Ronald S. Harichandran, Ph.D., P.E., F.ASCE

Tagliatela College of Engineering
University of New Haven
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Education

Ph.D. in Civil Engineering — *Massachusetts Institute of Technology*, Cambridge, Massachusetts
February 1985 — Dissertation: "Space-time variation of earthquake ground motion"

M.S. in Civil Engineering — *Massachusetts Institute of Technology*, Cambridge, Massachusetts
September 1981 — Thesis: "Extremes of combined stochastic dynamic responses"

B.E. in Civil Engineering — *University of Canterbury*, Christchurch, New Zealand.
November 1979 — First Class Honors

Experience

Administrative

Vice Provost for Research, University of New Haven (April 2019-present)

Support the research and scholarly activities of faculty and students in all colleges. Oversight of the Office of Grants and Sponsored Programs, IRB approvals for human subjects research, intellectual property and technology transfer issues, compliance with classified research and export control requirements, marketing of research image of the university, internal faculty and student research grants and awards, and the Summer Undergraduate Research Fellowship program.

Dean, University of New Haven (August 2011-present)

Chief executive officer of the Tagliatela College of Engineering, University of New Haven. The college has 60 tenure-stream and non-tenure-stream full-time faculty members organized into four departments offering 8 BS and 9 MS programs and a PhD program. Currently, about 625 undergraduate and 510 graduate students are enrolled in the college. Highlights of experiences and accomplishments include:

- Strong record of administrative leadership and management of personnel, budgets and resources.
- Facilitating the launch of the Connecticut Institute of Technology in May 2020 to coalesce interdisciplinary programs and research, enhance marketing and promote excellence.
- Assisting Provost with university-wide faculty workload expectations and criteria that were approved by the faculty in Spring 2017.
- Assisting Provost with the development of a Teaching, Clinical and Professional (Non-Tenure Track) Faculty Handbook.
- Supporting the designation of the university in 2019 as a Center of Academic Excellence in Cyber Operations by the National Security Agency. The university is one of only 22 institution in the country to have this designation.
- Stimulating faculty research and scholarship; a faculty member received an NSF Early Career Award for ~$700,000 in 2019.
- Developing the college's strategic plan, vision and mission statements (see www.newhaven.edu/engineering/mission/).

- Establishing peer-to-peer and student-to-alumni mentoring programs to improve retention and career advancement and securing support from Lockheed Martin for this.
- Serving on leadership team to launch MS in Data Science program in San Francisco, California with approvals from NEASC, the CT Office of Higher Education and the California Bureau for Private Postsecondary Education.
- Launching new PhD in Engineering and Applied Science, MS in Biomedical Engineering, a fully online MS in Environmental Engineering, MS in Civil Engineering, MS in Chemistry, and MS in Data Science programs.
- Establishing 4+1 accelerated BS+MS programs from all undergraduate engineering and applied science programs into graduate programs.
- Leading development and implementation of: college-wide technical communications program spanning seven BS programs through all four years; and development of four integrated e-learning modules to support instruction in technical communication (see www.newhaven.edu/engineering/PITCH/).
- Leading development of 18 e-learning modules and integration into engineering courses to support the development of an entrepreneurial mindset in students. Over 85 engineering faculty at 54 universities around the country have integrated these modules into their courses (see www.newhaven.edu/engineering/kern-entrepreneurial-engineering-network/).
- Establishing a university-wide Entrepreneurship and Innovation program and a shared Department of Entrepreneurship and Innovation in partnership with the College of Business.
- Establishing an innovative shared Department of Engineering and Applied Science Education to foster interdisciplinary education, and research and scholarship in engineering education.
- Establishing college-wide focus areas in cybersecurity, wireless communications, renewable energy, sustainability, and data science to create foci for faculty hiring and curriculum development.
- Establishing coordinated college-wide senior design courses to facilitate interdisciplinary projects, broadening corporate sponsorship, and establishing annual Capstone Design Expo.
- Facilitating study abroad program for engineering students at the UNH campus in Prato, Italy.
- Establishing joint academic programs with two Chinese universities and one Indian university.
- Championing and facilitating establishment of an academic Makerspace, a Cyber Forensics Research and Education Laboratory, an Integrated Materials Discovery Lab, and a Polymer Materials Lab, and organizing dedication ceremonies.
- Overseeing major renovation of the engineering building to establish new laboratories and upgrade existing laboratories.
- Leading development and adoption of unified tenure and promotion criteria for the college.
- Hiring dozens of faculty and 3 staff members, establishing a faculty mentoring program, overseeing annual reviews, reappointment, tenure and promotion actions, and making raise recommendations.
- Coordinating ABET accreditation of seven engineering and computer science programs, NSA Cyber Operations designation of Cybersecurity & Networks and Computer Science programs, and ACS accreditation of chemistry program.
- Leading academic partnership between the university and the Grade 6-12 Engineering and Science University Magnet School to stimulate middle and high school student interest in STEM fields.
- Facilitating deployment of the TEAM Summer Camp developed by Georgia Tech with sponsorship from Sikorsky Aircraft Corporation for grade 10-12 high school students.
- Launching college newsletter, alumni Hall of Fame, and college alumni dinners.

Chairperson, Michigan State University (August 1995-July 2011)

Chief executive officer of the Department of Civil and Environmental Engineering at Michigan State University. The department had 24 tenure-stream faculty members and 13 academic specialists and support staff. Faculty specialties encompassed construction materials, environmental engineering, hydrology and water resources engineering, geo-engineering, pavement engineering, structural engineering, and transportation engineering. About 350 undergraduate students and 90 graduate students were enrolled in the program. Highlights of experiences and accomplishments include:

- Strong record of administrative leadership and management of personnel, budgets and resources resulting in three reappointments to the position.
- Strongly promoting research and scholarship. The annual external research expenditure grew from about $3 million when I became chair to $5.8 million when I left.
- Publishing first formal strategic plan of the department in 1998.
- Hiring 19 faculty and 9 staff members, negotiating start-up packages, conducting annual performance reviews, allocating raises, and acting on many reappointment, tenure and promotion cases.
- Leading successful ABET accreditation of the B.S. program in civil engineering three times. Facilitating creation of B.S. program in environmental engineering.
- Securing $6 million to build laboratory facilities, and establish scholarships/fellowships.
- Spearheading construction of the 12,200 sq. ft. Civil Infrastructure Laboratory, including a state-of-the-art Structural Fire Testing facility.
- Facilitating establishment of the first National Center for Pavement Preservation supported by the state of Michigan and the Federal Highway Administration.
- Establishing the Michigan Transportation Research Board and serving as its inaugural chairperson.
- Facilitating study abroad and research partnerships with universities in Russia, China and Turkey.
- Launching technical communication program in 1999.
- Launching department alumni newsletter, website, and Distinguished Alumni Award. Establishing and coordinating annual alumni dinner, centennial celebration, laboratory and center dedications, and regional alumni gatherings.

