J.N. REDDY

***e*-mail: jnreddy@tamu.edu**
http://mechanics.tamu.edu/
https://orcid.org/0000-0002-9739-1639
https://orcid.org/0000-0003-4705-0745
Web of Science ResearcherID: D-7737-2013
https://scholar.google.com/citations?hl=en&user=SAzgqS0AAAAJ

SUMMARY

Dr. Reddy is a Distinguished Professor, Regents' Professor, and the holder of the *O'Donnell Foundation Chair* IV in J. Mike Walker '66 Department of Mechanical Engineering at Texas A&M University, College Station, Texas. Dr. Reddy earned a Ph.D. in Engineering Mechanics (1974) from University of Alabama in Huntsville. He worked as a Post-Doctoral Fellow in Texas Institute for Computational Mechanics (which is now known as Oden ICES) at the University of Texas at Austin (1974), Research Scientist for Lockheed Missiles and Space Company, Huntsville (l974-75), and taught at the University of Oklahoma (1975-1980), Virginia Polytechnic Institute & State University (1980-1992), and at Texas A&M University from 1992 till now.

Dr. Reddy's earlier research has involved the development of dual-complementary variational principles in theoretical mechanics, mathematical theory of finite elements (especially mixed finite element formulations), refined mathematical models of laminated composite plates and shells, penalty formulations of the flows of viscous incompressible fluids, least-squares formulations of solid and fluid continua, and extensions and applications of the finite element method to a broad range problems, including: composite structures, numerical heat transfer, computational fluid dynamics, and biology and medicine. His shear deformation plate and shell theories and their finite element models and the penalty finite element models of non-Newtonian fluids have been implemented into commercial finite element computer programs like ABAQUS, NISA, and HyperXtrude.

The current research of Dr. Reddy and his group deals with refined shell theories and associated robust shell elements which are free of all types of locking and nonlocal beam and plate theories using the ideas of Eringen, Mindlin, Koiter, and others (in collaboration with colleagues from China, Finland, France, India, Singapore, Spain). He and his group has developed a thermodynamically based strain gradient elasticity theory that contains Mindlin's model as a special case. They also conceived a transformative non-parametric network based methodology to study damage and fracture in solids (GraFEA) which yields mesh independent fracture and its propagation and does not require user inpout about the possible fracture initiation and propagation. His works on nonlocal mechanics ideas and their incorporation into structural theories to predict the bending, buckling, and vibration response (the main idea is to embed micropolarity, which brings an additional layer of kinematics through the micro-rotation degrees of freedom within a continuum model to account for the microstructural effects during deformation to study architected materials and structures) and graph-based finite elements to predict damage and fracture are receiving attention.

Dr. Reddy is the author of a large number of journal papers and 25 books (several with second, third, and fourth editions) on energy principles, variational methods, plates and shells, composite materials, mechanics of solids, and the finite element method (linear and nonlinear) and its applications. Dr. Reddy has delivered over 190 plenary, keynote, and special lectures at international conferences; taught 125 short courses on continuum mechanics, variational methods, linear and nonlinear finite elements, composite materials, and nonlocal structural theories; he advised 50 postdoctoral fellows and research visitors, and guided and co-guided 125 graduate students (78 Ph.D. and 47 M.S. students).

Dr. Reddy is the recipient of numerous professional awards from various professional organizations and societies. The most significant national and international awards are:

- Michael Païdoussis Medal, Royal Society of Canada, 2023
- Leonardo da Vinci Award, European Academy of Sciences, 2023

- IACM Congress (Gauss-Newton) Medal, International Association of Computational Mechanics (2022)
- Member, the Academia Scientiarium et Artium Europaea (the European Academy of Sciences and Arts) (2021)
- SEC Faculty Achievement Award from Texas A&M University (2020)
- Honorary Member, The European Academy of Sciences (2020)
- Corresponding Member, The Royal Academy of Engineering of Spain (2019)
- Foreign Member, The Chinese Academy of Engineering (2019)
- Stephan P. Timoshenko Medal, American Society of Mechanical Engineers (2019)
- Eugenio Beltrami Senior Scientist Prize, the International Research Center for Mathematics & Mechanics of Complex Systems (M&MoCS), Università dell'Aquila, Italy (2019)
- Theodore von Karman Medal, American Society of Civil Engineers (2018)
- JN Reddy Medal in Mechanics of Advanced Materials and Structures (inaugural) (2018)
- JS Rao Medal in Vibration Engineering, Vibration Institute of India (2017)
- John von Neumann Medal, US Association for Computational Mechanics (2017)
- Foreign Fellow, Brazilian National Academy of Engineering (2017)
- Foreign Fellow, Canadian Academy of Engineering (inaugural batch) (2017)
- Prager Medal from the Society of Engineering Science (2016)
- ASME Medal, American Society of Mechanical Engineers (2016)
- Member, the Academy of Medicine, Engineering & Science of Texas (TAMEST), 2015.
- Foreign Fellow, Indian National Academy of Engineering (2015)
- Member, US National Academy of Engineering (2015)
- IACM O.C. Zienkiewicz Award, International Association of Computational Mechanics (2014)
- Raymond D. Mindlin Medal, American Society of Civil Engineers (2014)
- Honorary Member, American Society of Mechanical Engineers (2011)
- Distinguished Research Award, American Society for Composites (2004)
- Belytschko Medal, US Association for Computional Mechanics (2003)
- Excellence in the Field of Composites, American Society for Composites (2000)
- Nathan M. Newmark Medal, American Society of Civil Engineers (1998)
- Archie Higdon Distinguished Educator Award, American Soc. of Engineering Education (1997)
- Charles Russ Richards Memorial Award, American Society of Mechanical Engineers (1995)
- Worcester Reed Warner Medal, American Society of Mechanical Engineers (1992)

Dr. Reddy is a *life fellow* of the American Society of Mechanical Engineers (ASME), and a *fellow* of the American Academy of Mechanics (AAM), the American Institute of Aeronautics and Astronautics (AIAA), the American Society of Civil Engineers (ASCE), the American Society for Composites (ASC), International Association of Computational Mechanics (IACM), U.S. Association of Computational Mechanics (USACM), the Aeronautical Society of India, and the Institution of Structural Engineers, United Kingdom.

Dr. Reddy serves on the editorial boards of about two-dozen journals in applied and computational mechanics. He is the founding Editor-in-Chief of *Mechanics of Advanced Materials and Structures, International Journal of Computational Methods in Engineering Science and Mechanics,* and *International Journal of Structural Stability and Dynamics*. Dr. Reddy served as the chair of the ASME Committee on Computing in Applied Mechanics, the ASCE (Engineering Mechanics Institute) Committee on Computational Mechanics, the Executive Committee and Advisory Board of the Engineering Mechanics Division of ASCE. Dr. Reddy is also a member of the International Association of Computational Mechanics and founding member and former president of the U.S. Association of Computational Mechanics.

Dr. Reddy is one of the original top 100 *ISI Highly Cited Researchers* in Engineering around world with over **39,400** citations and h-index of 91 as per Web of Science; the number of citations is **90,900** with h-index of 113 and i10-index of 646 (i.e., 646 papers are cited at least 10 times) as per Google Scholar. A more complete information, visit **http://mehanics.tamu.edu/**

CURRICULUM VITAE

PERSONAL

Naturalized U.S. citizen

EDUCATION

- B.E. (5yr Course), Mechanical Engineering, Osmania University, Hyderabad, Telangana, India, 1968.
- M.S., Mechanical Engineering, Oklahoma State University, Stillwater, Oklahoma, 1970.
- Ph.D., Engineering Mechanics (*Advisor:* Dr. J. T. Oden), University of Alabama in Huntsville, 1974.
- Post-Doctoral Fellow, Texas Institute for Computational Mechanics, University of Texas, Austin, 1973-1974.

PROFESSIONAL EXPERIENCE

- **1974**: *Research Scientist*, Lockheed Missiles and Space Company, Huntsville, Alabama.
- **1975-1978**: *Assistant Professor*, School of Aerospace, Mechanical, and Nuclear Engineering, University of Oklahoma, Norman.
- **1978-1980**: *Associate Professor*, School of Aerospace, Mechanical, and Nuclear Engineering, University of Oklahoma, Norman.
- **1980-1985**: *Professor*, Engineering Science and Mechanics Department, Virginia Polytechnic Institute and State University, Blacksburg, Virginia.
- **1986-1992**: *Clifton C. Garvin Professor* of Engineering Science and Mechanics, Virginia Polytechnic Institute and State University, Blacksburg, Virginia.
- **1992-2020**: Inaugural appointment to the *Oscar S. Wyatt, Jr. Chair* in J. Mike Walker '66 Department of Mechanical Engineering
- **1998-present**: *Distinguished Professor*, Texas A&M University, College Station, Texas.
- **2010-present**: *Regents' Professor*, Texas A&M University, College Station, Texas.
- **2020-present**: the *O'Donnell Foundation Chair* IV in J. Mike Walker '66 Department of Mechanical Engineering; **adjunct faculty appointments** in Department of Civil Engineering, Department of Aerospace Engineering, Department of Mathematics, and Department of Material Science and Engineering at Texas A&M University, College Station, Texas.

HONORS AND AWARDS

Significant Institutional, National, and International Honors and Awards

- **The Michael Païdosussis Medal**, Royal Society of Canada, 2023
- **Leonardo da Vinci Award**, European Academy of Scieces, 2023
- **The IACM Congress (Gauss-Newton) Medal**, International Association of Computational Mechanics (IACM), July 2022
- **Distinguished Visiting Professor**, the Mechanics, Surface, and Materials Processing (MSMP), Laboratory of Arts et Metiers ParisTech (ENSAM) at Aix en Provence (2020-2022)
- **Foreign Member, the European Academy of Sciences and Arts** (2021)
- **O'Donnell Foundation Chair IV**, Texas A&M University (Sept. 2020)
- **SEC Faculty Achievement Award**, Texas A&M University (April 2020)
- **Honorary Member** (only engineer in this category of Nobel laurets), The European Academy of Sciences (Feb 2020)
- **Foreign Member**, The Chinese Academy of Engineering (Nov 2019)

- **Corresponding Member**, The Royal Academy of Engineering of Spain (Nov 2019)
- ***The S. P. Timoshenko Medal,*** American Society of Mechanical Engineers, 12 November 2019, Salt Lake City, Utah.
- **Ranked 13th among all engineering researchers** and 5th in Mechanical Engineering in the world in a ranking released by Stanford University survey published in PLoS (https://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.3000384).
- ***Qiushi Chair Professor*** of Zhejiang University, Hangzhou, P.R. Chia, Oct.2019.
- ***Guest Professor,*** Guangdong Institute of Intelligent Manufacturing, Guangzhou, China, Oct. 2019.
- ***Advisory Professor,*** Shanghai Jiao Tong University, Shanghai, China, Oct. 2019.
- ***Distinguished Visiting Professor***, the Mechanics, Surface and Materials Processing (MSMP) Laboratory of Arts et Métiers ParisTech (ENSAM) at Aix en Provence, 2021.
- ***The Eugenio Beltrami Senior Scientist Prize***, the International Research Center for Mathematics & Mechanics of Complex Systems (M&MoCS), Università dell'Aquila, Italy, June 2019.
- *Member*, NAE Awards Committee, The Council of the National Academy of Engineering (2019-2020 – a two-year term)
- *Honorary Professor*, College of Engineering, Universidad Peruana de Ciencias Aplicadas, Lima, Peru, 2018-present.
- *Graduation Speaker,* College of Engineering, Vaal University of Technology, South Africa, 12 September 2018.
- ***The JN Reddy Medal in Mechanics of Advanced Materials and Structures,*** Inaugural Recipient, The First International Conference on Mechanics of Advanced Materials and Structures (MAMS), 18-20 July 2018, Torino, Italy.
- **Special Issue of the Mechanics of Advanced Materials and Structures** (MAMS) journal, Honoring Professor J.N. Reddy on his 70th Birthday, Vol. 25, Nos. 15-16, DOI: 10.1080/15376494.2018.1503627, 2018.
- **SES–Prager special issue of MAMS** (*Mechanics of Advanced Materials and Structures*) journal honoring Professor J.N. Reddy as recipient of the Prager Medal, Vol 25, No. 14, DOI: 10.1080/15376494.2018.1469229, 2018.
- ***The Theodore von Karman Medal***, The American Society of Civil Engineers (ASCE), 2018; it is the highest mechanics award from ASCE.
- ***The JS Rao Medal in Vibration Engineering 2017***, Inaugural Recipient, The Vibration Institute of India, Dec 28, 2017.
- ***Foreign Fellow***, Brazilian National Academy of Engineering, November 2017.
- ***The John von Neumann Medal***, The US Association of Computational Mechanics (USACM), 2017; it is the highest award given by USACM to honor individuals who have made outstanding, sustained contributions in the field of computational mechanics generally over periods representing substantial portions of their professional careers.
- ***Foreign Fellow*** (inaugural batch), The Canadian Academy of Engineering, June 2017.
- ***The Arthur Newell Talbot Distinguished Lecture***, University of Illinois at Urbana-Champaign, April 2017.
- ***ASME Medal,*** American Society of Mechanical Engineers, 13 November 2016 (ASME Medal, established in 1920, is the highest award that the Society can bestow and is to recognize "eminently distinguished engineering achievement." Only one ASME Medal is awarded annually. Although Reddy has been honored by both the ASME Medal and Honorary Membership, each award has been made on the basis of different accomplishments).
- ***William Prager Medal***, Society of Engineering Science, July 2016; the prize is awarded for outstanding research contributions in either theoretical or experimental solid mechanics or both.

- ***Simpson Distinguished Visiting Professor,*** Department of Mechanical Engineering, Northwestern University, April-May, 2016.
- ***Special Issue in Honor of 70th Birthday of Professor J. N. Reddy***, *International Journal of Structural Stability and Dynamics*, Vol. 15, No. 7, October 2015.
- ***Honoree****, Current Trends in Non-Classical Continuum Mechanics,* 14-15 December, Goa, India (a conference dedicated to Professor J. N. Reddy on his 70th birthday).
- ***Honoree****, International Conference on Computer Aided Engineering* 2015, 10-12 December 2015, GITAM University, Hyderabad, INDIA (conference dedicated to Professor Reddy on his 70th birthday).
- ***Honoree****,* Special Session titled, Design and Modelling of FGM Structures in Honor of Prof. J. N. Reddy, was organized at the *XXXVI IberoLatin American Congresso on Computational Methods in Engineering* (CILAMCE 2015), Pontifical Catholic University of Rio de Janeiro, Brazil, 22-25 November 2015.
- ***Honoree***, *52nd Annual Technical Meeting of the Society of Engineering Science* (symposium titled, ***Advances in Continuum Mechanics and Computational Engineering Science***, was organized in honor of Professor J. N. Reddy)
- ***Inductee****,* The Hall of Fame of the College of Engineering, Architecture and Technology, Oklahoma State University, Stillwater, October 17, 2015.
- ***Honoree****, International Conference on Composite Science and Technology* (ICCST/10), 2-4 September 2015, Lisbon, Portugal (conference was dedicated to Prof. J. N. Reddy on his 70th birthday).
- ***Foreign Fellow****,* the Indian National Academy of Engineering, September 2015.
- Member, The Interdisciplinary Committee of the World Cultural Council (by invitation only), 2015.
- ***Honoree***, *International Conference on Advances in Applied and Computational Mechanics* (a conference organized in honor of Professor JN Reddy on the occasion of his 70th birthday), 5-7 August 2015, Izmir, Turkey.
- ***Honoree***. Special Sessions organized in honor of Professor JN Reddy at the *Eighth International Conference on Advances in Steel Structures* (ICASS) and *IJSSD Symposium on Progress in Structural Stability and Dynamics*, July 22-24, 2015, Technical University of Lisbon, Portugal (a special issue of the *International Journal of Structural Stability and Dynamics* in honor of JN Reddy is published).
- ***Honoree***. Special Sessions organized in honor of Professor JN Reddy at the *18th International Conference on Composite Structures*, held in Lisbon, Portugal, June 15-18, 2015, Lisbon, Portugal (a special issue of the *Composite Structures* journal in honor of JN Reddy has appeared).
- ***Honoree***. Special issue of *Mechanics of Advanced Materials and Structures* journal on the occasion of the 70th Birthday of Professor Reddy has appeared.
- ***Member***, US National Academy of Engineering (NAE), Washington, DC, 2015.
- ***Member****,* the Academy of Medicine, Engineering & Science of Texas (TAMEST), 2015.
- *Distinguished Visiting Professor*, Centre for Advanced Composite Materials, the University of Auckland, New Zealand, 2015.
- ***The IACM Award*** (now named as the **O.C. Zienkiewicz Award**) from the International Association for Computational Mechanics (IACM), 2014.
- ***Raymond D. Mindlin Medal*** from the American Society of Civil Engineers, 2014.
- ***Finland Distinguished Professor*** (FiDiPro), Aalto University and National Technology Agency of Finland (Tekes), 2014-2018.
- *Visiting Professor* of the *Science without Boarders Program* of Brazil (University of Sao Paulo), 2014-2016.
- ***Chair of Excellence***, Universidad Carlos III de Madrid, Spain, 2014-2015.
- *Distinguished Visiting Professor,* City University of Hong Kong, Hong Kong, 2014.
- *Recognition for Career Achievement*, presented by the organizers of the *17th International Conference on Composite Structures* (ICCS/17), at the University of Porto, Porto, Portugal, 17-21 June 2013.

- *Distinguished Visiting Fellowship*, The Royal Academy of Engineering, London, UK, 2013.
- *Top 100 Scientists*, International Biographical Centre, Cambridge, England, October 2012.
- *Satish Dhawan Visiting Professor,* Department of Aerospace Engineering, Indian Institute of Science, Bangalore, 2012-2013.
- ***Special Issue Honoring the Lifelong Contributions of Professor J.N. Reddy***, *Mechanics of Advanced Materials and Structures* journal, **19**(1-3, 2012), https://doi.org/10.1080/15376494.2012.650031
- "Alternative Least-Squares Finite Element Models of Navier-Stokes Equations for Power-Law Fluids," (coauthored with V. P. Vallala and K.S. Surana), *Engineering Computations* (International Journal for Computer-Aided Engineering and Software), Vol. 28 No. 7, pp. 828-852, 2011. **Selected as a Highly Commended paper at the Literati Network Awards for Excellence 2012**.
- ***Computational Mechanics Award,*** the Japanese Society of Mechanical Engineers (JSME), Oct. 2012.
- "Alternative least-squares finite element models of Navier-Stokes equations for power-law fluids," (by V. Vallala, J.N. Reddy, and K.S. Surana) published in *Engineering Computations* Dec 2010, has been chosen as a Highly Commended Award Winner at the Emerald Literati Network Awards for Excellence 2012.
- *Leading Scientists of the World*, International Biographical Centre, Cambridge, England, August 2012.
- ***Bharat Jyoti Award***, India International Friendship Society, New Delhi, India, Jan 2012.
- ***ASME Honorary Member***, American Society of Mechanical Engineers (ASME), Nov. 2011 (an Honorary Member, first awarded in 1880, shall be a person who has made "distinctive contributions" to engineering, science, industry, research, public service, or other pursuits allied with and beneficial to the engineering profession).
- ***Honorary Doctorate Degree*****,** Odlar Yurdu University, Baku, Azerbaijan, September 2011.
- ***Life Fellow****,* American Society of Mechanical Engineers (ASME), June 2011.
- *Award for Career Achievement*, presented by the organizers of the ACE-X 2010, Paris, July 2010.
- *AIAA Best Paper Award* for "Continuous Sensitivity Analysis of Fluid-Structure Interaction Problems Using Least-Squares Finite Elements, " (authored by Douglas Wickert, Robert Canfield, and J.N. Reddy) AIAA Paper 2008-5931, the 2008 AIAA Best Paper; certificate presented by the AIAA Multidisciplinary Design Optimization Technical Committee, September 2010.
- *The Bert Distinguished Lecture*, School of Aerospace and Mechanical Engineering, University of Oklahoma, Norman, OK, March 6, 2009.
- ***The 2009 Landis-Epic Lecture*** (presented once in 5 years), Department of Civil and Environmental Engineering, University of Pittsburgh, Pittsburgh, March 20, 2009.
- *Distinguished Lecture Series Lecturer*, College of Engineering, West Virginia University, Morgantown, WVA, March 27, 2009.
- ***Honoris Causa,*** Honorary degree from the Technical University of Lisbon, Portugal, Feb. 16, 2009.
- ***JN Reddy Symposium***, Symposium organized in honor of J.N. Reddy for life time achievements and contributions to composite materials, the *23rd Annual Technical Conference on Composite Materials*, American Society of Composite Materials, Memphis, Tennessee, 9-11 September 2008.
- *Honorary Professor*, South China University of Technology, Guangzhou, 2007-present.
- *Editor-in-Chief*, *Applied Mechanics Reviews*, American Society of Mechanical Engineers, New York, 2007-2012.
- ***JN Reddy Book Prizes*****,** presented to the top students in 1st, 2nd, and 4th year of the Engineering Science Programme at the National University of Singapore (instituted in 2006). All *JN Reddy Book Prize* winners have graduated with top honors and went on to top schools like Harvard, Cambridge, Stanford, and MIT for graduate studies or joined top professional organizations (Professor Reddy was the first and last head of the Engineering Science Programme).
- *B. R. Seth Memorial Lecture,* the 51st Congress of Indian Society of Theoretical and Applied Mechanics (ISTAM), December 18-21, 2006, Andhra University, Visakhapatnam, INDIA.

- *Fellow,* the Institution of Structural Engineers, Singapore, 2005.
- *Fellow,* the American Institute of Aeronautics and Astronautics (AIAA), May 2005.
- ***Distinguished Research Award*** of the American Society for Composites, October 2004.
- *The Dow Chemical Best Paper Award* for the paper "Assessment of Plastic Failure of Polymers due to Surface Scratches," (with G. T. Lim and H.-J. Sue) in the General Category of the Failure Analysis and Prevention Special Interest Group at *ANATECH* 2004, Chicago, 2004.
- *Winner* of the Poster Competition in *the International Conference on Polyolefins,* Houston, 2004.
- ***Computational Solid Mechanics Award*** (now renamed as the ***Belytschko Medal***) of the US Association for Computational Mechanics, July 2003.
- *C. S. Krishnamoorthy Memorial Lecture*, Indian Institute of Technology, Madras, December 10, 2002.
- *Fellow* of the American Society for Composites (ASC), October 2002.
- *Alumni of Achievement,* the University of Alabama in Huntsville, Alabama, February 4, 2002.
- *TANA Award for Excellence in Education and Research* from the Telugu Association of North America, July 2001, New York.
- *Distinguished Alumni (Engineering)* from the University of Alabama in Huntsville, Huntsville, Alabama, May 11, 2001.
- *Nanyang Professorship,* Nanyang Technological University, Singapore, 2002-2005.
- ***Excellence in the Field of Composites Award*** from the American Society for Composites, September 2000.
- ***Nathan M. Newmark Medal*** from the American Society of Civil Engineers, October 1998.
- *Outstanding Educator Award* from the American Telugu Association, Detroit, July 1998.
- *Fellow,* the International Association of Computational Mechanics (IACM), 1998.
- ***Melvin R. Lohmann Medal*** from Oklahoma State University, Stillwater, OK, 1997.
- ***Archie Higdon Distinguished Educator Award***, the American Society of Engineering Education, June 1997.
- *Karunesh Memorial Lecture*, the 42nd Congress of the Indian Society of Theoretical and Applied Mechanics (ISTAM), Regional Engineering College, Surat, India, Dec 28, 1997.
- ***Charles Russ Richards Memorial Award,*** American Society of Mechanical Engineers, 1995.
- *Distinguished Visiting Professor*, Institute for High Performance Computing (IHPC) and the National University of Singapore, 1998-1999.
- *Technical Achievement Award,* the National Academy of Engineering (NAE), 1995.
- *Fellow*, the U.S. Association of Computational Mechanics (USACM), 1995.
- *Visiting Professor*, Institute for Computer Applications and Design, University of Stuttgart, Germany, 1994.
- *NATO Fellow*, Middle East Technical University, Ankara, Turkey, 1994.
- *Fellow,* the American Society of Civil Engineers (ASCE), 1992.
- *The Neelakantam Memorial Lecture,* presented at the Annual Convention of the Aeronautical Society of India, December 11, 1992, Bangalore, India.
- ***Worcester Reed Warner Medal***, the American Society of Mechanical Engineers, 1992.
- *Invited Speaker, Southwest Mechanics Lecture Series* (University of Oklahoma, Texas A&M University, Rice University, and University of Houston), 1991.
- *Fellow,* the Aeronautical Society of India, 1991.
- *Oscar S. Wyatt, Jr., Chair Lecture*, Texas A&M University, November 11, 1991.
- *Fellow*, the American Society of Mechanical Engineers (ASME), 1989.
- *Visiting Scientist*, Alcoa Centennial Technical Seminars on Mechanics, Hilton Head, 1987.

