Curriculum Vitae

CHANDRA S. PUTCHA

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Citizenship: United States of America

Education

Ph.D., Civil Engineering (emphasis in Structures)
Indian Institute of Technology
Kanpur, 1975

Employment Data

Employer: California State University
Fullerton, California
Date: August 1981 - present
Position: Professor (tenured)
Chair of Department of Civil and Environmental Engineering (Sp. 1993, Fall 1996 - Sp. 2002)
Department of Civil and Environmental Engineering

Employer: West Virginia University
Morgantown, West Virginia
Date: January 1980 - August 1981
Position: Visiting Assistant Professor
Department of Civil Engineering

Employer: Central Building Research Institute
Roorkee, India
Date: June 1979 - January 1980
Position: Assistant Director and Head, Structures Division

Employer: G. B. Pant University of Agriculture & Technology
Pantnagar, India
Date: October 1976 - June 1979
Position: Assistant Professor, Department of Civil Engineering

Employer: University of Sherbrooke
Sherbrooke, Quebec, Canada
Date: April 1975 - September 1976
Position: Post Doctoral Fellow, Department of Civil Engineering

Employer: Banaras Hindu University
Banaras, India
Date: November 1974 - April 1975
Position: Lecturer, Department of Civil Engineering

Consulting/Industrial Experience:

Employer: Northrop Grumman Corporation, El Segundo, CA
Date: November 2004 – 2006
Position: Member of Technical Staff / Consultant

Employer: Boeing, Huntington Beach, CA
Date: December 1996 – November 2004
Position: Member of Technical Staff / Consultant

Employer: Rockwell International
Date: May 1988 - August 1988, Downey, CA
Position: Member of Technical Staff / Consultant

Employer: TRW Defense Systems Group
Date: May 1986 - May 1988, Redondo Beach, CA
Position: Member of Technical Staff / Consultant

Employer: National Technical Systems
Date: February 1985 - May 1985, Newport Beach, CA (Part-time)
Position: Senior Staff Engineer /Consultant

Visiting Appointments:

Employer: University of Alabama
Huntsville, Alabama
Date: Summer 1992
Position: Visiting Professor

Employer: Stevens Institute of Technology
Hoboken, New Jersey
Date: Summer 1991
Position: Visiting Professor

Employer: West Virginia University
Morgantown, West Virginia
Date: Summer 1990
Position: Visiting Professor

Employer: Polytechnic Institute of New York
Brooklyn, N.Y.
Date: Summer 1984
Position: Visiting Associate Professor

Employer: Carleton University
Ottawa, Canada
Date: Summer 1983
Position: Visiting Associate Professor

Employer: University of Waterloo
Waterloo, Canada
Date: Summer 1982
Position: Visiting Associate Professor

Technical Reports/Technical Memoranda:

1."Modeling of Human Thermoregulatory Model to Simulate Cooling by Wet Garment" Report submitted to NHRC (August 31,2012)

2. "Modeling of Thermal Response to Wearing Wet Clothing", Report submitted to SAIC (September 24,2010)

3. Develop Proof of Concept Report on Software Reliability Prediction, Hernandez Engineers Inc., C/o Marshall Space Flight Center, Huntsville, AL (August 2007).

4. Methodology For Risk Analysis Of Dam Gates and Associated Operating Equipment using Fault Tree Analysis", Engineer Research and Development Center, U.S. Army Corps of Engineers (May 2005).

5. " Event/Fault Tree development for Risk Analysis of Dam Gates and Associated Operating equipment ", Final report, U.S. Army Construction Engineering Research Laboratories , Champaign, IL (May 2002).

6. "Investigation of Risk assessment Methodology for Dam Gates and Associated operating equipment", Technical report, Phase II, Waterways experiment station, Vicksburg, MS (March, 2001).

7. "Investigation of Risk assessment Methodology for Dam Gates and Associated operating equipment", Technical report, Phase I, Waterways experiment station, Vicksburg, MS (Nov. 2000).