Academic

Full, Assoc. & Asst. Professor
September 1984 to July 2011

Department of Civil and Environmental Engineering
Michigan State University, East Lansing, Michigan

- Known internationally for work on earthquake ground motion modeling, structural engineering, and pavement analysis
- Strong funding and publication record, with funding from a wide variety of sources
- Excellent teaching and service record

Visiting Professor
January to March 2011

Department of Civil and Environmental Engineering
University of Auckland, Auckland, New Zealand

Visiting Professor
October to December 2010

Department of Civil Engineering
Columbia University, New York, New York

Visiting Fellow
January to May 1994

Department of Structural Engineering
University of New South Wales, Sydney, Australia

Research Assistant
September 1980 to August 1984

Department of Civil Engineering
Massachusetts Institute of Technology, Cambridge, Massachusetts

Industrial

Research Engineer
November 1979 to August 1980

Structural Division
Central Laboratories, Lower Hutt, New Zealand

Affiliations

Professional Engineer State of Michigan, License Number 6201033594. Issued: 04/01/1988.

Professional Societies American Society of Civil Engineers, Member
American Society of Engineering Education, Member

Awards, Honors & Boards

Elected Member
2014-present

Connecticut Academy of Science and Engineering, CT.

Best Paper Award
June 2018

Second Place, Best Paper Category: Teaching, Entrepreneurship Division, American Society of Engineering Education.

Board Member
2014-2017

United Way of Greater New Haven, New Haven, CT.

Withrow Exceptional Service Award
2011

College of Engineering, *Michigan State University*, East Lansing, Michigan.

Advisory Board Member
2003-2011

National Center for Pavement Preservation, East Lansing, Michigan.

ASCE Department Heads Council Executive Committee
2003 to 2010

American Society of Civil Engineers. Elected Chair (2008-10), Secretary (2006-08), Member (2003-10).

Executive Leadership Academy
2009 to 2010

Michigan State University, East Lansing, Michigan.
Included participation in one-week Leadership Development Program at the Center for Creative Leadership, Greensboro, NC.

Michigan Transp. Research Board
2005 to 2010

State of Michigan. Elected founding chair (2005-10).

ASCE BOK II Committee
2005 to 2007

American Society of Civil Engineers.

Fellow
2005

American Society of Civil Engineers.

CIC Academic Leadership Fellow
1996 to 1997

Michigan State University, East Lansing, Michigan,
on behalf of the Committee on Institutional Cooperation.

Teacher-Scholar Award *Michigan State University*, East Lansing, Michigan.
1992

Commonwealth Scholarship *University of Waterloo*, Ontario, Canada (Declined).
1981 (Scholarship covering tuition, travel and living costs and awarded competitively to citizens of Commonwealth countries.)

University Junior Scholarship *University Grants Committee*, New Zealand.
1975

Publications

Reviewed Archival Journals and Special Issues

Education

1. Breitinger, F., Tully-Doyle, R., Przyborski, K., Beck, L., and Harichandran, R. S. (2021). "First year students' experience in a Cyber World course – an evaluation." *Education and Information Technologies*, 26(1), 1069–1087.
2. Harichandran, R. S., Erdil, N. O., Carnasciali, M-I., Nocito-Gobel, J., and Li, Q. (2018). "Developing an entrepreneurial mindset in engineering students using integrated e-learning modules." *Advances in Engineering Education*, 7(1).

Structural Engineering

3. Harichandran, R. S., Baiyasi, M. I., and Nossoni, G. (2017). "Freeze-thaw durability of concrete columns wrapped with FRP and subject to corrosion-like expansion." *Journal of Materials in Civil Engineering*, ASCE, 29(1).
4. Nossoni, G., Harichandran, R. S., and Baiyasi, M. I. (2015). "Rate of reinforcement corrosion and stress concentration in concrete columns repaired with bonded and unbonded FRP wraps." *Journal of Composites for Construction*, ASCE, 19(5).
5. Nossoni, G., Harichandran, R. S. (2014). "Electrochemical-mechanistic model for concrete cover cracking due to corrosion initiated by chloride diffusion." *Journal of Materials in Civil Engineering,* ASCE, 26(6).
   Nossoni, G., Harichandran, R. S. (2015). Closure to: "Electrochemical–mechanistic model for concrete cover cracking due to corrosion initiated by chloride diffusion." *Journal of Materials in Civil Engineering, ASCE,* 27(6).
6. Nossoni, G., Harichandran, R. S. (2012). "Current efficiency in accelerated corrosion testing of concrete." *Corrosion, NACE,* 68(9), 801–809.
7. Zhang, G., Harichandran, R.S., and Ramuhalli, P. (2012). "An automatic impact-based delamination detection system for concrete bridge decks." *NDT & E International*, 45(1), 120–127.
8. Zhang, G., Harichandran, R.S., and Ramuhalli, P. (2012). "Automatic delamination detection of concrete bridge decks using impact signals." 17(6), *Journal of Bridge Engineering*, ASCE, 951–954.
9. Gong, A., and Harichandran, R. S. (2012). "Wood–cement particleboard: impact behavior and potential application in crash barriers." *Journal of Materials in Civil Engineering*, ASCE, 24(1), 134–140.
10. Iqbal, S., and Harichandran, R. S. (2011). "Capacity reduction and fire load factors for LRFD of steel columns exposed to fire." *Fire Safety Journal*, 46, 234–242.

