

Sundar Krishnamurty
Professor and Department Head, Mechanical & Industrial Engineering
University of Massachusetts Amherst

Education

1989 Ph.D., Mechanical Engineering, University of Wisconsin, Madison, WI
1984 M.S., Civil Engineering, University of Pennsylvania, Philadelphia, PA
1982 B.S., Civil Engineering, Indian Institute of Technology, Kanpur, India

Professional Experience

2015-Present Department Head, MIE Department, University of Massachusetts, Amherst
2008-Present Professor, MIE Department, University of Massachusetts, Amherst
2006- 07 Interim Department Head, MIE Department, University of Massachusetts, Amherst
2003 Acting Department Head, MIE Department, University of Massachusetts, Amherst
2000-2008 Associate Department Head, MIE Department, University of Massachusetts, Amherst
1995-2007 Associate Professor, MIE Department, University of Massachusetts, Amherst
1989-1995 Assistant Professor, MIE Department, University of Massachusetts, Amherst

Recognition & Awards

- Fellow, American Society of Mechanical Engineers (ASME)
- Elected Member, Department Head/Chair Executive Committee, ASME
- Site-Director, NSF-I/UCRC Center for e-Design
- Associate Director, Center for Personalized Health Monitoring, UMass Institute for Applied Life Sciences
- Member, Innovation & Entrepreneurship Task Force, UMass Amherst
- Invited Participant, First Workshop for Engineering Leadership for Innovation and Entrepreneurship
- Stavros Paul Winske Access Award for work on Assistive Technology
- Two NSF I-Corps Awards (first one on campus to receive this award)
- Member, UMass I-Corps Innovation Advisory Group
- NSF Partners for Innovation program Award
- Leadership Award, UMass MIE Industrial Advisory Board
- Finalist, Olympus Innovation Award, National Collegiate Inventors and Innovators Alliance
- Campus Nominee, University Startups Showcase, National Council of Entrepreneurial Tech Transfer
- Scholarly Publications, Over 150 journal articles and conference proceedings
- Research Awards, Grants totaling nearly \$7 million in funding from 60 awards as PI or co-PI
- Faculty Advisor, More than 70 graduate and undergraduate students
- Panelist, Berthiaume Center for Entrepreneurship
- Panelist, Bose UMass Workshop on Future of Workforce Development
- Faculty Advisor, Multiple Technology Innovation Competition Teams
- Faculty Lead, Manufacturing Workshops at Mt Ida
- Innovator, Pressure Vest for Children with Autism, Portable Seatbelt, Retrofit Seatbelt, Innovation Accelerator

- Featured Faculty, “Portable Seat Belt,” CNN, AP, USA Today, NPR, and other news media
- Featured Faculty, “New Vest Offers a Wearer a Portable Hug,” Boston Globe
- First Prize, Faculty Advisor, 2007 Technology Innovation Competition, UMass-Amherst
- Certificates of Appreciation, Massachusetts Association of Occupational Therapists
- Faculty Advisor of the Year Nomination, MIE Department, UMass-Amherst
- First Prize, Technical Merit, Faculty Advisor, PTC-Motorola Flip-for-Design Competition

Research Accomplishments:

- a. Site-Director, NSF/IUCRC Center for e-Design
 - i. Directed the growth of our center from its original two sites to seven academic institutions with an active industry advisory board represented by over twenty membership fee-based companies, thus leading to its recognition as the premier program for product design and realization.
 - ii. Led the site in successful industrially-relevant research through sustained partnerships with UMass collaborators (Ian Grosse, Jack Wileden, Frank Sup, Ana Muriel), industries (Raytheon, PTC, FTL Labs, Siemens, Artaic, Hil-Rom), academe (Penn State, Oregon State, Iowa State, U at Buffalo, Wayne State, BYU), and government (NSF, NIST).
 - iii. Our research has produced over 300 journal publications, as well as over 100 completed industry-sponsored projects.
- b. Associate Director, UMass Center for Personalized Health Monitoring (CPHM)
 - i. Lead the campus efforts in establishing a vibrant manufacturing ecosystem, including serving as the founding director of ADDFab (Advanced Design and Digital Fabrication) core-facilities lab with state of the art metal 3d-printers and related equipment.
 - ii. Shepherd a strong partnership for the College with the Institute for Applied Life Sciences that has led to multiple joint hires, new facilities, and increased interdisciplinary collaborative projects.

Administrative Accomplishments:

- c. Department Head, Mechanical & Industrial Engineering
 - i. Increased faculty size by 62% from 25 in 2015 to 41 in 2020
 - Added three new instructor positions (Chief Undergraduate Advisor; Director of Engineering Management; Professor of Practice in Manufacturing)
 - ii. Enhanced department’s reputation and ranking
 - Ranking went up 20 spots from 79 in 2015 to 56 in 2020 in MIE and moved up 4 spots from 38 in 2015 to 34 in 2020 for IE
 - iii. Increased diversity in the faculty
 - iv. Doubled the number of Teaching Assistants
 - v. Introduced formal mentoring and increased support system for young faculty
 - Four faculty received NSF CAREER awards in the last two years; and one faculty received AFOSR YIP award this year
 - vi. Led 2019 ABET preparation and successful ABET visit
 - vii. Doubled the number of annual PhD conferrals
 - viii. Enhanced experiential learning opportunities with new student clubs (SAE, ASME Design, Formula 1, Makerspace)
 - Renovated and upgraded the ARF building as a hub for all MIE student club activities
 - ix. Introduced new academic programs (4+1 BS/MS program, MS in Manufacturing; MS in Engineering Management via Shorelight, MS in Manufacturing (in review))