8. "Reliability Assessment of Navigation Components", Final Technical Report, Waterways Experiment Station, Vicksburg, MS (August 1998)

9. "Reliability Assessment of Navigation Components", Intermediate Technical Report, Waterways Experiment Station, Vicksburg, MS (October 1997)

10. "Time-Dependent Reliability Analysis of Hydraulic Steel Structures with Corrosion Degradation - Verification of Results", Technical report, Waterways Experiment Station, Vicksburg, MS (September 1996)

11. "Seismic Reliability Study of Navy Wharves and Development of Design Criteria", Technical Memorandum, Naval Facilities Engineering Service Center, Port Hueneme, CA (August 1995)

12. "Conversion of Human Thermal Model Program from MacIntosh to VAX System", NHRC Technical Report, Naval Health Research Center, San Diego, CA (1994)

13. "Validation of Computer Model for Seismic Hazard Analysis", Technical Memorandum, NCEL Technical Memorandum, Naval Civil Engineering Laboratory, Port Hueneme, CA (September 1993)

14. "Reliability Analysis of Stressed Timber Bridges", Technical Report, West Virginia University, Morgantown, WV (1992)

15. "An In-depth Probabilistic Study of External Tank Attach Ring", NASA TM-1080403, NASA National Aeronautics and Space Administration - George C. Marshall Space Flight Center, AL (1992)

16. "Carry Hard-Test-3 - DYNA2D Calculation", TRW Technical Report, Ground Systems Survivability Department, TRW Defense Systems Group, one Space Park, Redondo Beach, CA (1986)

17. "Carry Hard-Test-2 - Correlation of Pre- and Post-Test Calculations with Test Results", TRW Technical Report, Ground Systems Survivability Department, TRW Defense Systems Group, one Space Park, Redondo Beach, CA (1986)

18. Combination of Seismic and Hydrodynamic Loads for the Lasalle County Station Probabilistic Risk Assessment", Technical Report prepared for Lawrence Livermore National Laboratory, Livermore, National Technical Systems, 5160 Birch Street, Newport Beach, CA (1986)

Major Research Grants:

Grant for Modeling of Human Thermoregulatory Model to Simulate cooling by Wet garments from Navy Health Research Center (NHRC), San Diego for $69000 (September 1, 2011– August 31,2012)

Grant for Modeling of Thermal Response to Wet Clothing from SAIC for $100,000 (December 30,2009 –September 24,2010)

Grant for Development of Fault Tree methodologies for Gates and Operating equipment, U.S. Army Corps of Engineers, for $27,000 (July 2007- February 2008), Vicksburg, MS.

Grant for Developing Proof of Concept Report on Software Reliability, NASA for $17,000, Marshall Space Flight Center, Huntsville, AL (2007).

Grant for study of Risk Analysis dealing with LBD (Low Back Disorders), Naval Research Center, San Diego, CA, for $21,000, 2006 Navy-ASEE Summer Faculty Research Program (2006).

Grant for study of Risk –Quantified Structural Design & Evaluation, Wright Patterson Air Force BASE (WPAFB) for $20,000, 2006 Air Force – ASEE Summer Faculty Fellowship Program (2006).

Grant for study of Risk Analysis dealing with LBD(Low Back Disorders), Naval Research Center, San Diego, CA, 2005 for $21,00, Navy-ASEE Summer Faculty Research Program (2005).

Grant for study of human locomotive motion, Naval Health Research Center, San Diego, CA, 2002 Navy-ASEE Summer Faculty Research Program (2002).

Grant from U.S. Army to work on Dam Gate Event/Fault Trees for $24,946 (February 2001- September, 2001)

Grant from U.S. Army to work on Investigation of Risk Assessment Methodology for Dam Gates and Associated Operating Equipment for $57,336 (April, 1999- October, 2000)

Grant from U.S. Army to work on Time-dependent Reliability Study of Navigation Structures for $40,000 (August 1997)

Grant for working on models and procedures for the reliability assessment of navigation components including time-dependent formulations and dam stability (1996).

Grant for Seismic Reliability Study of Navy Wharves at Naval Facilities Engineering Service Center in Port Hueneme, 1995 Navy-ASEE Summer Faculty Research Program (1995).

Grant for Research on Reliability Analysis of Stressed Bridge Systems Using Advanced Methods, from West Virginia University, Morgantown, West Virginia (1994).

Grant for Modelling of Seismic Performance in Sustained Operations, Naval Health Research Center in San Diego, 1994 Navy-ASEE Summer Faculty Research Program.