11. Zhang, G., Harichandran, R.S., and Ramuhalli, P. (2011). "Application of noise cancelling and damage detection algorithms in NDE of concrete bridge decks using impact signals." *Journal of Nondestructive Evaluation*, 30(4), 259–274.
12. Iqbal, S., and Harichandran, R.S. (2010). "Capacity reduction and fire load factors for LRFD of steel members exposed to fire." *Journal of Structural Engineering*, ASCE, 136(12), 1554–1562.
13. Nossoni, G., and Harichandran, R. S. (2010). "Improved repair of concrete structures using polymer concrete patch and FRP overlay." *Journal of Materials in Civil Engineering*, ASCE, 22(4), 314–322.
14. Bahn, B. Y., and Harichandran, R. S. (2008). "Flexural behavior of reinforced concrete beams strengthened with CFRP sheets and epoxy mortar." *Journal of Composites for Construction*, ASCE, 12(4), 387–395.
15. Hong, S., and Harichandran, R. S. (2005). "Sensors to monitor CFRP/concrete bond in beams using electrochemical impedance spectroscopy." *Journal of Composites for Construction*, ASCE, 9(6), 515–523.
16. Harichandran, R. S. (2001). Discussion of "Concrete bridge decks reinforced with fiber-reinforced polymer bars," by T. E. Bradberry. *Transportation Research Record*, 1770, 102.
17. Harichandran, R. S., and Ye, B. (1993). "A method of deriving parallel algorithms for direct integration in structural dynamics." *Computing Systems in Engineering*, 4(4–6), 415–420.
18. Harichandran, R. S. (1991). "Stiffness reduction factor for LRFD of columns." Technical Note, *Engineering Journal*, AISC, 28(3), 129–130.
19. Zhang, Y., and Harichandran, R. S. (1990). "Implicit subdomain integration for dynamic analysis of large-scale structural systems." *Computer Methods in Applied Mechanics and Engineering*, 81, 57–70.
20. Zhang, Y., and Harichandran, R. S. (1989). "Eigenproperties of large-scale structures by finite element partitioning and homotopy continuation." *International Journal of Numerical Methods in Engineering*, 28, 2113–2122.
21. Zhang, Y., and Harichandran, R. S. (1989). "Eigenproperties of classically damped MDOF composite systems." *Journal of Engineering Mechanics*, ASCE, 115(7), 1515–1526.
22. Harichandran, R. S., and Zhang, Y. (1989). "Eigenproperties of nonclassically damped MDOF composite systems." *Journal of Engineering Mechanics*, ASCE, 115(7), 1527–1542.
    Harichandran, R. S., and Zhang, Y. (1989). Closure to: "Eigenproperties of nonclassically damped MDOF composite systems." *Journal of Engineering Mechanics*, ASCE, 117(12), 2943–2945.

Random Vibration and Earthquake Engineering

23. Tarinejad, R., Ahmadi, M. T., and Harichandran, R. S. (2014). "Full-scale experimental modal analysis of an arch dam: the first experience in Iran." *Soil Dynamics and Earthquake Engineering*, 61–62, 188–196.
24. Tarinejad, R., Fatehi, R., and Harichandran, R. S. (2013). "Response of an arch dam to non–uniform excitation generated by a seismic wave scattering model." *Soil Dynamics and Earthquake Engineering*, 52, 40–54.
25. Chen, M.-T., and Harichandran, R. S. (2001). "Response of an earth dam to spatially varying earthquake ground motion." *Journal of Engineering Mechanics*, ASCE, 127(9), 932–939.
26. Kang, J., and Harichandran, R. S. (1999). "Nonlinear random vibration of FRP plates using high-order shear theory." *Journal of Engineering Mechanics*, ASCE, 125(9), 1081–1088.

27. Chen, M.-T., and Harichandran, R. S. (1998). "Sensitivity of earth dam seismic response to ground motion coherency." In *Geotechnical Earthquake Engineering and Soil Dynamics III*, P. Dakoulas et al. (eds.), Geotechnical Special Publication No. 75, American Society of Civil Engineers, 914–925.

28. Chen, M.-T., and Harichandran, R. S. (1998). "Statistics of the von Mises stress response for structures subjected to random excitations." *Shock and Vibration*, 5, 13–21.

29. Harichandran, R. S., and Naja, M. (1997). "Random vibration of laminated composite plates with material non-linearity." *International Journal of Non-Linear Mechanics*, 32(4), 707–720.

30. Harichandran, R. S., Hawwari, A., and Sweidan, B. N. (1996). "Response of long-span bridges to spatially varying ground motion." *Journal of Structural Engineering*, ASCE, 122(5), 476–484.

31. Harichandran, R. S. (1993). "An efficient, adaptive algorithm for large-scale random vibration analysis." *Earthquake Engineering and Structural Dynamics*, 22(2), 151–165.

32. Harichandran, R. S., and Hawwari, A. (1992). "Non-linear random vibration of filamentary composites." *Computing Systems in Engineering*, 3(1–4), 469–475.

33. Harichandran, R. S. (1992). "Random vibration under propagating excitation: closed-form solutions." *Journal of Engineering Mechanics*, ASCE, 118(3), 575–586.

34. Harichandran, R. S. (1991). "Estimating the spatial variation of earthquake ground motion from dense array recordings." *Structural Safety*, 10(1–3), 219–233.

35. Harichandran, R. S., and Wang, W. (1990). "Response of indeterminate two-span beam to spatially varying seismic excitation." *Earthquake Engineering and Structural Dynamics*, 19(2), 173–187.

36. Harichandran, R. S. (1988). "Local spatial variation of earthquake ground motion." In *Earthquake Engineering and Soil Dynamics II – Recent Advances in Ground-Motion Evaluation*, J. L. Von Thun (ed.), Geotechnical Special Publication No. 20, ASCE, New York, 203–217.

37. Harichandran, R. S., and Wang, W. (1988). "Response of simple beam to spatially varying earthquake excitation." *Journal of Engineering Mechanics*, ASCE, 114(9), 1526–1541.

38. Harichandran, R. S. (1987). "Stochastic analysis of rigid foundation filtering." *Earthquake Engineering and Structural Dynamics*, 15(7), 889–899.

39. Harichandran, R. S. (1987). "Correlation analysis in space-time modeling of strong ground motion." Technical Note, *Journal of Engineering Mechanics*, ASCE, 113(4), 629–634.

40. Harichandran, R. S., and Vanmarcke, E. (1986). "Stochastic variation of earthquake ground motion in space and time." *Journal of Engineering Mechanics*, ASCE, 112(2), 154–174
Harichandran, R. S., and Vanmarcke, E. (1987). Closure to: "Stochastic variation of earthquake ground motion in space and time." *Journal of Engineering Mechanics*, ASCE, 113(8), 1271–1273.

Pavement Engineering

41. Haider, S. W., Harichandran, R. S., and Dwaikat, M. B. (2012). "Impact of systematic axle load measurement error on pavement design using Mechanistic–Empirical Pavement Design Guide." Technical Note, *Journal of Transportation Engineering*, ASCE, 138(3), 381–386.

42. Haider, S. W., and Harichandran, R. S. (2010). "The effect of axle load measurement errors on pavement performance and design reliability." *Journal of the Transportation Research Board*.

43. Haider, S. W., and Harichandran, R. S. (2009). "Effect of axle load spectrum characteristics on flexible pavement performance." *Journal of the Transportation Research Board*, 2095, 101–113.

44. Haider, S. W., Harichandran, R. S., and Dwaikat, M. B. (2009). "Closed-form solutions for bimodal axle load spectra and relative pavement damage estimation." *Journal of Transportation Engineering*, ASCE, 135(12), 974–983.

45. Haider, S. W., and Harichandran, R. S. (2007). "Relating axle load spectra to truck gross vehicle weights and volumes." *Journal of Transportation Engineering*, ASCE, 133(12), 696–705.

46. Chatti, K., Ji, Y., and Harichandran, R. S. (2004). "Dynamic time domain backcalculation of layer moduli, damping, and thicknesses in flexible pavements." *Journal of the Transportation Research Board*, 1869, 106–116.

