

# CURRICULUM VITAE

D. *Subbaram* Naidu, PhD, PE, Fellow IEEE

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- **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**, Control Systems Engineering, Indian Institute of Technology (IIT), Kharagpur, India
3. **BE**, Electrical Engineering, Sri Venkateswara University, Tirupati, India

- **Experience**

1. August 1996 - present: 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.
2. 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.

3. 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.
4. 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 Wang, Center for Applied and Multidisciplinary Mathematics, Department of Mathematics, East China Normal University, Shanghai, China.
5. March-2006 to August - 2006: Interim Chair of Civil and Environmental Engineering program, College of Engineering, Idaho State University.
6. 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.
7. 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: 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 Nonlinear Control Systems to doctoral students in ETH.
8. 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.
9. January - July - 1999: Interim Associate Dean of Graduate Studies, College of Engineering, Idaho State University, Pocatello, Idaho – Administration of graduate students, program etc.
10. June - 1998 - present: Director, Measurement and Control Engineering Research Center, College of Engineering, Idaho State University, Pocatello, Idaho – Research and administration of the Center.
11. July -22, 1990 - present: Professor (Tenured w.e.f. 8/13/1992), College of Engineering, Idaho State University, Pocatello, ID – Teaching and Research.
12. 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.

13. 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.
14. 1993 - 1998: Co-Director, Measurement and Control Engineering Research Center, College of Engineering, Idaho State University, Pocatello, Idaho – Research
15. 1987-90: Research Associate Professor, NASA Langley Research Center, Hampton, VA and Old Dominion University, Norfolk, VA – Research and teaching.
16. 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.

### ● Academic Awards/Honors

1. "Because of the reference value of (your) outstanding achievements", Marquis Who'Who -2010 selected my biography for inclusion in the 64<sup>rd</sup> 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.
2. 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.
3. 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.
4. Biography selected for inclusion in the 2010<sup>th</sup> 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.
5. "Because of the reference value of (your) outstanding achievements", Marquis Who'Who -2009 selected my biography for inclusion in the 63<sup>rd</sup> 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.
6. Biography selected for inclusion in the 24<sup>th</sup> 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.
7. 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.
  8. 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.
  9. Biography selected for inclusion in the 60<sup>th</sup> 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.
  10. 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.
  11. 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.
  12. 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.
  13. 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”.
  14. 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.
  15. 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.
  16. 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.

17. 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.
18. 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, Dr. 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.
19. 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.
20. 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.
21. Invited for inclusion of biography in *2000 Outstanding Scholars of the 20th Century*, International Biographic Institute, Cambridge, England, May 2000.
22. Invited for inclusion of biography in *Directory of International Biography*, Twenty-Ninth Edition, International Biographic Institute, Cambridge, England, May 2000.
23. 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.
24. Selected as a potentially qualified candidate for inclusion in the 2000 edition of *International WHO’S WHO of Professionals*, December 3, 1999.
25. 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.
26. Recipient of National Academy of Sciences (NAS)-*National Research Council (NRC) Senior Research Associateship Award* during 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. These awarders, “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”.

27. 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*”.
28. Listed in the Sixth Edition of *Five Thousand Personalities of the World*, published by The American Bibliographical Institute, Inc., Raleigh, NC, USA, December 1997.
29. Listed in the 1998 Edition of *International Who's Who of Contemporary Achievement*, published by The American Biographical Institute, Inc., Raleigh, NC, July 1997.
30. Honorary appointment to the *Research Board of Advisors*, published by The American Biographical Institute, Inc., Raleigh, NC, July 1997.
31. 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.
32. Recipient of Associated Western Universities (AWU)-Idaho National Engineering and Environmental Laboratory (INEEL), Idaho Falls, Idaho, *Summer Fellowship* during Summer of 1997.
33. IEEE Idaho Section *Service Award* in honor, recognition and appreciation of dedication and esteemed service as *Secretary/Treasurer*, May 31, 1997.
34. Listed in the **American Men & Women of Science**, published by R. R. Bowker Data Collection Center, Oldsmar, FL, USA, May 1997.
35. Listed in the sixth edition of *The International Directory of Distinguished Leadership*, published by The American Bibliographical Institute, Inc., Raleigh, NC, USA, 1997.
36. 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.
37. 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.
38. Recipient of Associated Western Universities (AWU)-Idaho National Engineering Laboratory (INEL), Idaho Falls, Idaho, Summer Fellowship during Summer of 1995.
39. Recipient of the *highest research recognition* at Idaho State University, the *Distinguished Researcher Award* for 1994–’95 – May 13, 1995.

