript, *ASP-based PID controller Design for the PM DC Motor* submitted to International Journal of Modeling and Simulation, Canada. Review completed on February 17, 2004.

225. Reviewed the manuscript, *Suboptimal bilinear Routh approximant for discrete systems* submitted to IEE Electronic Letters, UK. Review completed on December 12, 2003.
226. Received a letter of appreciation from Editor-in-Chief, AIAA Journal of Guidance, Control, and Dynamics for being recommended by Associate Editors as one of the “reviewers who did an excellent job in peer reviewing papers.” November 18, 2003.
227. Reviewed the manuscript, *Skip Entry into Atmosphere with Final Maximum Velocity* submitted to AIAA Journal of Spacecrafts and Rockets. Review completed on September 23, 2003.
228. Reviewed the manuscript, *Automaton-based Motion Planning for Autonomous Robots and Vehicles* submitted to AIAA Journal of Guidance, Control, and Dynamics. Review completed on August 21, 2003.
229. Reviewed the manuscript, *Tunable h - infinity robust guidance law for homing missiles* submitted to IEE Proceedings on Control Theory and Applications. Review completed on July 30, 2003.
230. Reviewed the manuscript, *Application of a Wavelet Noise Reduction Technique to the Fuzzy Learning Steam Generator Water Level Control for Nuclear Power Plants* submitted to Nuclear Technology: A Journal of American Nuclear Society. Review completed on June 12, 2003.
231. Reviewed the manuscript, *A Neural Networks Based Design of Optimal Controllers for Nonlinear Systems* submitted to AIAA Journal of Guidance, Control, and Dynamics. Review completed June 11, 2003.
232. Reviewed the manuscript, *Two time scale analysis of phugoid mode* submitted to AIAA Journal of Guidance, Control and Dynamics. Review completed on May 27, 2003.
233. Listed under “List of Reviewers for 2002” in the IEEE Transactions on Automatic Control, Vol. 48, May, 2003.
234. Reviewed the manuscript, *Optimal control for bilinear systems* submitted to the journal, Optimal Control: Applications and Methods. Review completed on May 6, 2003.
235. Reviewed the manuscript, *The Control Design and Implementation of Flexible Joint Inverted-Pendulum System* submitted to IEEE Transactions on Robotics and Automation. Review completed on March 3, 2003.
236. Reviewed the manuscript, *A Multirate and Composite Digital Control for a Class of Nonlinear Singularly Perturbed Continuous-Time Systems* submitted to IFAC Journal: Automatica. Review completed on November 30, 2002.
237. Reviewed the manuscript, *Singular perturbation analysis of optimal glide* submitted to AIAA Journal of Guidance, Control and Dynamics. Review completed on Sept. 23, 2002.
238. Reviewed the manuscript titled, *Robust stability of two-time-scale systems...* submitted to IEEE Transactions on Automatic Control. Review completed on Sept. 16, 2002.

239. Reviewed the manuscript titled, *Robustness analysis of discrete-time-delay systems* submitted to Intl. Journal of Systems Science. Review completed on Aug. 26, 2002.
240. Reviewed the manuscript titled, *Nonlinear Adaptive Spacecraft Attitude Control ...* submitted to IEEE Transactions on Aerospace and Electronic Systems. Review completed May 31, 2002.
241. Listed under “Reviewers for October 2000 - September 2001”, in AIAA Journal of Guidance, Control and Dynamics, Vol. 25, No. 1, January - February 2002.
242. Paper: 2002-62 - Predicting Student Performance to Help the Groups at Risk, ASEE 2002 Annual Conference & Exposition, Montral, Quebec , Canada June 16-19, 2002.
243. Reviewed Paper: 2002-224 - Undergraduate Minorities in IT-Related Fields: Findings from a Case Study in a Minority-Serving Institution, ASEE 2002 Annual Conference & Exposition, Montral, Quebec , Canada June 16-19, 2002.
244. Reviewed the manuscript titled, *Aerospace ...* submitted to Encyclopedia for Life Support Sciences (EOLSS), UNESCO. Review completed December, 2001.
245. Reviewed the manuscript titled, *Nonlinear Adaptive and Sliding Mode Flight Control ...* submitted to IEEE Transactions on Aerospace and Electronic Systems. Review completed December, 2001.
246. Reviewed the manuscript titled, *Nonlinear Multiaxix Flight Control ...* submitted to IEEE Proceedings: Control Theory and Applications (UK). Review completed October, 2001.
247. Reviewed the manuscript titled, *Nonlinear Rule-Based Controller ...* submitted to IEEE Proceedings: Control Theory and Applications (UK). Review completed October, 2001.
248. Reviewed the manuscript titled, *Optimal Control of ...* submitted to Electronic Letters: An International Publication (UK). Review completed in October, 2001.
249. Reviewed the manuscript titled, *Digital Robust Control of ...* submitted to IEEE Transactions on Control System Technology. Review completed August, 2001.
250. Reviewed the manuscript titled, *Explicit guidance of aeroassisted orbital transfer..* submitted to AIAA Journal of Guidance, Control and Dynamics. Review completed by December 12, 2000.
251. Reviewed the manuscript titled, *Adaptive feedback linearizing control of ...*, submitted to Nonlinear Dynamics: An International Journal of Nonlinear Dynamics and Chaos in Engineering Systems. Review completed November 25, 2000.
252. Reviewed 6 manuscripts submitted to 2001 American Control Conference. Review completed by November 13, 2000.
253. Reviewed the manuscript titled, *Reduced order switching of variable structure sliding mode controller based on SVD method*, submitted to Computers & Electrical Engineering: An International Journal. Review completed November 13, 2000.
254. Listed under “List of Reviewers for 1999” in the IEEE Transactions on Automatic Control, Vol. 45, October 2000.

255. Reviewed the manuscript titled, *Optimal control of singularly perturbed nonlinear discrete-time systems*, submitted to IEEE Transactions on Automatic Control, New York, NY. Review completed September 15, 2000.
256. J-S Chiou and T-H S Li, “Stability bound and D-stability bound of discrete multiple time-delay singularly perturbed systems” submitted to IEE Proceedings - Control Theory and Applications, Stevenage, Herts, UK. Review completed on July 7, 2000.
257. M. Grundelius, “Iterative optimal control of liquid slosh in an industrial packaging machine”, submitted to IEEE Conference on Decision and Control, Sydney, Australia, CDC00-REG1668. Review completed on May 14, 2000.
258. R. Somakumar et al., “Neural network based input-output feedback linearization for flight control design”, submitted to IEEE Transactions on Control Systems Technology, New York, NY. Review completed on April 15, 2000.
259. R. Bouyekh and A. E. Hami, “Use of singular perturbations to optimal control of nonlinear discrete-time systems”, submitted to IEEE Transactions on Automatic Control, New York, NY. Review completed on April 14, 2000.
260. “TDOF parametric longitudinal autopilot synthesis for missile using model matching...”,
submitted to IEEE Proceedings - Control Theory and Applications, Stevenage, Herts, UK. Review completed on March 30, 2000.
261. R. Beard et al., “Fuel optimization for unconstrained rotation of spacecraft formations”, submitted to Journal of the Astronautical Sciences. Review completed on November 20, 1999.
262. S. J. Chen et al., “Maximal stability bounds for singularly perturbed systems”, submitted to Journal of The Franklin Institute, Philadelphia, PA. Review completed on June 30, 1999.
263. I. H. Wang, “A horizontal way point guidance design using optimal control”, submitted to IEEE Conference on Decision and Control, New York, NY. Review completed on May 5, 1999.

- **Review of Proposals to Federal, State, Private Agencies etc.**

(Some of the recent activities are listed below)

1. Review of the research proposal entitled, “Autonomous Control Capabilities to Enable Remote Unattended Operation and Resilience against Common-Cause Failure and Cyber-Attack, submitted to Dept. of Energy (DOE)-Nuclear Engineering (NE)’s Consolidated Innovative Nuclear Research (CINR) Funding Opportunity Announcement (FOA), was completed on 26 November 2018.
2. Served as an expert reviewer of the proposal entitled, “UAV-Based Data Exfiltration from Dynamic Surveillance Networks”, for Applied Physics Laboratory (APL) at Johns Hopkins University (JHU), Laurel, Maryland, September 09, 2004.
3. Served as an expert reviewer of the proposal entitled, “Intelligent Management Systems”, under First Steps to Markets Program (FSMP) for the U.S. Civilian Research & Development Foundation (CRDF) and the independent states of the Former Soviet Union (FSU), April 03, 2004.
4. Served as an expert reviewer of the proposal entitled, “Graphical User Interfaces for Computer-Aided Analysis and Design of Linear and Nonlinear Multivariable Control Systems”, for the U.S. Civilian Research & Development Foundation (CRDF) working for U.S. Department of State participating in the programs of the International Science and Technology Center (ISTC) and the Science and Technology Center in Ukraine (STCU), May 07, 2003.
5. Served as an expert reviewer of the proposal entitled, “Testing Problems for Linear Systems”, for the U.S. Civilian Research & Development Foundation (CRDF) for Armenian-U.S. Bilateral Grants Program III, May 13, 2002.
6. Served as an expert reviewer of the proposal entitled, “Research on Robust Control and Development of Neural Networks Technology of Multi-Agent Navigation for Aircraft”, for 1999-2000 Cooperative Grants Program of the U.S. Civilian Research and Development Foundation (CRDF) for the Independent States of the Former Soviet Union, January 24, 2000.

● **Conferences/Workshops/Meetings: Session Organizer and/or Chair**

1. Invited and accepted to serve as Chair of the session titled, “Optimization and Optimal Control”, Indian Control Conference (ICC), Hyderabad, INDIA, 18 - 20 December 2019.
2. Chaired the session titled, “Science, Engineering and Technology, at the International Conference on Science, Engineering and Technology (ICSET), Goa, India, 30-31, December 2019.
3. Chaired the session titled, “Welfare Technologies, Rehabilitation and Assistive Technologies (RWT), on 12 March 2019, at the IEEE 1st Global Conference on Life Sciences and Technologies (LifeTech 2019), Osaka, Japan, pp. 12-14 March 2019.
4. Chaired the session on *Genetic Engineering, Medical Microbiology and Biotechnology*, at the 2nd World Congress on Biotechnology, held in Frankfurt, Germany, during October 24-25, 2018. A Certificate of Recognition was awarded for chairing the session.
5. Chaired the session on *Biomechanical Energy and Exo Skeletons & Tissue Engineering*, at the International Conference on Robotics & Automation held in Frankfurt, Germany, during October 22-23, 2018. A Certificate of Recognition was awarded for chairing the session.
6. Chaired the session on *Implantable technologies and Wearable Devices - Polymer Chemistry - Physical Chemistry* at the International Conference on Biomedicine & Pharmacotherapy, held in Frankfurt, Germany, during October 22-23, 2018. A Certificate of Recognition was awarded for chairing the session.
7. Chaired a session on *Educational System and Opportunities in USA and UMD* with participants of the 19th International Conference of Young Specialists on Micro/Nanotechnologies and Electron Devices, EDM 2018, (June 29 - July 3, 2018) in **Erlagol**, Altai Province, Siberia, Russia, Organized by Novosibirsk (*New Siberian*) State Technical University (NSTU), Novosibirsk (New Siberia), Russia, 01 July 2018. (2 hours)
8. Co-Chaired a session on *Systems Science and Applications*, with Frantisek Hruska, WSEAS 4th International Conference on CIRCUITS, SYSTEMS, CONTROL, SIGNALS (CSCS '13), Valencia, Spain, August 6-8, 2013.
9. Session Chair - Control System Design, 1st International Symposium on Resilient Control Systems (ISRCS), Idaho Fall, ID, September 9-10, 2008.
10. Attended the IEEE Systems, Man and Cybernetics (SMC) Mountain Workshop on Adaptive and Learning Systems (ALS) and served by invitation as a panelist on “Computer-Based Intelligence: Where is it Going?”, and chaired a session on “Robotics and Automobile Applications”, held at Utah State University (USU), Logan, UT, during July 24-26, 2006.
11. Invited Organizer, Chair, Author and Presenter of the session on **Measurement and Control in Mechatronics**, *The 7th Mechatronics Forum International Conference*, Georgia Institute of Technology, Atlanta, GA, September 6-8, 2000.

12. Attended AIAA Guidance, Navigation and Control (GN&C) Conference held in Portland, OR, Aug. 9-11, 1999, chaired a session and presented **four** technical papers at the conference.
13. Attended and chaired two sessions at *1997 American Control Conference (ACC)* held in Albuquerque, New Mexico, June 4-6, 1997.
14. Attended, chaired a session, presented and participated as co-author in presentation of three papers at *33rd IEEE Conference on Decision and Control (CDC)* held in Lake Buena Vista, Florida, December 14-16, 1994.
15. Attended, chaired a session and presented a paper at the *9th International Conference on Systems Engineering*, held in Los Vegas, Nevada, July 14-16, 1993.
16. Organized and chaired a session, *Singular Perturbations in Discrete Control Systems*, at the IEEE Conference on Decision and Control (CDC), Los Angeles, CA, December 1986.

● Conferences/Workshops/Meetings: Attended, Presented

1. Shaleena H. Jaison and **D.S. Naidu**, “Integration of Life Sciences and Engineering Optimal Control of HIV using Time Scales, Proceedings of the IEEE 1st Global Conference on Life Sciences and Technologies (LifeTech 2019), Osaka, Japan, pp. 1-3, 12-14 March 2019. The paper was presented by Professor D.S. Naidu.
2. Ibrahim Baz Khallouf and **D.S. Naidu**, “Advanced Control Strategies for the Robotic Hand”, Proceedings of the 2018 IEEE 14th International Conference on Control and Automation (ICCA), June 12-15, 2018. Anchorage, Alaska, USA, pp. 698-703, 2018.
3. **D.S. Naidu** attended the NSF-Sponsored Faculty/Industry Workshop titled, Reinventing Electric Power Curriculum with Sustainability Focus, University of Minnesota, Minneapolis, Minnesota, during June 15-17, 2017.
4. Ona Egbue, **D.S. Naidu** and Peter Peterson, “The Role of Microgrids in Enhancing Macrogrid Resilience”, 2016 International Conference on Smart Grid and Clean Energy Technologies, University of Electronic Science and Technology of China, Chengdu, China, pp. 125-129, 19-22, October, 2016. Paper presented by Professor D.S. Naidu.
5. A. Khamis, and **D.S. Naidu**, “Recent Results on Nonlinear, Optimal Regulation and Tracking: Theory and Applications”, 9th WSEAS International conference on Circuits, Systems, and Signals (CSS’16), Dubrovnik, Croatia, 28-30, September, 2016. Paper presented by Professor D.S. Naidu.
6. A. Khamis, H. Nguyen and **D.S. Naidu**, “Tracking of a Robotic Hand via SD-DRE and SD-DVE Strategies”, accepted for presentation at the UKACC (United Kingdom Automatic Control Council) International Conference on Control (CONTROL 2016), Belfast, Northern Ireland, UK, Aug. 31-Sept. 2, 2016. Paper presented by Professor D.S. Naidu.
7. T. McJunkin, C.G. Rieger, A. Rege, S.K. Biswas, M. Haney, M.J. Santora, B.K. Johnson, R.L. Boring, **D.S. Naidu**, and J.F. Gardner, “Multidisciplinary Game-based Approach for Generating Student Enthusiasm for Addressing Critical Infrastructure Challenges”, Paper ID #15948, ASEE²⁷ 123rd Annual Conference & Exposition, New Orleans, Louisiana, June 26-29, 2016.
A. Khamis, H. Nguyen and **D.S. Naidu**, “Nonlinear Optimal Control of Wind Energy Conversion Systems With Incomplete State Information Using SD-DRE”, the 3rd International Conference on Control, Decision and Information Technologies (CoDIT16), pp. 1-6, Saint Julian’s, Malta, April 6-8, 2016. Paper presented by Professor Naidu.
8. Met and held discussions with Kevin Nickels, Karen Kaehler, Kevin Anderson, Dale Nugent of Office of Technology Commercialization (OTC), McNamara Center, Univ. of MN, Minneapolis, MN, 55409, on Friday, 29 April, 2016 for a) possible commercialization of prosthetic hand research b) getting funding for research on prosthetic hand through MN-Reach program.