47. Harichandran, R. S., Buch, N., and Baladi, G. Y. (2001). "Flexible pavement design in Michigan: transition from empirical to mechanistic methods." *Journal of the Transportation Research Board*, 1778, 100–106.

48. Kim, H.-B., Harichandran, R. S., and Buch, N. (1998). "Development of load and resistance factor design format for flexible pavements." *Canadian Journal of Civil Engineering*, 25(5), 880–885.

49. Harichandran, R. S., Mahmood, T., Raab, A., and Baladi, G. Y. (1994) "Backcalculation of pavement layer moduli, thicknesses and bedrock depth using a modified Newton method." In *Nondestructive Testing of Pavements and Backcalculation of Moduli (Second Volume)*, ASTM STP 1198, H. L. Von Quintas, A. J. Bush and G. Y. Baladi (eds.) American Society for Testing and Materials, Philadelphia, PA, 68–82.

50. Harichandran, R. S., Mahmood, T., Raab, A., and Baladi, G. Y. (1993). "A modified Newton algorithm for backcalculation of pavement layer properties." *Transportation Research Record*, 1384, 15–22.

51. Marcondes, J. A., Burgess, G. J., Harichandran, R. S., and Snyder, M. B. (1991). "Spectral analysis of highway pavement roughness." *Journal of Transportation Engineering*, ASCE, 117(5), 540–549.

52. Harichandran, R. S., Yeh, M-S., and Baladi, G. Y. (1990). "MICH-PAVE: a nonlinear finite element program for the analysis of flexible pavements." *Transportation Research Record*, 1286, 123–131.

53. Baladi, G. Y., and Harichandran, R. S. (1989). "Asphalt mix design and the indirect test: a new horizon." In *Asphalt Concrete Mix Design: Development of More Rational Approaches*, ASTM STP 1041, W. Gartner, Jr. (ed.), American Society for Testing and Materials, Philadelphia, 86–105.

54. Harichandran, R. S., and Yeh, M-S. (1988). "Flexible boundary in finite element analysis of pavements." *Transportation Research Record*, 1207, 50–60.

55. Baladi, G. Y., Lyles, R. W., and Harichandran, R. S. (1988). "Asphalt mix design: an innovative approach." *Transportation Research Record*, 1171, 160–167.

56. Baladi, G. Y., Harichandran, R. S., and Lyles, R. W. (1988). "New relationships between structural properties and asphalt mix parameters." *Transportation Research Record*, 1171, 168–177.

Conference Proceedings—Reviewed Papers

Engineering Education

57. Harichandran, R. S., Rana, A., and Erdil, N. O. (2020). "An approach to assess achievement of EML through integrated e-learning modules." *Proceedings*, ASEE Annual Conf., Paper 28812, 15 pp.

58. Carnasciali, M-I., Erdil, N. O., Harichandran, R. S., Nocito-Gobel, J., and Li, C. (2020). "Student and faculty perceptions of integrated e-learning modules aimed at developing an entrepreneurial mindset." *Proceedings*, ASEE Annual Conf., Paper 30100, 18 pp.

59. Nossoni, G., and Harichandran, R. S. (2020). "Relationship between Gen Z engineering students' personality types and topics of technical interest." *Proceedings*, ASEE Annual Conf., Paper 30811, 14 pp.

60. Harichandran, R. S., Erdil, N. O., Carnasciali, M-I., Nocito-Gobel, J., Li, C., and Rana, A. (2019). "EML indices to assess student learning through integrated e-learning modules." *Proceedings*, ASEE Annual Conf., Tampa, FL, Paper 24668, 21 pp.

61. Li. C., Harichandran, R. S., Carnasciali, M-I., Erdil, N. O., and Nocito-Gobel, J. (2019). "Assessing the growth in entrepreneurial mindset acquired through curricular and extra-curricular components." *Proceedings*, ASEE Annual Conf., Tampa, FL, Paper 25289, 15 pp.

62. Breitinger, F., Przyborski, K., Beck, L., and Harichandran, R. S. (2019). "'Cyber World' as a theme for a university-wide first-year common course." *Proceedings*, ASEE Annual Conf., Tampa, FL, Paper 25147, 13 pp.

63. Nossoni, G., Nocito-Gobel, J., and Harichandran, R. S. (2019). "Relationship between personality types and technical interest of engineering students, if any." *Proceedings*, ASEE Annual Conf., Tampa, FL, Paper 25217, 12 pp.

64. Carnasciali, M-I., Harichandran, R. S., Erdil, N. O., Nocito-Gobel, J., and Li, C. (2018). "Integrated e-learning modules for developing an entrepreneurial mindset: Direct assessment of student learning." *Proceedings, ASEE Annual Conf.*, Salt Lake City, UT, Paper 22812, 16 pp.

65. Li, C., Harichandran, R. S., Erdil, N. O., Nocito-Gobel, J., and Carnasciali, M-I. (2018). "Investigating the entrepreneurial mindset of engineering and computer science students." *Proceedings, ASEE Annual Conf.*, Salt Lake City, UT, Paper 21777, 11 pp.

66. Randi, J., Harichandran, R. S., Levert, J., and Karimi, B. (2018). "Improving senior design proposals through revision by responding to reviewer comments." *Proceedings, ASEE Annual Conf.*, Salt Lake City, UT, 22 pp.

67. Harichandran, R.S., Kench, B., McGee, S., Collura, M., Nocito-Gobel, J., and Skipton, C. (2017). "Establishment of innovative shared departments to advance interdisciplinary education." *Proceedings, ASEE Annual Conf.*, Columbus, OH, Paper 17652, 11 pp.

68. Erdil, N. O., Harichandran, R. S., Nocito-Gobel, J., Li, C. and Carnasciali, M-I. (2017). "Impact of integrated e-learning modules in developing an entrepreneurial mindset based on deployment at 25 institutions." *Proceedings, ASEE Annual Conf.*, Columbus, OH, Paper 14885, 16pp.

69. Erdil, N. O., Harichandran, R. S., Adams, D., Collura, M. A., Nocito-Gobel, J., and Simson, A. (2016). "Preliminary assessment of and lessons learned in PITCH: an integrated approach to developing technical communication skills in engineers." *Proceedings, ASEE Annual Conf.*, New Orleans, LA, Paper 14711, 21 pp.

70. Erdil, N. O., Harichandran, R. S., Carnasciali, M-I., Nocito-Gobel, J., and Li, C. (2016). "Integrating e-learning modules into engineering courses to develop an entrepreneurial mindset in students." *Proceedings, ASEE Annual Conf.*, New Orleans, LA, Paper 14885, 16 pp.

71. Li, C., Harichandran, R. S., Carnasciali, M-I., Erdil, N. O., and Nocito-Gobel, J. (2016). "Development of an instrument to measure the entrepreneurial mindset of engineering students." *Proceedings, ASEE Annual Conf.*, New Orleans, LA, Paper 15139, 15 pp.

