

Graduate Faculty

The Graduate Faculty, acting in accordance with the Rules and Regulations of the Board of Curators and campus policy legislated by the General Faculty, is responsible for the establishment of the policies, rules and regulations governing all graduate studies on the campus.

The membership of the Graduate Faculty consists of the following: The President of the University of Missouri, the Chancellor, the Provost, the Vice Provost for Research, the Vice Provost for Graduate Studies, the Vice Provost for Academic Affairs, and the Vice Provost for Undergraduate Studies, Chairs of Departments authorized to offer graduate degree programs and/or graduate courses and other members of the faculty at Missouri University of Science and Technology who are accepted under the rules of the Graduate Faculty to assume the responsibilities and authorities delegated to it.

Graduate Faculty membership will be approved automatically for those newly hired at a position of Assistant Professor or higher and holding the highest degree ordinarily awarded in the candidate's field. Their membership will be subject to reappointment regulations (Article IV.D).

In this section, Graduate Faculty member are listed under the specific discipline most closely allied with their graduate faculty status which may not necessarily reflect the department in which current appointment is held.

Superscripts 1, 2, 3, 4, 5, and 6 in the faculty listing refer to the following common footnotes:

¹Registered Professional Engineer

²Registered Geologist

³Certified Health Physicist

⁴Registered Architect

⁵Board Certified, American Academy of Environmental Engineers

⁶LEED AP Certified

Aerospace Engineering

(See Mechanical and Aerospace Engineering)

Arts, Language, and Philosophy

Art

Bogan, James Jr., Ph.D.

University of Kansas, Curators' Teaching Professor of Art. William Blake; Thomas Hart Benton; documentary film.

French

Merfeld-Langston, Audra, Ph.D.

Penn State, Assistant Professor of French.

German

Cohen, Gerald, Ph.D.

Columbia University, Professor of German & Russian. Etymology (in various languages).

Music

Cesario, Robert, D.M.A.

University of Northern Colorado, Assistant Professor of Music. Conducting.

Oakley, David L., Ph.D.

Indiana University, Professor Emeritus of Music.

Philosophy

Dittmer, Joel, Ph.D.

University of Missouri, Assistant Professor of Philosophy.

Russian

Ivliyeva, Irina, Ph.D.

Russian Academy of Science, Methodology of Foreign Language Teaching. Russian language and literature, comparative linguistics.

Spanish

Porcel, Jorge, Ph.D.

University of Pittsburgh, Assistant Professor of Spanish.

Speech & Media Studies

Haynes, W. Lance, Ph.D.

University of Minnesota, Professor of Speech & Media Studies. Human Communication and Technology.

Theatre

Stanley, Jeanne, M.F.A.

Lindenwood University, Assistant Professor. Theatre with Emphasis in Acting.

Biological Sciences

Aronstam, Robert S., Ph.D.

University of Rochester, NY, Professor of Biological Sciences and Department Chair. Neuroscience, synaptic signal transduction.

Brown, Roger F., Ph.D.

Colorado State, Professor of Biological Sciences. Mammalian cell biology, biomaterials, tissue engineering.

Frank, Ronald L., Ph.D.

The Ohio State University, Associate Professor of Biological Sciences. Molecular genetics, molecular biology.

Hou, Chen, Ph.D.

University of Missouri-Columbia, Assistant Professor of Biological Sciences. Metabolic basis of aging, energetic basis of animal growth and reproduction.

Huang, Yue-Wern, Ph.D.

University of Wisconsin-Madison, Professor of Biological Sciences. Environmental toxicology, nanoparticle toxicity.

Mormile, Melanie R., Ph.D.

University of Oklahoma, Associate Professor of Biological Sciences. Environmental Microbiology.

Niyogi, Dev K., Ph.D.

University of Colorado, Associate Professor of Biological Sciences. Ecology, limnology.

Shannon, Katie, Ph.D.

Harvard Medical School, Assistant Professor of Biological Sciences, Cell biology, mitosis, cytokinesis, cell cycle regulation, genetics, biochemistry, genomics.

Thimman, Matthew S., Ph.D.

University of North Carolina, Chapel Hill, Assistant Professor of Biological Sciences. Biochemistry, genetics and anatomy of the sleep-loss response, sleep biomarkers.

Westenberg, David J., Ph.D.

University of California-Los Angeles, Associate Professor of Biological Sciences. Molecular microbiology, microbial diversity, microbial physiology.

Business Administration

Bachman, Bonnie, Ph.D.

Rutgers, The State University of New Jersey, Professor of Management, Organizational Creativity, Front End Design and Innovation Processes, Management of Emerging Technological Innovations, Business Sustainability, Entrepreneurship.

Chiu, Yu-Hsien, M.S.

University of Wisconsin-Milwaukee, Assistant Teaching Professor of Business & Information Technology. Enterprise resource planning, accounting information systems.

Elrod, Casandra, Ph.D.

University of Missouri-Rolla, Assistant Professor, Marketing in Higher Education, Operations Management, Student Learning Styles.

Eng, Li Li, Ph.D.

University of Michigan, Assistant Professor of Accounting, Financial and Managerial Accounting, International Accounting.