40. **Elected as a Fellow** of the Institute of Electrical and Electronics Engineers (IEEE), 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*”.
41. Recipient of 1994-'95 Idaho State University **Outstanding Researcher Award** – March 1995.
42. Received **Distinguished Electrical Engineer** award in recognition of advancement to **IEEE Fellow** from IEEE Idaho Section, Pocatello, Idaho, January, 1995.
43. 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.
44. Winner of 1993-'94 Idaho State University **Outstanding Researcher Award** – March 1994.
45. Winner of **Best Paper Presentation** at the 1993 American Control Conference (ACC), San Francisco, CA – June 1993.
46. Admitted to the grade of **Associate Fellow** of the American Institute of Aeronautics and Astronautics (AIAA), Washington, DC – September 1991.
47. Recipient of National Academy of Sciences-National Research Council (NRC), Washington, DC, **Senior Research Associateship 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*”.

- **Activities: Recognition, Publicity, etc.**

( Some of the recent activities are listed below)

1. News item, **Improving prosthetics - ISU gets \$842,000 grant to develop robotic hand ...** appeared in Idaho State Journal, Pocatello, Idaho, September 21, 2007.
2. News item, “Dr. 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.
3. News item, **Professor Profile: D. Subbaram Naidu** appeared in Idaho State Journal, Pocatello, Idaho, December 27, 2004.

4. News item, “Dr. 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.
5. News item, “Dr. 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.
6. 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.
7. News item, “Dr. 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.
8. News item, “Dr. 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.
9. 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.
10. News item, “Dr. 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 - Dr. 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.
11. News item, “Dr. 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.
12. News item, "Dr. 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.
  13. 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.
  14. 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.
  15. 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.
  16. 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.
  17. 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.
  18. 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.
  19. 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.
  20. Invited to be a member of *Centennial Featured Speakers* for Idaho State University Centennial Celebrations, August 18, 1999.
  21. News item, "Faculty/Staff Update", regarding the **sabbatical tenure** at Air Force Research Laboratory (AFRL), during Jun1 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.

22. Picture was published on page 89 under the College of Engineering in Graduate Catalog of Idaho State University, 1998-99.
23. 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.
24. 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.
25. Picture was published on page 89 under the College of Engineering in Graduate Catalog of Idaho State University, 1997-98.
26. 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.
27. Picture was published on page 89 under the College of Engineering in Graduate Catalog of Idaho State University, 1996-97.
28. Picture was published on page 89 under the College of Engineering in Graduate Catalog of Idaho State University, 1995-96.
29. 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.
30. 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.
31. "Dr. 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.
32. 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.
33. 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.
34. 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.
35. 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.

36. 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.
37. 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.
38. 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.
39. 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.
40. 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.
41. 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.
42. 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.
43. News item, "Engineering prof earns national honor", appeared in *The Idaho State Journal*, dated January 30, 1995.
44. 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.
45. 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.
46. 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.
47. 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.

48. 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.
49. 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.
50. 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.
51. 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.
52. 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.
53. Picture with Space Station background was published on page 89 under the College of Engineering in Graduate Catalog of Idaho State University, 1992-93.
54. Visited National Aeronautical Laboratory, Bangalore, India, on December 9, 1992.
55. Visited Center for Artificial Intelligence and Robotics (CAIR), Bangalore, India, on December 10, 1992.
56. 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.
57. 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.
58. 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.

59. 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.
60. 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.
61. 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.
62. 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.
63. 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".
64. 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.
65. 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.
66. 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

1. Short course on Optimal Control Systems at Nantong University, Nantong, China - May 21 - 25, 2007.
2. 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: Eidgenssische Technische Hochschule), Zurich, Switzerland, July 11-15, 2005.

3. **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.
4. **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.

### ● ABET and Related Experience

1. 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.
2. 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.
3. 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.
4. 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.
5. 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 (CEO, SC, EEG, ME, NE), August 2006 to present.
6. As ABET Program Evaluator (PEV) for Electrical Engineering (EE), visited University of Wisconsin - Platteville, WI, October 29-31, 2006.
7. 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.
8. As ABET Program Evaluator (PEV) for Electrical Engineering (EE), visited San Jose State University, San Jose, CA, October 16-18, 2005.
9. 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.

10. 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.
11. 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.
12. 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.
13. 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.
14. 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.
15. 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.
16. 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.
17. 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.
18. 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.
19. 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.
20. 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.
21. 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.

## ● Research Experience

### 1. At present

- (a) Director, Measurement and Control Engineering Research Center, College of Engineering, Idaho State University, Pocatello, Idaho, June 1998 - present (Co-Director during August 1993 - June 1998).
  - (b) Professor (Tenured), Measurement and Control Engineering Research Center, College of Engineering, Idaho State University, Pocatello, Idaho, August 1990 - present.
2. 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.
  3. 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.
  4. 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.
  5. 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.
  6. 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”.
  7. Associate Professor (Research) with Old Dominion University, Norfolk, VA, during 1987-90, on full-time research at NASA Langley Research Center, Hampton, USA.
  8. Worked as Research Associate Professor, NASA Langley Research Center, Hampton, VA and Old Dominion University, Norfolk, VA – Research and teaching, during 1987-1990.
  9. 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.