Grant for Seismic Hazard Analysis of Navy Civil Engineering Laboratory in Port Hueneme, 1993 Navy-ASEE Summer Faculty Research Program.

Grant for Reliability Analysis of External Tank Attach Ring at Marshall Space Flight Center in Huntsville, Alabama, 1992 NASA-ASEE Summer Faculty Fellowship Program.

Grant for Research on Reliability Analysis of Stressed Timber Bridges at West Virginia University, Morgantown, West Virginia (1990).

Grant for Research on Comparative Statistical Analysis of Diastole and Systole Left Ventricular Mass for Normal and Abnormal Patients, Rancho Los Amigos Medical Center, Downey, CA (1989).

Books/Book Chapters:

1. "Indeterminate Structural Analysis" (with Kenneth Derucher and Uksun Kim), published by Mellen Press , 2013.

2. "Econometric and Forecasting Models", edited by Chandrasekhar Putcha, Brian Sloboda and Kalamogo Coulibaly), published by Mellen Press, 2013.

3. "Methods of Forecasting American Election Outcomes- Studies in Strategies of Prediction", edited by Chandrasekhar Putcha, Mellen Press,2010

4. "Mathematical Formulation of Poverty Index", edited by Chandrasekhar Putcha,Mellen Press, 2010

5. "Methodologies for use in Time-dependent Reliability Analysis" (with Robert Patev) in the book "Uncertainty Modelling and Analysis in Civil Engineering", edited by Professor Bilal Ayyub, CRC Press, Inc. (1997).

6. Reliability and Risk Analysis – Fundamentals and Applications to Engineering and Medical Field (with S. Dutta), Springer, 2019 (under review)

7. "Interacting Factors between Physical Health, Mental Health and A Long Quality Life (with Brian Sloboda and Siddarth Rana), Balboa Press 2019.

8. Various Aspects of QALY – Quality Adjusted Life Years, to be published by Cambridge Scholars Publishing, 2019 (under preparation)

9. Reliability and Risk Analysis in Engineering and Medicine (with S. Dutta and S.K. Gupta), Springer, 2021.

10. Static Analysis of Determinate and Indeterminate Structures (with K.Derucher, U.Kim and HVS GangaRao), CRC Press/Taylor & Francis, 2021.

Scientific and Professional Societies (Past and Present):

ACI - American Concrete Institute
ASEE - American Society of Engineering Education
ASCE - American Society of Civil Engineers
Phi Beta Delta - Honor Society for International Scholars

Major Honors/Recognitions:

Recipient of Outstanding Professor award in 2007 from California State University, Fullerton (1st Engineering Faculty to receive this award in 44 years since this award was instituted 1963 at CSUF).

Examiner of Ph.D. Theses for various universities in Australia and India

Co-supervisor, Ph.D. student in Civil Engineering, IIT/BHU

Guest Editor of Special issue for ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems Part A: Civil Engineering on "Interdisciplinary Applications of Reliability Analysis, Risk Analysis and Optimization (Putcha and Tiwari) – 2018

Guest Editor of Special issue for ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems Part A: Civil Engineering on " Risk Analysis Principles to Structural Health Monitoring" Analysis and Optimization (Putcha and Dutta) – 2019

Recipient of the 2016 Navy-ASEE DISTINGUISHED Summer Faculty Research Award. (Received by less than 2% of total applicants).

Recipient of the 2009 Navy-ASEE DISTINGUISHED Summer Faculty Research Award. (Received by less than 2% of total applicants).

Recipient of the 2008 Navy-ASEE DISTINGUISHED Summer Faculty Research Award. (Received by less than 2% of total applicants).

Recipient of the 2006 Air Force- ASEE Summer Faculty Research Award. (Received by less than 5% of total applicants).

Recipient of the 2006 Navy-ASEE DISTINGUISHED Summer Faculty Research Award. (Received by less than 2% of total applicants).

Recipient of the 2005 Navy-ASEE DISTINGUISHED Summer Faculty Research Award. (Received by less than 2% of total applicants).

Recipient of the 2002 Navy-ASEE DISTINGUISHED Summer Faculty Research Award. (Received by less than 2% of total applicants).