- *Visiting Professor*, University of Missouri-Rolla, 1986.
- The *Alexander von Humboldt Foundation Research Fellowship*, Germany, 1986.
- The German Academic Exchange Service Research Grant, Germany, 1986.
- *Fellow,* the American Academy of Mechanics (AAM), 1985.
- ***Walter L. Huber Civil Engineering Research Prize***, American Society of Civil Engineers, 1983.
- *Who's Who in Computational Science and Engineering*, 2003.
- ***Ralph R. Teetor Education Award***, Society of Automotive Engineers (SAE), l976.
- *2000 Outstanding Scholars of the 21st Century,* First Edition, 2001.
- *Who's Who in Executives and Professionals*, 2001.
- ***Highly Cited Researchers***, 2000.
- *Outstanding Man of the 21st Century*, 2000.
- *Dictionary of International Biography*, 27th Edition, l998.
- *Five Hundred Leaders of Influence*, l998.
- *Five Thousand Personalities of the World*, 6th Edition, l998.
- *The International Directory of Distinguished Leadership*, l998, 2001.
- *Outstanding People of the 20th Century*, l998.
- *Who's Who in Engineering Education,* Academic Keys, 2005.
- *Who's Who in America*, 52nd Edition, l998.
- *Men of Achievement*, l994.
- *Most Admired Men & Women of the Year*, l994.
- *Who's Who Among Asian Americans*, l994.
- *Who's Who in Science and Engineering*, 2nd Edition, l994.
- *Who's Who in Technology*, 1979-present, 6th Edition, 1988.
- *Personalities of America*, 4th Edition, l985.
- *Outstanding Young Men of America*, l979.
- *American Men and Women of Science*, 17th Ed., l978.
- *Who's Who in the South and Southwest*, l976-1996 (24th Ed.)
- *Who's Who in Computer Education and Research*, l975.
- *Who's Who in America*, 2004 (59th edition).
- *American Medal of Honor* (American Biographical Institute), 2006.
- *2000 Outstanding Intellectuals of the 21st Century* (International Biographical Centre, England), 2006.

Significant Institutional Awards

- *Distinguished Achievement in Graduate Student Mentorship* Award, Association of Former Students (AFS), Texas A&M University, 2022.
- College/TEES Engineering Genesis Award (to Srikanth Saripalli, JN Reddy, and several others) for winning a large ($1M+) grant/contract, Spring 2022**.**
- *The O'Donnell Foundation Chair IV,* Texas A&M University, 2020-present
- College/TEES Engineering *Genesis Award* (to Tom Lacy, Waruna Kulatilaka, JN Reddy, and Justin Wilkerson) for winning a large ($1M+) grant/contract, Fall 2019.
- Masters student advisee, Ms. Sravani Nuti, Received the *2014-2015 Outstanding Engineering Master's Graduate Student Award* from College of Engineering at TAMU, November 2014, for her thesis "Dynamic Simulations of Elastic Rods for Medical Applications," (co-advised with Dr. Annie Ruimi, TAMU-Q).

- *Regents' Professor*, Texas A&M University, College Station, Texas, December 2010.
- *Distinguished Achievement in Teaching* Award, Association of Former Students (AFS), Texas A&M University, 2007.
- *Distinguished Lecture* of the Sigma Xi, Texas A&M University, October 2005.
- *Distinguished Research Award* of the Sigma Xi, Texas A&M University, March 2005.
- *Texas A&M Bush Excellence Award for Faculty in International Research*, 2003.
- *Distinguished Achievement in Teaching* Award, Association of Former Students (AFS), Texas A&M University, 2002.
- *Lockheed Martin Fort Worth Company Excellence in Teaching*, Texas A&M University, 2002.
- *Distinguished Achievement in Research* Award, Association of Former Students (AFS), Texas A&M University, 2000.
- *Outstanding Graduate Teaching* award, Department of Mechanical Engineering, Texas A&M University, 1995.
- *Oscar S. Wyatt, Jr. Chair*, Texas A&M University, 1992-present.
- *Clifton C. Garvin Professorship*, Virginia Tech (VPI&SU), 1985-1992.
- *Certificates of Teaching Excellence*, Virginia Tech (VPI&SU), 1981 and 1990.
- The *Alumni Research Award*, Virginia Polytechnic Institute and State University, l985.
- Finalist for *Sporn Teaching Award*, Virginia Polytechnic Institute & State University, 1983.
- *Outstanding Faculty Achievement in Research* (the inaugural recipient), University of Oklahoma, l979.
- *Purple Shaft Award* (for a caring but tough faculty member) University of Oklahoma, 1978.

EDITORSHIP OF ARCHIVAL JOURNALS AND SERIES

- **Honarary Editor-in-Chief**, *Mechanics of Advanced Materials and Structures,* Taylor and Francis, Philadelphia (2016-present).
- **Founding Editor-in-Chief**, *International Journal for Computational Methods in Engineering Science and Mechanics*, Taylor and Francis, Philadelphia (2005-present); formerly, *International Journal of Computational Engineering Science (IJCES,* World Scientific, Singapore).
- **Founding Editor-in-Chief** (with Y. B. Yang and C. M. Wang) *International Journal of Structural Stability and Dynamics (IJSSD),* World Scientific, Singapore, (2001-present).
- **Founding Series Editor** *Computational Mechanics and Applied Mathematics*, CRC Press, Boca Raton, Florida, (1995-present).

MEMBERSHIP ON EDITORIAL BOARDS OF JOURNALS

Present Memberships

1. *Computer Methods in Applied Mechanics and Engineering*, Elsevier Science, England (1997-present).
2. *International Journal for Numerical Methods in Engineering*, John Wiley & Sons, London (1984-present).
3. *International Journal for Numerical Methods in Biomedical Engineering*, John Wiley & Sons, London (1984-present).
4. *Composite Structures,* Elsevier, London (2011-present)
5. *Engineering Computations*, MCB University Press, West Yorkshire, England (1984-present).
6. *Finite Elements in Analysis and Design* (the international journal of applied finite elements and computer aided engineering), Elsevier, London; member of the editorial board, 2001-present.
7. *Annals of Solid and Structural Mechanics,* Springer-Verlag, Member of Editorial Board (2009-present).
8. *Latin American Journal of Solids and Structures* (www.lajss.org), University of Sao Paulo, Brazil, member of International Advisory Board, 2010-present.
9. *International Journal for Multiscale Computational Engineering*, Begell House, Inc., NY, (Editorial Board member, 2000-present).
10. *Asian Journal of Civil Engineering* (*Building and Housing*), The Building and Housing Research Centre, Tehran, Iran, member of Editorial Advisory Board, 1999-present.

11. *Journal of Solid Mechanics* (www.jsm-iauarak.com), Department of Mechanical Engineering, Islamic Azad University, Arak Branch, Iran, member of Editorial Board, 2009-present.
12. *International Journal of Applied Mechanics*, Imperial College Press (published by World Scientific, Singapore), member of Editorial Board, 2009-present.
13. *International Journal of Mechanics and Materials in Design*, University of Toronto, Canada; member of the editorial board (2002-present).
14. *Interaction and Multiscale Mechanics: an International Journal (IMMIJ)*, Techno-Press, member of the Editorial Board (2002-present).
15. *International Journal for Integrated Computer-Aided Engineering* (ICAE), ISO Press, member of the Editorial board (2007-present).
16. *Journal of Engineering and Applied Sciences (IJEAS),* Member of Honorary Editorial Board (2009-present).
17. *International Journal of Computational Materials Science and Engineering (IJCMSE),* published by Imperial College Press, Member of the Editorial Board (2011-present).
18. *Journal of Computational and Applied Research in Mechanical Engineering (JCARME),* Member of the Advisory Board and member of the Editorial Board (2012-present) http://jcarme.srttu.edu.
19. *International Journal of Aerospace and Lightweight Structures (IJALS),* published by
20. Imperial College, Member of the Editorial Board Member (2011-present).
21. *Computer and Experimental Simulations in Engineering and Science (CESES),* published by Malliarispedia (www.j-ceses.com), member of Editorial Board, 2008-present.
22. *International Journal of Virtual Technology and Multimedia,* published by Inderscience (www.inderscience.com), member of the Editorial Board, 2008-present.
23. *Chinese Journal of Solid Mechanics (*English title of *Acta Mechanica Solida Sinica)*, Huazhong University of Science and Technology, Wuhan, Hubei, 430074, 1996-present.
24. *International Journal of Computational and Numerical Analysis and Applications*, Bulgaria, 2001-present.
25. *International Journal of Mechanics and Solids*, RIP (Research India Publications), 2006-present.
26. *Curved and Layered Structures*, (www.degruyter.com), University of Bologna, Italy, 2014-present.
27. *Journal of Modeling in Mechanics & Materials,* 2016-present (http://www.multi-science.co.uk/) .
28. *Mathematical and Computational Applications*, MDPI Publishers, Switzerland, 2016-present.
29. *Vietnam Journal of Mechanics,* Vietnam Academy of Science and Technology, Member of the Editorial Board, 2020 – present (http://vap.ac.vn/Vietnam-Journal-of-Mechanics).
30. *Journal of Science and Technology in Civil Engineering* (STCE Journal); member of the International Editorial Board, 2021 – present (http://stce.nuce.edu.vn/index.php/en).
31. *Computational Algorithms and Numerical Dimensions* (CAND), Ayandegan Institute of Higher Education, Iran; member of the Editorial Board, (2022-present).

Past Memberships

1. **Founding Editor-in-Chief**, *Mechanics of Advanced Materials and Structures* (formerly, *Mechanics of Composites Materials and Structures*, John Wiley & Sons, Chichester, UK, 1994-1996); Taylor and Francis, Philadelphia (1997-2016).
2. **Editor-in-Chief**, *Applied Mechanics Reviews*, American Society of Mechanical Engineers, 2006-2012.
3. **Editor**, *USACM Newsletter*, the U.S. Association of Computational Mechanics, 1988-1993.
4. **Associate Editor,** *Journal of Applied Mechanics*, American Society of Mechanical Engineers, New York (1992-2006).
5. **Associate Editor,** *Journal of Engineering Mechanics*, the American Society of Civil Engineers (ASCE), New York, (1992-1994).

6. *Scholarly Research Exchange,* Hindawi Publishing Corporation (www.hindawi.com), Member of the Advisory Board, 2008-2009).
7. *Manufacturing Technology & Research, An International Journal*, Birla Institute of Technology, Mesra, Ranch, INDIA; member of the editorial board (2003-present).
8. *Journal of Mathematical and Physical Sciences*, the Indian Institute of Technology, Madras, India (1989-present).
9. *Journal of the Aeronautical Society of India*, the Aeronautical Society of India, New Delhi, India (1995-present).
10. *Journal of Aerospace Sciences and Technologies*, the Aeronautical Society of India, Bangalore, India (2003-present).
11. *The Institution of Engineers*, Singapore, six journals published by IES, (International Advisory Panel member, 1998-present).
12. *Sadhana* (Academy Proceedings in Engineering Sciences), Indian Academy of Sciences, Bangalore, India, 2001-2008.
13. *Iranian Journal of Science and Technology* (Transactions: Technology), School of Engineering, Shiraz, Iran, 1996-2008.
14. *Asian Journal of Structural Engineering*, The Building and Housing Research Centre and Iran University of Science and Technology, Tehran, Iran (1993-2008).
15. *Computers & Structures*, Pergamon Press, London (1985-2002).
16. *International Journal for Numerical Methods in Fluids*, John Wiley, London (1984-2002).
17. *Journal of Applied Mechanics, the American Society of Mechanical Engineers*, ASME, New York, (Associate Editor, 1992-1999).
18. *Journal of Engineering Mechanics, the American Society of Civil Engineers*, ASCE, New York, (Associate Editor, 1992-1996).
19. *Computational Mechanics Advances*, an official publication of the International Association for Computational Mechanics (IACM), North-Holland, The Netherlands (1992-1996).
20. *Mathematical Modeling and Scientific Computing*, the International Association for Mathematical and Computer Modeling, Principia Scientia, St. Louis, 1993-1995.
21. *Modeling and Computational Experiment in Engineering and Technology*, University of Kocaeli, Izmit, Turkey, 1994-1996.
22. *IACM Bulletin*, Newsletter of the International Association of Computational Mechanics, IACM, John Wiley, London, (Editor, 1992-1996).
23. *USACM Newsletter*, the U.S. Association of Computational Mechanics (USACM), (Editor, 1988-1993).
24. *Meccanica*, International Journal of the Italian Association of Theoretical and Applied Mechanics, Kluwer, Netherlands (1989-1994).
25. *IACM Expressions*, magazine of the International Association of Computational Mechanics, IACM, IACM Secretariat, Barcelona, Spain, (member, 1996-2000).
26. *Structural Engineering and Mechanics*, Techno-Press, S. Korea, 1999-2009.
27. *Engineering Structures*, Elsevier Science, Oxford, England (1997-2002).
28. *Associate Editor*, *Journal of Engineering Mechanics*, the American Society of Civil Engineers (ASCE), New York, (2012-2014).

OTHER PROFESSIONAL MEMBERSHIPS

- **International Advisory Committee Member**, Engineering Science Programme, National University of Singapore, 2015 – present.
- **Member of the International Advisory Board**, SRM Institute of Science and Technology, Thamilnadu, INDIA, 2009-present.
- **Member of the Executive Advisory Board**, Gokula Education Foundation, Bangalore, INDIA, 2019-present.

KEY NOTE AND PLENARY LECTURES AND SPECIAL SEMINARS DELIVERED

1. J.N. Reddy, "Recent Developments in the Analysis of Composite Plates and Shell Structures," *Symposium on Mechanics of Structures*, Faculty of Engineering, University of Rome II, Italy, May 4-7, 1982.
2. J.N. Reddy, "Nonlinear Analysis of Layered Composite Structures," *FEMSA/83 Symposium*, Jan. 10-12, 1983, University of Cape Town, South Africa.
3. J.N. Reddy, "A Shear Deformable Shell Element for Laminated Composites," *NASA Lewis/University*/ Industry Workshop on Nonlinear Analysis for Engine Structures, April 19-20, 1983, NASA Lewis Research Center, Cleveland, OH.
4. J.N. Reddy, "On the Transient Response of Laminated Anisotropic Shells," the *17th Israel Convention on Mechanical Engineering*, July 12-14, 1983, Tel Aviv University, Tel Aviv, Israel.
5. J.N. Reddy, "Unilateral Contact Approach to Laminated Plates," the *CISM Symposium on Unilateral Problems in Structural Analysis*, September 22-24, 1983, Ravello, Italy.
6. J.N. Reddy, "On Mixed and Displacement Finite Element Models of a Refined Shear Deformation Theory for Laminated Anisotropic Plates," *Fourth International Conference on Applied Numerical Modeling*, National Cheng Kung University, Tainan, Taiwan, Dec. 28-31, l984.
7. J.N. Reddy, "On Computational Schemes for Global-Local Stress Analysis," *Workshop on Computational Methods for Structural Mechanics and Dynamics*, NASA Langley Research Center, Hampton, VA, June 20-21, 1985.
8. J.N. Reddy, "Finite Element Models of Fluid Flow," *International Symposium on Variational Methods in Geosciences*, University of Oklahoma, October 15-17, 1985.
9. J.N. Reddy, "Finite Element Models of Plates and Shells," *Applications of Mathematics in Mechanics, Ecole Nationale dÍngenieurs de Tunis*, Monastir, Tunisia, July 17-19, 1986.
10. J.N. Reddy, "A Mixed, Updated Lagrangian Computational Model for Plane Elastic Contact Problems," *Symposium on Unilateral Problems in Mechanics*, The International Society for the Interaction of Mechanics and Mathematics, Universita di Roma 2, April 6-8, 1987.
11. J.N. Reddy, "On Refined Theories of Composite Laminates," Alcoa Laboratories, *Centennial Technical Seminar on Mechanics: Micromechanics to Product Design Symposium*, Hilton Head, SC, April 8-11, 1987.
12. J.N. Reddy, "An Overview of Computational Methods in Composites," **Keynote Lecture**, the *10th Conference on Computer Methods in Mechanics*, May 22-28, 1989, Rytro, Poland.
13. J.N. Reddy, "A Computational Model for Study of Local Effects," *Inter. Conference on Engineering Software*, December 4-7, 1989, Indian Institute of Technology, New Delhi, India.
14. J.N. Reddy, "On New Developments in the Refined Theories of Plates," *New Developments in Structural Mechanics*, University of Catania, Italy, July 4-6, 1990.
15. J.N. Reddy, "Modeling of Delamination in Composite Laminates Using a Layer-Wise Plate Theory," *Indo-US Workshop on Composites for Aerospace Applications*, Bangalore, India, July 23-27, 1990.
16. J.N. Reddy, "Current Research in the Modeling of Laminated Composite Structures," *EMRC's Conference and Lecture Program*, Engineering Mechanics Research Corporation, Troy, MI, Oct. 3, 1990.
17. J.N. Reddy, "Finite Element Modeling of Structural Vibrations: Recent Developments," **Keynote Lecture** delivered at the *International Congress on Recent Developments in Air- and Structure-Borne Sound and Vibration*, March 6-8, 1990, Auburn University, AL.
18. J.N. Reddy, "On the Modeling of Thick Composite Laminates," **Keynote Lecture**, the *First U. S. National Congress on Computational Mechanics*, Chicago, IL, July 21-24, 1991.
19. J.N. Reddy, "Advances in the Modeling of Laminated Plates," **Keynote Lecture**, the *First International Conference on Computational Structures Technology*, Heriot-Watt University, Edinburg, U.K., August 20-22, 1991.

20. J.N. Reddy, "Global-Local Analysis of Composite Laminates Using Hierarchical Finite Elements and Mesh Superposition," **Keynote Lecture**, the *IBM Europe Institute on Structural Analysis*, Oberlech, Austria, July 20-24, 1992.
21. J.N. Reddy, "Analysis of Composite Laminates Using Variable Kinematic Finite Elements," **Keynote Lecture**, the *7th Brazilian Symposium on Piping and Pressure Vessels,* October 7-9, 1992, Florianopolis, Santa Catarina, Brazil.
22. J.N. Reddy, "The Modeling of Composite Laminates: Intuition to Generality and Theory to Practice," ***the Neelakantam Memorial Lecture*** presented at the Annual Convention of the Aeronautical Society of India, December 11, 1992, Bangalore, India.
23. J.N. Reddy, "Global-Local Computational Methodologies for the Analysis of Composite Laminates," **Keynote Lecture**, the *International Congress on Computational Method in Engineering*, Shiraz, Iran, May 3-5, 1993.
24. J.N. Reddy, "On Computational Strategies for the Analysis of Thick Composites," **Keynote Lecture**, the *Advanced Technology on Design and Fabrication of Composite Materials and Structures*, Politecnico di Torino, Torino, Italy, May 24-28, 1993.
25. J.N. Reddy, "Recent Developments in the Modeling of Laminated Composite Structures," **Keynote Lecture**, the *Nonlinear Finite Element Analysis and ADINA*, Boston, MA, June 23-25, 1993.
26. J.N. Reddy, "An Evaluation of Equivalent-Single-Layer and Layerwise Theories of Composite Laminates," **Keynote Lecture**, the *Seventh International Conference on Composite Structures*, University of Paisley, Scotland, 5-7 July 1993.
27. J.N. Reddy, "Modeling of Composite Structures," **Plenary Lecture,** the *Advanced Study Institute on Computational Methods for Engineering Analysis and Design*, Indian Institute of Technology, Madras, India, August 2-11, 1993.
28. J.N. Reddy, "A Multiple Model Approach for Laminated Composite Structures," **Keynote Lecture**, the *First Pan-Pacific Conference on Computational Engineering*, Korea Advanced Study Institute of Science and Technology, Seoul, Korea, November 1-5, 1993.
29. J.N. Reddy, "An Hierarchical Multi-Model Approach to the Analysis of Laminated Composite Structures," **Keynote Lecture**, the *Third World Congress on Computational Mechanics (WCCM III),* Chiba, Japan, August 1-5, 1994.
30. J.N. Reddy, "Recent Developments in the Modeling of Composite Structures," **Keynote Lecture**, presented at the *Energy Technology Conference & Exhibition (ETCE),* Houston, January 28-February 2, 1996.
31. J.N. Reddy, "A Computational Methodology for Global-Local Analysis of Composite Structures," **Keynote Lecture**, the *Mathematics of Finite Elements and Applications IX (MAFELAP 1996),* Brunel University, Uxbridge, U.K., June 25-28, 1996.
32. J.N. Reddy, "Refined Theories and Computational Procedures for the Modeling of Smart Composite Structures," **Keynote Lecture**, the *First International Conference on Composite Science and Technology,* Durban, South Africa, June 18-20, 1996.
33. J.N. Reddy, "Computational Structural Dynamics: Present and Future," **Keynote Lecture** the *67th Shock & Vibration Symposium*, Monterey, CA, November 18-22, 1996.
34. J.N. Reddy, "Recent Developments in Mechanics of Composite Materials," **Keynote Lecture**, the *Second International Conference on the Application of Numerical Methods in Engineering,* Universiti Pertanian Malaysia, Malaysia, June 23-25, 1997.
35. J.N. Reddy, "Developments in Computational Structural Dynamics," **Keynote Lecture**, the *Sixth International Conference on Recent Advances in Structural Dynamics,* The Institute of Sound and Vibration Research, University of Southampton, England, July, 14-17 1997.
36. J.N. Reddy, "Recent Developments in Mechanics of Smart Structures," **Plenary Lecture**, the *Symposium on Mechanics of Composite Materials (Simp□sio em Mecânica dos Materialis Compósitos),* Instituto de Engenharia Mecânica (IDMEC), Instituto Superior Tecnico (IST), Lisbon, Portugal, July 22, 1997.

37. J.N. Reddy, "Theoretical Models and Computational Procedures for the Analysis of Plate Structures," ***Karunesh Memorial Lecture*** of the *42nd Congress of the Indian Society of Theoretical and Applied Mechanics (ISTAM),* Regional Engineering College, Surat, Gujrat, India, December 28-31, 1997.
38. J.N. Reddy, "Computational Mechanics: Current Trends and Future Directions," **Keynote Lecture**, the *20th World Conference on the Boundary Element Method (BEM20)* University of Central Florida, Orlando, FL, August 19-21, 1998.
39. J.N. Reddy, "Computational Modeling of Local Stress Fields and Delamination Failures in Composite Laminates," **Keynote Lecture**, the *Integrity · Reliability · Failure, An International Conference* University of Porto, Portugal, July 19-22, 1999.
40. J.N. Reddy, "An Overview and Recent Developments in Vibrations of Laminated Composite Plates and Shells," **Keynote Lecture**, the *Asia-Pacific Vibration Conference '99 (A-PVC`99),* Nanyang Technological University, Singapore, December 12-14, 1999.
41. J.N. Reddy, "Future Directions in Computational Methods and Simulations," **Keynote Lecture**, the *Fourth Asia-Pacific Conference on Computational Mechanics (APCOM`99),* National University of Singapore, Singapore, December 14-16, 1999.
42. J.N. Reddy, "Recent Developments and Future Directions in Theoretical and Computational Mechanics," **Keynote Lecture**, the *Twentieth Southeastern Conference on Theoretical and Applied Mechanics (SECTAM XX),* Callaway Gardens, Pine Mountain, Georgia, April 16-18, 2000.
43. J.N. Reddy, "Developments in Structural Dynamics with Special Focus on Shear Deformation Theories of Plates and Shells," **Keynote Lecture**, the *International Conference on Structural Stability and Dynamics,* Taipei, Taiwan, December 7-9, 2000.
44. J.N. Reddy, "Developments in Theoretical and Computational Mechanics of Composite Materials and Structures," **Keynote Lecture**, the *National Conference on Theoretical and Applied Mechanics,* Taipei, Taiwan, December 10-11, 2000.
45. J.N. Reddy, ``A New Mathematical and Computational Basis for BVP and IVP," **Keynote Lecture**, the *Fifth World Congress on Computational Mechanics,* Vienna, Austria, July 7-12, 2002.
46. J.N. Reddy, "On Computational Modeling of Functionally Graded Materials and Smart Structures," **Keynote Lecture**, the *Second World Engineering Congress,* Kuching, Sarawak, Malaysia, July 22-25, 2002.
47. J.N. Reddy, ``Computational Modeling of Advanced Materials and Structures," ***C. S. Krishnamoorthy Memorial Lecture***, Indian Institute of Technology, Madras, December 10, 2002.
48. J.N. Reddy, "The *k*-Version Finite Element Method: A New Computational Methodology for Boundary Value Problems," **Plenary Lecture,** *International Conference on Smart Materials Structures and Systems*, Indian Institute of Science, Bangalore, India, Dec 12-14, 2002.
49. J.N. Reddy, "An Accurate and Robust Computational Methodology for Structural Dynamics Problems," **Plenary Lecture**, the *International Conference on Structural Stability and Dynamics,* Singapore, December 16-18, 2002.
50. J.N. Reddy, "Computational Modeling of Advanced Materials and Structures," **Keynote Lecture,** the *VII National Congress on Applied and Computational Mechanics,* Évora, Portugal, April 14-16, 2003.
51. J.N. Reddy, "Novel Computational Procedures for Modeling of Problems of Mechanics," ***Seth Memorial Lecture***, 48th ISTAM (Indian Society of Theoretical and Applied Mechanics) Congress, Dec. 18-21, 2003, Birla Institute of Technology (BIT) Mesra, Ranchi, INDIA.
52. J.N. Reddy, "A Robust Computational Methodology for Numerical Simulation of Physical Processes," **Guest and Plenary Lecture** (and Guest of Honor) at the *International Conference on Theoretical, Applied, Computational and Experimental Mechanics* (ICTACEM 2004), Indian Institute of Technology, Kharagpur, India, December 28-30, 2004.
53. J.N. Reddy, "Computational Modeling of Materials and Structures and New Computational Methodology," the *US-Africa Workshop on Mechanics and Materials,* University of Cape Town, South Africa, January 23-28, 2005.