10. Completed **PhD Thesis** entitled, “Applications of Singular Perturbation Technique to Problems in Control Systems”, in November 1977.
11. **Supervision of Post-Doctoral Fellows**
  - (a) 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.
  - (b) Supervised a Post-Doctoral Research Fellow (Dr. Selahaddin Ozcelik) 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.
  - (c) Supervised a Post-Doctoral Research Fellow (Dr. Aydin Yesildirek) 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.
  - (d) Supervised a Post-Doctoral Research Fellow (Dr. Lyndon Brown) 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.
  - (e) Supervised a Post-Doctoral Research Fellow (Dr. C. Charalambous) 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.
12. **Graduate (PhD) Student Supervision**
  - (a) As Major Advisor supervised (ninth) PhD Dissertation titled, “Hybrid Control Strategies for Smart Prosthetic Hand”, by Cheng-Hung Chen, Dept. of Electrical Engineering and Measurement and Control Engineering Research Center, College of Engineering, Idaho State University, Pocatello, Idaho, May 2009.
  - (b) As Major Advisor supervised (eighth) PhD Dissertation titled, “Advanced Control Strategies for Heating, Ventilation and Air Conditioning (HVAC) Systems in Critical Building Structures”, by Craig Rieger, Dept. of Electrical Engineering and Measurement and Control Engineering Research Center, College of Engineering, Idaho State University, Pocatello, Idaho, August 2008.
  - (c) As Major Advisor supervised (seventh) PhD Dissertation titled, “Unified Approach for Optimal Control Systems”, by Yoshiko Imura, Dept. of Electrical Engineering and Measurement and Control Engineering Research Center, College of Engineering, Idaho State University, Pocatello, Idaho, August 2007.
  - (d) As Major Advisor supervised (sixth) PhD Dissertation titled, “Fusion of Hard and Soft Control Techniques in Biomedical Engineering”, by Vidya Nandikolla, Electrical Engineering Program and Measurement and Control Engineering Research Center, College of Engineering, Idaho State University, Pocatello, Idaho, December 2005.
  - (e) As Major Advisor supervised (fifth) PhD Dissertation titled, “Unified Approach to Optimal Control Systems with State Constraints”, Electrical En-

gineering Program, Measurement and Control Engineering Research Center, College of Engineering, Idaho State University, Pocatello, Idaho, August 2002.

- (f) 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)
- (g) As Major Advisor supervised (fourth) PhD Dissertation titled , in Nuclear Science and Engineering, for his dissertation entitled, *Model-Motivated Advanced Control Strategies for Nuclear Reactors*, by Mohamed Abdelrahman, College of Engineering, Idaho State University, Pocatello, Idaho, May 1996.
- (h) 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, Department of Electrical Engineering, Indian Institute of Technology (IIT), Kharagpur, January 1990.
- (i) As Major Advisor, initiated and supervised (second) PhD thesis titled, “Singular Perturbation Analysis of Multiparameter Discrete-Time Control Systems”, by M.S. Krishna-rayalu, Department of Electrical Engineering, Indian Institute of Technology (IIT), Kharagpur, October 1988.
- (j) As Major Advisor supervised (first) PhD thesis titled, “Singular Perturbation Analysis of Difference Equations with Applications to Control Problems”, by A. Kailasa Rao, Department of Electrical Engineering, Indian Institute of Technology (IIT), Kharagpur, October 1982.

### 13. 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,  $H_\infty$  Optimal Control, Digital Control Systems, and Guidance and Control of Aerospace Systems.

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

- (a) 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.
- (b) 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.
- (c) 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.

- (d) 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.
- (e) 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.
- (f) 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.
- (g) 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.
- (h) 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.
- (i) 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.
- (j) 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.
- (k) 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.
- (l) 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.
- (m) 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.

- (n) 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.
- (o) 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.
- (p) 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.
- (q) 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.
- (r) 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.
- (s) 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.
- (t) 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, Electrical Circuits, Circuit Simulation (PSPICE), Electrical Devices, Control Systems, Microprocessors, Neural Networks, Measurements and Instrumentation,

Robotics, 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, Regional Pole Assignment, Digital Control Systems, Geometric Control Theory and Applications,  $H_\infty$  Control and Risk-Sensitivity Control.

### ● Publications

Published/Presented over 200 items including

- 5 books (2 research monographs, 2 reference books, and 1 graduate level text book),
- 3 articles/chapters in books,

- 10 peer-reviewed survey papers (Conference and Journal),
- 43 peer reviewed, archival journal articles,
- 88 peer reviewed conference publications (based on full length manuscripts),
- 6 peer reviewed conference publications (based on abstracts)
- 48 research reports, and
- 70 book reviews published in refereed journals.