²⁷ASEE: American Society of Engineering Education

9. Met and held discussions with TEDTalk folks: Dustin Huibregtse, Justin Sims and Jasmine Russell, at 1400 11th Ave NE, Minneapolis, MN, 55409, from 2PM to 3:30 PM, on Saturday, 07 May, 2016 for a) preparation/coating for the TEDTalk on Aug. 12, 2016 and b) photo session for taking my picture to be posted on TED.
10. Attended half-day the workshop on “Sustainable Energy Research Workshop”, at UMD campus (Rafters) on May 5, 2016.
11. Attended the 15th (2016) Design of Medical Devices Conference: The world’s Largest Medical Device Conference, and participated in Student Design Showcase (to promote and publicize excellence in medical device design by teams of undergraduate and graduate students conducted as part of their course work.) titled, The Open Gauntlet by Kelli Fuchs and Austin Carter and D. Subbaram Naidu: Faculty Advisor, (Senior Design Team, EE Dept, Univ. of Minnesota Duluth - UMD) held at The Commons Hotel & McNamara Alumni Center, University of Minnesota (UMN), Minneapolis, MN, 11-14, April 2016.
12. Met and held discussions with Tariq Samad, Ph.D., Corporate Fellow, Honeywell, Golden Valley, MN 55422, U.S.A., regarding “mutual interests and collaboration”, in Minneapolis, MN, 55409, on Tuesday, 05 January, 2016.
13. Met and held discussions regarding Prosthetic Hand with Mr. Dustin Huibregtse, Executive Director and Lead Curator, TEDxMinneapolis, Minneapolis, MN, on Monday, 04 January 2016. “TED is a nonprofit devoted to spreading ideas, usually in the form of short, powerful talks (18 minutes or less). TED began in 1984 as a conference where Technology, Entertainment and Design (TED) converged, and today covers almost all topics from science to business to global issues”.
14. A. Khamis, H.M. Nguyen and **D.S. Naidu**, “Nonlinear, Optimal Control of Wind Energy Conversion Systems Using Differential SDRE”, Proceedings of 8th International Symposium on Resilient Control Systems at Resilience Week-2015, Philadelphia, PA, pp. 86-91, August 18-20, 2015. Paper presented by Professor D.S. Naidu.
15. Attended half-day (June 30, 2015) workshop titled, “Enabling the Grid of the Future, Organizers: Brian Johnson (NREL), Srinivasa Salapaka (UIUC), Blake Lundstorm (NREL), Matt Wytock (CUM), Zico Kolter (CUM), Murti V. Salapaka (UMN), held at the American Control Conference (ACC), Chicago, IL, June 30-July 3, 2015.
16. Attended (as Subject Editor) the Editorial Board meeting of the **International Journal of Optimal Control: Applications and Methods**, Wiley International Journal, UK, held at the American Control Conference (ACC), Chicago, IL, June 30-July 3, 2015.
S. Jaison, **D.S. Naidu** and J.P. Gentle, “Divide and Conquer Strategies for Enhanced Resiliency in Electrical Transmission Lines”, Proc. of the 6th International Symposium on Resilience Engineering, 22-25, June 2015, Lisbon, Portugal, pp. 1-6, 2015. Paper presented by Professor D.S. Naidu
17. Attended the IEEE SmartTech Metro Area Workshop Series on the technology areas of *Power and Energy; Cyber Security*, at Earle Brown Heritage Center, Brooklyn, MN, during April 17-18, 2015.

18. Attended the NSF-sponsored Faculty/Industry Workshop on *Reforming Electric Energy Systems Curriculum*, University of Minnesota, Minneapolis, MN, October 4-5, 2014
19. Yan Zhang, **D.S. Naidu**, Chenxiao Cai, Yun Zou “Time Scale Analysis and Synthesis for Model Predictive Control under Stochastic Environments”, Proceedings of the 7th International Symposium on Resilient Control Systems (ISRCS), August 19-21, 2014, Denver, CO, pp. 1-6, 2014. **Awarded as the “Best Symposium Paper” in the International Symposium on Resilient Control Systems at Resilient Week-2014, Denver, Co August 19-21, pp. 1-6, August 2014.** Paper presented by Professor D.S. Naidu.
20. Yan Zhang, **D.S. Naidu**, Chenxiao Cai, Yun Zou “Nonlinear Model Predictive Control for Regulation of a Class of Nonlinear Singularly Perturbed Discrete-time Systems”, Proceedings of the 7th International Symposium on Resilient Control Systems (ISRCS), August 19-21, 2014, Denver, CO, pp. 1-6, August 2014. Paper presented by Professor D.S. Naidu.
21. A. Khamis, and **D.S. Naidu**, “Real-Time Algorithm for Nonlinear Systems With Incomplete State Information Using Finite-Horizon Optimal Control Technique”, Proceedings of the 7th International Symposium on Resilient Control Systems (ISRCS), August 19-21, 2014, Denver, CO, pp. 1-6, August 2014. Paper presented by Professor D.S. Naidu.
22. E. Archibong, **D.S. Naidu**, “Time Scale Analysis and Synthesis for Unmanned Aerial Vehicles(UAVs)”, Proceedings of the 7th International Symposium on Resilient Control Systems (ISRCS), August 19-21, 2014, Denver, CO, pp. 1-6, August 2014. Paper presented by Professor D.S. Naidu.
23. A. Khamis and **D.S. Naidu**, “Nonlinear Optimal Tracking For Missile Gimbaled Seeker Using Finite-Horizon State Dependent Riccati Equation”, Proceedings of the 4th Annual IEEE International Conference on CYBER Technology in Automation, Control, and Intelligent Systems (IEEE-CYBER 2014), Hong Kong, China, 4-7 June 2014, pp. 88-93, June 2014. Paper presented by Professor D.S. Naidu.
24. A. Khamis and **D.S. Naidu**, “Nonlinear Optimal Stochastic Regulator Using Finite-Horizon State Dependent Riccati Equation”, Proceedings of the 4th Annual IEEE International Conference on CYBER Technology in Automation, Control, and Intelligent Systems (IEEE-CYBER 2014), Hong Kong, China, 4-7 June 2014, pp. 82-87, June 2014. Paper presented by Professor D.S. Naidu.
25. A. Khamis and **D.S. Naidu**, “Experimental Validation for Real Time Control of DC Motor Using Novel Finite-Horizon Optimal Technique”, Proceedings of the 4th Annual IEEE International Conference on CYBER Technology in Automation, Control, and Intelligent Systems (IEEE-CYBER 2014), Hong Kong, China, 4-7 June 2014, pp. 67-71, June 2014. Paper presented by Professor D.S. Naidu.
26. Presented the paper H. Nguyen, **D.S. Naidu**, “Adaptive PID Control of Stan-

- dalone Wind Energy Conversion Systems”, Proceedings of the WSEAS²⁸²⁹-NAUN³⁰ 4th International Conference on CIRCUITS, SYSTEMS, CONTROL, SIGNALS (CSCS '13), Valencia, Spain, pp. 15-20, August 6-8, 2013. Paper presented by Professor D.S. Naidu.
27. Attended and presented the paper S. Jaison, **D.S. Naidu**, D. Zydek, “Time Scale Analysis and Synthesis of Wind Energy Conversion Systems”, Proceedings of the WSEAS³¹-NAUN³² 4th International Conference on CIRCUITS, SYSTEMS, CONTROL, SIGNALS (CSCS '13), Valencia, Spain, pp. 21-26, August 6-8, 2013. Paper presented by Professor D.S. Naidu.
 28. Presented the paper Y. Zhang, H. Nguyen, **D.S. Naidu**, Yun Zou, Chenxiao Cai, “Time Scale Analysis and Synthesis for Model Predictive Control”, Proceedings of the WSEAS³³-NAUN³⁴ 4th International Conference on CIRCUITS, SYSTEMS, CONTROL, SIGNALS (CSCS '13), Valencia, Spain, pp. 27-32, August 6-8, 2013. Paper presented by Professor D.S. Naidu.
 29. Presented the paper A. Khamis, **D.S. Naidu**, “Nonlinear Optimal Tracking Using Finite-Horizon State Dependent Riccati Equation (SDRE)”, Proceedings of the WSEAS³⁵-NAUN³⁶ 4th International Conference on CIRCUITS, SYSTEMS, CONTROL, SIGNALS (CSCS '13), Valencia, Spain, pp. 37-42, August 6-8, 2013. Paper presented by Professor D.S. Naidu.
 30. Presented the paper H.M. Nguyen and **D.S. Naidu**, “Singular Perturbation Analysis and Synthesis of Wind Energy Conversion Systems under Stochastic Environments”, Proceedings of the 12th WSEAS International Conference on Advances in Systems Theory, Signal Processing and Computational Science, pp. 283-288, Istanbul, Turkey, August 21-23, 2012. Paper presented by Professor D.S. Naidu.
 31. Presented the paper C. Potluri, M. Anugolu, S. Chiu, D.S. Naidu, M.P. Schoen, “A sEMG-based Real-time Adaptive Joint angle Estimation and Control for a Prosthetic Hand Prototype”, Proceedings of the 12th WSEAS International Conference on Advances in Systems Theory, Signal Processing and Computational Science, pp. 124-129, Istanbul, Turkey, August 21-23, 2012. Paper presented by Professor D.S. Naidu.
 32. Presented the paper **D.S. Naidu**, “My Journey of Education in Control Systems from IIT (1965) to ISU (2012)”, Proceedings of the 9th IFAC Symposium Advances in Control Education the International Federation of Automatic Control, Nizhny Novgorod, Russia, June 19-21, pp. 28-33, 2012. Commemorating 120 years of Lyapunov Stability Theory. Paper presented by Professor D.S. Naidu.

²⁸World Scientific and Engineering Academy and Society

²⁹World Scientific and Engineering Academy and Society

³⁰North Atlantic University Union

³¹World Scientific and Engineering Academy and Society

³²North Atlantic University Union

³³World Scientific and Engineering Academy and Society

³⁴North Atlantic University Union

³⁵World Scientific and Engineering Academy and Society

³⁶North Atlantic University Union

33. Presented the paper V.D. Yurkevich and **D.S. Naidu**, “Educational Issues of PI-PID Controllers”, Proceedings of the 9th IFAC Symposium Advances in Control Education the International Federation of Automatic Control, Nizhny Novgorod, Russia, June 19-21, pp. 448-453, 2012. (Commemoration of **120 years of Lyapunov Stability Theory** - Lyapunov (born in 1857 and died in 1918) studied in Nizhny Novgorod.) Paper presented by Professor D.S. Naidu.
34. Presented the paper C.-H. Chen and **D.S. Naidu**, “Hybrid Genetic Algorithm PID Control for a Five-Fingered Smart Prosthetic Hand”, Proceedings of the 6th WSEAS International Conference on Circuits, Systems and Signals (CSS’11), pp. 57-63, Vouliagmeni Beach, Athens, Greece, March 7-9, 2012. Paper presented by Professor D.S. Naidu.
35. Presented the paper A. Fassih, **D.S. Naidu**, S. Chiu and P. Kumar, Design and Control of an Underactuated Prosthetic Hand, Proceedings of the 6th WSEAS International Conference on Circuits, Systems and Signals (CSS’11), pp. 70-76, Vouliagmeni Beach, Athens, Greece, March 7-9, 2012. Paper presented by Professor D.S. Naidu.
36. Presented the paper A. Fassih, **D.S. Naidu**, S. Chiu and P. Kumar, Robust Control of a Prosthetic Hand Based on a Hybrid Adaptive Finger Angle Estimation, Proceedings of the 6th WSEAS International Conference on Circuits, Systems and Signals (CSS’11), pp. 77-82, Vouliagmeni Beach, Athens, Greece, March 7-9, 2012. Paper presented by Professor D.S. Naidu.
37. Presented the paper H. Nguyen and **D.S. Naidu**, “Advanced Control Strategies for Wind Energy Systems: An Overview”, Proceedings of the 2011 IEEE PES Power Systems Conference & Exposition, Phoenix, AZ, USA, pp 10-18, March 20 - 23, 2011. Paper presented by Professor D.S. Naidu.
38. Presented the paper A. Fassih, **D.S. Naidu**, S. Chiu, and M.P. Schoen, Precision Grasping of a Prosthetic Hand Based on Virtual Spring Damper Hypothesis, Proceedings of the 5th Cairo International Biomedical Engineering Conference (CIBEC), Cairo, Egypt, December 16-18, pp. 79-82, 2010. Paper presented by Professor D.S. Naidu.
39. Presented the paper P. Kumar, C. Potluri, M. Anugolu, A. Sebastian, J. Creelman, A. Urfer, S. Chiu, **D.S. Naidu**, and M.P. Schoen, A Hybrid Adaptive Data Fusion with Linear and Nonlinear Models for Skeletal Muscle Force Estimation, Proceedings of the 5th Cairo International Biomedical Engineering Conference (CIBEC), Cairo, Egypt, December 16-18, pp. 9-12, 2010. Paper presented by Professor D.S. Naidu.
40. Presented the paper C. Potluri, P. Kumar, M. Anugolu, A. Urfer, S. Chiu, **D.S. Naidu**, and M.P. Schoen, Frequency Domain Surface Emg Sensor Fusion for Estimating Finger Forces, Proceedings of the 32nd Annual International Conference of the IEEE EMBS Buenos Aires, Argentina, August 31 - September 4, 2010, pp. 5975-5978, 2010. Paper presented by Professor D.S. Naidu.
41. Presented the paper P. Kumar, A. Sebastian, C. Potluri, A. Urfer, **D.S. Naidu**, and M.P. Schoen, Towards Smart Prosthetic Hand: Adaptive Probability Based Skeletan Muscle Fatigue Model, Proceedings of the 32nd Annual International

- Conference of the IEEE EMBS Buenos Aires, Argentina, August 31 - September 4, 2010, pp. 1316-1319, 2010. Paper presented by Professor D.S. Naidu.
42. Presented the paper P. Kumar, C. Potluri, A. Sebastian, S. Chiu, A. Urfer, **D.S. Naidu**, and M.P. Schoen, "An Adaptive Multi Sensor Data Fusion with Hybrid Nonlinear ARX and Wiener-Hammerstein Models for Skeletal Muscle Force Estimation", Proceedings of the 14th WSEAS³⁷ International Conference on SYSTEMS, Corfu Island, Greece, July 22-24, 2010. Paper presented by Professor D.S. Naidu.
 43. Presented the paper C.-H. Chen, **D.S. Naidu**, and M.P. Schoen, "An Adaptive Control Strategy for a Five-Fingered Prosthetic Hand", Proceedings of the The 14th WSEAS³⁸ International Conference on SYSTEMS, Corfu Island, Greece, during July 22-24, 2010, pp. 405-410, 2010. Paper presented by Professor D.S. Naidu.
 44. Presented the paper **D.S. Naidu**, and C.G. Rieger, "Advanced Control Strategies for HVAC&R Systems - A Topical Survey", Proceedings of the International Association of Science and Technology for Development (IASTED) Eleventh International Conference on Control and Applications (CA 2009), Cambridge, UK, July 13-15, pp. 225-232, 2009. Paper presented by Professor D.S. Naidu.
 45. Presented the paper **D. S. Naidu**, C.-H. Chen, A. Perez, and M. P. Schoen, "Control strategies for smart prosthetic hand technology: An overview," in *Proceedings of the 30th Annual International IEEE EMBS Conference*, Vancouver, Canada, pp. 4314-4317, August 20-24, 2008. Paper presented by Professor D.S. Naidu.
 46. Presented a paper at the Sixth IEEE International Conference on Control and Automation (CCA), held at Baiyun International Convention Center, Guangzhou, China, May 30-June 1, 2007. Paper presented by Professor D.S. Naidu.
 47. Attended by invitation the annual research planning workshop for the Instrumentation, Controls, and Intelligent Systems (ICIS) Signature at Idaho National Laboratory, Idaho Falls, ID, September 19, 2006.
 48. Presented a paper, "Singular Perturbation Analysis of a Flexible Beam" jointly prepared by myself and Yilmaz Turkyilmaz, and Olav Egeland, Center of Excellence for Ships and Ocean Structures (CESOS), Norwegian University of Science and Technology (NTNU), Trondheim-7491, Norway, at the 22nd International Federation for Information Processing (IFIP) Conference on System Modeling and Optimization, Turin, Italy, July 18-22, 2005. Paper presented by Professor D.S. Naidu.
 49. Presented a paper, "Unified Approach for Open-Loop Optimal Control with Applications to Aerospace Systems", jointly authored with Mrs. Yoshiko Imura, at the International Federation on Automatic Control (IFAC) Symposium on Automatic Control in Aerospace, held at St. Petersburg, Russia during June 14-18, 2004. Paper presented by Professor D.S. Naidu.