54. J.N. Reddy, "Advances in Computational Modeling of Materials and Structures," Key Note Lecture, the *Fifth International Conference on Composite Science & Technology* (*ICCT'05*) and *International Conference on Modeling, Simulation & Applied Optimization* (*ICMSAO'05*), American University of Sharjah, Sharjah (UAE), February 1-3, 2005.
55. J.N. Reddy, "A Refined Finite Element for Geometrically Nonlinear Analysis of Shell Structures," **Keynote Lecture**, the 5th International Conference on Computation of Shell and Spatial Structures June 1-4, 2005 Salzburg, Austria.
56. J.N. Reddy, "Refined Computational Models of Functionally Graded and Smart Structures and Materials," **Keynote Lecture**, *II ECCOMAS Thematic Conference on Smart Structures and Materials*, Instituto Superior Técnico, Lisbon, Portugal, 18-21 July 2005.
57. J.N. Reddy, "Novel Computational Methods and Materials Modeling*,"* **Plenary Lecture***, XXVI Iberian Latin American Congress on Computational Methods in Engineering* (CILAMCE 2005), October 19-21, 2005, Guarapari, Espírito Santo, Brazil.
58. J.N. Reddy, "A Consistent Shell Element for Nonlinear Analysis of Composite and Functionally Graded Structures," **Opening Plenary Lecture** (and Guest of Honor) at *International Conference on Advances in Structural Dynamics and Its Applications* (ICASDA-2005), 7-9 December 2005, Visakhapatnam, Andhra Pradesh, India.
59. J.N. Reddy, "A Finite Deformation Shell Formulation for the Analysis of Composite and Functionally Graded Material Structures," *Symposium on Physics and Mechanics of Advanced Materials*, January 18-20, 2006, Singapore.
60. J.N. Reddy, "Role of Computational Engineering Science in Modeling of Physical Phenomena," *Symposium on Engineering Science*, April 20, 2006, Singapore.
61. J.N. Reddy, "A Consistent Finite Element Model for Nonlinear Analysis of Composite and Functionally Graded Shell Structures," **Opening Plenary Lecture**, at ***I****nternational* ***C****onference on* ***C****omposite Materials and Nano-****S****tructures* (IC2MS-06), April 26-29, 2006, Shah Alam (Kaula Lumpur), Malaysia.
62. J.N. Reddy, "Nonlinear Analysis of Composite and FGM Shell Structures Using Tensor-Based Shell Elements," **Keynote Lecture**, *III European Conference on Computational Mechanics, Solids, Structures and Coupled Problems in Engineering*, Laboratório Nacional de Engenharia Civil, (LNEC), Lisbon, Portugal, June 5-8, 2006.
63. J.N. Reddy, "Nonlinear Analysis of Functionally Graded Shell Structures Using Tensor-Based Shell Element," **Opening Plenary Lecture**, *5th International Conference on Mechanics and Materials in Design (M2D'2006),* Porto, Portugal, July 24-26, 2006.
64. J.N. Reddy, "On Nonlinear Analysis of Composite and Functionally Graded Shell Structures," *Tenth East Asia Pacific Conference on Structural Engineering and Construction*, August 2-4, 2006, Bangkok, Thailand.
65. J.N. Reddy, "Computational Models of Viscous Flows and Shell Structures," Opening Plenary Lecture, *International Conference on Enhancement and Promotion of Computational Methods in Engineering Science and Mechanics*, Changchun, China, Aug 10-12, 2006.
66. J.N. Reddy, "Nonlinear Analysis of Composite and FGM Shell Structures Using Tensor-Based Shell Elements," *International Workshop in Mechanics of Composites*, Bad Herrenab, Germany, November 26-29, 2006.
67. J.N. Reddy, "Forty Years of Significant Developments in Mechanics of Composite Materials and Structures" **Special Invited Lecture**, *International Workshop in Mechanics of Composites*, Bad Herrenab, Germany, November 26-29, 2006.
68. J.N. Reddy, "Computational Engineering Science: The Third Scientific Methodology for the 21st Century and Beyond," ***B. R. Seth Memorial Lecture*** at the *51st Congress of Indian Society of Theoretical and Applied Mechanics (ISTAM)*, December 18-21, 2006, Andhra University, Visakhapatnam, INDIA.
69. J.N. Reddy, "The Finite Element Method in Structures and Beyond," **Plenary Lecture**, SPDC ASME USB (Student Professional Development Conference), University of Simon Bolivar, Caracas, Venezuela, May 9-13, 2007.

70. J.N. Reddy, "Coupled Blood Arterial Wall Analysis Using Fluid Biphasic Interface Models" (with Ginu Unnikrishnan and Vinu U Unnikrishnan), **Keynote Lecture** presented in *Mechanics of Nano-, Bio- and Cellular Materials* session at *McMat 2007, ASME Applied Mechanics and Materials Conference*, June 3-7, 2007, University of Texas at Austin, Austin, Texas.
71. J.N. Reddy, "Nonlinear Analysis of Composite and FGM Shells using Tensor-Based Finite Elements," (with R. A. Arciniega), **Keynote Lecture**, *The Fifth International Conference on Nonlinear Mechanics (ICNM-V)*, June 11-14, 2007, Shanghai University, Shanghai, China.
72. J.N. Reddy, "Engineering Science: Educating Engineer-Scientists," Lecture presented on the occasion of the appointment of ***Consultant Professor*** at South China University of Technology, Guangzhou, June 14, 2007.
73. J.N. Reddy, "Continuum Modeling of the Cell," *Second GEM4 Summer School on Cell and Molecular Mechanics in Biomedicine with a focus on cancer* (in connection with the **GEM4 Conference on Cancer 2007**), June 25-July 6, 2007, National University of Singapore.
74. J.N. Reddy, "Role of Engineering Science in Education with Special Focus on Modeling of Nanosystems," *Teaching Nanoscience and Nanoengineering* at **International Conference on Materials for Advanced Technologies 2007**, 1-6 July 2007, Suntec Singapore International Convention and Exhibition Centre, Singapore.
75. J.N. Reddy, "A New Mathematical and Computational Framework for BVP and IVP," **Keynote Lecture**, delivered in the session *The k-Version of the Finite Element Method and h-p-k Adaptive Processes* at the 9th US National Congress on Computational Mechanics, San Francisco, CA, July 22-26, 2007.
76. J.N. Reddy, "Tensor-Based Shell Element and Modeling of Biological Cells," Plenary Lecture (and Guest of Honor)**,** the *International Conference on Recent Developments in Structural Engineering (RDSE-2007)*, Manipal Institute of Technology, Manipal, India, 29 August – 1 September, 2007.
77. J.N. Reddy, "Simulation Based Computational Engineering Science: Least-Squares FEM," ***Lindberg Lecture Series****,* Department of Mechanical Engineering, University of Wisconsin, Madison, September 27, 2007.
78. J.N. Reddy, "A First-Order Shell Theory with Thickness Stretch and Locking-Free Shell Finite Element," **Opening Plenary Lecture** (and **Chief Guest**), *International Conference on Computer Aided Engineering*, December 13-16, 2007, Indian Institute of Technology-Madras, Chennai, India.
79. J.N. Reddy, "Thermomechanical Analysis of FGM Shells," (with Roman A. Arciniega), a **Keynote Lecture** presented at the *Sixth International Conference on Computation of Shell & Spatial Structures* (*Spanning Nano to Mega*), International Association of Shell Structures (IASS) International Association of Shell Structures (IASS) and International Association of Computational Mechanics (IACM), Cornell University, Ithaca, May 28-31, 2008.
80. J.N. Reddy, "Computational Modeling of Glucose Distribution in Hollow Fiber Membrane Bioreactors," (with V. U. Unnikrishnan and G.U. Unnikrishnan), a **Keynote Lecture** presented at the *Sixth International Conference on Computation of Shell & Spatial Structures* (Spanning Nano to Mega), International Association of Shell Structures (IASS) and International Association of Computational Mechanics (IACM), Cornell University, Ithaca, May 28-31, 2008.
81. J.N. Reddy, "Multiscale Computational Analysis of Biomechanical Systems," (with V. U. Unnikrishnan and G.U. Unnikrishnan) **Invited Lecture** presented at the *IUTAM Symposium on Multi-Functional Material Structures and Systems*, Indian Institute of Science, Bangalore, INDIA, 10-13 December 2008.
82. J.N. Reddy, "Multiscale Analysis of Biomaterials and Nanostructures," **Plenary Lecture** and (and Guest of Honor), *International Conference on Computational Methods in Engineering and Sciences*, January 8-10, 2009, Hyderabad, India.
83. J.N. Reddy, "Analysis of Composite and FGM Shells Using a Refined Shear Flexible Shell Finite Element," ***Bert Lecture*** in the School of Aerospace and Mechanical Engineering, University of Oklahoma, Norman, March 6, 2009.
84. J.N. Reddy, "Modeling and Simulation of Complex Structures: From Physical to Biological Systems," ***The 2009 Landis-Epic Lecture***, University of Pittsburgh Department of Civil and Environmental Engineering, Friday March 20, 2009, Frick Fine Arts Auditorium, Pittsburgh.

85. J.N. Reddy, "Nonlinear Analysis of Laminated Composite Structures Using a Refined Shell Finite Element," ***Distinguished Lecture*** in the Department of Mechanical Engineering, University of West Virginia, Morgantown, Mar 27, 2009.
86. J.N. Reddy, "Micromechanics Based Biphasic Model Of Biological Cells," (with G.U. Unnikrishnan, V. U. Unnikrishnan), **Keynote Lecture** presented in the *Symposium on Cell & Molecular Biomechanics - Experiments & Computation* at *International Conference on Computational and Experimental Engineering Sciences* (ICCES09), Phuket, Thailand, 8-13 April 2009.
87. J.N. Reddy, "Developments in the Mathematical Modeling and Numerical Simulation of Composite Materials and Structures," **Plenary Lecture** presented at the *IISc Centenary International Conference and Exhibition on Aerospace Engineering* (ICEAE2009), Indian Institute of Science, Bangalore, India, 18 – 22 May 2009.
88. J.N. Reddy, "Numerical modeling of complex structures: shells and cells," **Opening Plenary Lecture**, at the *3rd International Conference on Advanced Computational Engineering and Experimenting* (ACE-X 2009), Rome, Italy, 22-23, June, 2009.
89. J.N. Reddy, "Multiscale Thermal Analysis of Nanostructures" (with V. U. Unnikrishnan and D. Banerjee), **Keynote Lecture** at the *Third International Conference on Integrity, Reliability and Failure: Challenges and Opportunities* (IRF2009), University of Porto, Porto, Portugal, July 20-24, 2009.
90. J.N. Reddy, "Computational Mechanics: Present and Future," **Opening Plenary Lecture** at the VII Congreso Colombiano de Modelamiento Numerico, Universidad de los Andes, Bogota, Colombia, August 10-14, 2009.
91. J.N. Reddy, "Recent Developments in the Analysis of Carbon Nanotubes and Nonlinear Shell Theories," (with Román A. Arciniega and C. M. Wang) , **Opening General Lecture** presented at the *9th Conference on Shell Structures, Theory and Applications*, Gdańsk-Jurata, Poland, 14-16, October 2009.
92. J.N. Reddy, "Nonlinear Analysis of Laminated Composite and FGM Structures Using a Refined Shell Element," **Plenary Lecture** (Track 11), *2009 ASME International Engineering Congress & Exposition*, November 18, 2009, Lake Buena Vista, Florida.
93. J.N. Reddy, "Multiscale Analysis and Nutrient Transport in Carbon Nanotube Reinforced Nanofiber Bioreactor," (with V. U. Unnikrishnan and G.U. Unnikrishnan), **Plenary Lecture** and **Honorary Chairman**, 2nd *International Symposium on Computational Mechanics* and *12th International Conference on Enhancement and Promotion of Computational Methods in Engineering and Science*, Nov 30 – Dec 3, 2009, Hong Kong – Macau, China.
94. **J.N. Reddy** and G. S. Payette, "Least-Squares Finite Element Technology in Fluid Dynamics and Structural Mechanics," **Opening Plenary Lecture**,*4th International Conference on Advanced Computational Engineering and Experimenting (ACE-X2010*) 08-09 July 2010, Hotel Concordia La Fayette, Paris, France.
95. **J.N. Reddy**, K.S. Surana, and G. S. Payette, "Least-Squares Finite Element Models and the k-version FEM: an Overview and Recent Developments," **Semi-Plenary Lecture**, *9th World Congress on Computational Mechanics and 4th Asian Pacific Congress on Computational Mechanics (WCCM/APCOM 2010*), Sydney, Australia, 19 – 23 July 2010.
96. J.N. Reddy, "Computational Modeling of Materials and Structures: Composite Shells and Biological Cells," **Keynote Lecture**, *International Conference on Applied Mechanics, Materials and Manufacturing (ICAMMM*), Sultan Qaboos University, Muscat, Oman, 13 – 15 December 2010.
97. **J.N. Reddy**, V. U. Unnikrishnan, and G.U. Unnikrishnan, "Multiscale Modelling of Biological Systems," **Plenary Lecture**, *Second International Conference on Multiscale Modeling and Simulation (ICMMS 2010*), Guangzhou, China, 17 – 19 December 2010.
98. J.N. Reddy, "Nanocomposites," **Plenary Lecture**, *International Conference on Composites for 21st Century: Current and Future Trends*, Indian Institute of Science, Bangalore, Jan 4-7, 2011.
99. J.N. Reddy, "Multiscale Processes in Analysis of Nanotube Reinforced Tissue Engineering Bioreactors," **Plenary Lecture**, *2nd International Conference on Mathematical and Computational Biomedical Engineering - CMBE2011,* March 30 - April 1, 2011, George Mason University, Washington D.C.

100. V. U. Unnikrishnan, G.U. Unnikrishnan, and **J.N. Reddy**, "Biomechanics of Breast Density and Collagen Content in Cancer Formation," **Invited Lecture**, *Workshop on Microscale Modeling in Biomechanics and Mechanobiology*, Hotel Vila Gal, Ericeira, Portugal, May 30 - June 1, 2011.
101. J.N. Reddy, "Modelling of Composite and Functionally Graded Structures: Theories and Computational Models," **Plenary Lecture**, *16th International Conference on Composite Structures* (*ICCS 16*), June 28-30, 2011, University of Porto, Porto, Portugal
102. **J.N. Reddy** and A. Muliana, "Thermomechanical Response of Functionally Graded Structures," **Plenary Lecture,** *5thInternational Conference on Advanced Computational Engineering and Experimenting*, *ACE-X 2011* –Algarve, Portugal, 3 -6 July, 2011.
103. **J.N. Reddy**, V. U. Unnikrishnan, and R. Arciniega, "Analysis of Composite and Multifunctional Materials: Recent Developments," **Guest *and* Opening Plenary Lecture**, *International Symposium on Advances in Applied Mechanics and Modern Information Technology 2011 (AAM&MIT'11)*, 22-23 Sep. 2011, Baku, Azerbaijan.
104. G. Payette and **J.N. Reddy**, "Recent Developments in Shell Finite Elements for Large Deformation Analysis," **Semi-Plenary Speaker**, *Third International Symposium on Computational Mechanics* (*ISCM III*) in conjunction with the *Second Symposium on Computational Structural Engineering* (*CSE II*), Taipei, Taiwan, 5-7 December 2011.
105. J.N. Reddy, "Modified Couple Stress Theories of Functionally Graded Shear Deformable Beams and Plates," **Plenary Lecture**, *Fourth International Conference on Structural Stability and Dynamics*, Malavia National Institute of Technology, Jaipur, India, 4-6 January 2012.
106. J.N. Reddy, "Numerical Simulations: The Third Scientific Methodology," **Plenary Lecture**, *Pragyan 2012*, National Institute of Technology, Trichy, India, 23-26 Feb 2012.
107. **J.N. Reddy** and Gregory S. Payette, "A Higher-Order Spectral/hp Shell Finite Element for the Nonlinear Analysis of Laminated Composites and Functionally Graded Elastic Shell Structures," **Opening Plenary Lecture**, *International Iranian Mechanical Engineering Conference*, Shiraz University, May 14-17, 2012, Shiraz, Iran.
108. J.N. Reddy "A Nonlinear Modified Couple Stress-Based Theories of Functionally Graded Beams and Plates," **Opening Technical Plenary Lecture**, *International Conference on Mechanics of Nano, Micro and Macro Composite Structures*, 18-20 June 2012, Politecnico di Torino, Italy.
109. G. S. Payette and **J.N. Reddy**, "A General Shell Element with Thickness Stretch for Large Deformation Analysis of Composite Structures," **Plenary Lecture**, *SOMIM Conference*, Salamanca, Mexico, 19-21 September 2012.
110. J.N. Reddy "Modified Couple Stress-Based Theories of Functionally Graded Beams and Plates," **Plenary Lecture**, *International Conference in Innovations in Design and Manufacturing (InnDeM 2012)*, 5-7 Dec 2012, IIITDM Jabalpur, India.
111. G. S. Payette and **J.N. Reddy** "A General Shell Finite Element for Large Deformation Analysis of Composite Structures," **Opening Plenary Lecture,** *International Congress on Computational Mechanics and Simulation* (ICCMS2012), Indian Institute of Technology, Hyderabad, India, 10-12, December 2012.
112. J.N. Reddy, "Spectral Finite Element Technology for Large Deformation Analysis of Composite Shells," **Keynote Lecture,** *Indo-US Workshop on Recent Developments in Composite Materials and Structures*, JFWTC- GE Global Tech. Center, Bangalore, India, March 18-20, 2013.
113. **J.N. Reddy**, G. S. Payette, and V. Vallala, "A Spectral/hp Shell Finite Element for the Nonlinear Analysis of Laminated Composites and Functionally Graded Elastic Structures," **Opening Guest** and **Plenary Lecture**, *the Fourth International Symposium on Solid Mechanics - MecSol 2013,* Porto Alegre, Rio Grande do Sul, Brazil, 18-19 April 2013.
114. **J.N. Reddy**, G. S. Payette, and V. Vallala, "Spectral/hp Approximations in the Finite Element Analysis of Solid and Fluid Mechanics Problems," **Plenary Lecture***, Fourth International Conference on Mathematical and Computational Applications* (*ICMCA 2013***)**, June 11-13, 2013, Manisa, Turkey.
115. J.N. Reddy, "Refined Theories and Computational Models of Composite Beams, Plates, and Shells," **Plenary Lecture**, *the 17th International Conference on Composite Structures* (*ICCS/17*), at the University of Porto, Porto, Portugal, 17-21 June 2013.

116. J.N. Reddy, "On Nonlocal Elasticity and Peridynamics with Applications to Beams and Plates," **Plenary Lecture**, *6th ECCOMAS Thematic Conference on Smart Structures and Materials* (*SMART2013*), 24-26 June 2013, Politecnico di Torino, Torino, Italy.
117. **J.N. Reddy** and A.R. Srinivasa, "On Microstructural Length Scales and Discrete Peridynamics for Beams and Plates," *Opening Talk* (Keynote Lecture) presented in a session on *nano systems* at the *7th International Conference on Advanced Computational Engineering and Experimenting* (ACEX2013), 1-4 July 2013, Madrid, Spain.
118. Greg Payette, V. Vallala, and **J.N. Reddy**, "Higher-Order Spectral/hp Finite Element Technology for Large Deformation Analysis of Shell Structures," **Plenary Lecture** presented at the *2nd International Conference on Advances in Computational Modeling and Simulation,* 17-19 July 2013, Kunming, China.
119. **J.N. Reddy** and A. R. Srinivasa, "On Rotation Gradient Dependent Elasticity and Specialization to Beams and Plates with Moderate Rotation," **Plenary Lecture** presented at the *4th Canadian Conference on Nonlinear Solid Mechanics* (*CanCNSM2013*), 23-26 July 2013, Montreal, Canada.
120. J.N. Reddy "Incorporation of Material Length Scales in Structural Theories of Beams and Plates," **Plenary Lecture,** *International Conference on Science and Technology of Heterogeneous Materials and Structures (ICSTHMS),* Wuhan University, Wuhan, China, 11-13 October 2013.
121. J.N. Reddy, "Computational Mechanics: The Third Pillar of Engineering and Technology," **Keynote Lecture**, *Computational Mechanics Division Meeting* of the Japan Society of Mechanical Engineers, 1-3 November 2013.
122. **J.N. Reddy** and A. R. Srinivasa, "On Nonlocal Gradient Elasticity Models with Application to Beams and Plates," **Keynote Lecture,** *International Conference on Computer Aided Engineering,* Indian Institute of Technology Madras, Chennai, India, 19-21 December 2013.
123. J.N. Reddy, "The Role of Computational Mechanics in Addressing Materials Challenges," **Keynote Lecture**, *Materials Science and Engineering Symposium 2014*, Qatar University, Doha, Qatar, 18 February 2014.
124. J.N. Reddy, "Computational Modeling of Complex Engineering Systems," ***Keynote Lecture and Chief Guest*** *at the Second International Conference on Innovation in Automation and Mechatronics Engineering 2014*, GH Patel College of Engineering and Technology, Vallabh Vidyanagar, Gujarat, INDIA, March 7-8, 2014.
125. **J.N. Reddy** and A. Srinivasa, "Nonlocal and strain gradient elasticity in structural theories for beams and plates," **Plenary Lecture,** *First International Conference on Mechanics of Composites*, State University of New York at Stony Brook, Long Island, June 8-12, 2014.
126. J.N. Reddy "Non-classical Structural Theories of Beams and Plates with Nonlocal and Strain Gradient Effects," Distinguished Lecture, Hong Kong Society of Theoretical and Applied Mechanics (HKSTAM), City University of Hong Kong, July 17, 2014.
127. J.N. Reddy, "Computational Mechanics: Past, Present, and Future," Lecture presented on Boeing Educational Network (broadcast to over 5,000 people worldwide), July 10, 2014, Ed Wells Partnership, Seattle, Washington.
128. J.N. Reddy, "Nonlinear theories of FGM beams and plates with nonlocal and strain gradient effects," **Key Note Speaker**, *Multiscale, Multifunctional and Functionally Graded Materials 2014 (MM&FGM2014),* October 19-22, 2014; Taua Resort, SP, Brazil.
129. J.N. Reddy, "Computational Modeling of Shells and Viscous Fluids," *Recent Trends and & Challenges in Civil Engineering* (RTCCE-2014), **Chief Guest and Plenary Speaker**, December 12-14, 2014, Motilal Nehru National Institute of Technology (MNNIT), Allahabad, INDIA.
130. J.N. Reddy, "Nonlocal and Gradient Elasticity in Structural Mechanics," *International Conference on Multifunctional Materials and Structures* and Applications (ICMMSA-2014), **Chief Guest and Plenary Speaker**, December 22-24, 2014, Motilal Nehru National Institute of Technology (MNNIT), Allahabad, INDIA.
131. J.N. Reddy, "Large Deformation Analysis of Composite and Functionally Graded Shells," **Chief Guest** and **Plenary Lecture,** *Sixth International Conference on Theoretical, Applied, Computational, and Experimental Mechanics* (ICTACEM 2014), Dec. 29-31, 2014, IIT Kharagpur, India.
132. J.N. Reddy, "Non-classical Structural Theories of Beams and Plates with Nonlocal and Strain Gradient Effects," **Chief Guest and Keynote Speaker**, *International Conference on Vibration Problems* (ICOVP-2015), 18-20 February 2015, Department of Mathematics-Kakatiya University, Warangal, India.