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

### ● Review of Book Manuscripts, or Proposals

( Some of the recent activities are listed below)

1. Reviewed manuscript titled, *Tensor Product (TP) Model Transformation in Polytropic Model-Based Control*, for CRC Press, Boca Raton, FL. Review completed on 02 December 2008.
2. Review of Scholarpedia article “Optimal control”, completed on 16 January 2008.
3. Reviewed manuscript titled, *Control System Engineering, 5/E*, for John Wiley, New York, NY. Review completed on May 14, 2005.
4. Reviewed manuscript titled, *A Mathematical Introduction to Control Theory*, for CRC Press, Boca Raton, FL. Review completed on October 30, 2004.
5. Reviewed manuscript titled, *Chemical Process Control*, for Prentice Hall, Englewood Cliffs, NJ. Review completed on September 18, 2004.
6. Reviewed manuscript titled, *Signals and Systems*, for McGraw Hill, New York. Review completed on April 26, 2004.
7. 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.
8. Reviewed graduate/research level manuscript titled, *Robust Control Systems Design*, for Marcel Dekker, Inc., New York, NY. Review completed on March 24, 2003.
9. 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.
10. 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.
11. Reviewed manuscript titled, *Feedback in Amplifiers and Oscillators*, Addison Wesley Longman Limited, Harlow, Essex, UK, June 1999.

12. Reviewed manuscript titled, *Electromechanical Systems, Electrical Machines, and Applied Mechatronics*, John Wiley & Sons, Sussex, England, UK, February 26, 1999.
13. Reviewed manuscript titled, *Engineering with MATLAB*, by J. King, Addison-Wesley Publishing, Menlo Park, CA, February 13, 1999.
14. Reviewed manuscript titled, *Linear Systems and Signals*, Addison-Wesley Publishing Company, Menlo Park, CA, October, 1998.
15. Reviewed manuscript titled, *Control of Linear Systems*, by J. F. Dorsey and Z. Qu, John-Wiley, April 1998.
16. Reviewed manuscript titled, *Signals, Systems and Transforms with Applications*, Addison-Wesley Publishing Company, Menlo Park, CA, December 1997.
17. Reviewed the manuscript titled, *Robust Model-Based Fault Diagnosis for Dynamical Systems*, J. Chen and R. J. Patton, John-Wiley, London, November 1997.
18. Reviewed manuscript titled, *Introduction to Electrical Engineering*, Irwin/Kerns, Prentice Hall, Upper Saddle River, NJ, October 1997.
19. Reviewed manuscript titled, *Programmable Controllers*, L. Henry and M.O'Callaghan, Addison-Wesley Longman, London, UK, July 1997.
20. Reviewed manuscript titled, *Basic Control Systems Engineering*, by P. Lewis and C. Yang, Prentice Hall, Englewood Cliffs, NJ, 1997.
21. 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.
22. Reviewed manuscript titled, *Signals and Systems*, Addison-Wesley Longman, Menlo Park, CA, July 1996.
23. Reviewed manuscript titled, *Computer Controlled Systems*, John Wiley & Sons, New York, NY, December 1995.
24. Reviewed manuscript titled, *Modeling of Biomedical Systems with Fuzzy Logic*, by A. Nebot, Springer-Verlag, New York, NY, April 1995.
25. Reviewed final manuscript titled, *Modern Control Systems, Seventh Edition*, by R. C. Dorf, Addison-Wesley Publishing Company, Reading, MA, November 1993.
26. 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.
27. Reviewed manuscript titled, *Electrical Circuits*, by N. Balbanian, McGraw Hill, New York, NY, August 1993.

### ● Professional Societies/Awards

1. **Elected as a Fellow** of the Institute of Electrical and Electronics Engineers (IEEE), 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”. (Senior Member since August 1985, Member since April 1978). Dr. Naidu was the *first* IEEE Fellow in the State of Idaho.

2. **Associate Fellow**, American Institute of Aeronautics and Astronautics, (AIAA), Inc., Reston, VA, USA, September 1991 - August 2008 (Senior Member since July 1990, Member since September 17, 1986).
3. Membership in IEEE Control Systems Society, since April 1980 and membership in IEEE Aerospace and Electronic Systems (AES) Society since November 1988.
4. Member, Society for Industrial and Applied Mathematics (SIAM), Philadelphia, PA, November, 1999 - December 2003.
5. Member, American Society of Engineering Education (ASEE), Washington, DC, USA since March 1991.
6. Member, National Air & Space Museum, Smithsonian Institution, Washington, DC, USA, 1992-June 30, 2003.
7. Member of National Space Society (NSS), Washington, DC, USA, 1992-2003.
8. Member Sigma Xi, The Scientific Research Honor Society for Science and Engineering, Research Triangle Park, NC, USA, since April 21, 2000.
9. 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.
10. Secretary/Treasurer, IEEE Idaho Section, Pocatello, ID, USA, June 1993-May 1997.
11. Registered Professional Engineer (PE), State of Idaho, No. 7568, June 1994-present.