72. Harichandran, R. S., Carnasciali, M-I., Erdil, N., Li, C., Nocito-Gobel, J., and Daniels, S., (2015). "Developing entrepreneurial thinking in engineering students by utilizing integrated online modules." *Proceedings, ASEE Annual Conf.*, Seattle, WA, Paper 11487, 21 pp.

73. Tamir, M., Harichandran, R. S., Morell, L. (2015). "San Francisco's new start-up is re-engineering engineering education." *Proceedings, ASEE Annual Conf.*, Seattle, WA, Paper 11314, 11 pp.

74. Harichandran, R. S., Adams, D. J., Nocito-Gobel, J., Brisart, E., Erdil, N. O., Collura, M. A., Daniels, S. B., and Harding, W. D. (2014). "A comprehensive engineering college-wide program for developing technical communication skills in students." *Proceedings, Frontiers in Education Conf.*, Madrid, Spain, 182–189.

75. Harichandran, R. S., Adams, D. J., Nocito-Gobel, J., Collura, M. A., Thompson, A. E., Harding, W. D., and Erdil, N. O. (2014). "An integrated approach to developing technical communication skills in engineering students." *Proceedings, ASEE Annual Conf.*, Indianapolis, IN, Paper 8570, 19 pp.

76. Harichandran, R. S. (2007). "Faculty hiring trends at small- to medium-sized research intensive CEE departments and balancing the needs of research and practice." *Proceedings, ASEE Annual Conf.*, Honolulu, Hawaii, Paper 1456, 7 pp.

77. Lynch, D., Kelly, W. Jha, M. and Harichandran, R. S. (2007). "Implementing sustainability in the engineering curriculum: realizing the ASCE Body of Knowledge." *Proceedings, ASEE Annual Conf.*, Honolulu, Hawaii, Paper 2422, 19 pp.

78. Harichandran, R. S. (2006). "Current research thrusts in civil and environmental engineering and implications for education: a Big 10+ perspective." *Proceedings, ASEE Annual Conf.*, Chicago, IL, Paper 1207, 8 pp.

79. Maleck, T. L., Harichandran, R. S., Prestel, D., Merrill, J., Mason, D. E., Galishnikova, V. (2005). "U.S.-Russian collaboration to enhance engineering education, research and development of internationally recognized programs in Russia." In *Innovations 2005-World Innovations in Engineering Education and Research,* W. Aung et al. (eds.), International Network for Engineering Education and Research, Arlington, Virginia, 443–458.

80. Mason, D. E., Merrill, J., Harichandran, R. S., Galishnikova, V., Maleck, T., Prestel, D., and Streng, P. (2004). "Innovation in a large-scale study-abroad program in engineering." *Proceedings, ASEE Annual Conf.*, Salt Lake City, Utah, Paper 3460, 12 pp. Also published in *Proceedings, 3rd ASEE Internainal Colloqium on Engineering Education*, Beijing, China.

81. Mason, D. E., Harichandran, R. S., Maleck, T., Galishnikova, V., Merrill, J., Prestel, D., and Streng, P. (2004). "Engineering educational and research collaborations between a U.S. and a Russian university: a sustainable model for international programs." *Proceedings, International Conf. on Engineering Education and Research*, Olomouc, Czech Republic.

Structural Engineering

82. Nossoni, G., Calabrese-Barton, S., and Harichandran, R. S. (2011). "Chloride-induced corrosion of reinforcing steel in concrete: electrochemical modeling of initial and limiting corrosion rates." *Proceedings, NACE Corrosion Conf.*, Houston, TX.

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Random Vibration and Earthquake Engineering

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Pavement Engineering

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Engineering Education

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Structural Engineering

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Books

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Book Chapters

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Magazine Articles, Technical Reports, and Seminar Notes

Engineering Education

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Structural Engineering

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156. Harichandran, R. S., Baladi, G. Y., and Yeh, M.-S. (1989). "Development of a computer program for design of pavement systems consisting of layers of bound and unbound materials." *Report No. FHWA-MI-RD-89-02*, Michigan Dept. of Transp., Lansing, MI.

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158. Harichandran, R. S. (1994-present). "Spatial variation of earthquake ground motion: What is it, how do we model it, and what are its engineering implications?" Manuscript corresponding to seminars presented at the University of New South Wales, Sydney, Australia (April 1994), Universidad Nacional Autónoma de México (March 1998), and University of Puerto Rico, Mayaguez (November 1999).

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Other

163. Harichandran, R. S. (ed.) (2008). "Improving Michigan's transportation system through research." Michigan Transportation Research Board.

Software

Copyrighted/External Use

Chatti, K., Ji, Y., and Harichandran, R. S. (2003). "DYNABACK-T: Dynamic backcalculation of layer moduli, damping ratios and layer thicknesses of flexible pavements using time domain analysis." A Microsoft Windows-based program to backcalculate flexible pavement layer parameters using dynamic analysis of FWD data. Developed for Michigan Dept. of Transp..

Chatti, K., Ji, Y., and Harichandran, R. S. (2002). "DYNABACK-F: Dynamic backcalculation of frequency-dependent complex moduli and layer thicknesses of flexible pavements using frequency domain analysis." A Microsoft Windows-based program to backcalculate flexible pavement layer parameters using dynamic analysis of FWD data. Developed for Michigan Dept. of Transp..

Harichandran, R. S., et al. (2000). "MFPDS: Michigan flexible pavement design system." A Microsoft Windows-based integrated pavement design system containing modules for AASHTO design, elastic layer analysis, finite element analysis, backcalculation and overlay design of flexible pavements. Developed for Michigan Dept. of Transp. and distributed worldwide.

Harichandran, R. S., et. al. (1995). "MICHBACK: Backcalculation of pavement layer properties using a modified Newton algorithm." A menu-driven, forms-based program implemented on Windows systems to aid the evaluation and rehabilitation of flexible pavements. Developed for the Michigan Dept. of Transp.

Harichandran, R. S., Baladi, G. Y., and Yeh, M.-S. (1989). "MICHPAVE: Nonlinear finite element program for the analysis of flexible pavements." A menu-driven, forms-based program implemented on Windows and UNIX systems to aid the analysis and design of flexible pavements. Developed for the Michigan Dept. of Transp. and distributed worldwide.

Instructional Use

Harichandran, R. S. (1986-91). "Matrix." A menu-driven program for matrix manipulation, and simultaneous equation, least squares and eigenproblem solution, specially tailored as a tool for learning matrix structural analysis and dynamics.

Harichandran, R. S., Sovel, T., and Abdulkader, W. (1988-91). "RC-Beam." A menu-driven program for the flexural analysis and design of rectangular, T and L reinforced concrete beams.