133. J.N. Reddy, "On Nonlocal and Strain Gradient Theories in Computational Structural Mechanics," **Keynote Lecture**, *Symposium: Computer-Aided Engineering and Multidisciplinary Design Optimization: Recent Advances, Technology, and Future*, The University of Michigan, Ann Arbor, April 17, 2015.
134. J.N. Reddy, "Advances in Finite Element Models of Engineering Science Problems," **Keynote Lecture**, *International Symposium on Engineering Science*, Engineering Science Program, National University of Singapore, 19-20 May 2015.
135. J.N. Reddy, "Modeling of functionally graded smart beams and plates with geometric nonlinearity and gradient elasticity effects" **Plenary Lecture**, *7th ECCOMAS Thematic Conference on Smart Structures and Materials,* University of the Azores, Ponta Delgada, Azores, Portugal, June 3-6, 2015.
136. J.N. Reddy, "A Robust Shell Element for Large Deformation Analysis of Composite and Functionally Graded Shells**," Opening Keynote Lecture,** *International Conference on Advances in Applied and Computational Mechanics*, Wyndham Grand Izmir Ozdilek, Izmir, Turkey, 5-7, 2015.
137. J.N. Reddy, "Large deformation analysis of laminated composite and functionally graded structures: recent developments," **Plenary Lecture**, *International Conference on Composite Science and Technology* (ICCST/10), 2-4 September 2015, Lisbon, Portugal.
138. J.N. Reddy, "Recent Developments in Shell Finite Elements with Applications to Laminated Composite and Functionally Graded Structures," Plenary Lecture, XXXVI Ibero-Latin American Congress of Computational Methods in Engineering (CILAMCE 2015 Conference), 22-25 November 2015, Pontifical Catholic University of Rio de Janeiro, Rio de Janeiro, BRAZIL.
139. J.N. Reddy, "Computational Mechanics: Past, Present, and Future," **Plenary Lecture**, *International Conference on Computer Aided Engineering* 2015, 10-12 December 2015, GITAM University, Hyderabad, INDIA.
140. J.N. Reddy, A.R. Srinivasa, and P. Khodabakhshi, "On Recent Developments in Nonlocal and Strain Gradient Theories in Structural Mechanics," **Key Note Lecture,** East Asia-Pacific Conference on Structural Engineering and Construction (EASEC), 6-8 January, 2016, Ho Chi Minh City, Vietnam.
141. J.N. Reddy, "The Finite Element Method: Past, Present, and Future," Plenary Lecture, *International Workshop on Computational Methods with applications to Oil and Gas (IWCMOG),* Texas A&M University at Qatar, 28-29 Feb 2016, Doha, Qatar.
142. J.N. Reddy, "On Non-Local and Non-Classical Continuum Mechanics Theories," *Simpson Distinguished Visiting Professor Lecture,* Northwestern University, 13 April 2016.
143. J.N. Reddy, "Recent Developments In Nonlinear Analysis Of Composite And Fgm Structures," **Keynote Lecture**, *Innovation and Development of Structures & Structural Modal Properties Measurement and Applications 2016 (IDS&STRUMO2016),* Chongqing University, Chongqing, CHINA*,* 15-16 May 2016.
144. J.N. Reddy, "On Non-Local and Non-Classical Continuum Mechanics Theories and Applications," **Opening Key Note Lecture***, 11th HSTAM International Congress on Mechanics*, Athens, Greece, 27-30 May 2016.
145. J.N. Reddy, On Nonlocal and Strain Gradient Models in Structural Mechanics," Opening Plenary Lecture presented at the *10th International Conference on Advanced Computational Engineering and Experimenting* (ACE-X 2016), Split, Croatia, 3-6 July 2016.
146. J.N. Reddy, "Numerical simulations of engineering science problems using the finite element method," *Inaugural Alumni Talks*, Osmania University College of Engineering, Hyderabad, India, 28 July 2016.
147. J.N. Reddy, "On Non-Local and Strain Gradient Theories in Structural Mechanics: An Overview," *The Prager Medal Lecture*, Society of Engineering Science 53rd Annual Technical Meeting, 4-5 October 2016.
148. J.N. Reddy, "Computational Modeling and Simulations: Biological Cells, Composite Shells, and Fluid Flows," **Opening Plenary Lecture**, *International Conference on Advances in Materials and Manufacturing* (ICAMM-2016), 8-10 December, 2016, College of Engineering, Osmania University, Hyderabad, India.
149. J.N. Reddy, "Invent, Create, and Make: My Personal Retrospective," **Invited talk** at (student organized event) *TECHNEX17*, 24-27 February 2017, Indian Institute of Technology-BHU, Varanasi, India.
150. J.N. Reddy, "Journey through Mechanics Research and Education: A Personal Retrospective," *ICES/USACM Workshop on Advances in Computational Science and Engineering* (honoring 80th birthday of Prof. J. Tinsley Oden), University of Texas at Austin, 19-21 March 2017.

151. J.N. Reddy, "Mathematical Models and Numerical Simulations of Problems in Mechanics," **Plenary Lecture**, *8th Mechanical and Mechatronics International Engineering Congress and the 4th Materials, Energy and Environment Congress* -CIMM-2017, Universidades Nacional de Colombia, Medellin, Colombia, 25-28 March, 2017.
152. J.N. Reddy, "Numerical Simulations: the Third Pillar of Scientific Discovery and Investigation," **Opening Plenary Lecture**, *XI Colombian Congress of Numerical Methods 2017,* the Industrial University of Santander, Colombia, 16 - 18 August 2017.
153. J.N. Reddy, "Recent Developments in Shell Finite Elements and Non-Local Theories for Composite Structures," **Key Note Lecture** presented at *XXIII AIMETA* (Association of Italian Mechanics, Theory and Applications), Grand Hotel, Salerno, Italy, 4-7 September 2017.
154. Miguel Gutierrez Rivera and J.N. Reddy, "Robust Shell Finite Elements Based on Seven- and Twelve-Parameter Shell Theories," **Key Note Lecture** presented at *EASEC15 Conference*, Xi'an, China, 12 October 2017.
155. J.N. Reddy, "On Non-Local and Non-Classical Continuum Mechanics Theories and Applications," **Opening Plenary Lecture**, *Annual Technical Meeting of the American Society of Composites*, Purdue University, W. Lafayette, October 23-25, 2017.
156. J.N. Reddy, "Computational Mechanics: the Third Pillar of Scientific Inquiry in Science and Engineering," **Key Note Lecture***, International Conference on Nonlinear Differential Equations-Theory, Modeling and Computations,* Research In statute, SRM University, Chennai, India, 8-9 December 2017.
157. J.N. Reddy, "An Overview of Non-Local and Non-Classical Continuum Mechanics Theories," **Opening Plenary Lecture**, *International Conference on Composite Materials an Structures* - ICCMS 2017, 27-29 Dec 2017, Indian Institute of Technology, Hyderabad, India.
158. J.N. Reddy, "Innovations in Shell Finite Elements and Non-Local Effects in Structures," **Opening Plenary Lecture** presented at *2nd International Conference on Innovations in Structural Engineering*, Osmania University College of Engineering, Hyderabad, India, 29-31 December 2017.
159. J.N. Reddy, "The finite element method: the third pillar of scientific discovery and investigation," **Plenary Lecture**, *MechanIST* (a student organized conference), Technical University of Lisbon, Portugal March 13-16, 2018.
160. J.N. Reddy, "A Journey Through Composite Materials and Structures: A Personal Retrospective," **Opening Plenary Lecture**, *First International Conference on Mechanics of Advanced Materials and Structures*, University of Torino, Torino, Italy, 18-20 June 2018.
161. J.N. Reddy, "On Stress and Strain Gradient and Micropolar Theories," **Plenary Lecture**, *12th International Conference on Advanced Computational Engineering and Experimenting* (ACE-X 2018), Amsterdam, The Netherlands, 1-4 July 2018.
162. J.N. Reddy, "Recent Developments in Shell Finite Elements and Non-Local Continuum Mechanics Theories," **Opening Plenary Lecture**, *11th South African Conference on Computational and Applied Mechanics* (SACAM), Faculty of Engineering and Technology, Vaal University of Technology, South Africa, 17-19 September 2018.
163. J.N. Reddy, "Journey through Mechanics Research: A Personal Retrospective," *City University Distinguished Lecture Series*, City University of Hong Kong, 12 October 2018.
164. J.N. Reddy, "High Performance Shell Finite Elements for Nonlinear Analysis of Composite Structures and Materials," **Keynote Lecture**, *High Performance Structures and Materials, Sustainability and Resilience of Civil Engineering Infrastructure*, Chongqing University, Chongqing, China, 20-21 October 2018.
165. J.N. Reddy, "On Seven- and Twelve-Parameter Shell Finite Elements and Non-Local Theories for Composite Structures," **Opening Keynote Speaker**, *XXXVIII South American Structural Engineering Congress*, Departmental Council of Lima of College of Engineers of Peru, Lima, 24-26 Oct., 2018.
166. J.N. Reddy, "On Refined Robust (Locking-Free) Shell Finite Elements and Modified Couple Stress Theories for Beams and Plates," **Plenary Lecture**, *International Conference on Nonlinear Solid Mechanics* (ICoNSoM 2019), 16-19 June 2019, Roma, Italy.
167. J.N. Reddy, "Mechanics and Numerical Simulations: the Pillars of Scientific Inquiry," **Invited Speaker**, *Workshop on Non-Classical Advanced Mechanics of Materials,* Indian Institute of Science, Bangalore, India, July 9-11, 2019.

168. J.N. Reddy, "On nonlocal stress and strain gradient theories with material and structural length scales," **Plenary Lecture**, *Second International Conference on Mechanics of Advanced Materials and Structures*, Nanjing University of Aeronautics & Astronautics, Nanjing, China, 19-22 October 2019.
169. J.N. Reddy, "Innovations in computational mechanics for structural design," **Key Note Lecture,** *International Conference on Sustainable Civil Engineering and Architecture* (ICSCEA) 2019, Ho Chi Minh City, Vietnam, 24-26 October 2019.
170. J.N. Reddy, "Nonlocal material and mechanics models for damage and fracture in solids," **Plenary Lecture,** *2nd International Conference on Materials and Manufacturing Engineering*, BITS Pilani Dubai Campus, Dubai, UAE, 20-22 November 2019.
171. J.N. Reddy, "Personal reflections of my research in structural mechanics: past, present, and future," **Opening Plenary Lecture,** *The Sixteenth East Asia-Pacific Conference on Structural Engineering & Construction*, School of Civil Engineering, The University of Queensland, St Lucia (Brisbane), Queensland, Australia, 4-7 December 2019.
172. J.N. Reddy, "Recent Advances in Mechanics of Materials and Structures: Mathematical Models and Computational Approaches," **Opening Plenary Lecture,** *3rd International Conference on Advances in Mechanical Engineering* (ICAME 2020), Department of Mechanical Engineering, SRMIST, Kattankulathur, Chennai, India, February 24-29, 2020.
173. J.N. Reddy, "Computational Structural Mechanics for the Future," **Opening Keynote Lecture,** *International Conference on Applications in Computational Engineering and Sciences* (IConACES), Vellore Institute of Technology, Chennai, India, 30-31 October 2020 (was also a Guest of Honor at the inaugural function of the conference).
174. J.N. Reddy, "On robust shell finite elements and nonlocal mechanics," **Opening Plenary Lecture**, *International Conference on Modern Mechanics and Applications* (ICOMMA), Ho Chi Minh City, Vietnam, 2-4 Dec 2020.
175. J.N. Reddy, "Recent developments in computational approaches to model laminated composite shells and damage and fracture in solids," **Webinar** presented in *Global Composites Experts Seminar Series,* Purdue Composites Design and Manufacturing HUB, Purdue University, West Lafayette, Indiana, 11 February 2021.
176. J.N. Reddy, "Robust shell finite element and nonlocal mechanics for modeling of architected materials and structures," *Meck Talk'21*, **Opening Plenary Lecture** (webinar), IDMEC – Mechanical Engineering Institute, Technical University of Lisbon, Portugal, 7 April 2021.
177. J.N. Reddy, "My professional journey through mechanics research: a personal retrospective," **Opening Plenary Lecture,** *14th International Conference on Computational Engineering and Experimentation* (ACEX-2020), Malta, 5-9 July 2021.
178. J.N. Reddy, "On higher-order shell finite elements and a computational approach for fracture," **Opening Plenary Lecture**, the *12th International Conference on Computational Methods* (Virtual Conference), 4th-8th July 2021, Ho Chi Minh City, Vietnam.
179. J.N. Reddy (in collaboration with A.R. Srinivasa, P. Thamburaja, K. Sarah, and Ho Yong Shin), ''GraFEA: a computational approach to fracture and damage in solids," **Opening Plenary Lecture**, the *Second International Conference on Sustainable Engineering and Architecture* (Virtual Conference), 30th October 2021, Ho Chi Minh City, Vietnam.
180. J.N. Reddy, "On robust shell finite elements and computational approaches for architected materials and fracture," **Keynote Lecture**, *Midwest Applied Materials Symposium*, South Dakota State University, Brookings, Nov. 12-13, 2021.
181. J.N. Reddy, "GraFEA: a computational approach for fracture insolids," Invited Talk, *Emergung Topics in Mechanics*, Conference in honor of Yonggang Huang, University of Houston, 22-25 March 2022 (all talks are by invitation only).
182. J.N. Reddy, "Mechanics of materials and structures: experiments and computations," **Keynote Lecture**, *International Symposium on Additive Manufacturing* (Birth centenary celebrations of the founder chairman, Dr. M. S. Ramaiah)**,** Ramaiah Technology Campus, Peenya, Bangalore, India, 30-31 May 2022.
183. J.N. Reddy, "My journey through mechanics education and research: a personal retrospective," Invited Lcture presented at the induction seremony organized by the Royal Spanish Academy of Engineering, 27 October 2022, Madrid, Spain.

184. H.Y. Shin, P. Thamburaja, A.R. Srinivasa, and J.N. Reddy, "Computational approaches for architected materials and fracture in solids," **Opening Plenary Lecture**, *XLIII Ibero-Latin American Congress of Computational Methods in Engineering* (CILAMCE 2022 Conference), Brazilian Association for Computational Methods in Engineering (ABMEC), 21-25 November 2022, Foz do Iguaçu, BRAZIL.
185. J.N. Reddy, "A Dual Mesh Control Domain Method: A Marriage of the Finite Element and Finite Volume Methods," **Opening Plenary Lecture** presented at the *8th International Congress on Computational Mechanics and Simulation* (ICCMS 2022), Indian Association for Computational Mechanics (IndACM), 9-11 Dec 2022, Indian Institute of Technology, Indore, India.
186. J.N. Reddy, "On a locking-free shell element and nonlocal approaches for modelling of architected materails," **G.I. Taylor Memorial Lecture**, presented at the *67th Congress of the Indian Society of Theoretical and Applied Mechanics (ISTAM-2022)*, IIT Mandi, Mandi-175075, Himachal Pradesh, INDIA, 14–16 December 2022.
187. J.N. Reddy, "Dual Mesh Control Domain Method for the Solution of Differential Equations in Engineering and Applied Sciences," ***Institute Lecture*** presented at National Institute of Technology, Warangal, 19 Dec 2022.
188. J.N. Reddy, "My Journey Through Applied Mechanics Research: A Personal Retrospective," ***Distinguished Institute Lecture***, Indian Institute of Technology, Hyderabad, 20 December 2022.
189. J.N. Reddy, "A robust shell finite element and nonlocal approaches to study architected materials and fracture in solids," **Plenary Speaker**, *PMU Conference*, Saudi Arabia, March 2023 (incomplete information).
190. J.N. Reddy, "Nonlocal approaches for architected structures and fracture in solids," **Plenary Lecture** at *The Third International Conference on Sustainable Civil Engineering and Architecture (ICSCEA 2023),* Da Nang, Vietnam, 21-22 July 2023.
191. J.N. Reddy and A.R. Srinivasa, "Locking-free shell finite element, nonlocal approaches for architected structures, and fracture in solids," **Plenary Lecture** at the *9th ECCOMAS Thematic Conference on the Mechanical Response of Composites (ECCOMAS Composites 2023)*, Trapani, Italy, 12-14 September 2023.

ARCHIVAL PUBLICATIONS

BOOKS (books with solution manuals are in boldface letters)

1. J. T. Oden and J.N. Reddy, *Variational Methods in Theoretical Mechanics*, Springer-Verlag, NY, 1976; **2nd ed.** 1982.
2. J. T. Oden and J.N. Reddy, *A Mathematical Theory of Finite Elements*, John Wiley & Sons, New York, 1976.
3. J.N. Reddy and M. L. Rasmussen, *Advanced Engineering Analysis*, John Wiley, New York, 1982; reprinted by Krieger, Melbourne, FL, 1990.
4. **J.N. Reddy**, ***An Introduction to the Finite Element Method***, McGraw-Hill, New York, 1984; 2nd ed., 1993; 3rd ed., 2006; 4th ed., 2019.
5. **J.N. Reddy**, ***Energy Principles and Variational Methods in Applied Mechanics***, John Wiley, NY, 1984; 2nd ed., 2002; 3rd ed. 2017.
6. **J.N. Reddy**, *Applied Functional Analysis and Variational Methods in Engineering*, McGraw-Hill, NY, 1986; reprinted by Krieger, Melbourne, FL, 1991.
7. O. O. Ochoa and J.N. Reddy, *Finite Element Analysis of Composite Laminates*, Kluwer Academic Publishers, The Netherlands, 1992.
8. J.N. Reddy and A. Miravete, *Practical Analysis of Laminated Composite Structures*, CRC Press, FL, 1995.
9. **J.N. Reddy**, *Mechanics of Laminated Composite Plates and Shells: Theory and Analysis*, CRC Press, Boca Raton, FL, 1996; 2nd ed., 2004.
10. J.N. Reddy and D. K. Gartling, *The Finite Element Method in Heat Transfer and Fluid Dynamics*, CRC Press, FL, 1997; 2nd ed., 2001; 3rd ed., 2010.
11. **J.N. Reddy**, ***Theory and Analysis of Elastic Plates and Shells***, Taylor & Francis, Philadelphia, PA,1999; 2nd ed., 2007.
12. C. M. Wang, J.N. Reddy, and K.H. Lee, *Shear Deformation Theories of Beams and Plates. Relationships with Classical Solution*, Elsevier, U.K., 2000.
13. **J.N. Reddy**, ***An Introduction* to *Nonlinear Finite Element Analysis***, Oxford University Press, Oxford, U.K., 2004; 2nd ed., 2015.
14. C. M. Wang, C. Y. Wang, and J.N. Reddy, *Exact Solutions for Buckling of Structural Members,* CRC Press, Boca Raton, FL, 2005.
15. **J.N. Reddy**, ***An Introduction to Continuum Mechanics with Applications***, Cambridge University Press, New York, 2008; 2nd ed., 2013.
16. **J.N. Reddy**, ***Principles of Continuum Mechanics. A Study of Conservation Principles with Applications***, Cambridge University Press, New York, 2010; 2nd ed., 2018. **Translated into French** and published in 2015 by De Boeck Superieur.
17. R. T. Fenner and J.N. Reddy, ***Mechanics of Solids and Structures***, 2nd ed., CRC Press, Boca Raton, Florida, 2012.
18. S. Roy and J.N. Reddy, *Computational Modelling of Polymer Composites, A Study of Creep and Environmental Effects,* CRC Press, Boca Raton, Florida, 2013.
19. A. Rao, A. R. Srinivasa, and J.N. Reddy, *Design of Shape Memory Alloy (SMA) Actuators*, Springer Briefs in Applied Sciences, Springer-Verlag, Berlin, 2015.
20. K.S. Surana and J.N. Reddy, *The Finite Element Method for Boundary Value Problems, Mathematics and Computations*, CRC Press, Boca Raton, Florida, 2017.
21. K.S. Surana and J.N. Reddy, *The Finite Element Method for Initial Value Problems, Mathematics and Computations*, CRC Press, Boca Raton, Florida, 2018.
22. **J.N. Reddy,** *Theories and Analyses of Beams and Axisymmetric Circular Plates*, CRC Press, Boca Raton, 2022.

23. J.N. Reddy, N.K. Anand, and P. Roy, ***The Finite Element and Finite Volume Methods for Heat Transfer and Fluid Dyanmics,*** Cambridge University Press, New York, 2023.
24. Kari Santaoja and J.N. Reddy, ***Continuum Thermodynamics and Material Modelling*****,** Cambridge University Press, New York, 2023 (in press).
25. **J.N. Reddy,** Computational Methods in Engineering: *Finite Difference, Finite Volume, Finite Element, and Dual Mesh Control Domain Methods*, CRC Press, Boca Raton, 2023 (in press).

MONOGRAPHS EDITED

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Manuscripts in Review

797. Mukul Saxena, Saikat Sarkar, and J.N.Reddy "Modelling architected plate using a non-local derivative-free shear deformable plate theory," *Acta Mechanica*, in review.
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POST-DOCTORAL FELLOWS AND GRADUATE STUDENTS

POST-DOCTORAL FELLOWS AND RESEARCHERS ADVISED

1. Elio Socco, University of Rome II, Rome, Italy (1985,1988).
2. Fraternali, University of Salermo, Salermo, Italy (1987).
3. Marco Savoia, University of Bologna,Bologna, Italy (1990, 1993).
4. Anil Tayal, University of Delhi, New Delhi, India (1990).
5. G.S. Reddy, National Defense Metallurgical Laboratory, Hyderabad, India (1990).
6. K. Krishna Kumar, Indian Institute of Technology, Madras (February-December, 1994).
7. A.F. Palmerio, Brazilian Air Force, Brazil (Spring 1994).
8. Emilio Larrodè, University of Zaragoza, Zaragoza, Spain (Spring 1997).
9. Kohji Suzuki, Department of Engineering, University of Tokto, Tokyo, Japan (June 1998-May 1999).
10. Joaquim Barbosa, Instituto de Engenharia Mecânica (Institute of Mechanical Engineering) Technical University of Lisbon, Lisbon, PORTUGAL (Spring 1999).
11. Zhen-Qiang Cheng, University of Science and Technology of China, China (March 1999- March 2004).
12. Siddhartha Mukherjee, Indian Institute of Technology, Madras, India (June 1999-August 2001).
13. Eugènio S. Gacão, Instituto de Engenharia Mecânica (Institute of Mechanical Engineering) Technical University of Lisbon, Lisbon, PORTUGAL (January - July 2000).
14. Elio Sacco, Department of Mechanics, Structures and Environment, University of Cassino, Cassino, Italy (July-August 2001).
15. Manas Chandra Ray, Department of Mechanical Engineering, Indian Institute of Technology, Kharagpur, INDIA (May - July 2002 and Sept. 2003-May 2004).
16. Juan P. Pontaza, Department of Mechanical Engineering, Texas A&M University (January 2003-2006).
17. Roman A. Arciniega, Department of Mechanical Engineering, Texas A&M University (January 2005-2006).
18. Recep Günes, Department of Mechanical Engineering, Erciyes University, Kayseri Turkey (Sep 2007-Aug 2008).
19. Vinu U. Unnikrishnan, Department of Mechanical Engineering, Texas A&M University (August 2007-2012).
20. Ginu U. Unnikrishnan, Department of Mechanical Engineering, Texas A&M University (May 2008-2010).
21. Roman Arciniega, Department of Mechanical Engineering, Texas A&M University (August 2008-2009).
22. Jose Viriato Santo, Technical University of Lisbon, Portugal (Mar-Aug 2009).
23. Yiping Liu, Department of Mechanics, South China University of Technology, Guanzhou, China (Sep. 2008-August 2010).
24. Anirudh Shukla, Department of Aerospace Engineering, Technical University of Delft, The Netherlands (Sep-Dec 2011).
25. Jianfeng Wen, School of Mechanical and Power Engineering, East China University of Science and Technology (ECUST), Shanghai, China (September 1, 2011 to August 31, 2012.
26. Manas Chandra Ray, Department of Mechanical Engineering, Indian Institute of Technology, Kharagpur, India (July-Aug, 2012).
27. Recep Ekici, Department of Mechanical Engineering, Erciyes University, Kayseri, Turkey (Sep 2012-May 2013).
28. Mustafa Yildirim, Department of Mechanical Engineering, Erciyes University, Kayseri, Turkey (Oct 2012-May 2013).
29. Ginu U. Unnikrishnan, Department of Mechanical Engineering, Boston University (Jan-August 2013).
30. Bozkurt Burak Özhan, Department of Mechanical Engineering, Celal Bayar University, Manisa, Turkey 45140 (Jul 2013-Oct 2013).
31. Gultekin Sinir, Department of Civil Engineering, Celal Bayar University, Manisa, Turkey 45143 (12 Aug 2013- 11 Aug 2014).
32. Jani Romanoff, Department of Solid Mechanics, Aalto University, P.O. Box 15300, 00076 Aalto, Finland (Sep 2013-Dec 2013).
33. Kari Santaoja, Department of Applied Mechanics, Aalto University, P.O. Box 14300 FI-00076, Finland (2 Jan – 15 Feb., 2015).

34. Saikat Sarkar, Department of Civil Engineering, Indian Institute of Science, Bangalore, India (15 April 2015 – 14 Mar 2017).
35. Bozkurt Burak Özhan, Department of Mechanical Engineering, Celal Bayar University, Manisa, Turkey 45140 (June 2015-June 2016).
36. Jani Romanoff, Department of Solid Mechanics, Aalto University, P.O. Box 15300, 00076 Aalto, Finland (Sep 2015-Oct 2015).
37. Bruno Reinaldo Goncalves, Department of Applied Mechanics, Aalto University, Aalto Finland (Sep-Oct, 2015)
38. Anssi Karttunen, Department of Solid Mechanics, Aalto University, P.O. Box 15300, 00076 Aalto, Finland (Jan 2016-July 2016).
39. Bruno Reinaldo Goncalves, Department of Applied Mechanics, Aalto University, Aalto Finland (Jun-July, 2016)
40. Michele Bacciocchi, School of Engineering and Architecture, University of Bologna, 40136 Bologna, Italy (1 Sep 2016-28 Feb 2017).
41. Huijuan Guo, Department of Engineering Mechanics in Tsinghua University, Beijing, China (1 Oct. 2016-30 Sep. 2017).
42. Anssi Karttunen, Department of Solid Mechanics, Aalto University, P.O. Box 15300, 00076 Aalto, Finland (Sept 2017-Aug 2019).
43. Zhujiang (Jason) Wang, Texas A&M University, College Station (Sept. 2016-Aug. 2018).
44. Archana Arbind, Texas A&M University, College Station (Sept. 2017-Aug. 2020).
45. Abhay Bambole, Department of Structural Engineering, Veermata Jijabai Technological Institute (VJTI), Matunga, Mumbai, India (Nov. 2017-Jan. 2018).
46. Shubhankar Roy Chaudhuri, Department of Civil Engineering, Indian Institute of Science, Bangalore, India (Aug. 2018-Aug. 2019).
47. Shigang Ai, Department of Engineering Mechanics, School of Civil Engineering, Beijing Jiaotong University, Beijing, China (Nov. 2018-Oct. 2019).
48. Hong Zhang, School of Civil Engineering and Transportation, South China University of Technology (SCUT), Guangzhou, China (Jan. 2019-Jan 2020).
49. Cristian Gómez Lázaro, Research Student, Mechanical Engineering, Universidad Nacional de Ingeniería, Lima, Perú, Information Technologies and Communications Center (CTIC), 1-31 August 2019.
50. Prakash Thamburaja, UKM (Universiti Kebangsaan Malaysia), Bangi 43600, Malaysia, 1 Sept. 2019-Aug. 31, 2021.
51. Bensingh Dhas Pancras, Department of Civil Engineering, Indian Institute of Science, Bangalore, India, 2021-2022.
52. Mehdi Mehdi Shahzamanian, Center for Agile and Adaptive Additive Manufacturing, University of North Texas, Denton, Texas, 2022-2023.
53. Mancini Federica, Department of Solid Mechanics, Aalto University, Finland, Feb-May 2023.
54. Jamun Kumar N, Department of Civil Engineering, Indian Institute of Science, Bangalore, India, March-August 2023.