### ● Editorial Board and Other Professional Activities

1. Subject Editor, *Optimal Control: Applications & Methods*, Wiley & Sons, New York, NY (2009–),
2. Associate Editor, *International Journal of Information Sciences & Systems Sciences*, the Institute for Scientific Computing and Information, Edmonton, Alberta, Canada (2009-present),
3. Member of Editorial Advisory Board (1992-2001), Book Review Editor (1992 - 2009), and Associate Editor (2009-present) *Mechatronics: The Science of Intelligent Machines, An International Journal*, Pergamon Press, Oxford, UK, April 1992 - present.
4. Member (by invitation) of the Technical Committee for Control The International Association of Science and Technology for Development (IASTED), Calgary, Canada, 14 April 2009.

5. 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.
6. Session Chair - Control System Design, 1st International Symposium on Resilient Control Systems (ISRCS), Idaho Fall, ID, September 9-10, 2008.
7. 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.
8. 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 28-29, 2005. Dr. Naidu was credited with 16 hours of direct contact Continuing Professional Competency (CPC).
9. Member of Editorial Board/Steering Committee of Automatic Control and Systems Engineering (ACSE) and The International Congress for Global Science and Technology (ICGSC), Tuebingen, Germany, June 2004 - present.
10. Editor for Technical Notes, Book Reviews and Correspondence for *International Journal of Robust and Nonlinear Control*, John Wiley & Sons, Chichester, UK, since March 1996 - 2009.
11. 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*.
12. 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).
13. Served as *Volunteer Question Writer* for National Council of Examiners for Engineering and Surveying (NCEES), Clemson, SC, USA, October 7, 2000.
14. 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.
15. 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.
16. Member of the Conference Editorial Board, *1993 IEEE Conference on Decision and Control (CDC)*, San Antonio, Texas, December, 1993.
17. Member of the Conference Editorial Board, *1993 American Control Conference (ACC)*, San Francisco, California, June 2-4, 1993.
18. Member of the Conference Editorial Board, *1992 IEEE Conference on Decision and Control (CDC)*, Tucson, Arizona, December, 1992.

## 19. Reviewer for 35 journals including

- AIAA Journal of Guidance, Control, and Dynamics, USA.
- AIAA Journal of Spacecrafts and Rockets, USA.
- Applied Bionics and Biomechanics, Taylor & Francis, UK.
- 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.
- 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, USA.
- Proceedings of the Institution of Mechanical Engineers (IMEchE): Part I: Journal of Systems and Control Engineering (JSCE)
- SIAM Journal on Control and Optimization.
- and others

**● Research Grants**

Research grants totaling \$4,339,241 (\$ 3,893,893 since joining ISU) 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..

**B. Other Proposals Submitted/Pending/Not funded: Approximate Value \$21,824,393**

● **Committee/Administrative Activities**

**A: University Level**

1. Member, Search Committee for Dean of Graduate Studies, Idaho State University, Pocatello, Idaho, March to June 2006.
2. Member, Search Committee for Dean of College of Technology, Idaho State University, Pocatello, Idaho, January to May 2006.
3. Member, Search Committee for Chief Research Officer, Idaho State University, Pocatello, Idaho, March 8, 2004 - May 15, 2004.
4. Member of General Education Accreditation Committee for accreditation by Northwest Association of Schools and Colleges, Idaho State University, Pocatello, Idaho, November 2003-May 2004
5. 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.
6. 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.
7. Member, Engineering-Technology Review Steering Committee, set up by ISU President, February, 2003 - present.
8. Member, AMI-Semiconductor, Inc., Pocatello, Idaho and ISU Task Force, Idaho State University, Pocatello, Idaho, since January, 2003 - 2004.
9. 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.
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 2001.
11. Member of Selection Committee for *Outstanding Student Achievement Award* for the College of Engineering, Idaho State University, Pocatello, ID, February-March 2003.
12. Member, Graduate Council, Idaho State University, Pocatello, Idaho, August 1993-2005

13. 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.
14. 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.
15. 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.
16. 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.
17. Member, Search Committee for two Surveying Technology positions at the School of Applied Technology, Idaho State University, Pocatello, Idaho, March - May 2000.
18. Member, Electrical Engineering Search Committee, College of Engineering, Idaho State University, Pocatello, Idaho, January 1999-April 1999.
19. Member, Faculty Research Committee, Idaho State University, 1994-98.
20. Member, Tenure Review Committee, Dept. of Biology, Idaho State University, Pocatello, Idaho, November - December 1997.
21. Member, Search Committee for Dean of Graduate Studies, Idaho State University, Pocatello, Idaho, 1996-1997.
22. Member, Search Committee for Vice President for Academic Affairs, Idaho State University, Pocatello, January, 1995 – August, '95.
23. Member, College of Engineering Dean’s Search Committee, Idaho State University, October, 1994 – March, '95.
24. Chair, Curriculum Council, Idaho State University, 1993–’94.
25. Member, Curriculum Council, Idaho State University, 1990-94.