Recipient of certificate (for Scholarship that results in the highest quality, peer-reviewed journal articles) from President, CSUF for AY 2000-2001.

Recipient of certificate (for Scholarship that results in the highest quality, external grant) from President, CSUF for AY 2000-2001.

Recipient of " 2005 Prestigious Engineering Educator" Award from Orange County Engineering Council(OCEC), Feb. 26, 2005.

Recipient of " 2001 Distinguished Engineering Educator" Award from Orange County Engineering Council(OCEC), Feb. 24, 2001.

Recipient of PSSI (Performance Based Salary Step Increase) Award for 1997-98 and 1998-99 from the President of CSUF.

Outstanding Service as Chair of Civil and Environmental Engineering (1996-97).

Recipient of the 1996 US Army Summer Faculty Research Award (Received by less than 7% of total applicants).

Award of CERTIFICATE OF RECOGNITION from the U.S. Army for service and Scientific contribution made through the 1996 U.S. Army Summer Faculty Research Program.

Recipient of PSSI (Performance Based Salary Step Increase) Award for Sp. 1996 from the President of CSUF.

Recipient of the 1995 Navy-ASEE DISTINGUISHED Summer Faculty Research Award. (Received by less than 2% of total applicants).

Award of CERTIFICATE OF Recognition from the Dean of ECS and the Chair of Civil Engineering for FACULTY SERVICE to the CE Dept. (May 1995).

Award of CERTIFICATE OF Recognition from The OFFICE OF NAVAL RESEARCH & THE AMERICAN SOCIETY FOR ENGINEERING EDUCATION for Research Contributions made through the 1995 NAVY-ASEE SUMMER FACULTY RESEARCH PROGRAM.

Faculty/Scholar Recognition by California State University, Fullerton for Major Achievements (March 21,1995).

Recipient of the 1994 Navy-ASEE DISTINGUISHED Summer Faculty Research Award. (Received by less than 2% of total applicants).

Award of Certificate of Recognition from The OFFICE OF NAVAL RESEARCH & THE AMERICAN SOCIETY FOR ENGINEERING EDUCATION for Research Contributions made through the 1994 NAVY-ASEE SUMMER FACULTY RESEARCH PROGRAM.

Award of Certificate if appreciation for Outstanding Service as a Judge at the 39th Annual Orange County Science and Engineering Fair (April 1994).

Recipient of Outstanding Professor (Research) award for School of ECS in May 1994 for the year 1993-94.

Award of Certificate of appreciation from Dean, School of ECS, for OUTSTANDING SERVICE as Acting Chair of Civil Engineering Dept. for Sp. 1993 (May 1993).

Award of Certificate of appreciation from Rancho Santiago Community College in Recognition of Service rendered to the Rancho Santiago College Engineering Program as Guest Lecturer and Honorary Program Advisor (April 1993).

Recipient of 1993 NAVY/ASEE Summer Faculty Research Award.

Award of CERTIFICATE OF RECOGNITION from The OFFICE OF NAVAL RESEARCH & THE AMERICAN SOCIETY FOR ENGINEERING EDUCATION for Research Contributions made through the 1993 NAVY -ASEE SUMMER FACULTY RESEARCH PROGRAM.

Recipient of the 1992 NASA/ASEE Summer Faculty Research Award.

Award of CERTIFICATE OF RECOGNITION from The NATIONAL AERONAUTICS AND SPACE ADMINISTRATION & THE AMERICAN SOCIETY FOR ENGINEERING EDUCATION For Research Contributions made through the 1992 NASA/ASEE SUMMER FACULTY FELLOWSHIP Program

Reviewer of Journals (Past and Present):

Computers and Structures

International Journal of Modelling and Simulation

Structural Safety (An International Journal in Reliability)

Journal of Structural Division (ASCE)

Journal of Engineering Mechanics (ASCE)

Journal of Computing in Civil Engineering (ASCE)

Reviewer of Books:

McGraw Hill, John Wiley Publishing Companies

Professional Services

Chair of session on 'Multi-disciplinary aspects of Science and Engineering' at the International Conference on Simulation, Modeling and Optimization SMO'05' held at Corfu Island, Greece, August 17-19, 2005.

Served on an Interview panel for a Senior Engineer position at LACMTA, Los Angeles, CA on Nov. 2, 2000.