DOCTORAL STUDENTS ADVISED (an asterisk indicates that the person is employed by an academic institution)

1. Robert Belie, "Fracture Prediction in Plane Elasto-Plastic Problems by the Finite Element Method," School of Aerospace, Mechanical, and Nuclear Engineering, University of Oklahoma, Norman, OK, 1978.
2. John D. Warburton, "The Use of the Finite Element Method in Meteorological Modeling,"(co-advised by S. Sasaki) Department of Meterology, University of Oklahoma, Norman, OK, 1979.
3. Akio Satake, "Numerical Analysis of Certain Constrained Optimization Problems in Nonlinear Mechanics," School of Aerospace, Mechanical and Nuclear Engineering, University of Oklahoma, Norman, OK, 1980.
4. Wei-Chang Chao, "Geometrically Nonlinear Analysis of Layered Composite Plates and Shells," Department of Engineering Science and Mechanics, Virginia Polytechnic Institute and State University, Blacksburg, VA, 1983.
5. N.S. Putcha, "A Mixed Shear Flexible Finite Element for Geometrically Nonlinear Analysis of Laminated Plates," Department of Engineering Science and Mechanics, Virginia Polytechnic Institute and State University, Blacksburg, VA, l984.
6. **K. Chandrashekhara***, "Geometric and Material Nonlinear Analysis of Laminated Composite Plates and Shells," Department of Engineering Science and Mechanics, Virginia Polytechnic Institute and State University, Blacksburg, VA, 1985.
7. **C.F. Liu***, "Geometrically Nonlinear Analysis of Composite Laminates Using a Refined Shear Deformation Shell Theory," Department of Engineering Science and Mechanics, Virginia Polytechnic Institute and State University, Blacksburg, VA, 1985.
8. **Paul R. Heyliger***, "A Mixed Computational Algorithm Based on Updated Lagrangian Formulation for Plane Elastic Contact Problems," Department of Engineering Science and Mechanics, Virginia Polytechnic Institute and State University, Blacksburg, VA, June 1986.
9. **Ahmed A. Khdeir***, "Analytical Solutions for the Statics and Dynamics of Rectangular Laminated Composite Plates Using Shear Deformation Theories," Department of Engineering Science and Mechanics, Virginia Polytechnic Institute and State University, Blacksburg, VA, October 1986.
10. David Rourk, "Geometric and Material Nonlinear Effects in Elastic-Plastic and Failure Analyses of Anisotropic Laminated Structures," Department of Engineering Science and Mechanics, Virginia Polytechnic Institute and State University, Blacksburg, VA, December, 1986.
11. **C.L. Liao***, "An Incremental Total Lagrangian Formulation for General Shell-Type Structures," Department of Engineering Science and Mechanics, Virginia Polytechnic Institute and State University, Blacksburg, June 1987.
12. Ajay K. Pandey, "A Nonlinear Computational Model for the Strength and Failure of Composite Plates and Shells," Department of Engineering Science and Mechanics, Virginia Polytechnic Institute and State University, Blacksburg, June 1987.
13. **Samit Roy***, "A Finite Element Analysis of Adhesively Bonded Joints Including Geometric Nonlinearity, Non-Linear Viscoelasticity, Moisture Diffusion and Failure," Department of Engineering Science and Mechanics, Virginia Polytechnic Institute and State University, Blacksburg, November 1987.
14. **Ariovaldo F. Palmerio***, "On a Moderate Rotation Theory for Anisotropic Shells," Department of Engineering Science and Mechanics, Virginia Polytechnic Institute and State University, Blacksburg, September 1988.
15. Robert T. Arenburg, "Analysis of Metal Matrix Composite Structures Using a Micromechanical Constitutive Theory," Department of Engineering Science and Mechanics, Virginia Polytechnic Institute and State University, Blacksburg, Virginia, December 1988.
16. Pey M. Wung, "Large Deformation Analysis of Laminated Composite Structures by a Continuum-Based Shell Element with Transverse Deformation," Department of Engineering Science and Mechanics, Virginia Polytechnic Institute and State University, Blacksburg, VA, June 1989.
17. **Ever J. Barbero***, "On a Generalized Laminate Theory with Application to Bending, Vibration, and Delamination Buckling in Composite Laminates," Department of Engineering Science and Mechanics, Virginia Polytechnic Institute and State University, Blacksburg, VA, September 1989.

18. **Ashgar Nosier***, "A Study of Damped and Undamped Vibration and Stability Problems of Laminated Plates and Shells According to Various Shear Deformation Theories," Department of Engineering Science and Mechanics, Virginia Polytechnic Institute and State University, Blacksburg, VA, Dec. 1990.
19. Mahendar P. Reddy, "Numerical Simulation of Three-Dimensional Casting, Extrusion, and Forming Processes," Department of Engineering Science and Mechanics, Virginia Polytechnic Institute and State University, Blacksburg, VA, Dec. 1990.
20. Stephen P. Engelstad, "Nonlinear Probabilistic Finite Element Modelling of Composite Shells," Department of Engineering Science and Mechanics, Virginia Polytechnic Institute and State University, Blacksburg, VA, Dec. 1990.
21. **Ronald C. Averill***, "Nonlinear Analysis of Laminated Composite Shells Using a Micromechanics-Based Progressive Damage Model," Department of Engineering Science and Mechanics, Virginia Polytechnic Institute and State University, Blacksburg, VA, June 1992.
22. Y.S.N. Reddy, "Numerical Simulation of Damage and Progressive Failures in Composite Laminates Using the Layerwise Plate Theory," Department of Engineering Science and Mechanics, Virginia Polytechnic Institute and State University, August 1992.
23. **S.K. Kassegne***, "Layerwise Theory for Discretely Stiffened Laminated Cylindrical Shells," Department of Engineering Science and Mechanics, Virginia Polytechnic Institute and State University, December 1992.
24. Ching Yi Tsai, "Modeling of Chemical Vapor Infiltration Process," (co-advisor with S. Desu), Department of Engineering Science and Mechanics, Virginia Polytechnic Institute and State University, June 1993.
25. **Robert M. Fithen***, "Adaptive Finite Element Simulation of Incompressible Viscous Flow," Department of Engineering Science and Mechanics, Virginia Polytechnic Institute and State University, August 1993.
26. Donald H. Robbins, Jr., "Hierarchical Modeling of Laminated Composite Plates Using Variable Kinematic Finite Elements and Mesh Superposition," Department of Engineering Science and Mechanics, Virginia Polytechnic Institute and State University, November 1993.
27. **F. T. Kokkinos***, "Three-Dimensional Layerwise Modeling of Layered Media with Boundary Integral Equations," Department of Engineering Science and Mechanics, Virginia Polytechnic Institute and State University, December 1995.
28. C. M. Dakshina Moorthy, "Modeling Laminates Using a Layerwise Finite Element with Enhanced Strains for Interlaminar Stress Recovery and Delamination Characteristics," Department of Mechanical Engineering, Texas A&M University, April 1997.
29. John A. Mitchell, "A High Performance Iterative Solution Procedure for Solving Problems in Structural Mechanics Using the Finite Element Method," Department of Mechanical Engineering, Texas A&M University, May 1997.
30. Hussein Allaboun, "Growth and Coalescence of Bubbles During Late Stages of Polymer Foaming Processes," (co-advised with W. Flumerfelt) Department of Chemical Engineering, Texas A&M University, April 1998.
31. Govind Rengarajan, "On the Inelastic Behavior of Crystalline Solids," Department of Mechanical Engineering, Texas A&M University, September 1998.
32. Achuth Rao, "Study of Molecular Orientation and Phase Transition in Polymers During the Film Blowing Process," Department of Mechanical Engineering, Texas A&M University, September 1998.
33. Grama N. Praveen, "Modeling Inelasticity in Materials with Application to Superplasticity," Department of Mechanical Engineering, Texas A&M University, February 1999.
34. Philip Schembri, "A 3D Meshless Computational Procedure for Nonlinear Analysis of Structures," Department of Mechanical Engineering, Texas A&M University, September 2002.
35. Juan P. Pontaza, "Least-Squares Variational Principles and the Finite Element Method: Theory, Formulations, and Models for Solids and Fluid Mechanics" Department of Mechanical Engineering, Texas A&M University, December 2003.
36. Seung Joon Lee, "Nonlinear Analysis of Composite Laminated Plate and Shell Structures with Smart Material Laminae," Department of Civil Engineering, Texas A&M University, January 2004.
37. Ravisankar S. Mayavaram, "Modeling and Simulation of Film Blowing Process," Department of Mechanical Engineering, Texas A&M University, November 2004.

38. Goy Teck Lim, "Scratch Behavior of Polymers," Department of Mechanical Engineering, Texas A&M University, June 2005.
39. **Roman A. Arciniega*,** "On Tensor-Based Finite Elements Model for the Analysis of Shell Structures," Department of Mechanical Engineering, Texas A&M University, October 2005.
40. Ravi S. Karedla, "Modeling of Crack Tip High Inertia Zone in Dynamic Brittle Fracture," Department of Mechanical Engineering, Texas A&M University, May 2006.
41. Wilson Aliaga, "Analysis of Smart Functionally Graded Plates," Department of Mechanical Engineering, Texas A&M University, May 2006.
42. Vivek Prabhakar, "Least Squares Based Finite Element Formulations and Their Applications in Fluid Mechanics," Department of Mechanical Engineering, Texas A&M University, December 2006.
43. Yetzirah Urthaler, "On Simple and Accurate Finite Element Models for Nonlinear Bending Analysis of Beams and Plates," Department of Mechanical Engineering, Texas A&M University, December 2006.
44. **Vinu U. Unnikrishnan***, "Multiscale Analysis of Nanocomposite and Nanofibrous Structures," Department of Civil Engineering, Texas A&M University, August 2007.
45. Wook Jin Na, "Damage Analysis of Laminated Composite Beams under Bending Loads using the Layerwise Theory," Department of Mechanical Engineering, Texas A&M University, November 2007.
46. Ginu Unnikrishnan, "Computational Modelling of Biological Cells and Soft Tissues," Department of Mechanical Engineering, Texas A&M University, May 2008.
47. **James Steuber***, "A Model for Nonlinear Electrokinetics in Electric Field Guided Assembly of Colloids, " Department of Mechanical Engineering, Texas A&M University, October 2009.
48. Rakesh Ranjan, "*hp*-Spectral Element Methods in Structural Mechanics and Computational Fluid Dynamics," Department of Mechanical Engineering, Texas A&M University, November 2009.
49. Greg Payette, "Spectral/*hp* Finite Element Models for Fluids and Structures," Department of Mechanical Engineering, Texas A&M University, Spring 2012.
50. Pritha Ghosh, "Model Development and Simulation of the Response of Shape Memory Polymers," Department of Mechanical Engineering, Texas A&M University, College Station, August 2012 (co-advised with Arun Srinivasa).
51. Venkat V. Vallala, "Higher-Order Spectral/hp Finite Element Technology for Structures and Fluid Flows," Department of Mechanical Engineering, Texas A&M University, College Station, August 2013.
52. Feifei Cheng, "Multi-scale Computational Modeling of Multiphase Composites with Damage," Department of Mechanical Engineering, Texas A&M University, College Station, December 2013.
53. Ashwin Rao, "Structural Thermomechanical Models for Shape Memory Alloy (SMA) Components," Department of Mechanical Engineering, Texas A&M University, College Station, May 2014 (co-advised with Arun Srinivasa).
54. Ozgu Ozsoy, "Investigation of Interfaces under Mechanical and Thermal Loading Using a Cohesive Zone Model," Department of Mechanical Engineering, Texas A&M University, College Station, May 2014.
55. Arash Sabz, "Nondestructive Level III Damage Evaluation and System Identification in Structures Based on the Rate of Total Energy," Department of Civil Engineering, Texas A&M University, April 2015.
56. Helnaz Soltani, "Fluid-Structure Interaction with Application to Structural Vibration and Blood Flow in Arteries," Department of Mechanical Engineering, Texas A&M University, May 2015.
57. **Wooram Kim*,** "Improved Time Integration Algorithms for the Analysis of Structural Dynamics," Department of Mechanical Engineering, Texas A&M University, May 2016.
58. Miguel Gutierrez Rivera, "A Comparison Between 7- and 12-Parameter Shell Finite Elements for Large Deformation Analysis," Department of Mechanical Engineering, Texas A&M University, Dec 2016.
59. Michael Powell, "Internal Polar Continuum Theories for Solid and Fluent Continua," Department of Civil Engineering, Texas A&M University, Dec 2016.
60. **Nasra Al Maskari*,** "Bioinspired Material Design: Modeling and Optimization of Nacre-like Materials," Department of Mechanical Engineering, Texas A&M University, Dec 2016 (co-advised with Dan McAdams).
61. **Jinseok Kim***, ``A Non-local Third-order Theory of Functionally Graded Plates under Electromechanical Coupling Effect," Department of Mechanical Engineering, Texas A&M University, May 2017.

62. **Archana Arbind***, "Finite Element Analysis of Structures Using a General Higher-Order Plate and One-Dimensional Theories for Classical and Cosserat ContinuumHaving Constrained Microrotation," Mechanical Engineering, Texas A&M University, May 2017.
63. **Parisa Khodabakhshi***, "A Non-Local Approach for Damage Prediction in Structures" Civil Engineering, Texas A&M University, December 2019.
64. Namhee Kim, "Spectral/HP Least-Squares Finite Element Analysis Of Isothermal And Non-Isothermal Flows Of Generalized Newtonian Fluids," Mechanical Engineering, Texas A&M University, May 2019.
65. Seyed Mohsen Nowruzpour Mehrian, "A Discrete Lagrangian Based Direct Approach to Macroscopic Modelling," Mechanical Engineering, Texas A&M University, May 2020.
66. Shahla Zamani Mehrian, "Framework for Modeling Large Deformations and Stress Wave Mechanics in Soft Biological Tissue," Mechanical Engineering, Texas A&M University, Spring 2021 (co-advised with Alan Freed).
67. Praneeth Nampally, "Nonlinear Micropolar Beam and Plate Theories with Applications to Lattice Core Sandwich Structures and Dual Mesh Control Domain Method for Structural Elements," Mechanical Engineering, Texas A&M University, Spring 2021.
68. Matthew Martinez, "The Dual Mesh Control Domain Method for Linear and Nonlinear Convection–Diffusion Equations in Two Dimensions," Mechanical Engineering, Texas A&M University, Spring 2022.
69. Ho Yong Shin, "Impact analysis on heterogeneous material with three dimensional GraFEA Method," Mechanical Engineering, Texas A&M University, Spring 2022.
70. Mutaz Ahmad Muhammad, "Biomechanical Models for Predicting Behavior and Stresses of Growing Tumors," (co-advised by Raffaella Righetti) Civil and Environmental Engineering, Texas A&M University, August 2023.
71. Dominic Jarecki, "Modeling of localized and structural fatigue damage under complex multiaxial loading," (co-advisor with Arun R. Srinivasa), Department of Mechnaical Engineering, August 2023.

DOCTORAL STUDENTS CO-ADVISED (informally) OUTSIDE THE USA

72. **J. Eugénio Semendo Garção***, "Modeling of Adaptive Structures" (co-advised with Drs. C. A. Mota Soares and C. M. Mota Soares), Universidade Técnica de Lisboa Instituto Superior Técnico (Technical University of Lisbon), October 2004.
73. **Henrique Santos**, "A Semi-Analytical Finite Element for Analysis of Shells of Revolution" (co-advised with Drs. C.A. Mota Soares and C.M. Mota Soares), Universidade Técnica de Lisboa Instituto Superior Técnico (Technical University of Lisbon), Portugal, October 2008.
74. **Filipa Andreia de Matos Moleiro***, "Mixed Least-Squares Finite Element Models for Analysis of Multilayered Composite Plates" (co-advised with Drs. C. A. Mota Soares and C. M. Mota Soares), Universidade Técnica de Lisboa Instituto Superior Técnico (Technical University of Lisbon), Portugal, February 2009.
75. **Ramin Aghababaei***, "Modeling Slip Gradients and Internal Stresses in Crystalline Microstructures with Distributed Defects," (co-advised with Shailendra Joshi), National University of Singapore, August 2012.
76. **Abhilash Nair**, "Discrete Micromechanics of Random Fibrous Architectures," (co-advised with Shailendra Joshi), National University of Singapore, December 2012.
77. **Seyed Hamid Reza Mirkhani**, "Crystal Plasticity Modeling and Simulation of Nanotwinned Metals" (co-advised with Shailendra Joshi), National University of Singapore, Spring 2013.
78. **Kiran Chandra Sahu***, "Active Control of Sound Transmission through Sandwich Panels" (co-advised with Dr. Tuhkuri Jukka), Aalto University, Aalto, Finland, to be completed in December 2015.

M.S. STUDENTS ADVISED

1. C. S. Tsay, “Bending, Stability, and Vibration of Thin Rectangular Plates by Stationary Finite Element Models" University of Oklahoma, Norman, OK, 1977.
2. V. D. Murty, “Solution of Integral Equations by the Finite Element Method,” University of Oklahoma, Norman, OK, 1977.
3. R. Gera, “An Accurate Finite-Difference Analysis of Bending of Thin Rectangular Elastic Plates,” University of Oklahoma, Norman, OK, 1977.
4. I. R. Singh, “Large Deflection and Large Amplitude Free Vibrations of Beams and Circular Plates by the Finite Element Method,” University of Oklahoma, Norman, OK, 1978.
5. F. Irani, “Higher Order Conventional and Mixed Finite Elements Including Shear Deformation and Rotatory Inertia for Dynamic Analysis of Beams,” University of Oklahoma, Norman, OK, 1978.
6. D. R. Mamidi, “A Penalty Finite-Element Model for the Numerical Solution of Free Convection Heat Transfer in Rectangular Enclosures,” University of Oklahoma, Norman, OK, 1979.
7. Y. S. Hsu, “Thermal Stress Analysis of Composite Plates and Shells by the Finite Element Method,” University of Oklahoma, Norman, OK, 1980.
8. C. L. Huang, “Large Deflection Bending and Vibrations of Thick Annular Plates with Variable Thickness,” University of Oklahoma, Norman, OK, 1980.
9. W. C. Chao, “Finite-Element Analysis of Laminated Composite (Ordinary and Bimodular-Material) Plates,” University of Oklahoma, Norman, OK, 1980.
10. J. D. Mook, “Large Deflection Transient Response of Layered Composite Plates,” Virginia Polytechnic Institute and State University, Blacksburg, VA, 1982.
11. N. D. Phan, “Exact and Finite-Element Analysis of Laminated Plates Using a Higher-Order Theory,” Virginia Polytechnic Institute and State University, Blacksburg, VA, l984.
12. V. A. Padhye, “A Penalty-Finite Element Model for Axisymmetric Flows of Viscoelastic Fluids,” by Virginia Polytechnic Institute and State University, Blacksburg, VA, November 1986.
13. Q. Gu, “Nonlinear Analysis of Free-Edge Effects in Symmetric Laminates Under Axial Loading,” Virginia Polytechnic Institute and State University, February 1987.
14. Ravinder Bhumbla, “A Study of Vibrations in Rotating Laminated Composite Plates Accounting for Shear Deformation and Rotary Inertia,” Virginia Polytechnic Institute and State University, Blacksburg, VA, April 1989.
15. Didier Turlier, “Numerical Stress Intensity Factor Determination of Notched Laminated Specimens,” (co-advised with Don H. Morris), Virginia Polytechnic Institute and State University, Blacksburg, VA, April 1989
16. Jayashree Moorthy, “Dynamic Stability of Composite Laminated Plates,” Virginia Polytechnic Institute and State University, Blacksburg, VA, June 1989.
17. M. P. Reddy, “Finite Element Analysis of Coupled Heat Transfer and Fluid Flow of Non-Newtonian, Incompressible Fluids in Three-Dimensional Enclosures,” Virginia Polytechnic Institute and State University, June 1989.
18. R. C. Averill, “On the Behavior of Shear Deformable Plate Elements,” Virginia Polytechnic Institute and State University, August 1989.
19. John A. Mitchell, “The Effects of Embedded Piezoelectric Layers in Composite Cylinders and Applications,” Virginia Polytechnic Institute and State University, July 1992.
20. “Stiffness Reduction and Stress Transfer in Composite Laminates with Transverse Matrix Cracks,” by G. N. Praveen, Texas A&M University, September 1994.
21. P. Bose, “A Critical Evaluation of Various Higher-Order Plate Theories,” Virginia Polytechnic Institute and State University, December 1995.
22. C.-D. Chin, “A Parametric Study of Thermomechanical Behavior of Functionally Gradient Materials,” Texas A&M University, October 1996.
23. Sivasubramaniam Krishnan, “Vibration Suppression of Laminated Composite Plates Using Embedded Smart Material Layers," Texas A&M University, July 2000.
24. Nikhil C. Murgude, “Geometric Nonlinear Analysis of Microbeams Under Electrostatic Loading,” Texas A&M University, December 2001.
25. Praveen Gupta, “Buckling and Vibration of Orthotropic Plates with an Internal Hinge,” Texas A&M University, December 2001.

26. Raghavendra K. Shenoy, "Analysis of Three-Dimensional Frames Using Shear-Locking-Free Beam Elements Based on the Third-Order Shear Deformation Theory," Texas A&M University, December 2001.
27. Nauman M. Sheikh, "The Formulation and Computer Implementation of Element-Free Galerkin Method for Euler-Bernoulli Beam Theory," Texas A&M University, December 2001.
28. Rahul Joshi, "An Implementation of the Extended Finite Element Method (XFEM) for a Linear Elastic Domain with Fracture," (co-advised with T. Strouboulis), Texas A&M University, May 2004.
29. David Matthew McCutcheon, "Machine Augmented Composite Materials for Damping Purposes," (co-advised by Terry Creasy), Texas A&M University, December 2004.
30. Brent D. Pickle, "Evaluation of Stress in BMI-Carbon Fiber Laminate to Determine the Onset of Microcracking," (co-advised with Roger Morgan), December 2004.
31. Anmol Agrawal, "Hingeless Flow Control over an Airfoil via Distributed Actuation," (co-advised by Othon Rediniotis), Texas A&M University, August 2005.
32. Gregory P. Payette, "Mathematical Modeling of Evaporative Cooling of Moisture Bearing Epoxy Composite Plates," (co-advised with Roger Morgan), Texas A&M University, March 2006.
33. Ryan Petrus, "Dynamics Analysis of Fluid Conveying Pipes," Texas A&M University, May 2006.
34. Wooram Kim, "Unconventional Finite Element Models for Nonlinear Analysis of Beams and Plates," May 22, 2007.
35. Britt Pratt, "Least Squares Finite Element and Meshless Methods in Heat Transfer," Texas A&M University, March 2008.
36. Feifei Cheng, "A Study on Continuum-Based Computational Models of Living Cell," Texas A&M University, Oct. 2008.
37. Venkat Vallala, "Alternative Least-Squares Finite Element Models of Navier-Stokes Equations for Power-Law Fluids," Texas A&M University, May 2009.
38. Ameeta Raut, "Linear and Nonlinear Finite Element Analysis of Beams Using Least-Squares Finite Element Model," Texas A&M University, May 2009.
39. Nellie Rajarova, "An Assessment of Alternative Finite Element Models Problems in Heat Transfer and Fluid Mechanics," Texas A&M University, May 2009.
40. Dhatri Gaddamanugu, "Finite Element Modeling and Molecular Dynamic Simulation of Carbon Nanotubes/Polymer Composites," Texas A&M University, May 2009.
41. Jayavel Arumugam, "Ionic Polymer-Metal Composite Beams, Thermodynamical Modeling and Simulation,"(co-advised with Arun Srinivasa), Texas A&M University, August 2012.
42. Archana Arbind, "Nonlinear Analysis of Conventional and Microstructure Dependent Functionally Graded Beam under Thermo-Mechanical Loads," Texas A&M University, August 2012.
43. Sukanya Doshi, "Study of Thermo-mechanical Coupling in Functionally Graded Metal-Ceramic Composites," (co-advised with Anastasia Muliana), Texas A&M University, Dec 2012.
44. Patrick Mahaffey, "Bending, Vibration and Buckling Response of Modified Euler-Bernoulli and Timoshenko Beam Theories Accounting for the von Kármán Geometric Nonlinearity," Texas A&M University, August 2013.
45. Sandeep Pidaparti, "A Computational Study on the Leakage of Supercritical Carbon Dioxide Through Labyrinth Seals," (co-advised with Dr. Devesh Ranjan), Texas A&M University, Dec 2013.
46. Sravani Nuti, "Dynamic Simulations of Elastic Rods for Medical Applications," (co-advised with Dr. Annie Ruimi, TAMU-Q), Texas A&M University, Dec. 2014. Received the *2014-2015 Outstanding Engineering Master's Graduate Student Award* from College of Engineering at TAMU, November 2014.
47. Matthew Fisseler, "A combined principal component analysis and energy minimization based approach to model deformation of web core beams," (co-advised with Dr. Arun Srinivasa), Texas A&M University, Aug 2021.
48. Carson Lawrence, "Determination of microcrack surface area caused by fracture in quasi-brittle solids using GraFEA simulations," (co-advised with Dr. Thomas Lacy, Jr.), Texas A&M University, Aug 2023.