³⁷World Scientific and Engineering Academy and Society

³⁸World Scientific and Engineering Academy and Society

50. Attended the 2002 American Society for Engineering Education (ASEE) Annual Conference and Exposition, held in Montreal, Canada, during June 16-19, 2002 and made a poster presentation and the scheduled oral presentation was canceled due to lack of audience at later hours in the evening.
51. Attended by invitation for the **Scientists Helping America - High Tech Entrepreneurs** Conference, sponsored by the Defense Advanced Research Projects Agency (DARPA) and hosted by Naval Research Laboratory (NRL) in Washington, DC, during March 11-13, 2002.
52. Attended American Control Conference (ACC) held in Chicago, IL, June 28-30, 2000 and presented two technical papers at the conference.
53. Attended Air Force Office of Scientific Research (AFSOR) Workshop on Dynamics and Control held in Wright Patterson Air Force Base (WPAFB), OH, during Aug. 4-6, 1999.
54. Attended American Control Conference (ACC) held in San Diego, CA, June 2-5, 1999. Participated in the Editorial Board Meetings of IEEE Transactions on Automatic Control and Intl. Journal of Robust and Nonlinear Control, and presented a paper and participated as a joint author in the presentation of another paper at the conference.
55. Attended IEEE Conference on Decision and Control (CDC) held in Tampa, FL, during December 14-18, 1998, participated in the Editorial Board Meetings of IEEE Transactions on Automatic Control and Intl. Journal of Robust and Nonlinear Control, and presented a paper at the conference.
56. Attended AIAA Guidance, Navigation and Control (GNC) conference held in Boston, MA, during August 10-12, 1998.
57. Presented “survey of guidance and control for hypersonic vehicles”, at NASA Langley Research Center, Hampton, VA, on July 14, 1998, as member of the team of researchers from US Air Force Research Laboratory (AFRL), WPAFB, OH. Paper presented by Professor D.S. Naidu.
58. Attended American Control Conference (ACC) held in Philadelphia, PA, during June 22-24, 1998, participated in the Editorial Board Meetings of IEEE Transactions on Automatic Control and Intl. Journal of Robust and Nonlinear Control, and participated as a joint author in the presentation of two papers at the conference. Paper presented by Professor D.S. Naidu.
59. Attended 14th Annual Meeting of the National Electrical Engineering Departments Heads Association (NEEDHA) including ABET EC 2000 training workshop held at Turtle Bay Hilton, Oahu, Hawaii, March 13-17, 1998.
60. Attended IEEE Triennial Section Congress (as a member of the IEEE Idaho Section delegation), Denver, Colorado, November 1-4, 1996.
61. Attended and received IEEE Fellow certificate at the *34th IEEE Conference on Decision and Control (CDC)*, held in New Orleans, Louisiana, December 13-15, 1995.
62. Presented a paper at *1995 American Control Conference (ACC)* held in Seattle, Washington, June 21-23, 1995.

63. Presented a paper at *57th Annual Meeting of the Pacific Northwest Section of the American Society of Engineering Education (ASEE)* held in Boise, Idaho, April 20-22, 1995.
64. Presented and participated as co-author in presentation of three papers at *33rd IEEE Conference on Decision and Control (CDC)* held in Lake Buena Vista, Florida, December 14-16, 1994.
65. Presented two papers at the *AIAA Conferences on Guidance, Navigation and Control (GNC) and Atmospheric Flight Mechanics (AFM)* held in Scottsdale, AZ, August 1-3, 1994.
66. Presented a paper at the *1994 American Control Conference (ACC)* held in Baltimore, Maryland, June 29-July 1, 1994.
67. Participated as co-author in presentation of a paper at the *32nd IEEE Conference on Decision and Control (CDC)* held in San Antonio, Texas, December 15-17, 1993.
68. Presented a paper at the *9th International Conference on Systems Engineering*, held in Los Vegas, Nevada, July 14-16, 1993.
69. Presented two papers at the *1993 American Control Conference (ACC)* held in San Francisco, California, June 2-4, 1993.
70. Presented a paper at the *IMACS International Symposium on Mathematical Modeling and Scientific Computing*, National Aeronautical Laboratory, Bangalore, India, December 7-11, 1992.
71. Presented a paper at the *30th IEEE Conference on Decision and Control (CDC)* held in Brighton, England, December 11-13, 1991.
72. Presented a paper at the *Artificial Intelligence (AI) 91: Frontiers in Innovative Computing for Nuclear Industry*, Jackson, Wyoming, September 15-18, 1991.
73. Presented a paper at the *5th Annual INEL Computing Symposium*, Idaho Falls, Idaho, September 10-12, 1991.
74. Presented a paper at the *AIAA Atmospheric Flight Mechanics Conference (AFM)*, New Orleans, Louisiana, August 12-14, 1991.
75. Presented a paper at the *AIAA 29th Aerospace Sciences Meeting and Exhibit* held in Reno, Nevada, January 7-10, 1991.
76. Presented a paper the *AIAA Guidance, Navigation, and Control (GNC) Conference* held in Boston, Massachusetts, August 14-16, 1989.
77. Presented a paper at the *27th IEEE Conference on Decision and Control (CDC)* held in Austin, Texas, December 7-9, 1988.
78. Presented a paper at the *AIAA Guidance, Navigation and Control (GNC) Conference*, Williamsburg, Virginia, August 18-20, 1986.
79. Presented a paper at the *1986 American Control Conference (ACC)*, Seattle, Washington, June 18-20, 1986.
80. Presented a paper at the *24th IEEE Conference on Decision and Control (CDC)*, Fort Lauderdale, Florida, December, 1985.

81. Presented a paper at the *IFAC Symposium on Computer Applications in Large Scale Power Systems*, New Delhi, 1979.
82. Presented a paper at the *All India Seminar on Automatic Control*, Calcutta, March, 1977.

● National/International Conference Program Committees

1. Invited and accepted to be member of the Advisory Committee of the 2018 IEEE EDKCON (IEEE Electron Device Kolkata Conference), to be held in the Science City, Kolkata, India, during November 17-18, 2018, on 13 February 2018.
2. Invited and accepted to serve as a member of the Advisory Committee Team and Conference Review Committee fourth International Conference on Science Technology Engineering and Management [ICON STEM 2018] on March 23 & 24, The Department of Electrical and Electronics Engineering, Electronics and Communication Engineering and Electronics and Instrumentation Engineering of Jeppiar Engineering College, Chennai, India, on 11 Sept. 2017.
3. Invited Member of the *International Organizing/Program Committee, 4th International Conference on Non-Linear Problems in Aviation and Aerospace (ICNPAA)*, Daytona Beach, FL, May 15-17, 2002.
4. Invited Member of the *International Organizing Committee, The 7th Mechatronics Forum International Conference*, Georgia Institute of Technology, Atlanta, GA, September 6-8, 2000.
5. Invited Member of the *International Organizing/Program Committee, Third International Conference on Non-Linear Problems in Aviation and Aerospace (ICNPAA)*, Daytona Beach, FL, May 10-12, 2000.
6. Member of Advisory Committee, International Conference on Trends in Industrial Measurement & Automation (TIMA), Organized by Anna University, Madras (Chennai), India, January 7-11, 1999.
7. Invited Member of the *International Program Committee*, for the dedicated conference on *Mechatronics*, International Symposium on Automotive Technology and Automation (ISATA), Florence, Italy, June 1997.
8. Invited Member of the *Global Organizing Committee* for the *Second World Federation of Nonlinear Analysis: WCNA-96*, Athens, Greece, July 10-17, 1996.
9. Invited Member of the *International Organizing Committee, First International Conference on Non-Linear Problems in Aviation and Aerospace*, Daytona Beach, FL, May 9-11, 1996.

● Individual Talks/Seminars: Presented/Attended/Participated

(Some of the recent activities are listed below)

1. Presented (by invitation) a seminar titled, “Research Experiences in Biomedical Engineering:Prosthetic/Robotic Hand”, to Senior Design, Dept. of Mechanical and Industrial Engineering (MIE), Univ. of Minnesota Duluth (UMD), on 03 November, 2017.
2. Attended “Engineering & Industry Scholarship Banquet: 29 Years of Partnerships”, sponsored by Swenson College of Science and Engineering (SCSE), UMD, at the UMD Kirby Ballroom, from 5:00 PM to 8:00 PM, on Monday, 30 October 2017. Displayed my research on Robotic/Prosthetic Hand with undergraduate and graduate students at EE Dept Table at the banquet.
3. Attended “Engineering & Industry Scholarship Banquet: 28 Years of Partnerships”, sponsored by Swenson College of Science and Engineering (SCSE), UMD, at the UMD Kirby Ballroom, from 5:00 PM to 8:00 PM, on Monday, 24 October 2016. Displayed my research on Robotic/Prosthetic Hand with undergraduate and graduate students at EE Dept Table at the banquet.
4. Attended “Academy of Science and Engineering: 2016 Academy Inductees: Dinner and Ceremony”, sponsored by Swenson College of Science and Engineering (SCSE), UMD, at Greysolon Moorish Room, from 5:30 PM to 8:00 PM, on Friday, 14 October 2016.
5. Presented (by invitation) a colloquium titled, “3-D Printed Prosthetic Hands Affordable for the World: A TED Talk Re-enacted”, to Swenson College of Science and Engineering (SCSE), Univ. of Minnesota Duluth (UMD), on 11 November, 2016.
6. Presented (by invitation) a seminar titled, “My Educational Experiences in Biomedical Sciences and Engineering -PROSTHETICS”, to Senior Design, Dept. of Mechanical and Industrial Engineering (MIE), Univ. of Minnesota Duluth (UMD), on 02 November, 2016.
7. Presented (by invitation) a seminar titled, “Research Experiences in Prosthetic Hand Technology”, to Dept. of Biology, Univ. of Minnesota Duluth (UMD), on 09 September, 2016.
8. Attended “Engineering & Industry Scholarship Banquet: 27 Years of Partnerships”, sponsored by Swenson College of Science and Engineering (SCSE), UMD, at the DECC - Harborside Room, from 5:00 PM to 8:00 PM, on Monday, 19 October 2014. Also displayed two robotic/prosthetic hands along with videos and power point presentations based on my research work with graduate and undergraduate students.
9. Attended and participated in MS Thesis Defense by Bo Wang on “Study of Dynamic Behavior of Ring-Cavity Quantum-Cascade Lasers with Group Velocity Dispersion”, during 11 AM to 12:30 PM, on Friday, January 23, 2015.

10. Attended presentation, “Detroit Diesel Remanufacturing - DMR Electronics”, given by Wade Thorson and Nikki Schram of DMR Electronics at 12:00 noon to 12:50 PM on 13 November 2014.
11. Attended presentation, “United States Steel, Minnesota Ore Corporation”, given by Shawn Youso and Susan Wiirre, United Steel from 12:00 noon to 12:50 PM on 06 November 2014.
12. Attended presentation, “GeaCom”, given by Mat M.K. Johnson, CEO of GeaCom, GeaCom at noon on 03 November 2014.
13. Attended meeting of the, “Industrial Advisory Board (IAB)” of the UMD Electrical Engineering Department, held at Kirby Student Center, from 10:15 AM to 3:45 PM, Thursday, October 30, 2014.
14. Attended presentation, “MOVING THE WORLD AT WORK”, given by Cody Clifton, OSHKOSH for the EE1001 Introduction to Electrical Engineering from 9:00 to 9:50 AM, on 30 October 2014.
15. Attended presentation, “SATURN SYSTEMS - SOFTWARE ENGINEERING”, given by Keith Erickson of Saturn Systems for the EE1001 Introduction to Electrical Engineering from 9:00 to 9:50 AM on 23 October 2014.
16. Attended presentation, “Hello UMD - FROM CIRRUS AIRCRAFT”, given by Bruce Howell and Cole Willard from CIRRUS for the EE1001 Introduction to Electrical Engineering from 9:00 to 9:50 AM on 21 October 2014.
17. Attended “Engineering & Industry Scholarship Banquet: 26 Years of Partnerships”, sponsored by Swenson College of Science and Engineering (SCSE), UMD, at the at DECC - Harborside Room, from 5:00 PM to 8:00 PM, on Monday, 20 October 2014.
18. Attended presentation, “Medical Device Engineering”, given by Greg Carpenter, Boston Scientific for the EE1001 Introduction to Electrical Engineering from 9:00 to 9:50 AM on 16 October 2014.
19. Attended presentation, “Memories and More”, given by Mr. Dean Klein, VP for Product Development, Micron, Boise, Idaho, for the EE1001 Introduction to Electrical Engineering, on 14 October 2014. Also after the talk, held discussions with Mr. Klein.
20. Attended presentation, “Minnesota Power Renewable Energy and Engineering for the 21st Century”, given by Mr. Andrew Remus of Minnesota Power, Duluth, MN, for the EE1001 Introduction to Electrical Engineering, on 25 September 2014. Also after the talk, held discussions with Mr. Remus.
21. Presented (by invitation) a talk titled, “My Educational Experiences: From IIT,.., UMD - An Overview”, to IEEE Students Branch at Univ. of Minnesota Duluth (UMD), 09 September 2014.
22. Attended presentation “Cyber Security for the Smart Grid - Bridging Theory to Practice”, given by Dr. Manimaran Govindarasu, Mehl Professor of Computer Engineering & Associate Chair in the Department of Electrical and Computer Engineering at Iowa State University, and arranged by the University of Minnesota

Center for Electric Energy (UMCEE) during their annual Summer Lecture Series, sponsored by the Power & Energy Society - Twin Cities chapter and hosted by Xcel Energy, Twin Cities, on August 7, 2014.

23. As a representative of the Dean of College of Science and Engineering, attended the 2011 ASEE Engineering Research Council (ERC) Annual Conference, held in The Madison Hotel, Washington D.C., during March 6-8, 2011. The Engineering Research Council supports and enhances research in engineering, technology, computing and applied science in educational organizations.
24. Attended IEEE/ABET EC 2000 Electrical Engineering (EE) Program Evaluator training held in Montreal, Canada, along with ASEE Annual Conference and Exposition, on June 16, 2002.
25. Attended short course, "Control of Semiconductor Manufacturing Processes", conducted by Prof. P. Khargonekar of Uni. of Michigan and Prof. B.H. Krogh of Carnegie Mellon, in Seattle, WA, June 20, 1995.
26. Attended short course, "Fuzzy Logic in Control Engineering", conducted by Professor Reza Langer, Texas A&M University, in Baltimore, MD, June 28, 1994.
27. Attended short course, "Modeling and Scheduling of Manufacturing Systems", conducted by Prof. Peter Luh, of Univ. of Connecticut, in San Antonio, Texas, on December 14, 1993.
28. Attended two-day workshop, "Intelligent Control", San Francisco, California, on May 31, and June 1, 1993.
29. Attended one-day workshop, "Neural Networks in Control Systems", conducted by Prof. K. Narendra, of Yale University, in Chicago, Illinois, on June 23, 1992.