Chair of session on ' Dam Safety' at the CDA (Canadian Dam Association) Regina 2000 conference held at Regina, Sept. 16-21, 2000.

Chair of session on 'Simulation' at the Modelling and Simulation conference held at Pittsburgh, May 15-17, 2000.

Elected Fellow of the Institute for the Advancement of Engineering (Jan. 1999).

Received Mentor Award for School of Engineering and Computer Science (1999)

Chair of session on 'Solid Mechanics: Applications' at the CANCAM 97 (Canadian conference on Applied Mechanics) held at University of Laval, Quebec, Canada, June 1-5, 1997).

Member of the SCCEME (Southern California Coalition for Education in Manufacturing Engineering) CSUF team (1994-96).

Organizer and Co-Chairman of sessions on 'Risk and Decision Analysis', and 'Structures and Reliability', at the Second International Symposium on Uncertainty Modelling and Analysis (ISUMA '93) at University of Maryland, College Park, April 25-28, 1993.

Organizer and chairman of session on "Probabilistic and Decision Making Methods with Applications" at Modelling and Simulation Conference in Pittsburg, in May 3-4, 1990.

Served as a member of ASCE Technical Committee on Safety of Buildings.

Member of ASCE Standards Committee on Design of Engineered Wood Construction to develop a standard for Load and Resistance Factor Design (LRFD) of engineered wood construction.

Member of the Expert Editorial Advisory Board of the Construction and Engineering Materials Journal, Auerbach Publishers, New York, New York.

Associate Editor, International Journal of Modelling and Simulation

Service to University, College and Department

Member, Faculty Personnel Committee (Fall 2007- 2011)
Member, Faculty Personnel Committee (Fall 2001- Spring 2004, 1993-95)
Member, SALC (Student Academic Life Committee) (Fall 2004-Spring 2006)
Chair, CEE Department (Fall 1996 – Spring 2002)
Chair, University Research Committee (1996-99)
Member, Conflict of Interest Committee (1997-98)
Member, Academic Senate (1992-94 and 1995-96)
Member, ECS Recruitment and Retention Committee
Member, ECS A-Team
Member, ECS Curriculum Committee
Chair, CE Dept. Student Recruitment Committee
Chair, CE Dept. ABET Working Committee
Chair, CE Dept. Academic Standards Committee
Member, CE Dept. Curriculum Committee
Member, CE DPC
Member, CFA
Member, University Academic Standards Committee (1993-95)
Member, ECS Reorganization Committee (Fall 1994)
Member, University Affirmative Action Board (1992-93)
Acting Chair, CE Dept. (Sp. 1993)
Member, ME DPC (Sp. 1993)
Member, University Professional Leaves Committee (1991-93)
Faculty Mentor (1990-92)
Member, University LYCEUM 1990

Major Research Publications:

(Publications in may main area of Research – Reliability/Risk Analysis are shown first in chronological order followed by regular list of publications)

181. A degradation data driven approach for estimation of motor remaining useful life (with A. Banerjee and S.K. Gupta), Journal of Risk and Uncertainty, 2020.

182. A Case Study for Quantifying Flood Resilience of Interdependent Building-Roadways Infrastructure Systems, (with M.Sen and S. Dutta), ASCE, 2020.

178. Risk priority number for bridges failures (with S. Dutta and J. Rodriguez), accepted for publication in Practice Periodical on Structural Design and Construction, ASCE, July, 2019.

175. Uncertainty propagation in structural system using sparse polynomial chaos expansion meta-model (with S. Dutta), accepted for publication accepted for presentation and publication in the Proceedings of International Conference in Reliability, NITS, Silchar, February, 2019 , published by Springer.

174. Reliability-based design of a large-scale truss structure using polynomial chaos expansion model (with S. Dutta), accepted for presentation and publication in the Proceedings of International Conference in Reliability, ICRESH 2019, January, 10-13, 2019 and published by Springer.

167. Risk Priority Numbers for various categories of Alzheimer's disease (with B. Sloboda and V. Putcha), Proceedings of 16th Safety Engineering Research and Practice (SERP) conference, Las Vegas, July 30-August 2, 2018.