SPECIAL STUDENTS ADVISED

1. Steven Ulrick, Jr., "Finite Element Analysis Validation Techniques," (MS No-Thesis Option Project Report), Texas A&M University, College Station, April 1995.
2. Robert Pandorf, "Construction and Finite Element Analysis of Laminated Plate Structures," (Konstruktiver Entwurf), Texas A&M University, December 1995.
3. Payal Pawliwal, "Finite Element Analysis of Functionally Graded Beams Using the Third Order Shear Deformation Theory," (MS Non-Thesis Option Project Report), Texas A&M University, College Station, May 2004.
4. Ruchir Patwa, "Analysis of Single-Walled Carbon Nanotubes Using Structural Mechanics Approach," (MS Non-Thesis Option Project Report), Texas A&M University, College Station, May 2004.
5. Karthik Aruru, "Exact Solutions for Bucking of Timoshenko Columns" (MS Non-Thesis Option Project Report) Texas A&M University, College Station, October 2004.
6. Promit Chakroborty, "Non-Local (Eringen) Models of Timoshenko Beams,"u a project of an undergraduate intern from Indian Institute of Technology, Kanpur, May –July 2019.

GRADUATE STUDENTS CURRENTLY ADVISED

Dissertations in Progress (Titles are tentative):

1. Vardhil Mehta, "Generative design of architected materials," Mechanical Engineering, Texas A&M University, spring 2024 (co-advised with A.R. Srinivasa).
2. Alekhya Banki, "Nonlocal modelling of cellular, web core, and architected materials and structures," Mechanical Engineering, Texas A&M University, spring 2024 (co-advised with A.R. Srinivasa).
3. Sachin Velayudhan, "Nonlocal fracture model for heterogeneous materials," Mechanical Engineering, Texas A&M University, spring 2024 (coadvised with A.R. Srinivasa), spring 2025.
4. Suhas Adishesha Kowshik, "Dual mesh control domain analysis of plates and shells," Mechanical Engineering, Texas A&M University, spring 2024 (co-advised with A.R. Srinivasa), spring 2025.
5. Mehmet Alp Doğmaz, TBD, Mechanical Engineering, Texas A&M University, Fall 2025.
6. Moaz Rabie, TBD, Mechanical Engineering, Texas A&M University, (co-advised with Marwan Khraisheh and A.R. Srinivasa), spring 2025.
7. Nafees Muhammad, TBD, Mechanical Engineering, Texas A&M University, (co-advised with Sami El Borgi), Spring 2025.
8. Tanmaye Heblekar, "Dual mesh control domain method: applications to nonlinear strucrual mechanics," Mechanical Engineering, Texas A&M University, Spring 2026.
9. Atharva Kulkarni, "Higher order beam, plate, and shell elements for structural dyanmics," Spring 2026 (co-advised with A.R. Srinivasa).
10. Sreenu Hari, "A physics-based machine learning approach for predicting failure in airframe structural components," Spring 2026 (co-advised with A.R. Srinivasa).
11. William Furr, TBD, Mechanical Engineering, Texas A&M University, Spring 2026.

MS Theses in Progress (Titles are tentative):

12. Christopher James Yassopoulos, "Analysis of Timoshenko--Ehrenfest beam problems using the Theory of Functional Connections," spring 2023.
13. Andrew Fisseler, "Tire mechanics," Mechanical Engineering, Texas A&M University, (coadvised with A.R. Srinivasa) fall 2024.

PROFESSIONL SERVICE ACTIVITIES

ORGANIZATION OF CONFERENCES (Beginning 2015 the listing is incomplete because a large numer of conferences organized every year around the world list me (with permission) as a member of their International Scientific or Advisory Committees)

1. *Midwest Mechanics Conference,* University of Oklahoma, Norman (member, *Organizing Committee*).
2. *2lst Annual Meeting of the Society of Engineering Science,* Virginia Polytechnic Institute, Blacksburg, Oct. l5-l7, l984 (member, *Organizing Committee* and **Chairman of Proceedings**).
3. *International Symposium on Variational Methods in Geosciences,* (member, *Organizing Committee*), University of Oklahoma, September 1985.
4. *Fifth International Conference on Mathematical Modeling,* July 29-3l, l985, University of California, Berkeley (member, *Organizing Committee*).
5. *International Conference on Finite Elements in Computational Mechanics,* Indian Institute of Technology, Bombay, December 2-6, l985 (member, *Technical Organizing Committee*).
6. *ARO Workshop on Constitutive Models, Virginia Polytechnic Institute,* Blacksburg, VA, March 24-26, 1986 (**Organizer**).
7. *ASCE Engineering Mechanics Division Specialty Conference,* Virginia Polytechnic Institute, May 23-26, 1988 (member, *Organizing Committee).*
8. *Advanced Study Institute on Finite Element Analysis for Engineering Design,* Indian Institute of Technology, Madras, India, August 1-10, 1988 (**Co-Chairman**).
9. *Seventh International Conference on Finite Element Methods in Flow Problems,* The University of Alabama in Huntsville, April 3-7, 1989 (member, *Organizing Committee*).
10. *Seventh International Conference on Mathematical and Computer Modeling,* Chicago, IL, August 2-5, 1989 (member, *International Advisory Board*).
11. *Fourth Technical Conference on Composite Materials,* Virginia Polytechnic Institute and State University, Blacksburg, VA, October 3-6, 1989 (member, *Organizing Committee*).
12. *First U.S. Conference on Discrete Element Methods (DEM),* Colorado School of Mines, Golden, Co, Oct. 17-20, 1989 (member, *Technical Committee*).
13. *Second International Conference on Engineering Software,* Indian Institute of Technology, Delhi, India, Dec. 4-7, 1989 (member, *Technical Organizing Committee*).
14. *Indo-U.S. Workshop on Composites for Aerospace Applications,* Indian Institute of Science, Bangalore, India, July 23-27, 1990 (**Co-Chairman**).
15. *International Conference on Structural Testing, Analysis and Design,* Indian Institute of Science, Bangalore, July 29-August 3, 1990 (Member, *International Steering and Organization Committees*).
16. *Second World Congress on Computational Mechanics (WCCM II),* Stuttgart, West Germany, August 27-31, 1990 (member, *International Consulting Board*).
17. *International Conference on the Mechanics, Physics, and Structure of Materials,* Aug. 19-24, 1990, Aristotle University, Thessaloniki, Greece (Aristotle's 23 Centuries Celebration) (member, *International Organizing Committee*).
18. *First U.S. National Congress on Computational Mechanics,* Chicago, IL, July 21-24, 1991 (member, *International Advisory Committee*).
19. *First International Conference on Computational Structures Technology,* Heriot-Watt University, Edinburgh, Scotland, August 20-22, 1991 (member, *Conference Editorial Board*).
20. *IUTAM Symposium on Local Mechanics Concepts for Composite Materials,* Virginia Polytechnic Institute and State University, Blacksburg, Oct. 27-31, 1991 (**Co-Chairman**).
21. *Second International Congress on Recent Developments in Air- & Structure-Borne Sound and Vibration,* Auburn University, Auburn, Alabama, March 4-6, 1992 (member, *Scientific Committee*).
22. *Third International Conference on Computational Plasticity Fundamentals and Applications,* Barcelona, Spain, April 6-10, 1992 (member, *Technical Advisory Committee*).
23. *Eighth International Conference on Mechanics of Composite Materials,* Riga, Latvia, April 20-22, 1993 (member, *International Advisory Board*).
24. *Ninth International Conference on Mathematical and Computer Modeling,* University of California, Berkeley, CA, July 26-29, 1993 (member, *Organizing Committee*).

25. *Second Asian-Pacific Conference on Computational Mechanics,* Sydney, Australia, August 3-6, 1993 (member, *International Scientific Committee*).
26. *Second U. S. National Congress on Computational Mechanics,* Washington, D.C., August 1993 (member of *International Advisory Committee*).
27. *Advanced Study Institute on Engineering Analysis and Design,* Indian Institute of Technology, Madras, India, August 2-11, 1993 (**Co-Organizer**).
28. *First Pan-Pacific Conference on Computational Engineering,* Seoul, Korea, November 1-5, 1993 (member of the *International Scientific Committee*)
29. *Seventeenth Southeastern Conference on Theoretical and Applied Mechanics,* hosted by Louisiana Tech University and University of Arkansas at Hot Springs National Park, Arkansas, April 10-12, 1994 (*Editorial Committee Member*).
30. *Third World Congress on Computational Mechanics (WCCM III),* Tokyo, Japan, August 1-4, 1994 (*International Consulting Board Member*).
31. *Second International Conference on Computational Structures Technology,* Athens, Greece, August 30-September 1, 1994 (*Conference Editorial Board Member*).
32. *First Industry/University Symposium on High Speed Civil Transport Vehicle,* North Carolina A & T State University, Greensboro, NC 27411, December 4-6, 1994 (member of the *Advisory Committee*).
33. *Fourth Pan American Congress of Applied Mechanics (PACAM IV),* University of Salvador, Buenos Aires, Argentina, January 3-6, 1995 (member of the *Organizing Committee*).
34. *Fourth International Conference on Computational Plasticity Fundamentals and Applications,* Barcelona, Spain, April 3-6, 1995 (member of the *Technical Advisory Committee*).
35. *Tenth Engineering Mechanics Conference,* University of Colorado, Boulder, May 21-24, 1995 (member of the *National Steering Committee*).
36. *International Conference on Stability of Structures (ICSS 95),* June 7-9, 1995, Coimbatore, India (member of *International Technical Committee*).
37. *Third U. S. National Congress of Computational Mechanics*, Dallas, June 12-14, 1995 (**General Chairman**).
38. *International Conference on Computational Engineering Science (ICES'95)*, Hawaii, July 30-August 3, 1995 (member of *International Scientific Committee*).
39. *Advances in Structured and Heterogeneous Continua II,* August 14-18, 1995, Moscow, Russia (member of *Scientific Committee*).
40. *International Conference on Engineering Computation and Computer Simulation,* November 27-29, 1995, Changsha, China (member of *Scientific Committee*).
41. *Second ECCOMAS Conference on Numerical Methods in Engineering*, and *Third ECCOMAS Computational Fluid Dynamics Conference,* Paris, France, September 9-13, 1996 (member of the *International Support Committee*).
42. *SPIE's 4th Symposium on Smart Structures and Materials,* San Diego, 3-6 March 1997 (member of the *Program Committee on Control in Smart Structures*).
43. *Second International Conference on the Application of Numerical Methods in Engineering,* Universiti Pertanian Malaysia, Malaysia, 23-25 June 1997 (member of the *International Advisory Committee*).
44. *Fourth U. S. National Congress of Computational Mechanics,* San Francisco, August 6-8, 1997 (member of the *Scientific Program Committee*).
45. *Second International Conference on Composite Science and Technology,* University of Natal, Durban, South Africa, 9-11 June 1998 (member of the *International Advisory Committee*).
46. *NATO Advanced Study Institute on Mechanics of Composite Materials and Structures,* Tróia, Portugal, July 12-24, 1998; organized by Instituto de Engenharia Mecânica, Lisbon, Portugal (co-organizer).
47. *Fourth International Conference on Advances in Materials and Processing Technologies (AMPT`98),* organized by University Putra Malaysia, Mines Beach Resort, Kuala Lumpur, Malaysia, August 24-28, 1998 (member of the *International Scientific Advisory Committee (ISAC)*).
48. *International Conference on Theoretical, Applied, Computational, and Experimental Mechanics,* Indian Institute of Technology, Kharagpur, India, December 1-5, 1998 (member of the *International Advisory Board*).
49. *Integrity, Reliability, Failure, An International Conference,* University of Porto, Porto, Portugal, July 19-22, 1999 (member of the *International Scientific Committee*).

50. *Fifth U.S. National Congress on Computational Mechanics,* University of Colorado, Boulder, August 4-6, 1999 (member of the *International Advisory Committee*).
51. *Civil & Environmental Engineering Conference - Year 2000, New Frontiers & Challenges,* Asian Institute of Technology, Thailand, 8-12 November, 1999 (member of the *Honorary Advisory Committee*).
52. *Fourth Asia-Pacific Conference on Computational Mechanics (APCOM`99),* University of Singapore, Singapore, December 15-17, 1999 (member of the *Scientific Program Committee*).
53. *Fourth International Colloquium on Computation of Shell & Spatial Structures (IASS - IACM 2000),* June 5-7, 2000, Chania - Crete, Greece (member of the *Scientific Committee*).
54. *9th International Conference on Mechanics and Technology of Composite Materials*, September 11-14, 2000, Sofia, Bulgaria (member of the *International Organizing Committee*).
55. *CADCOMP 2000*, September 13-15, 2000, Bologna, Italy (member of the *International Scientific Advisory Committee*).
56. *Twentieth South Eastern Conference on Theoretical and Applied Mechanics (SECTAM XX),* April, 2000, Callaway Gardens, GA (organized by Auburn University) (member of the *Scientific Advisory Committee*).
57. *ICSSD 2000 - International Conference on Structural Stability and Dynamics*, Dec. 7-9, 2000, Taipei, Taiwan (member of the *Organizing Committee*).
58. *SPIE International Conference on Smart Materials and MEMS*, 13-16 December 2000, Melbourne, Australia (member of the *Program Committee*).
59. *First M.I.T. Conference on Computational Fluid and Solid Mechanics,* June 12-14, 2001, MIT, Cambridge, MA (member of the *Scientific Advisory Board*).
60. *The Second European Conference on Computational Mechanics (ECCM-2000)*, June 26-29, 2001, Polish Academy of Sciences, Polish Association for Computational Mechanics, Cracow University of Technology (member of the *International Scientific Committee*).
61. *International Conference on Materials for Advanced Technologies* (*ICMAT 2001*), Symposium K: Advances in Polymers and Composites, 1-6 July 2001, Singapore (member of the *International Scientific Committee*).
62. *First Congress of the Asian-Pacific Association for Computational Mechanics*, Sydney, Australia, October/November 2001 (member of the *International Scientific Committee*).
63. *New Trends in Design and Manufacture*, An International Symposium, November 3-7, 2001, Aswan, Egypt (member of the *International Scientific Committee*).
64. *International Conference on Advances in Civil Engineering*, January 3-5, 2002, Indian Institute of Technology, Kharagpur, India, (member of the *International Advisory Board*).
65. *The Second World Engineering Congress*, July 22-25, 2002, Kuching, Sarawak, Malaysia (member of the *International Advisory Committee* and Advisor to the Mechanical & Aerospace Engineering Conference).
66. *Fourth International Conference on Nonlinear Mechanics* (ICNM-IV) & *IUTAM Symposium on Duality-Complementarity-Symmetry in Nonlinear Mechanics* (IUTAM-SCDS), Shanghai, China, August 14-17, 2002 (member of the *Steering Committee*).
67. *Mechanics & Materials in Design* (M^2 D-4), 4^{th} International Conference, Nagoya University, Nagoya, Japan, June 5-8, 2002 (member of the *International Scientific Committee*).
68. *International Conference on Scientific and Engineering Computation*, December 3-5, 2002, National University of Singapore, Singapore (member of the *International Scientific Advisory Committee*).
69. *Second International Conference on Structural Stability and Dynamics*, December 16-18, 2002, National University of Singapore, Singapore (member of the *Organizing Committee*).
70. *VII Congresso de Mecânica Aplicada e Computacional*, Universidade de Évora, April 14-16, 2003, Evora, Portuagal (member of the *International Scientific Advisory Committee*).
71. *International Conference* Bioengineering and Biosciences Conference (BBC) Singapore, June, 2003 (member of the *International Scientific Advisory Committee*).
72. *International Conference in Structural Engineering and Mechanics* (ASEM'04), Seoul, S. Korea, September 2-4, 2004 (member of the *International Scientific Advisory Committee*).
73. *Seventh International Conference on Computational Structures Technology*, Lisbon, Portugal, September 7-9, 2004 (member of the *Conference Editorial Board*).

74. *International Conference on Theoretical, Applied, Computational and Experimental Mechanics* (ICTACEM 2004), IIT, Kharagpur, INDIA, December 28-30, 2004 (member of the *International Scientific Advisory Committee*).
75. *Third International Conference on Structural Stability and Dynamics,* June 19-23, 2005, Kissemmee, Florida (**General Chair and Organizer**).
76. *Eighth U.S. National Congress on Computational Mechanics,* University of Texas, Austin, July 4-6, 2005 (member of the *International Advisory Committee*).
77. *International Conference on Advances in Structural Dynamics and Its Applications*, ICASDA-2005, Gandhi Institute of Technology and Management, Visakhapatnam, INDIA, December 7-9, 2005 (member of the *International Advisory Committee*).
78. *First International Symposium on Design Modelling and Experiments of Adaptive Structures and Smart Systems* (**DeMEASS I**), July 10-12, 2006, Bardonecchia (Turin), Italy (member of the *Advisory Board*).
79. *Seventh World Congress on Computational Mechanics,* co-hosted by Northwestern University and University of California, Los Angeles, Century Plaza Hotel & Spa, Los Angeles, California, July 16-22, 2006 (member of the *Scientific Advisory Board*).
80. *5th International Conference on Mechanics and Materials in Design,* July 24 - 26, 2006, Porto, Portugal (Member of *International Scientific Committee*).
81. *Tenth East Asia Pacific Conference on Structural Engineering and Construction (EASEC-10),* Asian Institute of Technology, Bangkok, Thailand, August 2-4, 2006 (member of the *International Steering Committee*).
82. *International Conference on Enhancement and Promotion of Computational Methods in Engineering Science and Mechanics*, Changchun, China, 10-12 August, 2006 (**co-Organizer**).
83. *Multiscale and Functionally Graded Materials* (FGM2006), October 14-18, 2006, Hawaii, USA. (member of the *International Scientific Committee*).
84. *Trends in Product Life Cycle- Modeling, Simulation and Synthesis, PLMSS,* Bangalore, INDIA, December 18-19, 2006 (member of *International Advisory Committee*).
85. *Fifth International Conference on Nonlinear Mechanics* (*ICNM-V*), June 11-14, 2007*,* Shanghai, China (member of the *International Steering Committee*).
86. *Ninth U.S. National Congress on Computational Mechanics* (USNNCM9), July 22-26, 2007, San Francisco (member of the *Scientific Program Committee*).
87. *International Conference on Computational Ballistics 2007* (CBAL2007), (member of the *Scientific Advisory Committee*), Wessex Institute of Technology, England.
88. *Second International Symposium on Design, Modelling and Experiments of Adaptive Structures and Smart Systems* (DeMEASS II), October 14-17, 2007 in Bad Herrenalb, Germany (member of the *Scientific Advisory Committee*).
89. *International Conference on Multiscale Modelling and Simulation* (Nano-, Micro-, and Macro-Mechanics of Materials and Systems), ICMMS08, 2 – 4 January 2008, Bangalore, INDIA (**General Chair** of the Conference).
90. *Eighth World Congress on Computational Mechanics,* Venice, Italy, June 30-July 4, 2008 (member of the *Scientific Advisory Board*).
91. *Sixth International Conference on Computation of Shell & Spatial Structures* (Spanning Nano to Mega), International Association of Shell Structures (IASS) and International Association of Computational Mechanics (IACM), Cornell University, Ithaca, May 28-31, 2008 (member of the *Scientific Committee*).
92. *An International Symposium on Computational Structural Engineering* (CSE 09), Shanghai, China, June 22-24, 2009 (member of the *International Advisory Committee*).
93. *Third International Conference on Integrity, Reliability and Failure: Challenges and Opportunities* (IRF2009), University of Porto, Porto, Portugal, July 20-24, 2009 (member of the *International Scientific Committee*).
94. *International Conference on Computational Methods in Engineering and Sciences*, January 8-10, 2009, Hyderabad, India (member of *Advisory Committee*).
95. *International Conference on Materials, Mechanics, and Management* (ICMMM), Department of Civil Engineering, College of Engineering, Trivandrum, Kerala, India, 2009 (member of the *Advisory Committee*).

96. *IISc Centenary International Conference and Exhibition on Aerospace Engineering* (ICEAE2009), Indian Institute of Science, Bangalore, India, 18 – 22 May 2009 (member of the *International Advisory Committee*).
97. *International Symposium on Computational Structural Engineering* (CSE 09), Shanghai, China, on June 22-24, 2009 (member of *International Advisory Committee*).
98. *9th Conference on Shell Structures, Theory and Applications*, Gdańsk-Jurata, Poland, 14-16, October 2009 (member of *International Advisory Board*).
99. *5th Civil Engineering Conference in the Asian Region* (CECAR5) and *Australian Structural Engineering Conference* (ASEC 2010), 8-12 August 2010, Sydney Convention and Exhibition Centre, Sydney, Australia, 2010 (member of *International Scientific Committee*).
100. *Tenth U.S. National Congress for Computational Mechanics*, Greater Columbus Convention Center, Columbus, Ohio, 16 – 19 July 2009 (member of the *International Scientific Committee*).
101. Workshops on Computational and Mathematical Challenges in Material Science and Engineering. *Multifunctional Materials: Coupled Field Theories, Composites and Materials Failure* (co-organized with Jay Walton and Dimitris Lagoudas), The Institute for Applied Mathematics and Computational Science (IAMCS), Texas A&M University, Sep 30 – Oct 1, 2009.
102. *"Shell Structures Theory and Applications, SSTA: the 9th Conference 2009,"* Gdansk-Jurata Poland, October 14-16, 2009 (member of *International Advisory Board*).
103. *Fifth European Conference on Computational Fluid Dynamics (ECCOMAS CFD 2010),* National Civil Engineering Laboratory, Lisbon, Portugal, 14-17 June 2010 (member of the *Scientific Committee*).
104. *4th International Conference on Advanced Computational Engineering and Experimenting, ACE-X 2010,* 8 and 9 July 2010, Paris, France (member of *Scientific Committee*).
105. *ICMMS 2010 International Conference on Multiscale Modelling and Simulation* (Nano-, Micro-, and Macro-Mechanics of Materials and Systems), 17-19 December 2010, Guangzhou, CHINA (**General Chair of the Conference**).
106. *2nd International Conference on Computational and Mathematical Biomedical Engineering,* CMBE11 (member of *Scientific Advisory Committee*).30 March 2011 – 1 April 2011, George Mason University, Washington, DC.
107. *16th International Conference on Composite Structures* (member of *Advisory Committee*) June 27-30, 2011 University of Porto, Portugal.
108. *5th International Conference on Advanced Computational Engineering and Experimenting, ACE-X 2011,* 4 -6 July 2011, Algarve, Portugal (member of *Scientific Committee*).
109. *The Second Joint American-Canadian Conference on Composites,* Sep 26-28, 2011, Montreal, Canada (member of the *Scientific Committee*).
110. *11th US National Congress of Computational Mechanics* (member of *Scientific Committee*) July 25-29, University of Minnesota, Minneapolis-St. Paul.
111. *International Conference on Advances in Modelling and Computing, Indian Institute of Technology* (member of International Advisory Committee), 5-7 Dec. 2011, Indian Institute of Technology-Roorkee, Roorkee, India.
112. *Third International Conference on Manufacturing Engineering* (ICME2011), 27-29 Dec ember 2011, University of Tehran, Tehran, Iran (member of international advisory committee).
113. *Fourth International Conference on Structural Stability and Dynamics* (ICSSD2012), 4-6 January 2012, Malaviya National Institute of Technology, Jaipur, Rajasthan, India (**General Chair of the conference**).
114. *6th International Conference on Advanced Computational Engineering and Experimenting, ACE-X 2011,* 1-4 July 2012, Istanbul, Turkey (member of *Scientific Committee*).
115. *International Construction Congress 2012,* 11-13 October 2012, Suleyman Demirel University, Isparta, Turkey (member of International Scientific Committee).
116. *International Conference on Innovations in Design & Manufacturing* (InnDem 2012), Indian Institute of Information Technology, Design & Manufacturing, Jabalpur (IIITDM Jabalpur), December 5-7, 2012 (member of the International Advisory Committee).
117. *4th International Congress on Computational Mechanics and Simulation* (ICCMS 2012), Indian Institute of Technology Hyderabad and Indian Association for Computational Mechanics, 10-12 December 2012, Hyderabad (member of Advisory Committee).