Recent Presentations

(Excluding presentations with published papers)

Harichandran, R. S. (2019). "An integrated approach to developing technical communication skills," Cool Ideas Session, *Engineering Deans Institute*, San Antonio, TX.

Harichandran, R. S. (2018). "Educating the Engineer of 2020: Differentiating features at the University of New Haven." Panel presentation at the session "Educating the Engineer of 2020: Best Practices," *Engineering Deans Institute*, Miami, FL.

Harichandran, R. S. (2018). "Shared departments to foster interdisciplinary programs," Cool Ideas Session, *Engineering Deans Institute*, Miami, FL.

Harichandran, R. S. (2017). "Integrated e-learning modules to develop an entrepreneurial mindset," Cool Ideas Session, *Engineering Deans Institute*, Miami, FL.

Harichandran, R. S. (2016). "Partnering with for-profits in higher ed: An unholy alliance?," Cool Ideas Session, *Engineering Deans Institute*, San Francisco, CA.

Software Learning Aids

Instructional Use

Harichandran, R. S (1993-94). "An introduction to mathematical computation using Maple V Release 3," 18 pp.

Harichandran, R. S. (1992-94). "Structural analysis and steel design using SODA 3.2.5," 19 pp.

Harichandran, R. S. (1991). "An introduction to static and dynamic finite element analysis using I-DEAS VI," 60 pp.

Grants and Gifts

External (PI or Co-PI)

Lockheed Martin
February 2020 to August 2022
"Lockheed Martin-UNewHaven student mentorship program," with R. Reaback (Development Officer). $100,000.

Arizona State University
November 2019 to October 2021
"Factors influencing the development of an entrepreneurial mindset in faculty," with M-I. Carnasciali (PI), and co-PIs: C. Li and N. Erdil. $100,000. Subcontract on grant from the Kern Family Foundation.

National Science Foundation
August 2019 to July 2024
"University of New Haven CyberCorps Scholarship for Service (SFS): Super Cyber Operatives (SCOs)," with I. Baggili (PI) and L. Page (co-PI). $4,004,073.

Kern Family Foundation
January 2018 to August 2020
"Integrated e-learning modules: Dissemination & enhancement," with co-PIs: N. Erdil , M-I. Carnasciali, J. Nocito-Gobel, and C. Li. $95,500.

Connecticut Innovations
January 2018 to December 2019
"Developing entrepreneurial talent for Connecticut," with co-PIs: M-I. Carnasciali, N. Erdil, J. Nocito-Gobel and C. Li. $47,750.

Davis Educational Foundation
January 2018 to December 2019
"Development of the 'CyberWorld' Common Course at the University of New Haven," with F. Breitinger (PI), and co-PIs: K. Pryzyborski, I. Baggili, G. McGee, C. Smith, E. Guy-Serge. $103,125.

Lockheed Martin
September 2017 to August 2020
"Support for University Makerspace," with M-I. Carnasciali and R. Reaback (Development Officer). $76,000.

Kern Family Foundation
February 2015 to August 2020
"Developing entrepreneurial thinking in engineering students by utilizing integrated online modules and experiential learning opportunities," with co-PIs: M-I. Carnasciali, J. Nocito-Gobel, N. Erdil and C. Li. $875,424.

Kern Family Foundation
June 2014 to May 2015
"Developing entrepreneurial thinking in engineering students by utilizing integrated online modules and a leadership cohort," with co-PIs: M-I. Carnasciali and J. Nocito-Gobel. $200,000.

Connecticut Innovations
January 2014 to December 2016
"Engineer & Entrepreneur-in-Residence program," with C. Martinez (PI) and C. Allen (co-PI). $43,316.

Sikorsky Aircraft
April 2013 to August 2013
"Team-based engineering and manufacturing (TEAM) networked summer camp," with M-I. Carnasciali and A. Thompson. $35,500.

Davis Educational Foundation
July 2012 to July 2015
"Project to integrate technical communication habits," with co-PIs: M. Collura, J. Nocito-Gobel, N. Erdil, J. Saris, and A. Esmailpour. $185,500.

US Dept. of Energy and CT Energy Finance and Investment Authority
August 2012 to present
"Solar thermal testing laboratory," with A. Montazer (PI) and R. Gorthala (co-PI). $170,000.

Michigan Dept. of Transp.
October 2010 to September 2013
"Implementation of sustainable and green design and construction practices for bridges," with A. Korkmaz (PI) and M. Syal (co-PI)I. $99,819.

Michigan Dept. of Transp.
October 2009 to December 2012
"Development and validation of deterioration models for concrete bridge decks," with R. Burgueño (PI). $299,747.

Michigan Dept. of Transp.
October 2007 to September 2010
"Strand debonding at ends of pretensioned beams," with R. Burgueño (PI). $199,740.

Michigan Dept. of Transp.
October 2007 to May 2009
"Characterization of traffic for the new M-E pavement design guide in Michigan." with N. Buch (PI), and co-PIs: K. Chatti, and S. Haider. $146,618.

Michigan Dept. of Transp.
October 2006 to June 2010
"ECR bridge decks: damage detection and assessment of remaining service life for various overlay repair options," with co-PIs: R. Burgueño and P. Ramuhalli. $334,908.

Michigan Dept. of Transp.
2005 to 2010
"Bridges and structures research center administration." $78,585.

Michigan Dept. of Transp.
January 2005 to January 2007
"Identification of causes and development of strategies for relieving structural distress in bridge abutments," with R. Burgueño (PI), N. Buch and G. Abu-Lebdeh. $234,777.

Michigan Dept. of Transp.
October 2004 to September 2007
"Improved shallow depth patches for concrete structures," with R. Burgueño (co-PI). $160,095.

Federal Highway Administration
September 2003 to August 2004
"Support for the start-up of the National Center for Pavement Preservation," with L. Galehouse (co-PI). $75,000.

Federal Highway Administration
September 2003 to August 2004
"Marketing plan for the National Center for Pavement Preservation," with L. Galehouse (co-PI). $50,000.

Foundation for Pavement Preservation
August 2003 to August 2012
"Support for the National Center for Pavement Preservation." $415,000.

Michigan Dept. of Transp.
February 2001 to August 2003
"Sensors to monitor bond in concrete bridges rehabilitated with FRP." $114,814.

Michigan Dept. of Transp.
May 2000 to May 2002
"Development of a computer program for dynamic backcalculation of flexible-pavement layer moduli," with K. Chatti (PI). $138,939.

Michigan Dept. of Transp.
January 1997 to June 2000
"Polymer composite jackets for column repair." $194,981.

National Science Foundation
October 1997 to September 1999
"Low frequency characterization of coherency functions for spatially varying earthquake ground motion," with E. Heredia-Zavoni (co-PI) from the Universidad Nacional Autónoma de México. $39,178 (funding for co-PI provided by CONACyT, Mexico).