162. Estimating the Probability of Occurrence of Parkinson's Disease via Time Series Analysis (with B.Sloboda and A. Telukupally), presented at 37th International Symposium on Forecasting (ISF) meeting, Cairns Australia, June 25-28, 2017

153. "Development of a Mathematical Equation for Post-Traumatic Stress Index with and Without Physician Intervention for Military Population", (with P. Miller and A. Tiwari), International Review of the Armed Forces Medical Services, International Committee of Military Medicine (ICMM), Vol. 88, No.2, 2015.

147. A detailed risk analysis of factors contributing to occurrence of subdural hematoma (with R. Khani, M. Khani and P. W. Miller) European Scientific Journal (ESJ), Vol. 10, No.18, June, 2014.

144. "An Appraisal of Reliability Index of Steel Fiber Reinforced Concrete Members" (with Gunneswara Rao , M. Andal and S. Sauhu), ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part A: Civil Engineering, October 2014 (under review)

143."Predicting Rainfall using the principles of Fuzzy set Theory and Reliability Analysis" (with Hasan, Khan, Al-Hamdan and Glenn), American Journal of Computational Mathematics(AJCM), Vol.3, N0.4, December 2013.

129. "Reliability levels for various well-known disasters", Proceedings of the Geospatial World Forum 2011, January 18-21,2011.

116. " Risk Factors Associated with Stroke" (with Paul Miller and James Hodgdon) , Proceedings of "Quality of Care and Outcomes Research in Cardiovascular Disease and Strokes Conference 2009" Washington, D.C. from April 23-25, 2009.

113. " Case Studies on FMEA Applications to system Reliability evaluation" (with P. Kalia, F. Pizzano, G. Hoskins, C. Newton and K. Kamdar), International Journal of Reliability, Quality and Safety Engineering (IJRQSE), Volume 15, No. 2, 2008.

107. “Development of a Risk model for prediction of strokes in human beings” (with Paul Miller), paper submitted for presentation and publication in the Proceedings 60th Annual Meeting of the American academy of Neurology, Chicago, IL, April 12-19, 2008.

104. “ Application of principles of Failure Modes Effects Analysis (FMEA) to software and hardware Reliability” (with P.Kalia, C. Newton, F. Pizzano, and G. Hoskins), paper accepted for presentation and publication in the Proceedings of Space Systems Engineering & Risk Management Symposium , held in Los Angeles, February 26-29, 2008.

103. “ Software Reliability- Engineering Point of View”, Proceedings of SERP’07 (2007 International Conference on Software Engineering Research and Practice) , held in Las Vegas, June 25-28, 2007.

101. “Application of PEM_PFEM method for Risk Quantification of Air Craft Structures for various limit states”, Proceedings of the 21st Canadian Congress of Applied Mechanics, held at Ryerson University, Toronto, Canada, June 3-7, 2007.

95. “ Methodology of Risk Analysis for LBD(with Jim Hodgdon), Proceedings of 1st International Conference on Recent Advances in Engineering Mechanics (RAEM 2006) ” , Fullerton, CA January 12-14, 2006.

93. “Determination of safety margin of analgesic effect naproxen loaded nanoparticles” (with Venkat S. Kuchubhotla and Jesa Kreiner), WSEAS Transactions on Systems , August 2005.

92. “ Reliability concepts application to space shuttle problems”, (with Frank Pizzano, Jesa Kreiner, Jason Overstreet and Ahila Sivathasan), WSEAS Transactions on Systems , August 2005.

91. “Application of Optimization concepts for drug manufacturing problems” (with Aditya Putcha and Jesa Kreiner), WSEAS Transactions on Information Systems and Applications, August, 2005.

90. “Probabilistic analysis of data dealing with analgesic effect of naproxen loaded nanoparticles” (with Venkat S. Kuchubhotla), Proceedings of 5th WSEAS International Conference on Simulation, Modelling and Optimization (SMO’05), Corfu Island, Greece, August 17-19, 2005.

89. “ Application of Safety index approach to Reliability Study of External Tank Attach Ring of space shuttle”, (with Frank Pizzano, Jesa Kreiner, Jason Overstreet and Ahila Sivathasan), Proceedings of 5th WSEAS International Conference on Simulation, Modelling and Optimization (SMO’05), Corfu Island, Greece, August 17-19, 2005.