118. *5th Asian-Pacific Congress on Computational Mechanics* 2013 (APCOM 2013), National University of Singapore, (member of International Scientific Committee).
119. *Global Conference on Women Leadership* (*GCWL*) on 21st and 22nd Feb, 2013, School of Management, SRM University, Kattankulathur, Tamilnadu, India (member of the Advisory Board).
120. *MecSol2013, International Symposium on Solid Mechanics,* UFRGS - Federal University of Rio Grande do Sul, Porto Alegre, Rio Grande do Sul, Brazil, April 18-19, 2013 (member of the Scientific Committee).
121. *4th Canadian Conference on Nonlinear Mechanics* (CanCNSM2013), Montreal, Canada, July 23-26, 2013 (member of the International Scientific Committee).
122. *Sixth International Conference on Nonlinear Mechanics* (ICNM-VI), Shanghai, China, August 12-15, 2013 (member of the Steering Committee).
123. *17th International Conference on Composite Structures* (ICCS/17), the University of Porto, Porto, Portugal, 17-21 June 2013 (member of the International Scientific Committee).
124. *4th International Conference on Integrity, Reliability & Failure (IRF2013)*, Funchal, Madeira, Portugal, 23-27 June 2013 (member of the International Scientific Committee).
125. *Third African Conference on Computational Mechanics*, Livingston, Zambia, 30 July - 2 August 2013 (member, International Advisory Committee).
126. *Composites 2013: IV ECCOMAS Thematic Conference on the Mechanical Response of Composites*, S. Miguel, Azores, Portugal, 25-27 September 2013 (member of the Scientific Committee).
127. *International Conference on Science and Technology of Heterogeneous Materials and Structures,* Wuhan University, Wuhan, China, 11-13 October 2013 (member of the Scientific Committee).
128. *3rd International Conference on Computational and Mathematical Biomedical Engineering*, (CMBE13), City University of Hong-Kong, 16-18 December 2013 (member of the International Advisory Committee).
129. *2nd International Conference on Innovations in Automation and Mechatronics Engineering 2014,* Mechatronics Department, GH Patel College of Engineering & Technology, Vallabh Vidyanagar, Gujarat, March 7-8, 2014 (www.gcet.ac.in/iciame2014; member of Advisory Committee).
130. *1st International Conference on Mechanics of Composites* (MECHCOMP2014), State University of New York at Stony Brook, Long Island, June 8-12, 2014 (member of the Scientific Committee).
131. *Pan-American Congress on Computational Mechanics – PANACM,* Buenos Aires, Argentina, 27-29 April 2015 (member of the International Scientific Committee).
132. *Multiscale, Multifunctional and Functionally Graded Materials 2014 (MM&FGM2014),* October 19-22, 2014; Taua Resort, SP, Brazil (http://mmfgm2014.org); (member of the Scientific Committee).
133. *8th Australasian Congress on Applied Mechanics* (ACAM 8), Melbourne, Australia, 23-26 November, 2014. Organized by the Australian National Committee on Applied Mechanics (member of the International Scientific Committee).
134. *International Conference on Recent Trends & Challenges In Civil Engineering* (RTCCE-2014) to be held during December, 12-14, 2014 Motilal Nehru National Institute of Technology (MNNIT), Allahabad, INDIA (Member of International Advisory Committee).
135. *International Conference on Multifunctional Materials and Structures* (ICMMSA-2014), December 22-24, 2014, Motilal Nehru National Institute of Technology (MNNIT), Allahabad, INDIA (member of the International Scientific Committee).
136. *Fourth African Conference on Computational Mechanics* –An IACM supported event, Marrakech, Morocco, 7-9 January 2015 (member of the International Advisory Committee).
137. *International Conference on Vibration Problems* (ICOVP-2015), Kakatiya University, Warangal, India, 18-20 Feb 2015 (member of the International Scientific Committee).
138. *2nd International Conference on Numerical and Symbolic Computation – Developments and Applications* (SYMCOMP2015 - ECCOMAS Thematic Conference), 26-27 March 2015, Faro, Algarve (member of the Scientific Committee).
139. *SMART2015 - 7th ECCOMAS Thematic Conference on Smart Structures and Materials,* 3-5 June, 2015, S. Miguel, Azores, Portugal (member of the Scientific Committee).
140. *18th International Conference on Composite Structures* (ICCS18), Lisbon, Portugal, 15-18 June 2015 (member of the Scientific Committee).
141. *9th International Conference on Advanced Computational Engineering and Experimenting, ACE-X 2015,* 1-4 July 2015, Munich, Germany (member of Scientific Committee).

142. *IJSSD Symposium 2015 on Progress in Structural Stability and Dynamics*, 21-24 July 2015, Lisbon, Portugal (member of the organizing Committee).
143. *International Conference on Advances in Applied and Computational Mechanics,* 5-7 August 2015, Wyndham Grand Hotel, Izmir, Turkey (Honorary Committee).
144. *5th ECCOMAS Thematic Conference on the Mechanical Response of Composites*, University of Bristol, Bristol, United Kingdom, 7-9 September 2015 (member of Scientific Committee).
145. *International Conference on Shells, Plates and Beams*, University of Bologna, Bologna, Italy, 16 to 18 September 2015 (member of the Scientific Committee).
146. *International Conference on Computer Aided Engineering 2015*, 10-12 December 2015, GITAM University, Hyderabad, India (member of Advisory Committee).
147. *Current Trends in Non-Classical Continuum Mechanics 2015*, 14-15 December 2015, National Institute of Technology, Goa, India (member of Scientific Committee).
148. A member of the Scientific Committee of a series of conferences held every year since 2015 with the title*, International Conferences on Advanced Computational Engineering and Experimenting (ACE-X).*
149. *First International Conference on Mechanics of Advanced Materials and Structures*, 17-20 June 2018, University of Torino, Italy (**Co-Chairman**).
150. *Second International Conference on Mechanics of Advanced Materials and Structures*, 19-22 October 2019, Nanjing University of Aeronatics and Astronautics, China (**Co-Chairman**).
151. *Third International Conference on Mechanics of Advanced Materials and Structures*, Summar 2023(dates yet to be set), Texas A&M University, College Station (**Honorary Chairman**).

ORGANIZATION OF SYMPOSIA AND SESSIONS (Since 2013 sessions or conferences organized are not included here; too many to include; theyt are more honorary than any effort involved on my part)

1. "Penalty Finite Elements" for the Mathematical Methods Committee of ASCE at the *Third ASCE/EMD Specialty Conference*, Sept. 17-19, 1979, The University of Texas at Austin, Austin, TX.
2. Computational Methods for Hypervelocity Impact Calculations," *Sixteenth Annual Meeting of the Society of Engineering Science*, Sept. 5-7, 1979, Northwestern University, Evanston, IL.
3. "Nonlinear Analysis of Composite Plates and Shells," *Eighteenth Annual Meeting of the Society of Engineering Science*, Sept. 2-4, 1981.
4. "Recent Developments in Finite Elements," (two sessions) *Eleventh Southeastern Conference on Theoretical and Applied Mechanics (SECTAM XI)*, April 8-9, 1982, The University of Alabama in Huntsville, Alabama.
5. "Finite-Elements in Fluid Flow," *Nineteenth Annual Meeting of the Society of Engineering Science*, October 27-29, 1982, University of Missouri-Rolla, Rolla, Missouri.
6. "Penalty-Finite Element Methods in Mechanics," for ASME Committee on Computing in Applied Mechanics (CONCAM), 1982 *ASME Winter Annual Meeting*, November 14-19, 1982, Phoenix, Arizona.
7. "Computational Methods-II: Recent Developments," *20th Annual Meeting of the Society of Engineering Science*, August 22-24, 1983, University of Delaware, Newark, Delaware.
8. "Vibrations of Plates and Shells," (two sessions) *XII Southern conference on Theoretical and Applied Mechanics*, Callaway Gardens, GA, May 10-11, 1984.
9. "Computational Methods in Fluid Flow," *1984 ASCE Spring Convention*, Atlanta, May 14-17, 1984.
10. "Non-Newtonian Flows," *21st Meeting of the Society of Engineering Science*, Virginia Polytechnic Institute, Blacksburg, October 1984.
11. "Analysis of Composite Material Structures," *2lst Annual Meeting of the Society of Engineering Science*, Virginia Polytechnic Institute and State University, Blacksburg, VA, October l5-l7, l984.
12. "Constitutive Modeling," *21st Annual Meeting of the Society of Engineering Science*, Virginia Polytechnic Institute and State University, Blacksburg, VA, October 15-17, l984.
13. "Computational Methods in Composites," *ASME Pressure Vessels & Piping Conference*, New Orleans, LA, June 1985.
14. "Computational Methods in Composites," *Joint Meeting of ASME and ASCE*, Albuquerque, NM, June 23-25, 1985.
15. "Symposium on Recent Advances in Computational Mechanics," ASME/ASCE *Summer Meeting*, Albuquerque, NM, June 23-25, l985.

16. "Stress Analysis of Adhesively Bonded Joints," *22nd Annual Technical Meeting of the Society of Engineering Science*, The Pennsylvania State University, State College, PA, October 7-9, 1985.
17. "Computational Methods for Plate and Shell Problems," ASCE/EMD *Specialty Conference* Virginia Polytechnic Institute and State University, Blacksburg, VA, May 23-25, 1988.
18. "Modeling of Non-Newtonian Viscoelastic Flows," *Seventh Int. Conference on Finite Element Methods in Flow Problems*, University of Alabama in Huntsville, Alabama, April 3-7, 1989.
19. "Mechanics of Laminated Composite Structures," *Twelfth Canadian Congress of Applied Mechanics*, Carleton University, Ottawa, Canada, May 28-June 2, 1989.
20. "Micromechanics of Composite Materials," *Third Joint ASCE/ASME Mechanics Conference*, San Diego, CA, July 9-12, 1989.
21. "Recent Advances in Refined Plate and Shell Elements for Composites," (with R. K. Kapania) *First U. S. National Congress on Computational Mechanics*, Chicago, IL, July 21-24, 1991.
22. "Computational Models for Study of Local Effects in Composites," (with J. L. Teply), *First U. S. National Congress on Computational Mechanics*, Chicago, IL, July 21-24, 1991.
23. "Mechanics of Composite Structures," (with N. F. Knight, Jr.) *28th Annual Technical Meeting of the Society of Engineering Science*, Gainesville, FL, Nov. 6-8, 1991.
24. "Enhancing Analysis Techniques for Composite Materials," (seven sessions organized with L. Schwer and A. Mal), *1991 ASME Winter Annual Meeting*, Atlanta, GA, Dec. 4-6, 1991.
25. "Advances in Finite Element Analysis in Fluid Dynamics," (two sessions organized with M. N. Dhaubhadel and M. S. Engelman) *1991 ASME Winter Annual Meeting*, Atlanta, GA, Dec. 4-6, 1991.
26. "Advances in Finite Deformation Problems in Materials Processing and Structures," (three sessions organized with N. Chandra) *1991 ASME Winter Annual Meeting*, Atlanta, GA, Dec. 4-6, 1991.
27. "Inelastic Deformation of Composite Materials," *Third Int. Conference on Computational\ Plasticity and Applications*, Barcelona, Spain, April 6-10, 1992.
28. "Advances in Finite Element Analysis in Fluid Dynamics," (Two sessions organized with M. N. Dhaubhadel and M. S. Engelman) *1992 ASME Winter Annual Meeting*, Anaheim, CA, Nov 9-14, 1992.
29. "Computational Modeling of Composites," (Three sessions organized with N. Chandra and A. K. Noor) *First Joint Meeting of ASCE-EMD, ASME-AMD, and SES*, Charlottesville, Virginia, June 6-9, 1993.
30. "Micro and Macromechanical Studies of Composites," (with P. K. Banerjee), *Second U. S. National Congress of Computational Mechanics,* August 16-18, 1993, Washington, D.C
31. "Failure Mechanics for Composite Materials," (with J. Whitcomb), *Second U. S. National Congress of Computational Mechanics,* August 16-18, 1993, Washington, D.C.
32. "Recent Advances in Computational Mechanics," *Twelfth U. S. National Congress of Applied Mechanics,* June 26-July 1, 1994, University of Washington, Seattle, Washington.
33. "Computational Fluid Dynamics and Heat Transfer," *Society of Engineering Science 31st Annual Meeting,* October 12-14, 1994, Texas A&M University, College Station, Texas.
34. "Composite Materials and Structures," the *Second International Conference on Computational Structures Technology,* August 30-September 1, 1994, Athens, Greece.
35. "Mechanics of Composites with Application to Infrastructure," (with E. J. Barbero) *Tenth ASCE Engineering Mechanics Conference,* May 21-24, 1995, University of Colorado, Boulder, Colorado.
36. "Analytical and Computational Models for Composites," (with E. J. Barbero) *Tenth ASCE Engineering Mechanics Conference,* May 21-24, 1995, University of Colorado, Boulder, Colorado.
37. "Damage and Failure of Composites," *Tenth ASCE Engineering Mechanics Conference,* May 21-24, 1995, University of Colorado, Boulder, Colorado.
38. "Modeling of Smart and Intelligent Structures," *Tenth ASCE Engineering Mechanics Conference,* May 21-24, 1995, University of Colorado, Boulder.
39. "New Developments in Plate and Shell Finite Elements," *Tenth ASCE Engineering Mechanics Conference,* May 21-24, 1995, University of Colorado, Boulder, Colorado.
40. "Micromechanics of Composites," (with E. J. Barbero) *Fourth Pan American Congress of Applied Mechanics (PACAM IV),* January 3-5, 1995, Buenos Aires, Argentina.
41. "Damage Mechanics of Composites," (with E. J. Barbero) *Fourth Pan American Congress of Applied Mechanics (PACAM IV),* January 3-5, 1995, Buenos Aires, Argentina.
42. "Numerical Modeling of Composites," (with E. J. Barbero) *Fourth Pan American Congress of Applied Mechanics (PACAM IV),* January 3-5, 1995, Buenos Aires, Argentina.

43. "Computational Modeling of Damage Initiation, Evolution and Identification in Composite Materials and Structures," (with Ronald C. Averill) a three-session symposium organized at the *1996 International Mechanical Engineering Congress and Exposition (IMECE'96),* November 17-22, 1996, Atlanta, Georgia.
44. "Functionally Graded and Shape Memory Materials," (with Cate Brinson) a three-session symposium organized at the *1997 International Mechanical Engineering Congress and Exposition (IMECE'97),* November 16-21, 1997, Dallas, Texas.
45. "Constitutive and Computational Models of Shape Memory and Functionally Graded Materials," a two-session symposium organized at the *Engineering Mechanics Specialty Meeting of ASCE,* University of California, San Diego, May 17-20, 1998.
46. "Micromechanics and Damage Characterization of Advanced Materials," (with Shaker A. Meguid) a four-session symposium organized at the *13th U.S. National Congress of Applied Mechanics (USNCAM),* University of Florida, Gainesville, Florida, June 21-26, 1998.
47. "Mechanics of Composite Materials and Structures," a symposium organized in honor of the 60th Birthday Celebration of Robert M. Jones at the *15th Annual Technical Conference of the American Society of Composites,* September 24-27, 2000, Texas A&M University, College Station, TX.
48. "Adaptive Structures and Material Systems," (with Diann Brei, University of Michigan) a symposium organized at the *IMECE'00,* November 5-10, 2000, Walt Disney World Dolphin, Orlando, Florida.
49. "Modeling and Design of Functionally Graded Materials (FGMs)" (with Glaucio Paulino, University of Illinois and Florin Bobaru, University of Nebraska), a symposium organized at the *IMECE'03,* November 16-21, 2003, Washington, DC.
50. "Mechanics of Composite Materials and Structures," a Mini-Symposium organized (with C. A. Mota Soares and A. Benjeddou) at *III European Conference on Computational Mechanics, Solids, Structures and Coupled Problems in Engineering*, 5-8 June 2006, LNEC, Lisbon, Portugal.
51. "Least-Squares Finite Element Models," a minisymposium organized (with Juan P. Pontaza and) at *Seventh World Congress on Computational Mechanics,* co-hosted by Northwestern University and University of California, Los Angeles, Century Plaza Hotel & Spa, Los Angeles, CA, July 16-22, 2006.
52. "Nested Nonlinear Micromechanics and Structural Models," a mini symposium organized (with Anastasia Muliana and Rami Haj-Ali) at *Seventh World Congress on Computational Mechanics,* co-hosted by Northwestern University and University of California, Los Angeles, Century Plaza Hotel & Spa, Los Angeles, California, July 16-22, 2006.
53. "Computational Solid Mechanics: Recent Advances," (organized by: J.N. Reddy, Jon Bass, and Jin-Rae Cho), a symposium organized in honor of the 70th birthday of Professor J. T. Oden at *the Ninth U.S. National Congress for Computational Mechanics*, San Francisco, CA, July 23-27, 2007 (8 sessions).
54. "The k-Version of the Finite Element Method and h-p-k Adaptive Processes," (Organizers: Albert Romkes, Karan S. Surana, and J.N. Reddy), a symposium organized in honor of the 70th birthday of Professor J. T. Oden at *the Ninth U.S. National Congress for Computational Mechanics*, San Francisco, CA, July 23-27, 2007.
55. "Cell & Molecular Biomechanics - Experiments & Computation," (Organizers: C. T. Lim, Takami Yamaguchi, J.N. Reddy, and Mohammad R. K. Mofrad), *International Conference on Computational and Experimental Engineering Sciences* (ICCES09), Phuket, Thailand, 8-13 April 2009.
56. "Computational Modeling and Experimental Investigation of Biological Cells and Soft Tissues," (Organizers: J.N. Reddy, V. U. Unnikrishnan, G.U. Unnikrishnan, and C. T. Lim), *the Tenth U.S. National Congress for Computational Mechanics*, Greater Columbus Convention Center, Columbus, Ohio, 16 – 19 July 2009.
57. "The k-Version of the Finite Element Method and h-p-k Adaptive Processes,," (Organizers: Albert Romkes, Karan S. Surana, and J.N. Reddy), a symposium at *the Tenth U.S. National Congress for Computational Mechanics*, Greater Columbus Convention Center, Columbus, Ohio, 16 – 19 July 2009.
58. "IJSSD Symposium Progress in Structural Stability and Dynamics" (with H.A. Rashid, CM Wang, and YB Yang) at *Sixth International Conference on Advances in Steel Structures* (ICASS 09), Hong Kong, 16-18 December 2009.
59. "Computational Modeling and Experimental Investigation of Hard and Soft Tissues," (with V. U. Unnikrishnan, G.U. Unnikrishnan, and C. T. Lim), minisymposium organized at the *11th U.S. National Congress of Computational Mechanics* (USNCCM 11), University of Minnesota, Minneapolis, July 25-29, 2011.

60. "Mathematical Modeling of Continua and Computational Approaches," (with A. Romkes, K.S. Surana), minisymposium organized at *11th U.S. National Congress of Computational Mechanics* (USNCCM 11), University of Minnesota, Minneapolis, July 25-29, 2011.
61. "Multiscale modeling and simulation in tissue biomechanics"(with Prof. Franco Maceri of the University of Rome II) minisymposium organized for MATHMOD 2012 (*7th Vienna International Conference on Mathematical Modelling*), 15-17 February 2012, Vienna University of Technology, Vienna.
62. *IJSSD Symposium 2012 on Progress in Structural Stability and Dynamics*, 14-16 April 2012, Nanjing, China (organized by C. M. Wang, Y. B. Yang, and J.N. Reddy), Southeast University, Nanjing, 2012.

PROFESSIONAL SOCIETY AFFLIATIONS

Current Memberships

- Aeronautical Society of India, ASI (**Fellow**)
- American Academy of Mechanics, AAM (**Fellow**)
- American Institute of Aeronautics and Astronautics, AIAA (**Fellow**)
- American Society of Composites, ASC (**Fellow**)
- American Society of Civil Engineers, ASCE (**Fellow**)
- American Society of Mechanical Engineers, ASME (**Life Fellow, Honorary Member**)
- International Association for Computational Mechanics, IACM (**Fellow**)
- US Association for Computational Mechanics, USACM (**Fellow**)
- International Association for Computational Mechanics (member of **General Council**)
- Member, the International Advisory Board, SRM University, Tamilnadu, India
- Member, Executive Advisory Board, Gokul Education Foundation, Bangalore, India

Past Memberships

- American Association for the Advancement of Science
- American Society for Engineering Education
- International Association for Analog Computation (AICA)
- National Society of Professional Engineers
- New York Academy of Science
- Phi Kappa Phi
- Pi Tau Sigma
- Sigma Xi
- Society of Automotive Engineers
- Society of Industrial and Applied Mathematics
- The Adhesion Society
- Society of Engineering Science
- Registered Professional Engineer, State of Oklahoma (**P.E. # 11031**) - not active presently

PROFESSIONAL OFFICES HELD

Local (State and Campus)

- Member, Executive Committee of Distinguished Professors, 2021-present
- Member, Named and Endowed Professorships Evaluation Committee, College of Engineering, Texas A&M University, 2015-present.
- Chair, *Advisory Committee*, J. Mike Walker Department of Mechanical Engineering, Texas A&M University, 2019-present.
- Member, Search Advisory Committee for Head of Mechanical Engineering, Texas A & M University, 2020-2021.
- Ambassodor, *Many Passions, One Purpose*: University Campaign, 2020-2021.
- Member, Committee to Select *University Professo*r, Texas A&M University, 2019-2020.
- Member, Search Advisory Committee for Head of Aerospace Engineering, Texas A & M University, 2012-2013.
- Member, Honorary Degree Committee, Texas A & M University, 2010-2016.

- Member, Advisory Committee, Department of Mechanical Engineering, Texas A & M University, 2010-present.
- Member, Department Post-Tenure Review Committee, Department of Mechanical Engineering, 2008-2010.
- Member (2010-2013) and Chair (2011) of Tenure and Promotion Committee, Department of Mechanical Engineering, Texas A & M University.
- Member (2002-2005) and Chair (2003-2004 and 2010-2013) of Tenure and Promotion Committee, Department of Mechanical Engineering, Texas A & M University.
- Member, Search Advisory Committee for Head of Mechanical Engineering, Texas A & M University, 2003-2004 and 2010-2012.
- Member, Council of Principal Investigators, Texas A & M University, 2010-2014.
- Member, Distinguished Professors Committee, College of Engineering, Texas A&M University, 2010-present.
- Member, Search Advisory Committee for the Dean of Faculty, Texas A & M University, 2012-2013.
- Research Standards Officer, Texas A & M University, 1999-2005 (6 year term).
- Director, *Computational Sciences and Engineering Simulations Graduate Program*, Texas A & M University, 2000-2004.
- Associate Director, *Institute for Scientific Computation*, Texas A & M University, 1999-2004.
- Evaluator of Endowed Professorships and Endowed Chairs of the College, Texas A&M University, 2005-present.
- Member, Faculty Recruiting Committee, Department of Mechanical Engineering, Texas A & M University, 2003-2004.
- Member, Selection Committee for the Texas A&M University Bush Excellence Award for Faculty in International Research, Texas A & M University, 2003-2004.
- Member, Search Advisory Committee for Dean of Engineering, Texas A & M University, 2001-2002.
- Member, Committee on the Selection of *Endowed Chair Position* Holders, Dept. of Civil Engineering, Texas A & M University, 2000-2001.
- Member of *Advisory Committee*, Dept. of Mechanical Engineering, Texas A & M University, 2000-2003.
- Member of *Strategic Planning Committee*, Dept. of Mechanical Engineering, Texas A & M University, 2002-2003.
- Member, Committee on the Selection of *Marcus C. Easterling Chair* Holder, Dept. of Mechanical Engineering, Texas A & M University, 1999-2000.
- Member, Committee on the Selection of *Named Professorship* Holders, Dept. of Civil Engineering, Texas A & M University, 1993-1994.
- Member, Committee on the Selection of *Forsyth Chair* Holder, Dept. of Mechanical Engineering, Texas A & M University, 1993-1994.
- Member, Promotion and Tenure Committee, College of Engineering, Texas A & M University, 1993-1995; Chair of the Committee: 1995 and 1996.
- Chair, Committee on the Selection of *Kotzebue and Wyatt Professorships*, Dept. of Mechanical Engineering, Texas A & M University, 1993-1994.
- Member, Graduate Committee, Dept. of Mechanical Engineering, Texas A & M University, 1993-present.
- Member, Computer Committee, Dept. of Mechanical Engineering, Texas A & M University, 1993-1995.
- Member, Promotion and Tenure Committee, Dept. of Mechanical Engineering, Texas A & M University, 1993-1997.
- Member, Departmental Research Executive Committee, Texas A & M University, 1992-1994.
- Member, College Alumni Honor Awards Committee, Texas A & M University, 1993-1994.
- Member, University Planning Coordinating Committee, Virginia Polytechnic Institute, 1990-1991.
- Co-Chairman, IUTAM Symposium on Local Mechanics Concepts for Composite Material Systems, Oct. 27-31, 1991, Virginia Polytechnic Institute and State University, Blacksburg, VA 24061 (with K. L. Reifsnider).
- Member of the Organizing Committee of the Fourth Technical Conference on Composite Materials, Virginia Polytechnic Institute and State University, Blacksburg, October 3-6, 1989.

- Member, Organizing Committee, ASCE/EMD Specialty Conference, Virginia Polytechnic Institute and State University, May 23-25, 1988.
- Organizer and host, The ARO Workshop on Constitutive Models, Virginia Polytechnic Institute and State University, Blacksburg, VA, March 24-26, 1986.
- Chairman, Computational Methods Technical Interest Group, Virginia Polytechnic Institute and State University, 1981-l985.
- Member, Alumni Research Award Committee, Virginia Polytechnic Institute and State University, 1985-1990.
- Executive Member, Engineering Faculty Organization, Virginia Polytechnic Institute, 1981-1982.
- Member, Promotions and Tenure Committee, Department of Engineering Science and Mechanics, Virginia Polytechnic Institute, 1981-1984 and 1987-1990; Chairman, 1989-1990.
- Member, Faculty Recruiting Committee, Department of Engineering Science and Mechanics, Virginia Polytechnic Institute and State University, 1981-1982.
- Member, Graduate Committee, Department of Engineering Science and Mechanics, Virginia Polytechnic Institute and State University, 1982-1992.
- Member, Long Range Goals Committee, Department of Engineering Science and Mechanics, Virginia Polytechnic Institute, 1981-1992.
- Member, Executive Cabinet, Department of Engineering Science and Mechanics, Virginia Polytechnic Institute, 1987-1992.
- Member, Local Arrangements Committee, IUTAM Symposium on Mechanics of Composite Materials, Virginia Polytechnic Institute and State University, Blacksburg, August 16-19, 1982.
- Chairman of the Proceedings and Member of the Organizing Committee, the 21st Annual Meeting of the Society of Engineering Science, Virginia Polytechnic Institute, Blacksburg, Oct. 15-17, l984.
- Chairman (1979-80) and Vice-Chairman (1978-79), Engineering Sciences Section, Oklahoma Academy of Science.
- Vice-Chairman, Membership, Central Oklahoma Section of ASME, 1976-77; Mem., Exec. Comm., 1976-80.
- Member, Executive Committee (Committee A), School of Aerospace, Mechanical and Nuclear Engineering University of Oklahoma, 1978-1980.
- Faculty Advisor, Student Section of ASME, University of Oklahoma, 1976-1979.