● Committee/Administrative Activities

A: University Level

1. Member, General Education Review Committee, Idaho State University, since August 2010 - May 2011.
2. Member, NorthWest Commission on Colleges and Universities (NWCCU) Standard 2G Subcommittee for ISU (Resources and Capacity - Physical and Technological Infrastructure, September 2011 - May 2012.
3. Member on Research Council Representing Research Centers/Institutes Directors, Idaho State University, since August 2009 - May 2010.
4. Member, Research Centers/Institutes Directors Committee, Idaho State University, since August 2009 - present
5. Member, TIGERi Student Academic Coordination Committee (ACC), Idaho State University, April 9, 2009, January 2010 - July 2010.
6. Member, Search Committee for Dean of Graduate Studies, Idaho State University, Pocatello, Idaho, March to June 2006.
7. Member, Search Committee for Dean of College of Technology, Idaho State University, Pocatello, Idaho, January to May 2006.
8. Member, Search Committee for Chief Research Officer, Idaho State University, Pocatello, Idaho, March 8, 2004 - May 15, 2004.
9. Member of General Education Accreditation Committee for accreditation by Northwest Association of Schools and Colleges, Idaho State University, Pocatello, Idaho, November 2003-May 2004
10. Served as a member of the Review Committee for the Office of Research, Idaho State University, Pocatello, ID for pre-proposals regarding NSF Major Research Instrumentation (MRI), November 2003.
11. Served as a member of the Review Committee for the Office of Research, Idaho State University, Pocatello, ID for Idaho State Board of Education (SBOE) Research Center Competition, September 17, 2003.
12. Member, Engineering-Technology Review Steering Committee, set up by ISU President, February, 2003 - present.
13. Member, AMI-Semiconductor, Inc., Pocatello, Idaho and ISU Task Force, Idaho State University, Pocatello, Idaho, since January, 2003 - 2004.
14. Served as a member of the Review Committee for the Office of Research, Idaho State University, Pocatello, ID for pre-proposals regarding NASA EPSCoR- Idaho 2001.
15. Served as a member of the Review Committee for the Office of Research, Idaho State University, Pocatello, ID for pre-proposals regarding NSF Major Research Instrumentation (MRI), November 2001.
16. Member of Selection Committee for *Outstanding Student Achievement Award* for the College of Engineering, Idaho State University, Pocatello, ID, February-March 2003.

17. Member, Graduate Council, Idaho State University, Pocatello, Idaho, August 1993-2005
18. Served as a member of the Review Committee for the Office of Research, Idaho State University, Pocatello, ID for pre-proposals regarding NSF Major Research Instrumentation (MRI), November 2000.
19. Served as a member of Engineering and Technology Task Force set up by Idaho State University President to “guide in the process of cooperation between the College of Engineering with the College of Technology”, Idaho State University, Pocatello, Idaho. Also, chaired the sub-committee for preparing a document on “Cooperation Between College of Engineering and College of Technology”, February-December 2001.
20. Served as a witness before the Idaho State Board of Education in the matter of appeal of Kameswara Rao Bhamidipaty (Dr. B. K. Rao) vs Idaho State University (ISU), Pocatello, Idaho, for both Dr. B. K. Rao and ISU, August - November, 2000.
21. Member representing the Administration, College of Engineering on Ad Hoc Promotion and Tenure Advisory Committee set up by President, Idaho State University, for Dr. John McWhirter, College of Engineering, April-May, 2000.
22. Member, Search Committee for two Surveying Technology positions at the School of Applied Technology, Idaho State University, Pocatello, Idaho, March - May 2000.
23. Member, Electrical Engineering Search Committee, College of Engineering, Idaho State University, Pocatello, Idaho, January 1999-April 1999.
24. Member, Faculty Research Committee, Idaho State University, 1994-98.
25. Member, Tenure Review Committee, Dept. of Biology, Idaho State University, Pocatello, Idaho, November - December 1997.
26. Member, Search Committee for Dean of Graduate Studies, Idaho State University, Pocatello, Idaho, 1996-1997.
27. Member, Search Committee for Vice President for Academic Affairs, Idaho State University, Pocatello, January, 1995 – August, '95.
28. Member, College of Engineering Dean’s Search Committee, Idaho State University, October, 1994 – March, '95.
29. Chair, Curriculum Council, Idaho State University, 1993–’94.
30. Member, Curriculum Council, Idaho State University, 1990-94.

B: College Level

31. Served as a member of MS Thesis Committee for a graduate student, Department of Computer Science, University of Minnesota Duluth (UMD), the final thesis defense was completed successfully on 14 July 2020.
32. Served as a member of MS Project (non-thesis option) Committee for Nisarg Thakur, Department of Computer Science, Univ. of Minnesota Duluth (UMD) for the thesis (Plan B) entitled “*Playing Atari with Deep Reinforcement Learning*”, the final thesis defense was completed successfully on 01 August 2019.

33. Served as a member of MS Thesis Committee for Sagari Raju Vatchavayi, Department of Computer Science, Univ. of Minnesota Duluth (UMD) for the thesis entitled "*Heuristic Optimization of Wave Energy Converter Arrays*", the final thesis defense was completed successfully on 03 May 2019.
34. Served as a member of MS Project (non-thesis option) Committee for An Nguyen, Department of Computer Science, Univ. of Minnesota Duluth (UMD) for the project entitled "*Human Face Detection on Mobile Device*", the final project defense was completed successfully on 03 May 2019.
35. Served as a member of MS Thesis Committee for Sai Praneeth Cheedella, Department of Computer Science, Univ. of Minnesota Duluth (UMD) for the thesis entitled "*Impedance Control Algorithm for Physical Rehabilitation Robots*", the final thesis defense was completed successfully on 02 August 2018.
36. Member of UMD Sustainable Energy Research Group, since January, 2016.
37. Served as a Member of PhD (Engineering and Applied Science) Comprehensive-Qualifying examination for Luka Daoud during March 2014.
38. Served as a Member of PhD (Engineering and Applied Science) Advisory Committee for Comprehensive-Qualifying examination for Shaleena Jaison during March 2014.
39. Served as a Member of PhD (Engineering and Applied Science) Dissertation Committee for Yimesker Siraw Yihun (ME Dept) for the dissertation entitled, "Identification of Motor Unit Location Based on Dempster Shafer Theory", during 01 January, 2014 - 10 May 2014.
40. Served as a Member of PhD (Engineering and Applied Science) Dissertation Committee for Yimesker Siraw Yihun (ME Dept) for the dissertation entitled, "Workspace Synthesis for Articulated Systems with Application to Exoskeleton Design", during 01 January, 2014 - 04 April 2014.
41. Chair, PhD Program Committee, PhD Program in Engineering and Applied Science (EAS), involving all 4 engineering depts (CEE, EE, ME, NE-HP) and 4 science depts (Chemistry, Geosciences, Physics, and Mathematics), since August 2013, 2014, ... present.
42. Completed Periodic Performance Review (PPR) to three faculty members (Dr. Ken Bosworth, Dr. Jay F. Kunze and Dr. Richard Wabrek) during spring semester of 2011.
43. Served as Member of MS Special Project (non-thesis option) committee for Fabien Emile for the Special Project entitled, "PREDICTIVE AUTOREGRESSIVE FILTER IMPLEMENTATION ON MICROCONTROLLER", College of Engineering, Idaho State University, Pocatello, Idaho, 19 April 2010.
44. Served as Member of MS Thesis committee for Ashoak Nagarajan for the thesis entitled, "Enhancement/Completion of the AGN-201M Reactor Control Console Upgrade", College of Engineering, Idaho State University, Pocatello, Idaho, 08 January 2009.
45. Chair, Planning and Accreditation Committee, August 2006 - 2008.

46. Served as a member of the College Professional Award Selection Committee, March 2007.
47. Chair, Electrical Engineering Department Chair/Faculty Search Committee, College of Engineering, Idaho State University, Pocatello, Idaho, September 2006 - May, 2007.
48. Served as Member of PhD Dissertation committee for Suhas Pharkute for the thesis entitled, "Low Bandwidth Web Based Application Platform using Asynchronous Java Script Variables (AJAV)", College of Engineering, Idaho State University, Pocatello, Idaho, 26 April 2006.
49. Served as Member of MS Thesis committee for Madhuri Ramesh for the thesis entitled, "Development of a Spectrophotometric System for Optical Characterization of Semiconductor Films", College of Engineering, Idaho State University, Pocatello, Idaho, 12 April 2006.
50. Served as Member of MS thesis committee for Bhanu Prasad Kosuri for the thesis entitled, "Oscillating Rod Speed Control, Modeling, Measurement and Hardware Design for ISU AGN-201 Reactor", College of Engineering, Idaho State University, Pocatello, Idaho, 25 April 2006.
51. Chair, PhD Program Committee, College of Engineering, Idaho State University, Pocatello, Idaho, 1999-present.
52. Chair, Graduate Program Committee, College of Engineering, Idaho State University, Pocatello, Idaho, 1999-present.
53. Chair, Promotion and Tenure Review Committee for (PTRC) Dr. Marco P. Schoen, College of Engineering, Idaho State University, Pocatello, Idaho, September - December, 2004.
54. Chair, Computer Science Faculty Search Committee, College of Engineering, Idaho State University, Pocatello, Idaho, August 2004 - May, 2005.
55. Chair, Mechanical Engineering Faculty Search Committee, College of Engineering, Idaho State University, Pocatello, Idaho, January - May, 2004.
56. Served as Member of MS Special Project committee for Kelwant Singh for the special project entitled, "Autoregressive and Autoregressive Moving Average", College of Engineering, Idaho State University, Pocatello, Idaho, April 27, 2004.
57. Served as Member of Ph.D. thesis committee for Wade Skates for the thesis entitled, "Exploring Non-Exponential Decay in Isomeric Transitions", Dept. of Physics, Idaho State University, Pocatello, Idaho, April 26, 2004.
58. Served as Member of MS thesis committee for Mr. Ayodeji Abe for the thesis entitled, "Effects of Surfactants on Lactate Dehydrogenase Permeability", College of Engineering, Idaho State University, Pocatello, Idaho, January 16, 2004.
59. Chair, Electrical Engineering Faculty Search Committee, College of Engineering, Idaho State University, Pocatello, Idaho, August - December, 2003.
60. Served as Member of MS thesis committee for Mr. Brijesh Lavu for his thesis entitled, "Intelligent Adaptive Controller for Electroactive Polymer Actuator", College of Engineering, Idaho State University, Pocatello, Idaho, July 16, 2003.

61. Served as Member of MS thesis committee for Mr. Jim Swanson for his thesis entitled, "Transport of Lactate Dehydrogenase in a ...", College of Engineering, Idaho State University, Pocatello, Idaho, July 15, 2003.
62. Served as Member of MS thesis committee for Mr. Asad Chagtai for his thesis entitled, "Modeling of Tetrachloroethylene Decomposition in Serial and Parallel Pathways", College of Engineering, Idaho State University, Pocatello, Idaho, July 2, 2003.
63. Member of Ph.D. Advisory Committee for Songquia Chen, May 2003.
64. Member and Examiner (for Comprehensive Examination) of Ph.D. Advisory Committee for Keith Fisher, September-December, 2002.
65. Member and Examiner (for Comprehensive Examination) of Ph.D. Advisory Committee for Vidya Nandikolla, September-December, 2002.
66. Member and Examiner (for Comprehensive Examination) of Ph.D. Advisory Committee for Suhas Pharkute, September-December, 2002.
67. Chair, Promotion and Tenure Review Committee for (PTRC) Dr. Arya Ebrahimpour, College of Engineering, Idaho State University, Pocatello, Idaho, October - December 2002.
68. Served as Member of MS thesis committee for Mr. Bhushan Gokhale for his thesis entitled, "Comparison of Two Vadose Zone Models, MEPAS and VLEACH with Reference to Abardeen Gasoline Spill Scenario", College of Engineering, Idaho State University, Pocatello, Idaho, December 3, 2002.
69. Served as Member of MS Thesis Committee titled, "Optimization of Insulation Thickness over a Pipe for Different Flows", by Vidya Nandikolla, Measurement and Control Engineering Research Center, College of Engineering, Idaho State University, Pocatello, Idaho, May 2001.
70. Served as Member of MS Special Project Committee titled, "Optimization of Insulation Thickness over a Pipe for Different Flows", by Vidya Nandikolla, Measurement and Control Engineering Research Center, College of Engineering, Idaho State University, Pocatello, Idaho, May 2001.
71. Chair, Electrical Engineering Faculty Search Committee, College of Engineering, Idaho State University, Pocatello, Idaho, January - May, 2001.
72. Member, Mechanical Engineering Faculty Search Committee, College of Engineering, Idaho State University, Pocatello, Idaho, January - May, 2001.
73. Member, College Promotion and Tenure Committee (CPTC) for Dr. Chikashi Sato, College of Engineering, Idaho State University, Pocatello, Idaho, February, 2001.
74. Member, College Promotion and Tenure Committee (CPTC) for Dr. Richard Wabrek, College of Engineering, Idaho State University, Pocatello, Idaho, February, 2001.
75. Chair, Promotion and Tenure Review Committee for (PTRC) Dr. Jonathan Blotter, College of Engineering, Idaho State University, Pocatello, Idaho, October, 2000 - January, 2001.

76. Chair, Promotion and Tenure Review Committee for (PTRC) Dr. Chikashi Sato, College of Engineering, Idaho State University, Pocatello, Idaho, October, 2000 - January, 2001.
77. Chair, Promotion and Tenure Review Committee for (PTRC) Dr. Richard Wabrek, College of Engineering, Idaho State University, Pocatello, Idaho, November, 2000 - January, 2001.
78. Member, College Promotion and Tenure Committee (CPTC) for Dr. Jonathan Blotter, College of Engineering, Idaho State University, Pocatello, Idaho, February, 2000.
79. Member, College Promotion and Tenure Committee (CPTC) for Dr. John Bennion, College of Engineering, Idaho State University, Pocatello, Idaho, February, 2000.
80. Member, College Promotion and Tenure Committee (CPTC) for Dr. John McWhriter, College of Engineering, Idaho State University, Pocatello, Idaho, February, 2000.
81. Member, College Promotion and Tenure Committee (CPTC) for Dr. Habib Sadid, College of Engineering, Idaho State University, Pocatello, Idaho, February, 2000.
82. Member, College Promotion and Tenure Committee (CPTC) for Dr. Vitit Kantabutra, College of Engineering, Idaho State University, Pocatello, Idaho, February, 2000.
83. Chair, Promotion and Tenure Review Committee (PTRC) for Dr. Jonathan Blotter, College of Engineering, Idaho State University, Pocatello, Idaho, October, 1999 - February, 2000.
84. Chair, Promotion and Tenure Review Committee (PTRC) for Dr. John Bennion, College of Engineering, Idaho State University, Pocatello, Idaho, October, 1999 - February, 2000.
85. Member (Dean's Designee), Promotion and Tenure Review Committee (PTRC) for Dr. John McWhriter, College of Engineering, Idaho State University, Pocatello, Idaho, October, 1999 - February, 2000.
86. Member (Dean's Designee), Promotion and Tenure Review Committee (PTRC) for Dr. Habib Sadid, College of Engineering, Idaho State University, Pocatello, Idaho, October, 1999 - February, 2000.
87. Member (Dean's Designee), Promotion and Tenure Review Committee (PTRC) for Dr. Vitit Kantabutra, College of Engineering, Idaho State University, Pocatello, Idaho, October, 1999 - February, 2000.
88. Member (Dean's Designee), Promotion and Tenure Review Committee (PTRC) for Dr. B. K. Rao, College of Engineering, Idaho State University, Pocatello, Idaho, January-February, 1999.
89. Chair, Promotion and Tenure Review Committee (PTRC) for Dr. Solomon Leung, College of Engineering, Idaho State University, Pocatello, Idaho, December, '97 - January - '98.
90. Member, Curriculum Committee, College of Engineering, Idaho State University, Pocatello, Idaho, 1995-present

91. Chair, Distinguished Professional Achievement Award Committee, College of Engineering, Idaho State University, Pocatello, Idaho, 1996-present
92. Chair, Promotion Review Committee for Dr. Salomon Leung, College of Engineering, Idaho State University, March 1996.
93. Chair, Promotion Review Committee for Dr. Kevin Moore, College of Engineering, Idaho State University, January 1993.
94. Chair, Promotion Review Committee for Dr. Gene Stuffle, College of Engineering, Idaho State University, February 1994.
95. Chair, Promotion and Tenure review Committee for Dr. Gene Stuffle, College of Engineering, Idaho State University, January 1993.
96. Member, Planning Committee, College of Engineering, Idaho State University, 1990-94.
97. Member, Scholastic Committee, College of Engineering, Idaho State University, 1990-94.
98. Member, Faculty Evaluation Committee, College of Engineering, Idaho State University, 1990-94.
99. Member, Curriculum Committee, College of Engineering, Idaho State University, 1990-94.
100. Chairman, Departmental Committee for academic schedules, IIT, 1982–85.
101. Member of Doctoral Advisory Committee, Indian Institute of Technology (IIT), 1980–85.
102. Member of Academic Committees for undergraduate and graduate courses.
103. Chairman, Laboratory Development Committee for laboratories for Circuits and Networks, Measurements and Instrumentation, Control Systems, and Microprocessors and Microcomputers, IIT, 1978-85.
104. Advisor for undergraduate and graduate students, IIT, 1978-85.
105. Chairman, Departmental Purchase Committee for equipment, and books, IIT, 1980–85.