84. “Development of fault-trees for Risk Assessment of Dam gates and Associated operating equipment” (with R.C. Patev), International Journal of Modelling and Simulation, Vol. 25, No.3, 2005.
63. “A Comprehensive Time-Dependent Reliability Analysis of Navigation Structures” (with M. A. Leggett and R. C. Patev), Journal of Infrastructure, John Wiley publications, Jan. 2001.

83. “Methodologies for Risk Analysis of Dam Gates and Associated Operating Equipment using Fault-Tree Algorithm ”(with R.C. Patev), International Journal of Civil and Environmental Engineering, Vol. 1, No.1.
2005

82. “Utility Indices of economically diverse population” (with J.H. Kreiner and Anila Putcha-Bhagavatula), Proceedings of IABSE symposium on “Role of Structural Engineers towards reduction of Poverty”, New Delhi, India, February 19-22, 2005.

81. “ Estimation of design parameters of a reinforced concrete beam for a given reliability using polynomial approach” (with J.H. Kreiner), Proceedings of 4th Australasian Congress on Applied Mechanics, Melbourne, Victoria, Australia, February 16-18, 2005.

80. “Risk Methodology for failed hardware” (with D.F. Mikula, R.A. Dueease, T. Jensen, R.L. Peercy and L. Dang),International Journal of Modelling and Simulation, Vol. 24, No. 3, 2004.

64. “Risk Assessment Methodology for Flood Control and Reservoir Dam Gates” (with R. Patev), Proceedings of the CDA (Canadian Dam Association) Regina 2000 Conference, Saskatchewan, Canada, Sept. 16-21, 2000.

56. “Reliability Methodology for Assessing Risk of Orbiter Flights With Use of Failed Hardware” (with Kip Mikula, Bob Dueease, Lan Dang and Bob Peercy), Proceedings of Fourth World Congress on Computational Mechanics, Buenos Aires, Argentina, June 29-July 2, 1998.

40. “Total Quality Engineering, Failure Analysis, and Stochastic Process Evaluation of Engineering Project Alternatives” (with S. J. K. Rao and J. H. Kreiner), Proceedings of ISUMA 1993, The Second International Symposium on Uncertainty Modelling and Analysis, April 25-28, 1993.

39. “Reliability Analysis of External Tank Attach Ring” (with F. Pizzano et. al.), Proceedings of ISUMA 1993, The Second International Symposium on Uncertainty Modelling and Analysis, April 25-28, 1993.

35. “Probabilistic Methods in Life-Cycle Evaluation of Structural Project Alternatives Under Uncertainty” (with S. J. K. Rao), Proceedings of Canadian Conference of Applied Mechanics, Winnipeg, Canada, June 2-6, 1991.

34. “Probabilistic Network Analysis for Project Competition Time” (with S. J. K. Rao), Civil Engineering Systems, Vol. 8, 1991.

33. “Simulation Design Techniques in Network Analysis” (with J. H. Kreiner and M. H. Mansour), Proceedings of Sixth International Conference on CAD/CAM, Robotics and Factories of the Future, London, U.K., August 19-22, 1991.

32. “Probabilistic Analysis of Left Ventricular Mass in Systole and Diastole” (with R. J. Sarma), Proceedings of ISUMA 1990, the First International Symposium on Uncertainty Modelling and Analysis, December 3-5, 1990.

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Complete Research Publications

1. “Optimal Design of Prestressing Cable in Two-Span Continuous Beams” (with P. Dayaratnam), Proceedings of National Conference on Precast Construction in Building Industry, 1971, Waltair, India.

2. “Analysis of Probability of Failure of Prestressed Concrete Beams” (with P. Dayaratnam), Building Science, Vol. 10, No. 2, Pergamon Press, 1975.

3. “Probabilistic Dynamic Response of Beams and Frames” (with F. Ellyin), Journal of Engineering Mechanics Division, American Society of Civil Engineers, Vol. 103, No. EM3, Proceedings Paper 12984, June 1977.

4. “Effet de l’Interaction Sol-structure sur le Comportment Dynamique de Centrale Nucleaire” Proceedings 3rd Canadian Conference on Earthquake Engineering, Vol. 1, 1977.