**B: College Level**

26. 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.
27. Chair, Planning and Accreditation Committee, August 2006 - 2008.
28. Served as a member of the College Professional Award Selection Committee, March 2007.

29. Chair, Electrical Engineering Department Chair/Faculty Search Committee, College of Engineering, Idaho State University, Pocatello, Idaho, September 2006 - May, 2007.
30. 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.
31. 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.
32. 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.
33. Chair, PhD Program Committee, College of Engineering, Idaho State University, Pocatello, Idaho, 1999-present.
34. Chair, Graduate Program Committee, College of Engineering, Idaho State University, Pocatello, Idaho, 1999-present.
35. Chair, Promotion and Tenure Review Committee for (PTRC) Dr. Marco P. Schoen, College of Engineering, Idaho State University, Pocatello, Idaho, September - December, 2004.
36. Chair, Computer Science Faculty Search Committee, College of Engineering, Idaho State University, Pocatello, Idaho, August 2004 - May, 2005.
37. Chair, Mechanical Engineering Faculty Search Committee, College of Engineering, Idaho State University, Pocatello, Idaho, January - May, 2004.
38. 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.
39. 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.
40. 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.
41. Chair, Electrical Engineering Faculty Search Committee, College of Engineering, Idaho State University, Pocatello, Idaho, August - December, 2003.
42. 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.
43. 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.

44. 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.
45. Member of Ph.D. Advisory Committee for Songquia Chen, May 2003.
46. Member and Examiner (for Comprehensive Examination) of Ph.D. Advisory Committee for Keith Fisher, September-December, 2002.
47. Member and Examiner (for Comprehensive Examination) of Ph.D. Advisory Committee for Vidya Nandikolla, September-December, 2002.
48. Member and Examiner (for Comprehensive Examination) of Ph.D. Advisory Committee for Suhas Pharkute, September-December, 2002.
49. Chair, Promotion and Tenure Review Committee for (PTRC) Dr. Arya Ebrahimpour, College of Engineering, Idaho State University, Pocatello, Idaho, October - December 2002.
50. 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.
51. 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.
52. 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.
53. Chair, Electrical Engineering Faculty Search Committee, College of Engineering, Idaho State University, Pocatello, Idaho, January - May, 2001.
54. Member, Mechanical Engineering Faculty Search Committee, College of Engineering, Idaho State University, Pocatello, Idaho, January - May, 2001.
55. Member, College Promotion and Tenure Committee (CPTC) for Dr. Chikashi Sato, College of Engineering, Idaho State University, Pocatello, Idaho, February, 2001.
56. Member, College Promotion and Tenure Committee (CPTC) for Dr. Richard Wabrek, College of Engineering, Idaho State University, Pocatello, Idaho, February, 2001.
57. Chair, Promotion and Tenure Review Committee for (PTRC) Dr. Jonathan Blotter, College of Engineering, Idaho State University, Pocatello, Idaho, October, 2000 - January, 2001.
58. Chair, Promotion and Tenure Review Committee for (PTRC) Dr. Chikashi Sato, College of Engineering, Idaho State University, Pocatello, Idaho, October, 2000 - January, 2001.

59. Chair, Promotion and Tenure Review Committee for (PTRC) Dr. Richard Wabrek, College of Engineering, Idaho State University, Pocatello, Idaho, November, 2000 - January, 2001.
60. Member, College Promotion and Tenure Committee (CPTC) for Dr. Jonathan Blotter, College of Engineering, Idaho State University, Pocatello, Idaho, February, 2000.
61. Member, College Promotion and Tenure Committee (CPTC) for Dr. John Bennion, College of Engineering, Idaho State University, Pocatello, Idaho, February, 2000.
62. Member, College Promotion and Tenure Committee (CPTC) for Dr. John McWhriter, College of Engineering, Idaho State University, Pocatello, Idaho, February, 2000.
63. Member, College Promotion and Tenure Committee (CPTC) for Dr. Habib Sadid, College of Engineering, Idaho State University, Pocatello, Idaho, February, 2000.
64. Member, College Promotion and Tenure Committee (CPTC) for Dr. Vitit Kantabutra, College of Engineering, Idaho State University, Pocatello, Idaho, February, 2000.
65. Chair, Promotion and Tenure Review Committee (PTRC) for Dr. Jonathan Blotter, College of Engineering, Idaho State University, Pocatello, Idaho, October, 1999 - February, 2000.
66. Chair, Promotion and Tenure Review Committee (PTRC) for Dr. John Bennion, College of Engineering, Idaho State University, Pocatello, Idaho, October, 1999 - February, 2000.
67. 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.
68. 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.
69. 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.
70. 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.
71. Chair, Promotion and Tenure Review Committee (PTRC) for Dr. Solomon Leung, College of Engineering, Idaho State University, Pocatello, Idaho, December, '97 - January - '98.
72. Member, Curriculum Committee, College of Engineering, Idaho State University, Pocatello, Idaho, 1995-present
73. Chair, Distinguished Professional Achievement Award Committee, College of Engineering, Idaho State University, Pocatello, Idaho, 1996-present