National Science Foundation
October 1997 to September 1999
"Response of earth dams to spatially varying ground motion." $106,945.

Michigan Dept. of Transp.
September 1996 to August 1999
"Improvement of MICHPAVE and MICHBACK," with co-PIs: N. Buch and G. Y. Baladi. $125,069.

Michigan Dept. of Transp.
September 1996 to September 1999

"Calibration of MICHPAVE's rut and fatigue distress models and development of an overlay design procedure in MICHBACK," with N. Buch (PI) and G. Y. Baladi (co-PI). $116,427.

Federal Highway Administration
November 1991 to May 1993

"Impact behavior of fiber-reinforced composite materials/structures for use in roadside safety applications." *Eisenhower Graduate Fellowship* for Binshan Ye. $38,493.

Michigan Dept. of Transp. and UMTRI
May 1991 to April 1994

"Reduction of rutting under heavy vehicle loads," with G. Y. Baladi (PI). $226,436.

National Science Foundation
September 1990 to August 1993

"Efficient numerical techniques for dynamic analysis of large-scale structures on vector and parallel computers." $48,000.

Swanson Analysis Systems, Inc.
March 1990 to March 1991

"Expanding the random vibration capabilities of ANSYS." $13,015.

National Science Foundation
January 1987 to September 1989

"Space-time variation of strong ground motion and its effect on structures." $64,754.

Michigan Dept. of Transp.
March 1986 to September 1988

"Development of a computer program for design of pavement systems consisting of layers of bound and unbound materials," with G. Y. Baladi (co-PI). $81,416.

Federal Highway Administration
October 1985 to September 1987

"Integrated material and structural design method for flexible pavements," with G. Y. Baladi (PI) and R. W. Lyles (co-PI). $246,659.

Internal (PI)

Michigan State University
July 1995 to June 1998

"Shear reinforcement of wood beams with polymer composite materials," with F. H. Hatfield (co-PI). *Research Excellence Fund*, Composite Materials and Structures Center. $66,897.

Michigan State University
July 1990 to June 1993

"Nonlinear random vibration analysis of structural systems made of composite materials." *Research Excellence Fund*, Composite Materials and Structures Center, Michigan State University. $62,931.

Michigan State University
July to December 1990

"Professional short course on designing steel structures using the new LRFD specifications," with F. J. Hatfield (co-PI). *All University Lifelong Education Grant*. $7,147.

General Electric Corporation
June to August 1989

"Instructional and research utilization of the random vibration capabilities of ANSYS." *Faculty Development Grant*, administered by the Case Center, Michigan State University. $10,005.

Michigan State University
July 1987 to June 1988

"Dynamic analysis of combined equipment-structure systems." *All University Research Initiation Grant*. $5,000.

Michigan State University
July 1985 to December 1986

"Response of structures to real and simulated spatially varying seismic excitations." *Division of Engineering Research*. $6,665.

Michigan State University
January to December 1985

"Effect of the spatial variation of earthquake ground motion on the response of structures." *All Univ. Research Initiation Grant*. $6,000.

Courses Taught

Michigan State University

Undergraduate
Junior and Senior

Structural Analysis
Matrix Structural Analysis
Design of Steel Structures
Design of Concrete Structures
Structural System Design
Cost and Optimization Engineering

Graduate

Structural Dynamics
Advanced Mechanics for Civil Infrastructure
Advanced Structural Steel Design
Reliability-Based Design in Civil Engineering
Random Vibration of Structural and Mechanical Systems
Research Framework for Civil and Environmental Engineering

Mentoring

Michigan State University

Doctoral Dissertations

Zhang, G. (2010). "Delamination detection of concrete bridge decks using acoustic signatures." Co-adviser: P. Ramuhalli.

Iqbal, S. (2010). "Reliability-based design for fire-induced loading of steel beams and columns."

Gong, A. (2005). "Wood-cement particleboard: improved manufacturing, material characterization, and potential application in concrete crash barriers."

Galishnikova, V. (2004). "Decomposition and consecutive dynamic condensation methods for static and dynamic analysis of single layer lattice plates."

Baiyasi, M. I. (2000). "Repair of corrosion-damaged columns using FRP wraps."

Kang, J. (1998). "Nonlinear random vibration of FRP laminated plates using higher-order shear theory."

Chen, M.-T. (1995). "Response of an earth dam to spatially varying earthquake ground motion."

Naja, M. (1993). "Nonlinear random vibration of composite laminated plates."

Mahmood, T. (1993). "Backcalculation of pavement layer properties from deflection data." Co-adviser: Gilbert Y. Baladi.

Hawwari, A. (1992). "Suspension bridge response to spatially varying ground motion."

Sweidan, B. (1990). "Stochastic response of deck arch bridges to

correlated support excitations."

Yeh, M.-S. (1989). "Nonlinear finite element analysis and design of flexible pavements." Co-adviser: Gilbert Y. Baladi.

Master's Theses

Rana, A. (2019). "Direct assessment of entrepreneurial minded learning through integrated e-learning modules." Co-advisor: Nadiye O. Erdil.

Garatt, M. (2011). "Damage of concrete with epoxy coated reinforcement due to corrosion, freeze-thaw and fatigue with application to bridge decks."

Hong, S. (2003). "Electrochemical impedance spectroscopy based sensors for NDE of CFRP/concrete bond in beams."

Cordero-Domenech, A. (2002). "Development of a modified fiber-based beam-column element in DRAIN-2DX." Co-adviser: Amit Varma.

Anderson, J. C. (1996). "Techniques for improvement of the axisymmetric finite element model used in MICHPAVE."

Zhang, Y. (1988). "Dynamic properties of combined MDOF primary and MDOF secondary systems."

Wang, W. (1988). "Response of simple beam to spatially varying seismic excitation."

Master's Projects

Matheny, J. (2010). "Incorporating sustainability into the civil engineering curriculum at Michigan State University."

Cho, Y.-J. (1999). "P-delta analysis of building structures."

Visiting Scholar Projects

Bahn, B. Y. (2006). "Enhancement of bond anchorage with epoxy mortar for concrete beams strengthened with FRP." Visiting professor from Daejeon University, South Korea.

Tarinejad, R. (2006). "Seismic response of dams using coupled boundary and finite elements." Visiting Ph.D. student from Modares University, Iran.

Soyluk, K. (2004). "Spatially varying earthquake ground motion." Visiting professor from Gazi University, Turkey.

Undergraduate Student Projects

Sereseroz, T. (1990). "Earthquake engineering." Minority Student Summer Research Opportunity Program.