B: Department Level

1. Served as a member of Promotion Review Committee, Dept. of Electrical Engineering, Univ. of Minnesota Duluth (UMD), for 2 members of the faculty of EE Dept, during fall semester of 2017.
2. Member of EE department ABET Committee, Univ. of Minnesota Duluth (UMD) since August 2015 - present
3. Member of Strategic Planning Committee for Dept. of Electrical Engineering, Univ. of Minnesota, Duluth (UMD), since August 2014 - present
4. Electrical Engineering (EE) Graduate Program Committee, since August, 2015, 2016, 2017.

- **Service to outside College, University, etc**

1. Served as Graduate Faculty Representative (GFR) for Dr. Cheng-Hung Chen, PhD Student, Dept. of Biological Sciences, Idaho State University, Pocatello, Idaho, 10 April 2013.
2. Served as Graduate Faculty Representative (GFR) for a number of MS students at Idaho State University, during 2010 to 2013.
3. Served as Graduate Faculty Representative (GFR) for Ms. Whittney Warr, MS student, Dept. of Counseling, Idaho State University, Pocatello, Idaho, April 14, 2009.
4. Served as Graduate Faculty Representative (GFR) for Ms. Bindu Timilsina, MS student, Dept. of Physics, Idaho State University, Pocatello, Idaho, December 08, 2007.
5. Served as Graduate Faculty Representative (GFR) for Ms. Heather Grimmett, MS student, Physician Assistant Program, Idaho State University, Pocatello, Idaho, May 08, 2007.
6. Serving as a member of PhD Dissertation Committee for Ms. BarJen Phillips, PhD Candidate for his research proposal entitled, "Hydrogen Determination in Pulsed PECVD Silicon Nitride Thin Films by RBS, ERDA, and CARS.", College of Engineering, Idaho State University, Pocatello, Idaho, December 12, 2005.
7. Served as Graduate Faculty Representative (GFR) for Mr. Michael Loegering, MS student, Dept. of Nursing, Idaho State University, Pocatello, Idaho, March 24, 2005.
8. Served as Graduate Faculty Representative (GFR) for Ms. Rishay Ackley, MS student, Dept. of Counseling, Idaho State University, Pocatello, Idaho, April 22, 2004.
9. Serving as a member of PhD Dissertation Committee for Ms. Ee Lin Roethlisberger, PhD Candidate for her research proposal entitled, "Biologically-Based Radiation Dosimetry for low-LET Applications using the Supercoil Relaxation of Plasmid DNA", Dept. of Physics, Idaho State University, Pocatello, Idaho, September 15, 2003.
10. Serving as a member of PhD Dissertation Committee for Mr. Wade Skates, PhD Candidate for his research proposal entitled, "Isomers and Non-Exponential Decay", Dept. of Physics, Idaho State University, Pocatello, Idaho, August 20, 2003.
11. Served as Graduate Faculty Representative (GFR) for Ms. Karen Campbell, MS student, College of Education, Idaho State University, Pocatello, Idaho, April 29, 2003.
12. Served as Graduate Faculty Representative (GFR) for Ms. Diane Clemens, MS student, College of Education, Idaho State University, Pocatello, Idaho, July 24, 2002.
13. Served as Graduate Faculty Representative (GFR) for Ms. Kari Nilles, MS student, College of Health Related Professions, Idaho State University, Pocatello, Idaho, July 8, 2002.

14. Served as Graduate Faculty Representative (GFR) for Mr. Jeffrey Jones, MBA student, College of Business, Idaho State University, Pocatello, Idaho, May 3, 2002.
15. Nominated Dr. Habib Sadid, College of Engineering for the *ISU Distinguished Teacher Award*, January 28, 2002. (Dr. Sadid was selected as one of the finalists as *Master Teacher for 2001-2002*).
16. As a part of selection process, met interviewing candidate Mr. Swamy Lakminarayan for Research Faculty position on Telehealth Idaho for The Institute of Rural Health, Idaho State University, Pocatello, Idaho, from 11 AM to noon, on February 25, 2002.
17. Nominated Dr. Vitit Kantabutra, College of Engineering for the *ISU Distinguished Researcher Award*, November 27, 2000.
18. Nominated Dr. Habib Sadid, College of Engineering for the *ISU Distinguished Teacher Award*, January 20, 2000.
19. Nominated Dr. Jay Kunze, College of Engineering for the *ISU Distinguished Researcher Award*, November 24, 1999. (Dr. Kunze was selected as one of the finalists as *Outstanding Researcher*).
20. Nominated Dr. Kevin Moore, College of Engineering for the *ISU Distinguished Researcher Award*, December 2, 1996. (Dr. Moore was selected as one of the finalists as *Outstanding Researcher*).

- **Service/Outreach to Local/Outside USA Organizations, Universities/Institutions, NSF, IEEE, INL, etc.**

(Some of the recent activities are listed below)

1. Served (by invitation) as an Expert External Examiner/Reviewer for the PhD Thesis entitled, *Design and Performance Improvement of Modulator and Decimation Filter for Sigma-Delta Analog to Digital Converter*, Department of Electronics and Communication Engineering, RV College of Engineering, Bengaluru-560059 (Affiliated to Visvesvaraya Technological University (VTU), Belgaum, Karnataka, India), on 26 May 2022. (5 hours)
2. Wrote a reference letter to a graduate student in the EE program at the University of Minnesota Duluth (UMD) for admission to PhD program in Electrical Engineering, Rochester Institute of Technology, Rochester, NY, on 25 May 2022.
3. Wrote a reference letter to a graduate student in the EE program at the University of Minnesota Duluth (UMD) for admission to PhD program in Electrical Engineering, Rochester Institute of Technology, Rochester, NY, on 10 January 2022.

END OF 2021 (below) AND BEGIN OF 2022 (above)

4. Wrote a reference letter to a graduate student in the EE program at the University of Minnesota Duluth (UMD) for admission to PhD program in Electrical Engineering, NC State University, Raleigh, NC, on 14 December 2021.
5. Wrote a reference letter to a graduate student in EE program at the University of Minnesota Duluth (UMD) for admission to PhD program in Electrical Engineering, University of New Mexico, Albuquerque, NM, on 30 January 2021.
6. Wrote a reference letter to a graduate student in EE program at the University of Minnesota Duluth (UMD) for admission to PhD program in Electrical Engineering, via Engineering Centralized Application Service (CAS) on 29 January 2021.
7. Wrote a reference letter to a graduate student in EE program at the University of Minnesota Duluth (UMD) for admission to PhD program in Electrical Engineering, University of Massachusetts, Boston, Massachusetts on 14 January 2021.
8. Wrote a reference letter to a graduate student in EE program at the University of Minnesota Duluth (UMD) for admission to PhD program in Electrical Engineering, Lehigh University, Bethlehem, Pennsylvania on 14 January 2021.
9. Wrote a reference letter to a graduate student in EE program at the University of Minnesota Duluth (UMD) for admission to PhD program in Electrical Engineering, University of Wisconsin-Milwaukee, Wisconsin on 14 January 2021.
10. Wrote a reference letter to a graduate student in EE program at the University of Minnesota Duluth (UMD) for admission to PhD program in Electrical Engineering, Clemson University, Clemson, South Carolina on 11 January 2021.

11. Wrote a reference letter to a graduate student in EE program at the University of Minnesota Duluth (UMD) for admission to PhD program in Electrical Engineering, via Engineering Centralized Application Service (CAS) on 13 January 2021.
12. Wrote a reference letter to a graduate student in EE program at the University of Minnesota Duluth (UMD) for admission to PhD program in Electrical Engineering, via Engineering Centralized Application Service (CAS) on 13 January 2021.
13. Wrote a reference letter to a graduate student in EE program at the University of Minnesota Duluth (UMD) for admission to PhD program in Electrical Engineering, University of Central Florida, Orlando FL, on 10 January 2021.
14. Wrote a reference letter to a graduate student in EE program at the University of Minnesota Duluth (UMD) for admission to PhD program in Electrical Engineering, University of Rochester, Rochester, New York, on 07 January 2021.
15. Served as an Expert Panelist in Electrical Engineering for the National Science Foundation (NSF) Graduate Research Fellowship Program (GRFP), Washington, DC, and participated in Virtual Panel meetings on January 6 (Noon to 4:30 PM) 2021. (in addition to these 4.5 hours of participation in the discussions of nearly 30 applications during the virtual panel meetings, nearly 30 hours were spent in pre-reviewing 30 applications).
16. Wrote a reference letter to a graduate student in EE program at the University of Minnesota Duluth (UMD) for admission to PhD program in Electrical Engineering, Marquette University, Milwaukee, Wisconsin on 06 January 2021.
17. Wrote a reference letter to a graduate student in EE program at the University of Minnesota Duluth (UMD) for admission to PhD program in Electrical Engineering, Washington State University, Pullman, Washington on 04 January 2021.
18. Wrote a reference letter to a graduate student in EE program at the University of Minnesota Duluth (UMD) for admission to PhD program in Electrical Engineering, University of Central Florida, Orlando, Florida, on 03 January 2021.

END OF 2020 (below) AND BEGIN OF 2021 (above)

19. Wrote a reference letter to a graduate student in the EE program at the University of Minnesota Duluth (UMD) for admission to PhD program in Electrical Engineering, University of Delaware, Newark, DL, on 29 December 2020.
20. Wrote a reference letter to a professional colleague from Systems Engineering Department, King Fahd University of Petroleum and Minerals (KFUPM) is a public university in Dhahran, Saudi Arabia for a faculty position in Electrical Engineering, University of Southern California, Los Angeles, CA, on 24 December 2020.
21. Wrote a reference letter to a graduate student in the EE program at the University of Minnesota Duluth (UMD) for admission to PhD program in Electrical Engineering, Washington State University, Pullman, WA, on 22 December 2020.

22. Wrote a reference letter to a graduate student in EE program at University of Minnesota Duluth (UMD) for admission to PhD program in Electrical Engineering, Rensselaer Polytechnic Institute (RPI), Troy, NY, on 21 December 2020.
23. Wrote a reference letter to a graduate student in EE program at University of Minnesota Duluth (UMD) for admission to PhD program in Electrical Engineering, University of Rochester, Rochester, NY, on 21 December 2020.
24. Wrote a reference letter to a graduate student in EE program at University of Minnesota Duluth (UMD) for admission to PhD program in Electrical Engineering, Rochester Institute of Technology, Rochester, NY, on 21 December 2020.
25. Wrote a reference letter to a graduate student in EE program at University of Minnesota Duluth (UMD) for admission to PhD program in Electrical Engineering, The University of Texas at Dallas, Dallas, Texas, on 19 December 2020.
26. Wrote a reference letter to a graduate student in EE program at University of Minnesota Duluth (UMD) for admission to PhD program in Electrical Engineering, Vanderbilt University, Nashville, Tennessee, on 19 December 2020.
27. Wrote a reference letter to a graduate student in EE program at University of Minnesota Duluth (UMD) for admission to PhD program in Electrical Engineering, Rochester Institute of Technology, Rochester, NY, on 18 December 2020.
28. Wrote a reference letter to a graduate student in EE program at University of Minnesota Duluth (UMD) for admission to PhD program in Electrical Engineering, University of Iowa, Iowa City, IA, on 14 December 2020.
29. Wrote a reference letter to a graduate student in EE program at University of Minnesota Duluth (UMD) for admission to PhD program in Electrical Engineering, NC State University, Raleigh, NC, on 14 December 2020.
30. Wrote a reference letter to a graduate student in EE program at University of Minnesota Duluth (UMD) for admission to PhD program in Electrical Engineering, University of Virginia, Charlottesville, VA, on 13 December 2020.
31. Wrote a reference letter to a graduate student in EE program at University of Minnesota Duluth (UMD) for admission to PhD program in Electrical Engineering, University of Washington, Seattle, WA, on 09 December 2020.
32. Wrote a reference letter to a graduate student in EE program at University of Minnesota Duluth (UMD) for admission to PhD program in Electrical Engineering, Virginia Tech, Blacksburg, VA, on 09 December 2020.
33. Wrote a reference letter to a graduate student in EE program at University of Minnesota Duluth (UMD) for admission to PhD program in Electrical Engineering, Boston University, Boston, MA, on 08 December 2020.
34. Wrote a reference letter to a graduate student in EE program at University of Minnesota Duluth (UMD) for admission to PhD program in Electrical Engineering, NC State University, Raleigh, NC, on 08 December 2020.
35. Wrote a reference letter to a graduate student in EE program at University of Minnesota Duluth (UMD) for admission to PhD program in Electrical Engineering, Penn State University, University Park, PA, on 08 December 2020.

36. Wrote a reference letter to a graduate student in EE program at University of Minnesota Duluth (UMD) for admission to PhD program in Electrical Engineering, University of Pennsylvania, Philadelphia, PA, on 06 December 2020.
37. Wrote a reference letter to a graduate student in EE program at University of Minnesota Duluth (UMD) for admission to PhD program in Electrical Engineering, Dartmouth College, Newark, Delaware, on 05 December 2020.
38. Wrote a reference letter to a graduate student in EE program at University of Minnesota Duluth (UMD) for admission to PhD program in Electrical Engineering, University of Delaware, Newark, DE, on 05 December 2020.
39. Wrote a reference letter to a graduate student in EE program at University of Minnesota Duluth (UMD) for admission to PhD program in Electrical Engineering, Oregon State University, Corvallis, OR, on 05 December 2020.
40. Wrote a reference letter to a graduate student in EE program at University of Minnesota Duluth (UMD) for admission to PhD program in Electrical Engineering, University of Houston, TX, on 02 December 2020.
41. Wrote a reference letter to a graduate student in EE program at University of Minnesota Duluth (UMD) for admission to PhD program in Electrical Engineering, University of Maryland, College Park, MD, on 02 December 2020.
42. Wrote a reference letter to a graduate student in EE program at University of Minnesota Duluth (UMD) for admission to PhD program in Electrical Engineering, University of Florida, Gainesville, FL, on 01 December 2020.
43. Wrote a reference letter to a graduate student in EE program at University of Minnesota Duluth (UMD) for admission to PhD program in Electrical Engineering, University of Washington, Seattle, WA, on 01 December 2020.
44. Wrote a reference letter to a graduate student in EE program at University of Minnesota Duluth (UMD) for admission to PhD program in Electrical Engineering, Rutgers University, New Brunswick, NJ, on 25 November 2020.
45. Wrote a reference letter to a professional colleague from Systems Engineering Department, King Fahd University of Petroleum and Minerals (KFUPM) is a public university in Dhahran, Saudi Arabia for a faculty position in Electrical Engineering, University of Wisconsin, Madison, WI, on 21 November 2020.
46. Proposal titled, "ADVANCED CONTROL STRATEGIES FOR RESILIENCE ENHANCEMENT OF AC AND DC MICROGRIDS IN AN ENERGY INTEGRATION SYSTEM", submitted to the 2021 regular FONDECYT National Projects Competition organized by National Fund for Scientific and Technological Research (FONDECYT) of the National Research and Development Agency (ANID by its acronym in Spanish) of the Science, Technology, Knowledge and Innovation Ministry, CHILE, was completed on 14 October 2020.
47. Wrote a reference letter to a professional colleague from Systems Engineering Department, King Fahd University of Petroleum and Minerals (KFUPM) is a public university in Dhahran, Saudi Arabia for a faculty position in Electrical Engineering, University of Colorado Boulder, Colorado, on 10 October 2020.

