

Electrical & Systems Engineering

Phone: 314-935-5565
Website: <https://ese.wustl.edu/academics/graduate-programs/index.html>

Faculty

Chair

Bruno Sinopoli

Das Family Distinguished Professor
PhD, University of California, Berkeley
Cyberphysical systems, analysis and design of networked embedded control systems, with applications to sensor actuators networks

Endowed Professors

Shantanu Chakrabarty

Clifford W. Murphy Professor
Vice Dean for Research and Graduate Education
PhD, Johns Hopkins University
Explores frontiers in analog and neuromorphic integrated circuits

Jr-Shin Li

Newton R. and Sarah Louisa Glasgow Wilson Professor of Engineering
PhD, Harvard University
Mathematical control theory, optimization, quantum control, biomedical application

Joseph A. O'Sullivan

Samuel C. Sachs Professor of Electrical Engineering
Dean, UMSL/WashU Joint Undergraduate Engineering Program
PhD, Notre Dame University
Information theory, statistical signal processing, imaging science with applications in medicine and security, and recognition theory and systems

Lan Yang

Edward H. & Florence G. Skinner Professor of Engineering
PhD, California Institute of Technology
Nano/micro photonics, ultra high-quality optical microcavities, ultra-low-threshold microlasers, nano/micro fabrication, optical sensing, single nanoparticle detection, photonic molecules, photonic materials

Professors

Neal Patwari

Professor
PhD, University of Michigan
Intersection of statistical signal processing and wireless networking for improving wireless sensor networking and radiofrequency sensing

Associate Professors

Xudong Chen

PhD, Harvard University
Develops revolutionary methods for analysis and control of large-scale multi-agent systems

ShiNung Ching

PhD, University of Michigan
Systems and control in neural medicine, nonlinear and constrained control, physiologic network dynamics, stochastic control

Andrew Clark

PhD, University of Washington
Focused on control and security of networked and cyber-physical systems

Ulugbek Kamilov

PhD, École Polytechnique Fédérale de Lausanne, Switzerland
Advances imaging technology through research on computational imaging, computer vision, machine learning and optimization

Matthew D. Lew

PhD, Stanford University
Microscopy, biophotonics, computational imaging, nano-optics

Jung-Tsung Shen

PhD, Massachusetts Institute of Technology
Theoretical and numerical investigations on nanophotonics, optoelectronics, plasmonics, metamaterials

Chuan Wang

PhD, University of Southern California
Flexible electronics, stretchable electronics, printed electronics, nanomaterials, nanoelectronics, optoelectronics

Assistant Professors

Ioannis (Yiannis) Kantaros

PhD, Duke University
Designs safe and distributed autonomy algorithms for large-scale multi-robot systems

Mark Lawrence

PhD, University of Birmingham
Nanophotonics, nonlinear optics, metasurfaces

Aravind Nagulu

PhD, Columbia University
Pioneering the area of novel wave propagation based on time-variance

Janet Sorrells

PhD, University of Illinois at Urbana-Champaign
Developing new technologies in label-free nonlinear optical microscopy to enable new applications in biology and medicine

Shen Zeng

PhD, University of Stuttgart
Systems and control theory, data-based analysis and control of complex dynamical systems, inverse problems, biomedical applications

Senior Professors

Paul S. Min

PhD, University of Michigan
Routing and control of telecommunication networks, fault tolerance and reliability, software systems, network management

Robert E. Morley Jr.

DSc, Washington University in St. Louis
Computer engineering, lower-power VLSI design, computer architecture, signal processing, microprocessors systems design

Hiro Mukai

PhD, University of California, Berkeley
Theory and computational methods for optimization, optimal control, systems theory, electric power system operations, differential games

Daniel L. Rode

PhD, Case Western Reserve University
Optoelectronics and fiber optics, semiconductor materials, light-emitting diodes and lasers, semiconductor processing, electronics

Ervin Y. Rodin

PhD, University of Texas at Austin
Optimization, differential games, artificial intelligence, mathematical modeling

Heinz Schaettler

PhD, Rutgers University
Optimal control, nonlinear systems, mathematical models in biomedicine

Barbara A. Shrauner

PhD, Harvard University (Radcliffe)
Plasma processing, semiconductor transport, symmetries of nonlinear differential equations

Barry E. Spielman

PhD, Syracuse University
High-frequency/high-speed devices, radiofrequency and microwave integrated circuits, computational electromagnetics

Tzyh Jong Tarn

DSc, Washington University
Quantum mechanical systems, bilinear and nonlinear systems, robotics and automation, life science automation

Professors of Practice

Dennis Mell

MS, University of Missouri–Rolla
Industrial automation, robotics and mechatronics, product design and development with design-for-manufacturability emphasis, prototyping, manufacturing

Ed Richter

MS, Washington University
Signal processing applications implemented on a variety of platforms, including ASIC, FPGA, DSP, microcontroller and desktop computers

Jason Trobaugh

DSc, Washington University
Ultrasound imaging, diffuse optical tomography, image-guided therapy, ultrasonic temperature imaging

Teaching Professor

James Feher

PhD, Missouri University of Science and Technology
Electrical engineering, computer science, mathematics and physics

Senior Lecturers

Martha Hasting

PhD, Saint Louis University
Mathematics education

Vladimir Kurenok

PhD, Belarus State University (Minsk, Belarus)
Probability and stochastic processes, stochastic ordinary and partial differential equations, financial mathematics

Tsitsi Madziwa-Nussinov

PhD, University of California, Los Angeles

Jinsong Zhang

PhD, University of Miami
Modeling and performance analysis of wireless sensor networks, multi-source information fusion, ambiguous and incomplete information processing

Lecturers

Dorothy Wang

PhD, Virginia Tech
Fiber optic sensing and practical experience in sensor implementation and field test

Ben Wormleighton

PhD, University of California, Berkeley
Seeks to cultivate formative learning spaces and practices that develop creative and communal thinkers.

Professors Emeriti

R. Martin Arthur

Newton R. and Sarah Louisa Glasgow Wilson Professor of Engineering
PhD, University of Pennsylvania
Ultrasonic imaging, electrocardiography

Arye Nehorai

The Eugene & Martha Lohman Emeritus Professor of Electrical Engineering
PhD, Stanford University
Statistical signal processing, machine learning, imaging, biomedicine