5. “Reliability Design of Prestressed Concrete Beams” (with P. Dayaratnam), presented at an All-India Seminar on Prestressed Concrete Structures, 1979, Madurai, India.

6. “Optimization of Prestressed Concrete Beams with Reliability Constraint” (with P. Dayaratnam, Journal of Structural Engineering, Vol. 7, No. 1, April 1979.

7. “Reliability Analysis of Continuous Beams” (with B. D. Sharma), Building and Environment,

Vol. 14, No. 1, Pergamon Press, 1979.

8. "Approximate Analysis of Structural Systems" (with H. V. S. GangaRao), presented at American Society of Civil Engineers 1980 Annual Convention and Exposition, October 27-31, 1980, Hollywood, Florida.

9. "Seismic Design Studies of Timber Diaphragms in Low Rise Building" (with H. V. S. GangaRao and L. D. Luttrell), presented at American Society of Civil Engineers, 1980 Spring Session, Portland, Oregon.

10. "Reliability Analysis of Multistory Frames" (with J. A. Khan), Building and Environment, Vol. 15, Pergamon Press, 1981.

11. "Reliability Analysis of Reinforced Concrete Columns", Proceedings of American Society of Civil Engineers 4th EMD Specialty Conference held at Purdue University, Lafayette, Indiana in May 1983, Vol. II.

12. "Simulation Model for Project Completion Time of Networks in Civil Structures" (with H. V. S. GangaRao) Proceedings of American Society of Civil Engineers Specialty Conference on Probabilistic Mechanics and Structural Reliability held at Berkeley from January 11-13, 1984.

13. "Reliability Design Using Polynomial Approach" Proceedings of American Society of Civil Engineers/Engineering Mechanics 5th Specialty Conference held at Laramie, Wyoming, August 1-3, 1984. Peer reviewed as per regulations of ASCE, Vol. II.

14. "Education Towards Becoming a Well-Rounded Engineering Professional" Proceedings of American Society of Engineering Education Conference on Frontiers in Education, Philadelphia, October 3-5, 1984, Edited by L. P. Grayson and J. M. Biedenback.

15. "Tolerable Movement Criteria for Highway Bridges" (with H. V. S. GangaRao and L. K. Moulton), Civil Engineering for Practicing and Design Engineers, Vol. 4, No. 1, January 1985, Pergamon Press.

16. "Modelling of Failure Probabilities of Concrete Columns" (with S. V. Narisimham and N. Nagarju), Civil Engineering Systems: Decision Making and Problem Solving, Butterworth Publications, Vol. 2, March 1985.

17. "Probabilistic Analysis of Crack Length of Reinforced Concrete Beams" Proceedings of International Conference on Structural Safety and Reliability, held in Kobe, Japan, May 27-29, 1985, Vol. III.

18. "Safety Index Analysis for Problems With Large Variances" (with C. J. Turkstra), Proceedings of International Conference on Structural Safety and Reliability, held in Kobe, Japan, May 27-29, 1985, Vol. II.

19. "Reliability Design of Reinforced Concrete Beams With Various Basic Parameters: A Polynomial Approach" Civil Engineering For Practicing and Design Engineers, Vol. 4, No. 11, Nov. 1985, Pergamon Press.

20. "Probabilistic Approach to Deflection Controlled R. C. Slab Design" Proceedings of American Concrete Institute, Deflection of Structures, Special Publications, SP-86, ACI, Detroit 1985.

21. "Closed Form Solution for the Reliability Design of Beams" Structural Safety, Vol. 3, Elsevier Publications, 1986.

22. "A Numerical Method for Safety Indices Evaluation of Single Story Steel Frames" Proceedings of First Canadian Conference on Computer Applications in Civil Engineering/Micro Computers, Canada, May 20-23, 1986, Vol. 1.

23. "Series Solutions of Structural Systems Subjected to Static and Dynamic Loads" (with H. V. S. GangaRao), Computers and Structures, Vol. 24, No. 3, 1986.

24. "Probabilistic Stability Analysis of Columns and Frames" (with M. H. Mansour), Proceedings of Fifth International Conference on Applications of Statistics and Probability in Soil and Structural Engineering held in Vancouver, Canada, May 25-29, 1987.

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