48. Wrote a reference letter to a graduate student in EE program at University of Minnesota Duluth (UMD) for admission to PhD program in Electrical Engineering, University of Rochester, Rochester, NY, on 12 September 2020.
49. Wrote a reference letter to a graduate student in EE program at University of Minnesota Duluth (UMD) for admission to PhD program in Electrical Engineering, Virginia Tech, Blacksburg, Virginia, on 27 September 2020.
50. Wrote a reference letter to a graduate student in EE program at University of Minnesota Duluth (UMD) for admission to PhD program in Electrical Engineering, Northeastern University, Boston, Massachusetts, on 12 September 2020.
51. Wrote a reference letter to a graduate student in EE program at University of Minnesota Duluth (UMD) for admission to PhD program in Electrical Engineering, University of Chicago, Chicago, Illinois, on 08 September 2020.
52. Wrote a reference letter to a graduate student in EE program at University of Minnesota Duluth (UMD) for admission to PhD program in Electrical Engineering, Purdue University, West Lafayette, Indiana, on 06 September 2020.
53. Wrote a reference letter to a graduate student in EE program at University of Minnesota Duluth (UMD) for admission to PhD program in Electrical Engineering, Auburn University, Auburn, Alabama, on 03 September 2020.
54. Wrote a reference letter to a graduate student in EE program at University of Minnesota Duluth (UMD) for admission to PhD program in Electrical Engineering, University of Utah, Salk Lake City, Utah, on 01 September 2020.
55. Served (by invitation) as an Expert External Examiner/Reviewer for the PhD Thesis entitled, *Synchronization and Control algorithms for Effective PV Grid Integration*, Department of Electrical Engineering, SikshaOAnusandhan (Deemed University), Bhubhaneswar, Odisha, INDIA, on 28 May 2020. (3 hours)
56. Wrote a reference letter to a graduate student in EE program at University of Minnesota Duluth (UMD) for admission to PhD program in Electrical Engineering, University of New Brunswick, Fredericton, New Brunswick, Canada, on 21 February 2020.
57. Served as an IEEE Fellow Grade reference for a professional colleague from AtheroPoint, Roseville, CA, USA, 17 February 2020.
58. Wrote a reference letter to a graduate student in EE program at University of Minnesota Duluth (UMD) for admission to PhD program in Electrical Engineering, Florida Institute of Technology, Melbourne, Florida , on 08 February 2020.
59. Wrote a reference letter to a graduate student in EE program at University of Minnesota Duluth (UMD) for admission to PhD program in Electrical Engineering, University of South Florida, Tampa, Florida , on 04 February 2020.
60. Wrote a reference letter to a graduate student in EE program at University of Minnesota Duluth (UMD) for admission to PhD program in Electrical Engineering, University of South Florida, Tampa, Florida , Arizona , on 02 February 2020.
61. Wrote a reference letter to a graduate student in EE program at University of Minnesota Duluth (UMD) for admission to PhD program in Electrical Engineering, Univ. of Pittsburg, Pittsburg, PA, on 23 January 2020.

62. Wrote a reference letter to a graduate student in EE program at University of Minnesota Duluth (UMD) for admission to PhD program in Electrical Engineering, University of California, Riverside, California, on 04 January 2020.

Below is the End of 2019 and Above is the Beginning of 2020

63. Wrote a reference letter for graduate student in EE Dept at University of Minnesota Duluth (UMD) for admission and financial assistance into PhD program at the University of Utah, Salt Lake City, Utah, on 18 December 2019.
64. Wrote a reference letter for graduate student in EE Dept at University of Minnesota Duluth (UMD) for admission and financial assistance into PhD program at the University of Maryland, College Park, MD, on 12 December 2019.
65. Wrote a reference letter for graduate student in EE Dept at University of Minnesota Duluth (UMD) for admission and financial assistance into PhD program in University of Virginia, Charlottesville, VA, on 05 December 2019.
66. Wrote a reference letter for graduate student in EE Dept at University of Minnesota Duluth (UMD) for admission and financial assistance into PhD program, University of Florida, Gainesville, FL, on 05 December 2019.
67. Wrote a reference letter for one of my former graduate students at Idaho State University, for a faculty position in Washington University in St. Louis, Department of Electrical & Systems Engineering, 06 December 2019.
68. Wrote a reference letter for a graduate student in EE program for admission into PhD program, University of Virginia School of Engineering and Applied Science, Charlotte, Virginia, on 02 December 2019.
69. Wrote a reference letter for graduate student in EE Dept at University of Minnesota Duluth (UMD) for admission and financial assistance into MS program at University of Minnesota, Minneapolis, MN, on 20 November 2019.
70. Served as a supporting expert reference for a faculty member in the Systems Engineering Department, King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia, for United States (US) permanent residency (green card) through the outstanding researcher (EB-1B) category, 20 March 2019.
71. Served as a reference for a faculty member in Engineering Technology Management in the Division of Natural Sciences and Engineering at the University of South Carolina Upstate, Spartanburg, SC 29303, for the Energy System Division Outstanding Young Investigator Award, Institute of Industrial and Systems Engineers (IISE), 01 March 2019.
72. Served (by invitation) as an Expert External Examiner/Reviewer for the PhD Thesis entitled, '*Robust Active and Reactive Power Controllers for a Grid Connected Wind Energy Conversion System*', School of Electrical Engineering, National Institute of Technology (NIT), Rourkela, India, on 13 March 2019. (3 hours)

73. Served as an IEEE Fellow Grade reference for a faculty member in the Department of Electrical Engineering, University of Kentucky, Lexington, KY 40506, USA, 01 March 2019.
74. Served (by invitation) as an Expert External Examiner/Reviewer for the PhD Thesis entitled, *Wide-Area Damping Controllers for Power System with Time Delay and Actuator Saturation*, School of Electrical Engineering, National Institute of Technology (NIT), Rourkela, India, on 15 February 2019. (3 hours)
75. Review of external evaluation of research and service categories of an Assistant Professor for tenure and promotion to associate professor in the Department of Mechanical Engineering at Colorado School of Mines, was completed on 12 October 2018.
76. Served as a reference for research scientist at University of Colorado Boulder, for United States (US) permanent residency under National Interest Waiver (NIW), on 12 October 2018.
77. Wrote a letter of recommendation to a faculty member (Associate Professor) in the Dept of Electrical Engineering, National Institute of Technology (NIT), Suratkal, Karnataka, INDIA for a faculty position at Indian Institute of Technology (IIT), Indore, Madhya Pradesh, INDIA, on 12 October 2018.
78. Served (by invitation) as an Expert External Examiner/Reviewer for the PhD Thesis entitled, *A Framework for Improved Identification of Various Conditions of Induction Motor Bearing Faults*, School of Electrical Engineering, Vellore Institute of Technology (VIT) University, Vellore, Tamil Nadu, India, on 03 October 2018. (3 hours)
79. Served (by invitation) as an Expert External Examiner/Reviewer for the PhD Thesis entitled, *Nonlinear H_∞ Control Algorithms for Autonomous Underwater Vehicle in Diving and Steering Planes*, School of Electrical Engineering, National Institute of Technology (NIT), Rourkela, India, on 03 October 2018. (3 hours)
80. Visited Siberian Branch (SB) of the Russian Academy of Sciences (RAS), Novosibirsk, Russia and toured the labs and held discussions with scientists and engineers, 28 June 2018.
81. Participated in *UMD 2017 Author Celebration*, based on the articles and/or conference papers published during the calendar year, administered by Kathryn A Martin Library, held at the University of Minnesota Duluth (UMD) Library Ronda, from 4:30 to 6:00 PM on Wednesday, 21 March 2018.
82. Participated, on behalf of the Electrical Engineering Department (EED), in the *2018 Science & Engineering Day* organized by Swenson College of Science and Engineering (SCSE), Univ. of Minnesota Duluth (UMD), during 10 am to 1:00 pm on Saturday, 17 March 2018. Demonstrated the projects relating to Prosthetic/Robotic Hand assisted by Mr. Ibrahim Baz Khallouf.
83. Participated in the talk/tour for the visiting prospective students from Itasca community College (ICC), Grand Rapids, MN, on Thursday, 15 February 2018. Demonstrated Robotic/Prosthetic Hand research in Energy Lab (MWAH 291), Dept. of Electrical Engineering, University of Minnesota Duluth (UMD), Duluth, Minnesota, USA. (1 hour: 1/2 hour setup of demo and 1/4 hour presentation).

84. Participated in the talk/tour for the visiting Electrical Engineering students and parents for Admitted Student Day, on Friday, 02 February 2018. Demonstrated Robotic/Prosthetic Hand research in Energy Lab (MWAH 291), Dept. of Electrical Engineering, University of Minnesota Duluth (UMD), Duluth, Minnesota, USA. (2 hours: 1 hour setup of demo and 1 hour presentation).
85. Participated (along with students) in the technical tour of Thomas Electric Hydro Station, of Minnesota Power, located on St. Louis River in Carlton, Minnesota, sponsored by IEEE Students Branch, Dept of Electrical Engineering, Univ. of Minnesota Duluth (UMD), Duluth, Minnesota, on Tuesday, 30 January 2018. (3 hours)
86. Met and talked to an University of Minnesota Duluth (UMD) admitted student - Mr. Duncan Henry and his mother regarding double majoring in Music and Engineering at University of Minnesota Duluth (UMD), Duluth, Minnesota, from 2:20PM to 3:10PM, on 26 January 2018. (50 mts)
87. Served (by invitation) as an Expert External Examiner/Reviewer for the PhD Thesis entitled "On Estimation of Misalignment and Deviation from Intended Trajectory for Airborne Vehicles Ejected from a Moving Base", Department of Computer Science and Technology, Indian Institute of Engineering Science & Technology, Shibpur, West Bengal, INDIA, and report completed on 22 January 2018. (3 hours)
88. Served (by invitation) as an Expert External Examiner/Reviewer for the PhD Thesis entitled "NEURAL NETWORK BASED NON-LINEAR CONTROL METHODS WITH OBSERVER DESIGN FOR ROBOTIC MANIPULATORS", Department of Electrical and Electronic Engineering, National Institute of Technology Karnataka(NITK), Surathkal, Mangalore - 575 025, Karnataka, INDIA, and completed the report on 19 January 2018. (3 hours)
89. Wrote a letter of recommendation for a former student from Univ. of Minnesota Duluth (UMD) for admission to PhD program, College of Graduate Studies, University of Central Florida (UCF), on 09 January 2018.
90. Wrote a letter of recommendation for a graduate student from Idaho State University for admission into PhD program at the University of California, Berkeley, on 02 December 2017.
91. Met and talked to Mr. Mitch Fedewa (and his family), a high school senior from Cambridge-Isahiti High School who hopes to become a freshman at University of Minnesota Duluth (UMD) in 2018 on 01 December 2017.
92. Met and talked to Ms. Katelyn France, a high school senior from Hinckley-Finlayson High School who hopes to become a freshman at University of Minnesota Duluth (UMD) in 2018, regarding her QR code based medical bracelets that she has been working, on 01 December 2017.
93. Wrote a letter of reference for a graduate student in EE dept., Idaho State University (ISU) for admission into PhD program in Electrical Engineering, Rensselaer Polytechnic Institute (RPI), on 03 Nov. 2017. (30 minutes)

94. Served (upon invitation) as an international expert in “evaluating the academic researches for a faculty member who has applied for promotion to the rank of (Professor) in the department of (Electrical Engineering) whose area of specialization is (control system)”, at Mutah University, Mutah, Karak, Jordan, 29 September 2017 (spent 2 hours in writing the evaluation).
95. Wrote a letter of reference for a graduate student in EE dept., University of Minnesota Duluth (UMD) for admission into PhD program in Electrical Engineering, Wichita State University, Wichita, Kansas, USA, on 08 Aug. 2017.
96. Wrote a letter of reference for a researcher at Idaho National Lab (INL), Idaho Falls, Idaho, for promotion to SE-6, on 01 June 2017.
97. Served (by invitation) as an Expert External Examiner/Reviewer for the PhD Thesis entitled, “AN EFFICIENT TIME DOMAIN FEATURES FOR EPILEPTIC SEIZURE DETECTION”, School of Electrical Engineering, VIT University, Vellore, Tamil Nadu, India, on 05 May 2017. (3 hours)
98. Wrote a letter of reference for a faculty member from School of Electrical Engineering, VIT University, Vellore, Tamil Nadu, INDIA, for a post-doctoral position at National University of Singapore, Singapore, on 05 May 2017.
99. Wrote a letter of reference for a candidate from Aerospace Engineering, Indian Institute of Science (IISc), Bengaluru, who has applied for the Assistant Professor position at Auburn University, on 12 March 2017.
100. Met and discussed for possible collaboration with the Administration (Principal, Director of External Relations, Heads of Departments, Faculty) Acharya Institute of Technology, Acharya Dr. Sarvepalli Radhakrishnan Road, Bangalore-560 107, India, on 18 February 2017.
101. Wrote a letter of recommendation for a graduate student in Measurement and Control Engineering at Idaho State University for admission into PhD program in Electrical and Computer Engineering, Boise State University, Boise, USA, on 16 February 2017.
102. Served as a reference for IEEE Fellow election to a faculty member at Trapeznikov Institute of Control Sciences, Moscow, Russia, on 13 February, 2017.
103. Wrote 15 letters of recommendation to a graduate student in Mathematics Dept at University of Minnesota Duluth (UMD) for admission to PhD program at Univ. of Minnesota, Twin Cities, Univ. of Michigan, Stanford Univ., Univ. of Florida, Carnegie Mellon, Georgia Tech, Univ. of Illinois, Urbana, Univ. of California at San Diego, Irvine, etc. on 12 December 2016.
104. Served as an expert reference for promotion of a faculty member to the senior rank (Full Professor) at the University of Ontario Institute of Technology (UOIT), CANADA, 17 November 2016.
105. Interview by a freshman, for communications class, Entrepreneurship major from the College of Business at Univ. of Minnesota Duluth (UMD), regarding the “topic: the controversy with nuclear power as an energy source”, completed on 02 November 2016.

106. TEDxMinneapolis **Second** Speaker Checkpoint with D. Subbaram Naidu. “At this checkpoint, talks should be about 80% complete. The speaker will present the talk to the team and discuss feedback. If used, preliminary slides, images, or other media should also be worked into the talk”. Other TEDx people invited for the meeting: Megan Mrozek - organizer; Dustin Huibregtse; Justin Sims; Jasmine Russell; Amanda Carlson. Minneapolis Central Library 300 Nicollet Mall, Minneapolis, MN, 10AM to 11AM, June 18, 2016.
107. TEDxMinneapolis **First** Speaker Checkpoint with D. Subbaram Naidu. “During this session, you will meet with the curation team for 60 minutes to present the outline of your talk and discuss feedback. You will also have a session with the photographer”. Other TEDx people invited for the meeting: Megan Mrozek - organizer; Dustin Huibregtse; Justin Sims; Jasmine Russell; Amanda Carlson. Northrup King Building in NE Minneapolis at 1500 Jackson Street NE, Minneapolis, MN, 2 PM to 3 PM, May 7, 2016.
108. Served as an Expert External Examiner/Reviewer (as an “authority in the field of Singular Perturbations Theory and Applications”, for the PhD Dissertation entitled, “Robust Stability Analysis and Feedback Control for Singularly Perturbed Systems”, Applied Mathematics, Department of Mathematics, East China Normal University, Shanghai, China, on 18 May 2016. (2 hours)
109. TEDxMinneapolis Speaker **Kickoff** with Subbaram Naidu. “During this session, you will meet the team, go over what to expect in the coming months and begin discussion on the content of your talk”. Other TEDx people invited for the meeting: Megan Mrozek - organizer; Dustin Huibregtse; Justin Sims; Jasmine Russell; Amanda Carlson. Dunn Bros Coffee North Loop, 337 N Washington Ave, Minneapolis, MN, 6PM to 7PM, April 11, 2016.
110. TEDxMinneapolis 2016 - Invitation to Speak, “We’d like to congratulate and invite you to join us to give a TEDxTalk at TEDxMinneapolis 2016 on August 12th, 2016. Your story and idea worth spreading moved the team, and we cannot be more excited to have you with us on the exciting journey ahead”, Dustin Huibregtse, TEDxMinneapolis Director and Lead Curator, March 24, 2016.
111. Served as an Expert External Examiner/Reviewer for the PhD Thesis entitled, “State and Disturbance Observer Based Sliding Mode Control for Nonlinear Uncertain Systems”, Dept. of Instrumentation and Control Engineering, College of Engineering, University of Pune, Pune, India, on 11 March 2016. (2 hours)
112. Served as an IEEE Fellow Grade reference for a faculty member in the Department of Electrical Engineering, University of Kentucky, Lexington, KY 40506, USA, 18 February 2016.
113. Wrote two letters of reference for IEEE Fellow election one to a faculty member in Electrical Engineering, University of Kentucky, Lexington, KY, and one to a faculty member at Trapeznikov Institute of Control Sciences, Moscow, Russia, on 18 February, 2016.
114. Wrote two letters of recommendation to an undergraduate student in EE program at University of Minnesota Duluth (UMD) for summer research fellowships at Johns Hopkins University and Georgia Tech, on 16 February 2016.