National and International

- Member, Committee on Honors (CoH), The American Society of Mechanical Engineers, New York, NY, 2020-present.
- Member, NAE Awards Committee, The Council of the National Academy of Engineering (2019-2020 – a two-year term)
- Member, Executive Committee, US National Associate for Computational Mechanics (2015-2017).
- Head, Engineering Science Programme, National University of Singapore, Aug. 2006-Jul 2008.
- Secretary of Fellows, American Academy of Mechanics (1993-1998)
- Board of Directors, Society of Engineering Science (1991-1993)
- Executive Committee of the International Association for Computational Mechanics (IACM), Joint Secretary and Co-Editor (1991-93) and Editor (1993-1998) of *IACM Bulletin*.
- The Executive Committee of the U.S. Association for Computational Mechanics (USACM), member, 1988-1992 and 2012-present; Secretary (1991-1992); Treasurer (1992-1994); Vice-President (1994-1996); and President (1996-1998); Editor of *USACM Newsletter* (1988-1993).
- ASME Committee on Computing in Applied Mechanics, Applied Mechanics Division, American Society of Mechanical Engineers, member (1981-1993); Vice—Chairman (1993-1995); Chairman (1995-1997).
- Computational Methods Committee, Society of Engineering Science, member (1977-1983), Chairman (1983-1985)
- ASME Committee on Composite Materials, American Society of Mechanical Engineers, (member) 1982-present.
- Mathematical Methods Committee, Engineering Mechanics Division, ASCE, (member) 1983-1987.

- Elasticity Committee, ASCE, (member) 1985-1988.
- Computational Mechanics Committee, ASCE, Member (1990-1992), Chairman (1992-1994).
- Stability Committee, ASCE, Member (1992-present).
- Executive Committee of the Engineering Mechanics Division, ASCE, Member (1992-1996); Chairman (1995-1996).
- Advisory Board of the Engineering Mechanics Division, ASCE, Member (1996-2002); Chairman (1997-1999).
- Structures Technical Committee of AIAA, Member (1995-2000).
- Honors and Awards Committee the US Association of Computational Mechnaics, member (2018-2020)
- Honors and Awards Commiitee, Engineering Mechanics Institute, American Society of Civil Engineers, 2019-2020
- Honors and Awards Committee, American Society of Mechanical Engineers (2020-2021).
- Honors and Awards Committee, National Academy of Engineering (2019-2020).

CONSULTANT SERVICES

- Aerojet (Strategic Propulsion Co.), Sacramento, CA
- Alcoa Technical Laboratory, Alcoa Center, PA
- Appl Engineering Company, Norman, OK
- Atlantic Research Corporation, Gainesville, VA
- Autoclave Engineers, Inc., Erie, PA
- Battelle Laboratories, Research Triangle Park, NC
- Bell Helicopter Textron Inc., Ft. Worth, TX
- Computational Mechanics Company, Austin, TX
- Concept Analysis, Plymouth, MI
- Engineering Mechanics Research Corporation, Troy, MI
- General Dynamics, Space Systems Div., San Diego, CA
- Hartford Boiler and Insurance Company, Hartford, CT
- Humana Medical City Dallas, Dallas, TX
- Lockheed Aeronautical Systems Company, Marietta, GA
- Omega Engineering Consultants, Coral Springs, FL
- Owens/Corning Fiberglass, Granville, OH
- RADIAN Corporation, Austin, Texas
- Swanson Analysis Systems, Houston, PA
- Technalysis Inc., Indianapolis, IN
- Texas Tech University, Health Sciences Center, Lubbock, TX
- The Hartford Steam Boiler Inspection and Insurance Co., Hartford, CT
- University of Tennessee Space Institute, Tullahoma, TN
- U.S. Army & Missile Command, Huntsville, AL
- U.S. Tank Automotive Command (TACOM), Warren, MI
- Corning, Inc., Corning, New York
- McGee Technologies, Maryland
- Technical Data Analysis, Washington, DC
- Create America, Inc., College Station, Texas

SHORTCOURSES TAUGHT

1. "Advances in Computational Fluid Dynamics," The University of Tennessee Space Institute, Tullahoma, TN, December 1982 (with K. C. Reddy).
2. "Finite Element Methods in Fluid Mechanics," Purdue University at Indianapolis, March 15-18, 1983 (with A. Ecer, H. Akay, and W.G. Habashi).
3. "Finite Element Methods in Fluid Mechanics and Heat Transfer," Purdue University at Indianapolis, March 12-16, 1984 (with A. Ecer, H. Akay, and W.G. Habashi).
4. "Finite Element Methods in Fluid Mechanics and Heat Transfer," Purdue University at Indianapolis, March 11-15, 1985 (with A. Ecer, H. Akay, and W.G. Habashi).
5. "Finite Element Methods in Fluid Mechanics and Heat Transfer," Purdue University at Indianapolis, March 10-14, 1986 (with A. Ecer, H. Akay, and W.G. Habashi).
6. "Finite Element Methods in Fluid Mechanics and Heat Transfer," Purdue University at Indianapolis, March 9-13, 1987 (with A. Ecer, H. Akay, and W.G. Habashi).
7. "An Introduction to the Finite Element Method," NASA Marshall Space Center, Huntsville, Alabama, June 1987 (with K. C. Reddy).
8. "Finite Element Calculation Methods and Their Application to Turbomachinery Flows," von Kármán Institute for Fluid Dynamics, Belgium, May 11-15, 1987 (with W. G. Habashi).
9. "Analysis of Laminated Composite Structures," The University of Tennessee Space Institute, Tullahoma, TN, October 24-28, 1988.
10. "Finite Element Method in Computational Fluid Dynamics and Heat Transfer," Purdue University at Indianapolis, March 7-11, 1988 (with A. Ecer, H. Akay, and W.G. Habashi).
11. "Introduction to the Finite Element Method," (EG-5520), 3M Company, Minneapolis, MN, May 8-10, 1989.
12. "Advanced Concepts in the Finite Element Method," (EG-5521) 3M Company, St. Paul, MN, May 11-12, 1989.
13. "Finite Element Method in Computational Fluid Dynamics and Heat Transfer," Purdue University at Indianapolis, May 15-19, 1989 (with A. Ecer, H. Akay, and W.G. Habashi).
14. "Introduction to the Finite Element Method," 3M Company, St. Paul, MN, Nov. 20-22, 1989.
15. "The Finite Element Method in Engineering Science," Brakes India Ltd., Padi, Madras, India, December 18-21, 1989.
16. "Introduction to the Finite Element Method," 3M Company, St. Paul, MN, March 12-15, 1990.
17. "Finite Element Method in Computational Fluid Dynamics and Heat Transfer," Purdue University at Indianapolis, May 6-11, 1990 (with A. Ecer, H. Akay, and W.G. Habashi)
18. "An Advanced Course on the Finite Element Method," Michelin Americas Research and Development Corporation, Greenville, SC, Sept. 17-21, 1990.
19. "The Finite Element Method in Engineering Science," Holiday Inn, Cleveland, OH, July 15-19, 1991.
20. "An Introduction to the Finite Element Method," U. S. Army Waterways Engineering Experiment Station, Vicksburg, Mississippi, May 11-15, 1992.
21. "The Finite Element Method in Computational Fluid Mechanics and Heat Transfer," Concordia University, Montreal, Canada, May 18-22, 1992 (with W. G. Habashi).
22. "The Finite Element Method in Engineering Science," Indian Institute of Science, Bangalore, India, November 20-25, 1992.
23. "The Finite Element Method in Computational Fluid Mechanics and Heat Transfer," Singer Island, Florida, October 11-15, 1993.
24. "The Finite Element Method in Computational Fluid Mechanics and Heat Transfer," Purdue University at Indianapolis, September 11-16, 1994 (with A. Ecer, H. Akay, and W.G. Habashi).
25. "Analysis of Laminated Composite Plates," NATO Sponsored short course presented at Middle East technical University, Ankara, Turkey, December 3-9, 1994.
26. "Finite Element Modeling of Smart Structures," at *1995 North American Conference on Smart Structures and Materials*, San Diego, February 25, 1995 (with Vasu V. Varadan).
27. "Mechanics of Composite Materials and Structures," Defense Science Organization, Ministry of Defense, Singapore, May 6-9, 1996.
28. "Refined Theories and Finite Element Models of Laminated Plates," Centre for Computational Mechanics, National University of Singapore, Singapore, December 6, 1996.

29. "Applications of the Finite Element Techniques in Fluid Mechanics and Heat Transfer," Bhabha Atomic Research Centre, Trombay, Mumbai, India, Dec. 16-20, 1996.
30. "Mechanics of Laminated Composite Plates: Theory and Analysis," University of Queensland, Brisbane, Australia, June 17-18, 1997.
31. "Theory and Analysis of Laminated Composite Plates," University Putra Malaysia (UPM), Serdang, Selangor, Malaysia, June 21, 1997.
32. "The Finite Element Method in Engineering Science" National Aerospace Laboratory, Bangalore, India, July 22-25, 1998.
33. "Mechanics of Composite Materials and Structures," Defence Evaluation and Research Agency (DERA), Rosyth Royal Dockyard, Dunfermline, Scotland, UK, Sep 6-11, 1998.
34. "Nonlinear Finite Element Analysis of Structural Dynamics," Defence Evaluation and Research Agency (DERA), Rosyth Royal Dockyard, Dunfermline, Scotland, UK, August 22-25, 1999.
35. ``Engineering Design & Practice Using FEM," The City University of Hong Kong, Hong Kong, June 14-19, 2001.
36. ``Mechanics of Composite Materials and Structures," *US-Brazil Workshop on Advanced Materials*, Rio de Janeiro, Brazil, June 9-10, 2004.
37. ``On *k*-Version of the Finite Element Method," Short course presented at the Wright-Patterson Air Force Base, OH, August 13-15, 2004.
38. "Analysis of Composite Materials and Structures," Short course presented at the National University of Singapore, August 24-25, 2004.
39. "Structural Analysis and Failure Assessment of Composite Materials," Short course presented (with R. Talreja and Kristofer Gamstedt) at the Royal Institute of Technology, (KTH), Stockholm, Sweden, October 5-8, 2004.
40. "Mechanics of Laminated Composite Materials and Structures," Short course presented at the University Putra Malaysia (UPM), Kuala Lampur, Malaysia, December 20, 2004.
41. "Linear and Nonlinear Finite Element Analysis," Short Course presented at the *US-Africa Workshop on Mechanics and Materials,* University of Cape Town, South Africa, Jan 28, 2005.
42. "An Introduction to the Finite Element and Finite Difference Methods with Applications to Heat Transfer and Fluid Flow," National Geographical Research Institute (NGRI), Hyderabad, India, May 16-19, 2005.
43. "Least-squares Finite Element Formulations for Viscous Incompressible and Compressible Flows," *Workshop on Computational Methods in Structural Mechanics and Fluid Flows* (COSMECFLOWS), Osmania University, Hyderabad, India, December 5, 2005.
44. "Mechanical Engineering Design," a course in Mechanical Engineering at University of Calabria, Italy, March 13-17, 2006.
45. "Nonlinear Finite Element Analysis," a short course presented at Green Park Hotel, Chennai (organized by SAE India), December 14-16, 2006.
46. "Laminated Composite Structures," a course in Mechanical Engineering at University of Calabria, Cosenza, Italy, May 21-23, 2007.
47. "Mechanics of Laminated Composite Materials and Structures," a course in DIMNP at University of Pisa, Italy, May 16-20, 2007.
48. "The Finite Element Method: Theory and Applications," a two-day course presented at the Air Force Research Laboratory (AFRL), Wright-Patterson Air Force Base, Dayton, Ohio, May 30-31, 2007.
49. "A General Introduction to the Finite Element Method," Lectures presented in the *Pre-International Conference Workshop on Advanced Finite Element Method and Computational Techniques* (ASFCT-2007), Manipal Institute of Technology, Manipal, India, August 29, 2007.
50. "Nonlinear Finite Element Analysis," A pre-conference course held at the *International Conference on Computer Aided Engineering,* Chennai, India, December 10-12, 2007.
51. "How to Teach a Course on the Finite Element Method," two-day course taught at RMK College of Engineering, Kavaraipettai, INDIA, December 13-14, 2007.
52. "Advanced Finite Element Analysis," a four-day course held at Gayatri Vidya Parishad College of Engineering, Visakhapatnam (AP), India, December 20-24, 2007.
53. "Nonlinear Finite Element Analysis," a four-day short course presented at Cranes Software, Bangalore, India, January 7-10, 2008.

54. "An Introduction to the Finite Element Method," a one-day course presented at the Padre Conceição College of Engineering, Agnel Ashram, Agnel Ganv, Goa, India, January 13, 2008.
55. "Nonlinear Finite Element Analysis with Applications," Bhabha Atomic Research Centre, Bombay, India, January 14-16, 2008.
56. "Mechanics of Composite Materials," a course in Mechanical Engineering at University of Calabria, Italy, March 10-11, 2008.
57. "The Finite Element Method with Applications to Solid and Structural Mechanics," Bombay, India, August 19-22, 2008.
58. "The Finite Element Method with Applications to Solid and Structural Mechanics," Chennai, India, August 26-29, 2008.
59. "The Finite Element Method with Applications to Solid and Structural Mechanics," Singapore, September 1-3, 2008.
60. "Finite Element Analysis with Applications to Solid and Structural Mechanics," Kuala Lumpur, Malaysia, October 23-25, 2008.
61. "Linear and Nonlinear Finite Element Analysis with Applications to Solid and Structural Mechanics," Bhabha Atomic Research Centre (BARC), Bombay, India, Dec 4-9, 2008.
62. "Linear and Nonlinear Finite Element Analysis with Applications to Solid and Structural Mechanics," Vikram Sarabhai Space Center (VSSC), India, Dec 29-31, 2008.
63. "Linear and Nonlinear Finite Element Analysis with Applications to Solid and Structural Mechanics," Defense Research and Development Laboratory (DRDL), Hyderabad, India, Jan 5-7, 2009.
64. "Finite Element Analysis with Applications to Solid and Structural Mechanics," Mumbai, INDIA, May 6-9, 2009.
65. "An Introduction to the Finite Element Method," Bharat Heavy Electrical Limited, Bangalore, India, May 11-14, 2009.
66. "Buckling of Laminated Composite Plates: Theories and Analyses," Department of Applied Mechanics, Finnish Graduate School of Engineering Mechanics, Helsinki University of Technology, Helsinki, Finland, June 8-12, 2009.
67. "A Short Course on the Finite Element Method," Dept. of Mechanical Engineering, Universidad de los Andes, Bogota, Colombia, August 8-11, 2009.
68. "A Short Course on The Finite Element Method," South China University of Technology, Wuhan, Guangzhou, China, Dec. 2-8, 2009.
69. "The Finite Element Method – An Advanced Course", Ritz-Carlton Hotel, Kuala Lumpur, Malaysia, 8-10 February 2010.
70. "The Finite Element Method – Application to Composite Materials", Saint James & Albany Hotel-SPA, Paris, France, 11-13 October 2010.
71. "The Finite Element Method: with a Focus on Nonlinear Solid Mechanics", Novotel Sao aulo Morumbi, Sao Paulo, Brazil, 1-3 December 2010.
72. "The Finite Element Method – An Introduction", South China University of Technology, Wuhan, Guangzhou, China, 16-17 December 2010.
73. "The Finite Element Method (with applications to heat transfer, fluid mechanics, and solid mechanics)", SRM University, Kattankulathur, Chennai, India, 22-24 December 2010.
74. "Analysis of Composite Materials and Structures," Preconference Short course at *International Conference on Composites for 21st Century: Current & Future Trends,* J.N. Tata Auditorium, Indian Institute of Science, Bangalore, INDIA, 4 January, 2011.
75. "Theory and Analysis of Laminated Composite Structures," a preconference course presented during the *16th International Conference on Composite Structures* (ICCS/16), University of Porto, Porto, Portugal, 26-27 June 2011.
76. "The Finite Element Method with Applications to Solids and Fluids," University of Puerto Rico, Mayaguez, PR 00681-9045, March 22-23, 2012; organized by the Department of Mechanical Engineering Department.
77. "Theory and Analysis of Laminated Composite and Functionally Graded Structures," 16-17 June 2012, Torino, Italy.
78. "Theory and Analysis of Laminated Composite Structures," 17-18 October 2012, University of Macau, Macau, China.

79. "The Finite Element Method - An Introduction", 19-21 October 2012, South China University of Technology, Wuhan, Guangzhou, China,
80. "The Finite Element Method (with applications to heat transfer, fluid mechanics, and solid mechanics)," 3-5 December, 2012; Sultan Qaboos University, Muscat, Sultanate of Oman.
81. "The Finite Element Method (with applications to heat transfer and fluid, solid, and biomechanics) 12-15 December 2012, SRM University, Kattankulathur, Chennai, India.
82. "Finite Element Method with Applications to Solid Mechanics, Heat Transfer and Fluid Mechanics," 19-21 December 2012, Indian Institute of Technology, Hyderabad, INDIA.
83. "Finite Element Method (with applications to heat transfer, fluid mechanics, and solid mechanics)," 3-5 March 2013, University of Guanajuato, Salamanca, Mexico.
84. "Finite Element Method with applications to Heat Transfer and Solid and Fluid Mechanics," 21-23 March 2013, National Institute of Technology, Tiruchirappalli, India.
85. "Recent Developments in Beam and Plate Theories (with focus on FGM, nonlocal elasticity, and microstructural length scale effects)," 10 June 2013, Celal Bayar University, Manisa, Turkey.
86. "Recent Developments in Theory and Analysis of Laminated Composite and Functionally Graded Beams, Plates, and Shells (with focus on nonlocal elasticity, modified couple stress theories, and peridynamics)," 15-16 June 2013, a preconference course presented during the *ICCS17-17th International Conference on Composite Structures*, Porto, Portugal, June 17-21, 2013.
87. "Advanced Finite Element Analysis," 16-18 December 2013, Computer Aided Engineering Laboratory, Department of Mechanical Engineering, Indian Institute of Technology-Madras, Chennai, India.
88. "An Introduction to the Finite Element Method, "A one-day course presented at the Padre Conceição College of Engineering, Agnel Ashram, Agnel Ganv, Goa, India, January 10, 2014.
89. "Nonlinear Finite Element Analysis (Solid Mechanics, Fluid Mechanics, and Heat Transfer)" 16-18 December 2013, Computer Aided Engineering Laboratory, Department of Mechanical Engineering, Indian Institute of Technology-Madras, Chennai, India.
90. "Theory and Analysis of Laminated Composite and Functionally Graded Beams and Plates," Beihang University, Beijing, China, 5-8 May 2014.
91. "Recent Developments in Beam and Plate Theories with focus on FGM and nonlocal elasticity," 4 Jan 2014, Malaviya National Institute of Technology, Jaipur, India.
92. "The Finite Element Method," 10 January 2014, Padre Conceiçao College of Engineering, Verna-Goa, INDIA. 10 January, 2014
93. "Recent Developments in Theory and Analysis of Laminated Composite and FGM Beams, Plates, and Shells (with focus on nonlocal and modified couple stress theories)," 7-8 June 2014, Hilton Garden Inn Stony Brook Hotel, Stony Brook, New York.
94. "*On* Nonlinear Finite Element Analysis (*Solid Mechanics, Fluid Mechanics and Heat Transfer*)", 16-19 December 2014, Indian Institute of Technology, Hyderabad, India.
95. "The Finite Element Method in Structural Mechanics," 21-22 May 2015, National University of Singapore, Singapore.
96. "Recent Developments in Theory and Analysis of Laminated Composite and FGM Beams, Plates, and Shells (with focus on nonlocal and strain gradient theories)," 13-14 June 2015, Epic Sana Hotel, Lisbon, Portugal.
97. "Nonlinear Finite Element Analysis with applications to *Solid and Structural Mechanics*", 28-29 July 2015, Munich, Germany.
98. "Nonlinear Finite Element Analysis," 3-4 August 2015, Wyndham Grand Hotel, Izmir, Turkey.
99. "Advanced Finite Element Analysis," 7-9 December 2015, GITAM University, Hyderabad, India.
100. "Mechanics of Composite Materials and Structures (covers laminated composite plates and shells and nonlocal mechanics)," SRM University, Chennai, India, 21-22 Dec 2015.
101. "A Course on Linear and Nonlinear Finite Element Analysis," Indian Institute of Technology, Gandhinagar, Gujrat, INDIA, June 12-19, 2016.

102. "The Finite Element Method, Theory and Programming," Indian Institute of Technology, Hyderabad, July 14-24, 2016, *MHRDScheme: Global Initiative on Academic Network* (GIAN) course.
103. "The Finite Element Method Applied to Heat Transfer, Fluid Dynamics, and Mechanics of Composite Structures," JNTUH College of Engineering, Kukatpally, Hyderabad, July 25 – 5 August, 2016, *MHRDScheme: Global Initiative on Academic Network* (GIAN) course.
104. "Finite Element Method (FEM 2016)," Department of Mechanical Engineering, SRM University, Chennai, India, 6-12 Dec. 2016.
105. "Applied Continuum Mechanics," National Institute of Engineering, Goa, 15-24 December 2016, MHRDScheme: Global Initiative on Academic Network (GIAN) course.
106. "Advances in Structural Mechanics: Theory and Design of Plate and Shell Structures," Veermata Jijabai Technological Institute (VJIT), Mutunga, Mumbai, India, 20-25 Feb 2017, *MHRDScheme: Global Initiative on Academic Network* (GIAN) course.
107. "The Finite Element Method with Applications in Structural Mechanics," 6 and 7 July 2017, Monash University, Melbourne, Australia.
108. "The Finite Element Method with Applications in Structural Mechanics," 10 and 11 July 2017, University of Queensland, Brisbane, Australia.
109. "The Finite Element Method with Applications in Structural Mechanics," 13 and 14 July 2017, University of New Southwales, Sydney, Australia.
110. "Teaching the Finite Element Method to Students," A one-day course presented to the teachers of FEM courses, School of Mechanical Engineering, SRM University, Chennai, India, 11 December 2017.
111. "Applied Continuum Mechanics," A five-day course presented to the graduate students and faculty, School of Mechanical Engineering, Universidad Industrial de Santander, Bucaramanga, Colombia, 16-20 July 2018.
112. "Non-Local Theories: Mathematical Models and Computational Approaches- How to deal with problems where classical continuum mechanics breaks down," 23-26 June 2019, Aalto University (Espoo, Finland, (with Anssi Karttunen and Jani Romanoff).
113. "The Finite Element Method," Department of Structural Engineering, Veermata Jijabai Technological Institute, Mumbai, India, 12-13 July 2019.
114. "Nonlocal Mechanics Approaches for Modelling Localized Deformations," Indian Institute of Technology, Hyderabad, India, 19-21 Februiary 2020 (with A. Rajagopal and Arun Srinivasa).
115. "Composite Structures and the the Finite Element Method," A two-day pre-conference course presented at the *3rd International Conference on Advances in Mechanical Engineering* (ICAME 2020), Department of Mechanical Engineering, SRMIST, Kattankulathur, Chennai, India, February 24-25, 2020.
116. "Shear Deformation Theories of Beams and Plates," A two-day course presented in International Summer School on *Mechanics of Composite Materials,* Center for Composite Materials and Structures, Harbin Institute of Technology, China, 3-4 August 2020.
117. "Theory and Analysis of Laminated Composite and Functionally Graded Structures," A four-day online course presented at Ramaiah University of Applied Sciences, Bangalore, India, 8-11 September 2020.
118. "The Finite Element Method," a five-day online course presented online for the researchers of NASA (Glenn), 7-11 December 2020.
119. "Finite Element Analysis of Beams, Trusses and Frames," online Lectures delivered as a part of a regular course in College of Civil Engineering and Architecture, Zhejiang University, Zijingang Campus, Hangzhou, P. R. China, May-June, 2021.
120. "Finite Element Analysis of Beams, Trusses and Frames," online Lectures delivered as a part of a regular course in College of Civil Engineering and Architecture, Zhejiang University, Zijingang Campus, Hangzhou, P. R. China, May-June, 2022.
121. "Fundamentals of the Finite Element Method, with applications to structural mechanics," a short course presented to the undergraduate students of the SAE Team in the Department of Mchanical Engineering at Texas A&M University, College Station, 17-19 August 2022.

122. "Shear Deformation Theories of Functionally Graded Beams and Plates," online lectures delivered to students and faculty of the School of Civil Engineering and Transportation, South University of Science and Technology, Guanzhou, China, 15 April, 12 May, and 15 June, 2022.
123. "The Linear the Finite Element Method," Ramaiah University of Applied Sciences (RUAS), Bangalore, India, 2-4 January 2023.
124. "The Linear Finite Element Method for the teachers of the FEM," Faculty of Engineering and Technology, Ramaiah University of Applied Sciences (RUAS), 5-7 January 2023.
125. "The Linear Finite Element Method," Mechanical Engineering Program, Texas A&M University at Qatar, 14-16 March 2023.
126. "Linear and Nonlinear Finite Element Analysis with Programming," Department of Civil Engineering, BITS Pilani, Hyderabad Campus, India, 3-6 July 2023.
127. "Theory and Analysis of Laminated Composite and Functionally Graded Structures," Aalto University, School of Engineering, Finland, 5-8 September 2023.