Institutional Service

University of New Haven

College of Engineering

Dean, Tagliatela College of Engineering
Advisory Board, Entrepreneurship & Innovation Program (2017-present)
Advisory Council, GalvanizeU at the University of New Haven in San Francisco, California (2013-2017)

University

Co-chair, Search Committee, Dean of Arts and Sciences (2018-19)
Search Committee, Associate VP for Graduate Admissions (2016)

Search Committee, Contracts and Grants Officer (2014-15)
Search Committee, Dean of the College of Business (2014-15)
Search Committee, Dean of the Henry C. Lee College of Criminal Justice and Forensic Science (Chair, 2011-12)
Search Committee, Vice President of Development (2014)

Michigan State University

Department of Civil & Environmental Engineering

Department Chairperson (1995-2011)
Chair of Mechanical Engineering Search Committee (2009-10)
Faculty Search Committee – Six structures positions (2007-08, 2003-04, 1999-00, 1998-99)
Faculty Search Committee – Three environmental positions (2004-05)
Faculty Search Committee – Three transportation positions (2002-03, 1999-00, 1994)
Faculty Search Committee – Construction/Structures (1995-97)
Faculty Search Committee – One pavements position (1995)
Advisory Committee (1993-95)
Chairperson Re-Appointment Review Committee (Chair 1995)
Student Grievance Hearing Board (Chair 1995)
Graduate Studies Committee (1991-95, Chair 1994-95)

College of Engineering

Strategic Planning Committee (2008)
Dean of Engineering Search Committee (Chairperson 1998-99)
Search Committee for the Director of the Division of Engineering Computing Services (1996)
Computer Services Task Force to review the Division of Engineering Computing Services (1995)
Ad Hoc CQI/Curriculum Committee (1995)
Case Center Advisory Committee (1988-1995, Chairperson 1992-93)
Ad Hoc Committee to review CPS 131 (1994)
Mathematics/Engineering Calculus Curriculum Committee (1991)
Awards and Financial Aid Committee (1985-91)

University

High-Performance Computing Advisory Committee (1993-95)
Mathematics/Engineering Liaison Committee (1991-94)
Research Computing Committee (1991-93)
University Hearing Panel (1992)

Faculty Adviser

Departmental Honors College Adviser (1992-95)
Federal Highway Admin. Research Fellow Binshan Ye (1992-93)
Annual ASCE/AGC Model Bridge Contest (1990)
Finite element modeling and analysis of the ASCE/AGC concrete canoe (1992-94)
DeVlieg Fellow Scott Stowitts (1993)
McNair/Summer Research Opportunity Program student Thomas Sereseroz (1990)
North Central Conf. AISC Steel Bridge Contest (1990)
MSU Sri Lankan Student Association (2005-2011)
MSU India Club (1986-94)
MSU Television India (1990-92)
MSU South Asia Association (1990-92)

Public Service

Professional Societies & Organizations

Connecticut Engineering Dean's Council (2011-18)
Member, Connecticut Technology Council Skill's Challenge Organizing Committee (2018)
Planning Committee, 2018 Engineering Deans Institute Meeting (2017-18)
Organizer, "Educating the Engineer of 2020" session, 2018 Engineering Deans Institute Meeting
Member, Undergraduate Experience Committee, American Society of Engineering Education (2014-17)
Session Chair, "Developing Technical Communication as a Professional Skill," 2014 Frontiers in Education Conf., Madrid, Spain.
Corresponding Member, ASCE Body of Knowledge Educational Fulfillment Committee (2008-10)
Accreditation Reviewer for Ministry of Higher Education, United Arab Emirates (2011, 2008, 2007)
Led organization of annual CEE Department Heads Meetings (2009-10)
Organized sessions at annual CEE Department Heads Meetings (2005-08)
Member, Accreditation Committee, Committee on Academic Prerequisites for Professional Practice, ASCE (2004-07)
Co-chair, Session on Earthquake Engineering, 9th International Conf. on Structural Safety and Reliability, Rome, Italy (2005)
NSF Site Visit Team Member, Year 7 Renewal Review for the Mid-America Earthquake Engineering Research Center, University of Illinois at Urbana-Champaign (2004)
Research and Evaluation Planning Team, Michigan Dept. of Transp. (2003-05)
Co-chair, Session on Structural Health Monitoring of FRP Strengthened Structures, 1st International Conf. on Structural Health Monitoring and Intelligent Infrastructure, Tokyo, Japan (2003)
Host, ASCE Midwest Department Heads Annual Meeting (2003)
Member, Dynamics Committee, ASCE Engineering Mechanics Division (1995-2014)
Member, Probabilistic Methods Committee, ASCE Engineering Mechanics Division (1997-2011)
Chair, Session on Structural Dynamics, 7th International Conf. on Computing in Civil and Building Engineering, Seoul, S. Korea (1997)
Steering Committee Member, Great Lakes Composites Partnership (1994-96)

Journal and Proposal Reviewer

ASEE Annual Conference (2012-present)
Journal of Engineering Mechanics, ASCE (1991-2011)
Journal of Structural Engineering, ASCE (1991-2011)
Earthquake Engineering and Structural Dynamics (1988-2011)
Engineering Structures (2004)
Smart Materials and Structures (2004)
Shock and Vibration (1999)

NSF Proposal Review Panel, Earthquake Hazard Mitigation Program (Chairperson, 1997)
Structural Engineering and Mechanics (1997)
Journal of Transportation Engineering, ASCE (1995-2011)
Engineering Journal, AISC (1993)
International Journal for Numerical Methods in Engineering (1989-90)
American Institute of Aeronautics and Astronautics (1991)
Earthquake Hazard Mitigation Program, NSF (1985-1995)
Communication and Computations Systems Program, NSF (1991)

Continuing Education

Lecture on "NEHRP Seismic Regulations" in the AISC Lecture Series on *New Ideas in Structural Steel*, held in Detroit, MI, on October 11, 1994.
Lecture on "Eccentric Braced Frames" in the AISC Lecture Series on *New Ideas in Structural Steel*, held in Detroit, MI, on May 11, 1993.
Lecture on "Braced and Unbraced Frames" in the AISC Lecture Series on *Practical Steel Design using LRFD*, held in Cascade, MI, and Southfield, MI, on April 9 and 10 , 1991.
Co-organizer and co-lecturer at the "Professional short course on designing steel structures using the new LRFD specifications," held at Michigan State University on November 13-14, 1990.

Public Organizations

Board Member, United Way of Greater New Haven (2014-2017)
School Based Building Advisory Committee, Engineering and Science University Magnet School, New Haven, CT (2011-2016)

Consultant

Swanson Analysis Systems, Inc., Houston, Pennsylvania (1991)

Expert Witness

Dunnings and Frawley, P. C., Attorneys at Law, Lansing, MI (1995)

Textbook Reviewer

Prentice-Hall, Inc., Englewood Cliffs, New Jersey (1986-87, 1992-1995)
Harper-Collins Publishers, Glenview, Illinois (1993)