115. Served as an Expert Panelist in Biomedical Engineering for the National Science Foundation (NSF) Graduate Research Fellowship Program (GRFP), Washington, DC, and participated in Virtual Panel meetings on January 19 (9:00AM to 1:00PM) and 22 (9:00AM to 1:00PM), 2016. (in addition to these 10 hours of participation in the discussions of nearly 30 applications during the virtual panel meetings, nearly 30 hours were spent in pre-reviewing 30 applications).
116. Coordinated the Graduate (Noon) Seminar titled, "Honeywell International, Control, Comfort and Energy Savings", by Mr. Conrad Beaulieu, Honeywell International, Minneapolis, MN, at 12:00 noon, on Tuesday, January, 26, 2016.
117. Met and held discussions with Tariq Samad, Ph.D., Corporate Fellow, Honeywell, Golden Valley, MN 55422, U.S.A., regarding "mutual interests and collaboration", at Grand Cafe, on Grand Avenue, Minneapolis, MN, 55409, on Tuesday, January 05, 2016.
118. Met and held discussions with Mr. Dustin Huibregtse, Director and Lead Curator, TEDxMinneapolis, Minneapolis, MN (www.TEDxMinneapolis.com) at Dunn Bros, Hennepin Ave, Minneapolis, MN, on 04 January 2016. "TED is a nonprofit devoted to spreading ideas, usually in the form of short, powerful talks (18 minutes or less). TED began in 1984 as a conference where Technology, Entertainment and Design (TED) converged, and today covers almost all topics from science to business to global issues".
119. Interviewed by U of MN Foundation *Legacy* magazine (give.umn.edu/legacy), a University of Minnesota publication that goes to the University's biggest donors, regarding my research on Prosthetic Hand, on 30 November 2015 and the article titled, Give Him a Hand published in Winter 2016.
<https://give.umn.edu/content/legacy-magazine-winter-2016>
120. Regarding Professor's research on prosthetic hand, an article titled, "Give him a hand" A UMD professor uses 3-D printing, computing, and virtual reality technology to develop a robotic hand, was published on University of Minnesota Foundation website in Winter 2016:
<https://give.umn.edu/content/give-him-hand>
121. Wrote a letter of recommendation to a graduate student (from Idaho State University) for admission to PhD program in University California Santa Cruz, CA, on 31 December 2015.
122. Wrote a letter of support indicating the willingness to serve as Faculty Mentor for the proposed Engineers Without Borders (EWB) chapter at University of Minnesota Duluth (UMD), on 31 December, 2015.
123. Wrote a letter of recommendation to a graduate student (from Idaho State University) for admission to PhD program at King Abdullah University of Science and Technology (KAUST), Thuwal, Saudi Arabia, on 30 December 2015.
124. *Dr. Desineni "Subbaram" Naidu's work to use 3D printing to create prosthetic hands.* Greater MN Billboard Campaign - Placement Plan - UMD November 2 - December (2015): Mar-May Carleton near Hwy 33/Cloquet; In-City Rotation Nov: I35/19th Ave; Dec: I35/Helm Street Mar-May: Miller Trunk Hwy, 02 November 2015.

125. Wrote **three** letters of recommendation to a graduate student in the Department of Mathematics and Statistics for admission to PhD program in University of Louisville, West Virginia University and Colorado School of Mines, on 14 December 2015.
126. Wrote **seven** letters of recommendation to a graduate student in the Department of Mathematics and Statistics for admission to PhD program in University of Nebraska, Lincoln, University of Colorado, Denver, University of Central Florida, Case Western Reserve University, New Mexico State University, Louisiana State University, and University of Denver, Denver, on 04 December 2015.
127. Wrote a letter of recommendation to a faculty member in the William E. Boeing Department of Aeronautics & Astronautics at the University of Washington, ASEE McGraw Research Award, on 04 December 2015.
128. Wrote **two** letters of recommendation to a graduate student (from Idaho State University) for admission to PhD program in Oregon State University, and Washington State University, on 13 November 2015.
129. Wrote **three** letters of recommendation to a graduate student (from Idaho State University) for admission to PhD program in Duke University, Oklahoma State University, University of Central Florida, University of Washington, on 06 November 2015.
130. Made a presentation titled, “My Journey of Educational Experiences in Control Systems Engineering from IIT to UMD”, (IIT: Indian Institute of Technology, Kharagpur and UMD: University of Minnesota Duluth, to IEEE Arrowhead Section, Duluth, MN, on 15 October, 2015.
131. Worked as faculty volunteer during University of Minnesota Duluth (UMD) Campus Preview: Recruiting Event with Minnesota public schools, in Garden Room, Kirby Center, UMD, held on 16 October, 2015.
132. Made a presentation on “Prosthetic Hand - Convergence Between Life Sciences, Physical Sciences, Engineering and Beyond”, for Graduate Breakfasts & Speed Research Topics, Graduate School, Univ. of Minnesota Duluth (UMD), Duluth, MN, on 14 October 2015.
133. Prosthetic Project with the robotic hand has been picked to be featured in a stage wide billboard campaign... Director of Photography, University Marketing and Public Relations, University of Minnesota Duluth (UMD) sept. 23 & Reshooting on Oct. 12, 2015.
134. Visited and held discussion regarding “identifying industrial partner for robotic/prosthetic hand”, with Saad J Bedros, PhD, Industrial Relations Director, MNDrive: Robotics, Sensors, and Advance Manufacturing, College of Science and Engineering, University of Minnesota, Minneapolis, on 11 September 2015.
135. Visited and held discussions on “Robotic/Prosthetic Hand Technology Commercialization”, with Eric Olson, Technology Strategy Manager, Office for Technology Commercialization, University of Minnesota, Minneapolis, MN, on 11 August 2015.

136. Visited and held discussion regarding “Robotic/Prosthetic Hand Research Commercialization”, with Carla Pavone, Ph.D., Associate Director, Gary S. Holmes Center for Entrepreneurship, Carlson School of Management, University of Minnesota, Minneapolis, MN, on 07 August 2015.
137. Survey in response to being selected to participate in a National Science Foundation (NSF) survey that seeks user feedback on proposal preparation and submission functionality via FastLane, was completed on 18 June 2015. (20 mts)
138. Visited UMD³⁹ - Natural Resources Research Institute (NRRI) and held discussions with Dr. Rolf Weberg, Director NNRI for possible collaboration in various fields, particularly *Power and Energy*, 3:00 to 5:00 PM, on Monday, June 01, 2015.
139. Made a presentation on *Biomedical signals and sensors for prosthetic robotic hand*, under the program “*Bird of Feather*” luncheon and presentation on research theme: *Sensor*, on 05 May 2015.
140. Review of the proposal, “Instrumentation and Control Design for Small Modular Reactors”, for the US Dept. of Energy (DoE), for the Department of Energy (DoE), Office of Science, SBIR/STTR⁴⁰ FY 2015 Phase II, was completed on 29 April 2015.
141. Met a student (with parents from Twin Cities) who has already been admitted to Univ. of Minnesota Duluth (UMD) during noon on Tuesday, March 31, 2015.
142. Met a prospective student (with parents and family from Rochester, MN) looking for various programs,, 12:30 pm to 1:00 PM, April 02, 2015.
143. Served and made a presentation as a panel member on the topic of *Success in Research* (Writing, Collaborating and interdisciplinary research, Securing grants etc.) for the Employees of Color of Univ. of Minnesota Duluth, on 26 March 2015.
144. Met a prospective student (with parents from Twin Cities) looking for various programs,, 1:00 pm to 1:45 PM, March 25, 2015.
145. Met a student (with parents from Twin Cities) who has already been admitted to Univ. of Minnesota Duluth (UMD) during noon on Tuesday, March 10, 2015.
146. Met Dr. Joshua Hamilton: Dean of Swenson College of Science and Engineering along with Larissa Trygg: Director of Corporate & Foundation Relations of University of Minnesota Duluth (UMD), to discuss and plan various research and outreach activities during 8:30 AM to 9:30 AM, Monday, March 9, 2015.
147. Served as an IEEE Fellow Grade reference for a faculty member from Institute of Control Sciences, Moscow, Russia, 27 February 2015.
148. Participated in the survey for possible publication of the IEEE Internet of Things (IoT) Magazine, on 16 February 2015.
149. Met Larissa Trygg: Director of Corporate & Foundation Relations of University of Minnesota Duluth (UMD), to discuss and plan various research and outreach activities during 2:00 PM to 3 PM on Monday, February 2, 2015.

³⁹UMD: Univ. of Minnesota Duluth

⁴⁰SBIR: Small Business Innovative Research; STTR: Small Business Technology Transfer

150. Served as a reference for one of my graduate students for the position of Assistant Professor in Electrical Engineering, MIT, Cambridge, MA, 03 December 2014.
151. Served as a reference for one of my graduate students for admission to PhD program in Electrical Engineering, MIT, Cambridge MA, 03 December 2014.
152. Served as a reference for one of my graduate students for admission to PhD program in Electrical Engineering, University of New Hampshire, New Hampshire, 03 December 2014.
153. Served as a reference for one of my graduate students for admission to PhD program in Electrical Engineering, Utah State University, Logan, UT, 03 December 2014.
154. Served as a reference for promotion and tenure of a faculty member, Assistant Professor in the Department of Electrical and Computer Engineering (ECE) at the South Dakota School of Mines and Technology (SDSMT), Rapid City, SD, 07 November, 2014.
155. Worked as faculty volunteer during University of Minnesota Duluth (UMD) Campus Preview: Recruiting Event with Minnesota public schools held during October 16 and 17, 2014 in Garden Room, Kirby Center. UMD has over 2,000 visitors over the two days. The program included a campus tour, an Admissions Office presentation, and an open house in which I participated.
156. Served as a reference for a Basic Life Science Research Associate, Stanford University School of Medicine, Stanford, CA, for a United States (US) permanent residency under National Interest Waiver (NIW, 13 October 2014.
157. Served as an External Expert Reference for a faculty member for tenure as Professor in the Dept. of Computer Science, Virginia Commonwealth University (VCU), Richmond, VA, 10 October, 2014.
158. Served as a reference for a faculty member, William E. Boeing Department of Aeronautics & Astronautics, University of Washington, Seattle, WA, for a United States (US) permanent residency under National Interest Waiver (NIW), 10 October 2014.
159. Attended a meeting with faculty from North Star Academy for possible cooperation for GK-12 NSF grant, on 22 September 2014.
160. Serving in *Employees of Color* mentorship program, Univ. of Minnesota Duluth (UMD) since August 2014 to present. Attended meetings at noon on Nov. 20, 2014.
161. Served as additional supporting expert reference for a faculty member in the Dept. of Aeronautics and Astronautics in the University of Washington for United States (US) permanent residency (green card) through the outstanding researcher (EB-1B) category, February 13, 2014.
162. Review of the proposal entitled, "Instrumentation and Control Design for Small Modular Reactors (SMRs)", from Analysis & Measurement Service Corp, Knoxville, TN, for the Department of Energy (DoE), Office of Science, SBIR/STTR⁴¹, was completed on 21 March 2014.

⁴¹SBIR: Small Business Innovative Research; STTR: Small Business Technology Transfer

163. Served as an IEEE Fellow Grade reference for a faculty member from Institute of Control Sciences, Moscow, Russia, 27 February 2014.
164. Served as an IEEE Fellow Grade reference for a faculty member from Colorado School of Mines, Golden, CO, 27 February 2014.
165. Served as an IEEE Fellow Grade reference for a scientist from Idaho National Laboratory (INL), Idaho Falls, ID, 15 February 2014.
166. Served as a supporting expert reference for a faculty member in the Dept. of Aeronautics and Astronautics in the University of Washington for United States (US) permanent residency (green card) through the outstanding researcher (EB-1B) category, February 13, 2014.
167. Served as a supporting referee for support of a faculty member of the College of Technology for the Idaho State University (ISU's) 2013-2014 Distinguished Service Award, on 20 January 2014.
168. Served as an external expert for application to United States (US) Green Card (permanent resident status) for an employee of Idaho National Laboratory (INL), Idaho Falls, Idaho, 26 September 2013.
169. Served as an external referee for admission to graduate school in Germany, 15 September 2013.
170. Served as an external referee for promotion to an employee of Idaho National Laboratory (INL), Idaho Falls, on 12 September 2013.
171. Served as an Expert Panelist in Biomedical Engineering for the National Science Foundation (NSF) Graduate Research Fellowship Program (GRFP), Washington, DC, January 09-11, 2013.
172. Served as an Expert External Examiner for the PhD Thesis entitled, "Frequency Weighted Model Order Reduction Techniques", The School of Electrical, Electronic and Computer Engineering, The University of Western Australia, Crawley, WA, Australia, 04 February 2012. (4 hours)
173. Served as Online Panel Reviewer for US Air Force Summer Faculty Fellowship Program (SFFP), January 2012.
174. Served as an Expert Panelist in Biomedical Engineering for the National Science Foundation (NSF) Graduate Research Fellowship Program (GRFP), Washington, DC, January 10-14, 2012.
175. Served as an External Expert Reference for a faculty member from Dept. of Electrical Engineering, School of Mines, Boulder, Colorado, October 23, 2011.
176. Review of a proposal titled, "Automated Condition Based Monitoring of Nuclear Plant Systems, Structures, and Components", for Nuclear University Program (NUEP), US Dept. of Energy Idaho National Laboratory (INL), Idaho Falls, ID, completed on 02 May, 2011.
177. Review of a proposal titled, "Modernization and Monitoring of Nuclear Plant Systems using Adaptive System Identification and Control", for Nuclear University Program (NUEP), US Dept. of Energy Idaho National Laboratory (INL), Idaho Falls, ID, completed on 30 April, 2011.

178. Participated and served as a judge for the Rube Goldberg Machine competition during the ENGINEERS WEEK celebrations held on February 20-26, 2011. Also, participated in the 2011 National Engineers Week Banquet ceremony and presented the ISU Outstanding Engineer Award to Mrs. Jane Gibson of INL, at Shilo Inn, Idaho Falls, February 24, 2011.
179. Served as an IEEE Fellow Grade reference for a faculty member from Indian Statistical Institute, Bangalore, India, February 24, 2011.
180. Served as an IEEE Senior Member Grade reference for a faculty member, Dept. of Mechanical Engineering, School of Engineering, October 14, 2010.
181. Served as an IEEE Senior Member Grade reference for an engineer from Bloomberg, New York, NY, July 29, 2010.
182. served as an External Reviewer for a faculty member to be promoted from Associate to Full Professor at the Department of Network Engineering and Security, Jordan University of Science and Technology (JUST), Irbid, Jordan “You have been highly recommended as a competent reviewer to evaluate the work of our faculty member”, 11 May 2010.
183. Served as Nominator for a faculty member, Colorado School of Mines, Golden, CO, for the election to Fellow, Institute of Electrical and Electronic Engineers (IEEE) Inc., New York, NY, February 16, 2010.
184. Served as an **expert panelist** in Electrical Engineering for the National Science Foundation (NSF) Graduate Research Fellowship Program (GRFP), Washington, DC, February 4-6, 2010.
185. Served as an IEEE Fellow Grade reference for a faculty member, Indian Statistical Institute, Bangalore, India, February 01, 2010.
186. Served to provide “objective letters of evaluation from recognized experts in the candidates specialty”, for promotion and tenure of an Assistant Professor from Dept. of Electrical and Computer Engineering, Binghamton University, NY, 27 November 2009.
187. Served as a member of the team for Independent Review on “Sensor Platform Optimization and Data Integration”, at Idaho National Lab (INL), Idaho Falls, ID, funded by the DoE Office of Non-proliferation Research and Development and managed by Pacific Northwest National Laboratory (PNNL), Richland, WA, on 03 November 2009.
188. Served as an expert external Examiner for the PhD Thesis entitled, “Sliding mode functional observers for classes of linear and nonlinear systems”, The School of Electrical, Electronic and Computer Engineering, The University of Western Australia, Crawley, WA, Australia, 22 September 2009.
189. Served as a “distinguished scholar, who would be capable of providing an unbiased assessment of the quality of ...” for evaluating research credentials of a faculty member for promotion to the rank of full Professor in the Department of Electrical Engineering and Computer Science, Wichita State University, Wichita, Kansas, 17 August, 2009.