74. Chair, Promotion Review Committee for Dr. Salomon Leung, College of Engineering, Idaho State University, March 1996.
75. Chair, Promotion Review Committee for Dr. Kevin Moore, College of Engineering, Idaho State University, January 1993.
76. Chair, Promotion Review Committee for Dr. Gene Stuffle, College of Engineering, Idaho State University, February 1994.
77. Chair, Promotion and Tenure review Committee for Dr. Gene Stuffle, College of Engineering, Idaho State University, January 1993.
78. Member, Planning Committee, College of Engineering, Idaho State University, 1990-94.
79. Member, Scholastic Committee, College of Engineering, Idaho State University, 1990-94.
80. Member, Faculty Evaluation Committee, College of Engineering, Idaho State University, 1990-94.
81. Member, Curriculum Committee, College of Engineering, Idaho State University, 1990-94.

● **Service to College of Engineering, Idaho State University, etc**

1. Served as Graduate Faculty Representative (GFR) for Ms. Whittney Warr, MS student, Dept. of Counseling, Idaho State University, Pocatello, Idaho, April 14, 2009.
2. Served as Graduate Faculty Representative (GFR) for Ms. Bindu Timilsina, MS student, Dept. of Physics, Idaho State University, Pocatello, Idaho, December 08, 2007.
3. Served as Graduate Faculty Representative (GFR) for Ms. Heather Grimmatt, MS student, Physician Assistant Program, Idaho State University, Pocatello, Idaho, May 08, 2007.
4. 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.
5. Served as Graduate Faculty Representative (GFR) for Mr. Michael Loegering, MS student, Dept. of Nursing, Idaho State University, Pocatello, Idaho, March 24, 2005.
6. Served as Graduate Faculty Representative (GFR) for Ms. Rishay Ackley, MS student, Dept. of Counseling, Idaho State University, Pocatello, Idaho, April 22, 2004.
7. 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.

8. 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.
  9. Served as Graduate Faculty Representative (GFR) for Ms. Karen Campbell, MS student, College of Education, Idaho State University, Pocatello, Idaho, April 29, 2003.
  10. Served as Graduate Faculty Representative (GFR) for Ms. Diane Clemens, MS student, College of Education, Idaho State University, Pocatello, Idaho, July 24, 2002.
  11. 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.
  12. Served as Graduate Faculty Representative (GFR) for Mr. Jeffrey Jones, MBA student, College of Business, Idaho State University, Pocatello, Idaho, May 3, 2002.
  13. 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*.)
  14. 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.
  15. Nominated Dr. Vitit Kantabutra, College of Engineering for the *ISU Distinguished Researcher Award*, November 27, 2000.
  16. Nominated Dr. Habib Sadid, College of Engineering for the *ISU Distinguished Teacher Award*, January 20, 2000.
  17. 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*.)
  18. 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 to Other Universities/Institutions, NSF, IEEE, INL, etc.**  
(Some of the recent activities are listed below)
    1. 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 - present.
    2. Served as Nominator for Professor Kevin L. Moore, 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.

3. 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.
4. 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.
5. 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.
6. Served as an IEEE Fellow Grade Nominator for Professor Kevin Moore, Colorado School of Mines, January 27, 2009.
7. 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.
8. 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 - present.
9. 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.
10. 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.
11. 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.
12. Served as a referee for Dr. Suresh Joshi, NASA Langley Research Center, Hampton, VA, for the *2007 IEEE-USA Harry Diamond Memorial Award* 12 September 2007.
13. Served as a referee for Dr. Suresh Joshi, NASA Langley Research Center, Hampton, VA, for the *2006 IEEE Region 3 Outstanding Engineer Award* 20 November 2006.
14. 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.
15. 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.

16. 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.
17. 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.
18. Served as an “Off-Campus Evaluator” for Dr. Mohamed Abdelrahman for promotion to the rank of Professor at Tennessee Technological University, Cookeville, TN, October 06, 2005.
19. 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.
20. 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 Dr. Kevin Moore at Applied Physics Lab of Johns Hopkins University, Baltimore, Maryland, March 29, 2005.
21. Served as an IEEE Senior Member Grade reference for Mr. Mark M. Nelson, AMIS, Pocatello, March 22, 2005.
22. Served as an IEEE Fellow Grade reference for 3 candidates: Dr. S. Sinha, Indian Institute of Technology (IIT), Kharagpur, India; Dr. Bala Subrahmanyam, Lockheed Martin Missiles and Fire Control, Orlando, FL; Dr. Seppo Ovaska, Helsinki University of Technology, Espoo, Finland, February 26, 2005.
23. Served as a reference for the position of Head of the Dept. of Electrical Engineering, University of Victoria, Canada for Dr. Kevin Moore at Applied Physics Lab of Johns Hopkins University, Baltimore, Maryland, January 22, 2005.
24. Served as an external referee for promotion to rank of Professor for Dr. Yu-Ming Zhang, Assoc. Professor in Electrical and Computer Engineering, University of Kentucky, Lexington, KY - October 14, 2004.
25. 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.
26. Served as an external referee for promotion to rank of Professor for Dr. Siddhartha Sen, Indian Institute of Technology (IIT), Kharagpur, India - April 20, 2004.
27. Served as an IEEE Fellow Grade reference for 2 candidates: Dr. M. S. Mahmoud, United Arab Emirates (UAE) University, UAE; Dr. S. Sinha, Indian Institute of Technology (IIT), Kharagpur, India, March 08, 2004.
28. Wrote a letter of support for nomination of Dr. Charles Ume, Dept. of Mechanical Engineering, Georgia Tech, for The Robert G. Quinn Award for Excellence in Engineering Education - January 12, 2004.

29. Served as a judge for WESCON Scholarships, IEEE, June 10, 2003.
30. Served as a reference for Dr. James M. Buffington, Lockheed-Martin Company, Fort Worth, TX, for Professional Engineer (PE) application, March 25, 2003.
31. Served as a reference for Dr. Selahattin Ozcelik for tenure at Texas A&M University-Kingsville, Kingsville, TX, March 22, 2003.
32. Served as an IEEE Fellow Grade reference for 4 candidates: Dr. M. S. Mahmoud, United Arab Emirates (UAE) University, UAE; Dr. Zoran Gajic, Rutgers University, Piscataway, NJ; Dr. Edgar Sanchez, CINVESTAV, Unidad Guadalajara, Jalisco, Mexico; and Dr. T. R. Padmanabhan, Amrita Institute of Technology, Coimbatore, India, March 05, 2003.
33. 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.
34. Served as an External Expert Reviewer for Dr. Kevin L. Moore for the *2003 D. Wynne Thorne Research Award* at Utah State University, Logan, UT, December 12, 2002.
35. Served as an IEEE Fellow Grade reference for Dr. Edwin Sawan, Interim Chair, Dept. of Electrical and Computer Engineering, Wichita State University, Wichita, KS, March 11, 2002.
36. Nominated Dr. Suresh Joshi, 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).
37. 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.
38. Served as an External Expert Reviewer for Dr. Bruce Walcott, for promotion to the rank of full professor in the Dept. of Electrical Engineering, Univ. of Kentucky, Lexington, KY, October 30, 2001.
39. Served as an "Off-Campus Evaluator" for Dr. Mohamed Abdelrahman for tenure at Tennessee Technological University, Cookeville, TN, October 8, 2001.
40. Served as an External Principal Referee for Dr. Joseph Feeley, Dept. of Electrical Engineering, University of Idaho, Moscow, ID, for elevation to *Senior Member* of IEEE, New York, NY, September 11, 2001
41. Contacted to act as an 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 Paper Science, University of Manchester Institute of Science and Technology (UMIST), Manchester, United Kingdom, August 8, 2001.

42. Served as an External Principal Referee for Dr. Mohamed Abdelrahman, Tennessee Technological University, Cookeville, TN, for elevation to *Senior Member* of IEEE, New York, NY, August 4, 2001 (Dr. Abdelrahman was finally promoted to Associate Professor).
43. Served as an External Expert Reviewer for Dr. Kevin L. Moore for promotion to full professor in the Dept. of Electrical and Computer Engineering at Utah State University, Logan, UT, November 8, 2000 (Dr. Moore was finally promoted to Professor).
44. Served as an “Off-Campus Evaluator” for Dr. Mohamed Abdelrahman for promotion to the rank of Associate Professor at Tennessee Technological University, Cookeville, TN, October 4, 2000.
45. Nominated Dr. Siva S. Banda, US Air Force Research Laboratory, Wright-Patterson Air Force Base, OH, for the *IEEE Control Systems Society Technology Award*, May 3, 2000. (Dr. Banda was finally selected for the award).
46. Served as an IEEE Fellow Grade reference for Dr. Kanti Bhushan Datta, Indian Institute of Technology (IIT), Kharagpur, March 8, 2000.
47. 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.
48. 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.
49. 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.
50. 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.
51. 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.
52. Served as IEEE Fellow Grade reference for 5 candidates (1. Dr. M. Grewal, California State University, Fullerton, CA; 2. Dr. G. Chen, University of Houston, Houston, TX; 3. Dr. B. Porter, The University of Hong Kong, Hong Kong; 4. Dr. L. Ferrari, VPI and State University, Blacksburg, VA, 5. Dr. Ganti P. Rao, Indian Institute of Technology, Kharagpur, India), March 1996.
53. Nominated Dr. Suresh Joshi, 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).
54. Served as an IEEE Fellow Grade reference for Dr. Magdi Mohamed, Kuwait University, April 1995.

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

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