190. Serving as a member of Advisory and External Peer Review Committee for Instrumentation, Control and Intelligent Systems (ICIS) Distinctive Signature, Idaho National Laboratory (INL), Idaho Falls, ID, since June, 2008, July 7-9, 2009 - present.
191. Served as Nominator for a faculty member, Colorado School of Mines, Golden, CO, for the election to Fellow, Institute of Electrical and Electronic Engineers (IEEE) Inc., New York, NY, March 15, 2009.
192. Served as an expert external Examiner for the PhD Thesis entitled, "A Novel Parametrized Controller Reduction Technique based on Different Closed-Loop Configurations", The School of Electrical, Electronic and Computer Engineering, The University of Western Australia, Crawley, WA, Australia, 13 March 2009.
193. Served as an expert in the field of Automatic Control regarding in evaluating research credentials of a faculty member for promotion to the rank of full Professor in the Department of Mechanical Engineering, Faculty of Engineering and Technology, The University of Jordan, Amman, Jordan, 17 February, 2009.
194. Participated in an Advisory Survey of the Graduate Teaching Fellows in K-12 Education (GK-12) program for the National Science Foundation (NSF), contracted with Abt Associates Inc. - 09 February 2009.
195. Served by invitation as member of the International Program Committee for "IFAC Workshop on Networked Robotics", held in Golden, Colorado, USA, during October 6-8, 2009.
196. Responded "As a leading authority in your field, we are soliciting your insights about the ways that your professional discipline will advanced in the coming years. These viewpoints are critical to the success of the Project on National Security Reform (PNSR), to a congressionally mandated, federally funded project of the Center for the Study of the Presidency, sponsored by the Office of the Secretary of Defense", on May 19, 2008.
197. Served as an **expert panelist** for the American Society of Engineering Education (ASEE)- National Science Foundation (NSF) Graduate Research Fellowship Program (GRFP), Washington, DC, January 31 - February 2, 2008.
198. Served as a Member of the external peer review committee for the Distinctive Science Signature - Instrumentation, Control and Intelligent Systems (ICIS), Idaho National Laboratory (INL), Idaho Falls, ID, September 17-18, 2007.
199. Served as a referee for a researcher/engineer, NASA Langley Research Center, Hampton, VA, for the *2007 IEEE-USA Harry Diamond Memorial Award* 12 September 2007.
200. Served as a referee for researcher/engineer, NASA Langley Research Center, Hampton, VA, for the *2006 IEEE Region 3 Outstanding Engineer Award* 20 November 2006.
201. Served as an International Expert Reviewer for faculty promotion to the rank of Associate Professor in the Department of Electrical and Computer Engineering, Sultan Qaboos University, Sultanate of Oman, 20 November 2006.

202. Served as an IEEE Senior Member Grade reference for researcher/engineer, AMIS, Pocatello, Idaho, November 14, 2006.
203. Served (by invitation) as a member of selection committee (for Electrical Devices/Computer Hardware Group) for 2006 Idaho Innovation Awards conducted by Stoel Rives, LLP, Boise, ID, June - September 2006 - My interview with Idaho Statesman, appeared on June 30, 2006.
204. Serving as an **expert panelist** for the American Society of Engineering Education (ASEE)- National Science Foundation (NSF) Graduate Research Fellowship Program (GRFP), Washington, DC, February 10-12, 2006.
205. Selected and participated in the 2005 IEEE-USA Membership Salary and Fringe Benefit Survey, "a premier compensation study of technology professionals in the world", November 15, 2005.
206. Served as an "Off-Campus Evaluator" for a faculty member for promotion to the rank of Professor at Tennessee Technological University, Cookeville, TN, October 06, 2005.
207. Served as "distinguished professionals outside the University of Oklahoma", for evaluating Professor Thordur Runolfsson's research contributions for tenure in School of Electrical and Computer Engineering, The University of Oklahoma, Norman, OK, October 04, 2005.
208. Served as a reference for the position of the G. A. Dobelman Distinguished Professor of Engineering in Electrical Engineering, at Colorado School of Mines, for a faculty member at Applied Physics Lab of Johns Hopkins University, Baltimore, Maryland, March 29, 2005.
209. Served as an IEEE Senior Member Grade reference for a scientist/engineer, AMIS, Pocatello, March 22, 2005.
210. Served as an IEEE Fellow Grade reference for 3 candidates: faculty member Indian Institute of Technology (IIT), Kharagpur, India; engineer/researcher, Lockheed Martin Missiles and Fire Control, Orlando, FL; a faculty member Helsinki University of Technology, Espoo, Finland, February 26, 2005.
211. Served as a reference for the position of Head of the Dept. of Electrical Engineering, University of Victoria, Canada for a faculty member at Applied Physics Lab of Johns Hopkins University, Baltimore, Maryland, January 22, 2005.
212. Served as an external referee for promotion to rank of Professor for a faculty member, Assoc. Professor in Electrical and Computer Engineering, University of Kentucky, Lexington, KY - October 14, 2004.
213. Served as an International Expert Reviewer for faculty promotion in Electrical Engineering, United Arab Emirates University, Al Ain, United Arab Emirates (UAE), 24 April 2004.
214. Served as an external referee for promotion to rank of Professor for a faculty member, Indian Institute of Technology (IIT), Kharagpur, India - April 20, 2004.
215. Served as an IEEE Fellow Grade reference for 2 candidates: faculty member, United Arab Emirates (UAE) University, UAE; faculty member, Indian Institute of Technology (IIT), Kharagpur, India, March 08, 2004.

216. Wrote a letter of support for nomination of faculty member, Dept. of Mechanical Engineering, Georgia Tech, for The Robert G. Quinn Award for Excellence in Engineering Education - January 12, 2004.
217. Served as a judge for WESCON Scholarships, IEEE, June 10, 2003.
218. Served as a reference for a researcher/engineer Lockheed-Martin Company, Fort Worth, TX, for Professional Engineer (PE) application, March 25, 2003.
219. Served as a reference for a faculty member for tenure at Texas A&M University-Kingsville, Kingsville, TX, March 22, 2003.
220. Served as an IEEE Fellow Grade reference for 4 candidates: faculty member, United Arab Emeritus (UAE) University, UAE; faculty member, Rutgers University, Piscataway, NJ; faculty member, CINVESTAV, Unidad Guadalajara, Jalisco, Mexico; and faculty member, Amrita Institute of Technology, Coimbatore, India, March 05, 2003.
221. Served as an External Expert Reviewer for *Kentucky Science & Engineering Foundation R&D Excellence Program Proposal* titled, "Controlled Gas Metal Arc Welding Process for Advanced Manufacturing Applications", University of Kentucky, Lexington, KY, February 18, 2003.
222. Served as an External Expert Reviewer for a faculty member for the *2003 D. Wynne Thorne Research Award* at Utah State University, Logan, UT, December 12, 2002.
223. Served as an IEEE Fellow Grade reference for a faculty member, Dept. of Electrical and Computer Engineering, Wichita State University, Wichita, KS, March 11, 2002.
224. Nominated a researcher/engineer, NASA Langley Research Center, Hampton, VA, for the *2003 IEEE Judith A. RESNIK Award*, January 28, 2002 (Dr. Joshi was finally selected for the award).
225. Served as an International External Referee (to "consult externally with respected leading academics throughout the world") for Dr. Hong Wang for the promotion to a Personal Chair (full Professorship) in the Department of Paper Science, University of Manchester Institute of Science and Technology (UMIST), Manchester, United Kingdom - "the 6th ranked research university in the UK", January 28, 2002.
226. Served as an External Expert Reviewer for a faculty member, for promotion to the rank of full professor in the Dept. of Electrical Engineering, Univ. of Kentucky, Lexington, KY, October 30, 2001.
227. Served as an "Off-Campus Evaluator" for a faculty member for tenure at Tennessee Technological University, Cookeville, TN, October 8, 2001.
228. Served as an External Principal Referee for a faculty member, Dept. of Electrical Engineering, University of Idaho, Moscow, ID, for elevation to *Senior Member* of IEEE, New York, NY, September 11, 2001
229. Contacted to act as an External Referee (to "consult externally with respected leading academics throughout the world") for a faculty member for the promotion

- to a Personal Chair (full Professorship) in Paper Science, University of Manchester Institute of Science and Technology (UMIST), Manchester, United Kingdom, August 8, 2001.
230. Served as an External Principal Referee for a faculty member Tennessee Technological University, Cookeville, TN, for elevation to *Senior Member* of IEEE, New York, NY, August 4, 2001.
 231. Served as an External Expert Reviewer for a faculty member for promotion to full professor in the Dept. of Electrical and Computer Engineering at Utah State University, Logan, UT, November 8, 2000.
 232. Served as an “Off-Campus Evaluator” for a faculty member for promotion to the rank of Associate Professor at Tennessee Technological University, Cookeville, TN, October 4, 2000.
 233. Nominated an engineer/researcher, US Air Force Research Laboratory, Wright-Patterson Air Force Base, OH, for the *IEEE Control Systems Society Technology Award*, May 3, 2000.
 234. Served as an IEEE Fellow Grade reference for a faculty member, Indian Institute of Technology (IIT), Kharagpur, March 8, 2000.
 235. Served as a member of the PhD Dissertation Committee for Mr. Hardev Singh, Dept. of Electrical and Computer Engineering, Marquette University, Milwaukee, WI, 1998-2000. Defense successfully completed on February 2, 2000.
 236. Gave a presentation on “Aerospace: Mars”, to 5th and 6th grade students in the Gifted/Talented Children program at William Thomas Middle School, American Falls, ID on April 12, 1999. An article covering the event was later published in a local news paper, The Power County Press.
 237. Consulted as an **expert panelist** for the Oak Ridge Associated Universities (ORAU)-National Science Foundation (NSF) Graduate Research Fellowship Program (GRFP), Washington, DC, February 1999.
 238. Consulted as an **expert panelist** for the Oak Ridge Associated Universities (ORAU)-National Science Foundation (NSF) Graduate Research Fellowship Program (GRFP), Washington, DC, February 1997.
 239. Served as an **expert panelist** for the Oak Ridge Associated Universities (ORAU)-National Science Foundation (NSF) Graduate Research Fellowship Program (GRFP), Washington, DC, February 1996.
 240. Served as IEEE Fellow Grade reference for 5 candidates (1. California State University, Fullerton, CA; 2. University of Houston, Houston, TX; 3. The University of Hon Kong, Hong Kong; 4. VPI and State University, Blacksburg, VA, 5. Indian Institute of Technology, Kharagpur, India), March 1996.
 241. Nominated engineer/researcher NASA Langley Research Center, Hampton, VA, for the *IEEE Control Systems Society Technology Award*, June 30, 1995. (Dr. Joshi was finally selected for the award).
 242. Served as an IEEE Fellow Grade reference for Dr. Magdi Mohamed, Kuwait University, April 1995.

243. External Expert Reviewer for **Boyd Distinguished Professorship** of Louisiana State University System, Baton Rouge, LA, November 1994.
244. External Expert Reviewer for **Promotion Committee for Professor**, University of Nevada, Los Vegas, NV, October 1994.
245. External Expert Reviewer for **Promotion Committee for Professor**, University of Nevada, Los Vegas, NV, September 1993.
246. External Expert Reviewer for **Promotion and Tenure Committee** for Professor, Worcester Polytechnic Institute (WPI), Worcester, MA, July 1991.

● Synergistic Activities

(Some of the recent activities are listed below)

A list of examples that demonstrate the broader impact of the individuals professional and scholarly activities that focuses on the integration and transfer of knowledge as well as its creation. Examples could include, among others: innovations in **teaching and training** (e.g., development of curricular materials and pedagogical methods); contributions to the science of learning; **development and/or refinement of research tools**; computation methodologies, and algorithms for problem-solving; development of databases to support research and education; broadening the participation of groups underrepresented in science, mathematics, engineering and technology; and service to the scientific and engineering community outside of the individuals immediate organization.

1. Teaching and Learning:

- a) Published a graduate level text book, Optimal Control Systems, CRC Press, 2003 along with Solutions Manual. This book was adapted by more than 100 institutions in USA and the rest of the world. A completely revised and enlarged version of this book with new title - Deterministic and Stochastic Optimal Control - will be published in future.
- b) Developed new graduate level courses:
 - i) Idaho State University (ISU) until the year 2014: Advanced Control Systems, Nonlinear Control Systems, Optimal Control Systems and Intelligent Control Systems.
 - ii) University of Minnesota Duluth (UMD) since Fall 2014: Developed an updated graduate level course EE8151 Optimal Control Systems (an updated with changes in title and course description to the previous title - EE8151 Linear Systems and Optimal Control), Fall 2017.
- c) Developed Undergraduate Courses (5000 level):
 - i) Developed a new course EE5333 GRID: The GREAT (Grid: Resilience, Efficiency and Technology) for senior and graduate students in Electrical, Mechanical and Chemical Engineering, Fall 2015.
 - ii) Developed a new course EE5161 Linear State-Space Control Systems, Fall 2016.

2. Research:

- a) As Principal Investigator (PI) led an interdisciplinary effort on Smart Prosthetic Hand Technology - funded (\$2.25M) by US Army Medical Command Acquisition Agency (USAMCAA) and administered by Telemedicine Advanced Technology Research Center (TATRC) under the US Dept. of Army. This is truly an interdisciplinary project exemplifying The Third Revolution: The Convergence of Life Sciences, Physical Sciences, and Engineering (MIT White Paper January 2011; The First Revolution: Molecular and Cellular Biology and The Second Revolution: Genomics). This project was administered by me? with 7 faculty members from various disciplines of engineering (including me as PI from Electrical Engineering, Mechanical, and Environmental Engineering) and sciences

(Computer Science and health sciences disciplines of Biomedical and Pharmaceutical Sciences and Physical and Occupational Therapy), and over 10 PhD students and several MS and BS students resulting in over 200 publications.

b) Developed algorithms for time scale analysis and synthesis for control of wind energy systems and life science systems.

c) Developed algorithms for tracking of nonlinear feedback optimal control systems using state-dependent Riccati equations (SDRE) and state-dependent vector equations (SDVE).

3. **Broadening the Participation of Different Groups:**

a) Worked, encouraged and mentored a broad spectrum of students and faculty (male, female, from different countries such as USA, Egypt, India, Iran, Taiwan, China, Bolivia, Japan) from various disciplines of Engineering: Electrical, Mechanical, Civil; Sciences: Computer Science, Mathematics, Biology, Chemistry, Geosciences, Biomedical Sciences, Physical and Occupational Therapy.

4. **service to the scientific and engineering community outside of the individuals immediate organization**

Outside my immediate organization, served in various capacities as expert reviewer for American Society for Engineering Education (ASEE), National Science Foundation (NSF), US Dept. of Defence (DoD), US Dept. of Energy (DoE), etc. external evaluator for promotion and tenure for faculty from USA, UK, Jordan, India, China, Russia, Egypt, UAE, etc.

5. **Community Service:** Notable among them is being a member of International Rotary Club and serving the community by high-way cleaning, helping the fellow human beings with food etc and recognized as - **Rotarian of the Year: 2011-12**, and presented a plaque with “sincere appreciation and recognition of distinguished service, loyalty and devotion to the ideals of Rotary”

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