Fukawa, Nobuyuki, Ph.D. (ABD)

Louisiana State University, Assistant Professor of Marketing Consumer Behavior, Marketing Research, Marketing Communications, Marketing Management.

Hanke, Ralph, Ph.D.

The Pennsylvania State University, Assistant Professor of Entrepreneurship, Innovation, Organizational Behavior, Conflict Resolution.

Hilgers, Michael, Ph.D.

Brown University, Professor of Information Science & Technology. Learning information systems, virtual reality, participative simulations.

Lin, Yingchou, Ph.D.

Old Dominion University, Assistant Professor in Business Administration, Investments, International Finance, Corporate Restructuring, Behavioral Finance, International Business.

Sheng, Hong, Ph.D.

University of Nebraska-Lincoln, Assistant Professor in Business Administration and Information Science & Technology, Human-Computer Interaction, information systems management, E-Commerce, mobile commerce and ubiquitous commerce, strategic implications of mobile technology, trust and privacy issues in information systems, RFID in Health Care.

Siau, Keng, Ph.D.

University of British Columbia, Professor of Information Science & Technology and Department Chair of Business & Information Technology. Design science, virtual world and 3D web electronic, mobile, and ubiquitous business, business intelligence/analytics.

Stanley, Sarah, Ph.D.

Saint Louis University, St. Louis, MO, Assistant Professor of Marketing. Brand relationships, advertising effectiveness, social marketing and its effects on consumer brand choice.

Ceramic Engineering

The Ceramic Engineering program is in the Department of Materials Science and Engineering. For more information about faculty members listed below, see Materials Science and Engineering.

Brow, Richard K., Ph.D.

Pennsylvania State University, Curators' Professor of Ceramic Engineering, and Senior Investigator, Graduate Center for Materials Research.

Day, Delbert, E., Ph.D.¹

Pennsylvania State, Curators' Professor Emeritus of Ceramic Engineering and Senior Investigator, Graduate Center for Materials Research.

Dogan, Fatih, Ph.D.

Technical University of Berlin, Germany, Professor of Ceramic Engineering.

Fahrenheitz, William G., Ph.D.

University of New Mexico, Professor of Ceramic Engineering.

Hilmas, Gregory E., Ph.D.

University of Michigan, Curators' Professor of Ceramic Engineering, and Senior Investigator, Graduate Center for Materials Research.

Huebner, Wayne, Ph.D.

University of Missouri-Rolla, Professor of Ceramic Engineering. Department Chair of Materials Science and Engineering.

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Rahaman, Mohamed N., Ph.D.

University of Sheffield, England, Professor of Ceramic Engineering.

Reidmeyer, Mary, Ph.D.

University of Missouri-Rolla, Associate Teaching Professor of Ceramic Engineering and Outreach Coordinator.

Schwartz, Robert W., Ph.D.

University of Illinois at Urbana-Champaign, VPAA and Professor of Ceramic Engineering.

Smith, Jeffrey D., Ph.D.

University of Missouri-Rolla, Associate Professor of Ceramic Engineering.

Chemical and Biochemical Engineering

Al-Dahhan, Muthanna, Ph.D.

Washington University, St. Louis, Professor of Chemical Engineering and Department Chair. Multiphase reaction and reactor engineering flow systems; transport-kinetic integration; advanced measurement and computational techniques; applications to green technology and sustainable development in energy, products, and environment.

Book, Neil L., Ph.D.

University of Colorado, Associate Professor of Chemical Engineering. Computer-aided chemical process design, electronic information management, and chemical process safety.

Forciniti, Daniel, Ph.D.

North Carolina State University, Professor of Chemical Engineering. Applications of molecular theories to problems in biochemical engineering and science. Bioseparation. Protein characterization and computer simulations of biological systems.

Liang, Xinhua, Ph.D.

University of Colorado, Assistant Professor of Chemical Engineering. Surface science and catalysis, nano-structured films and devices, energy and environmental applications.

Liapis, Athanasios I., Ph.D.

Swiss Federal Institute of Technology (Zurich). Professor of Chemical Engineering. Modeling of mass and heat transfer mechanisms in separation processes and heterogeneous chemical reaction systems; adsorption/desorption; lyophilization; chromatography; affinity chromatography; perfusion chromatography; transport phenomena; biochemical engineering.

Ludlow, Douglas K., Ph.D.

Arizona State University, Professor of Chemical Engineering. Surface characterization, catalysts, adsorption.

Neogi, Parthasakha, Ph.D.

Carnegie-Mellon University, Professor of Chemical Engineering. Interfacial and transport phenomena.

Sitton, Oliver C., Ph.D.

University of Missouri-Rolla, Associate Professor of Chemical Engineering. Modeling and scale-up of ultra-sonic systems, effect of ultrasonics on mass transport and chemical kinetics with emphasis on polymer reactions, phase transfer catalysis and oxidation; biotechnology and bioprocessing with emphasis on biochemical reactor design and operation.

Smith, Joseph D., Ph.D.

Brigham Young University, Professor of Chemical Engineering and Laufer Chair of Energy. Hybrid energy generation, gas flare design, process modeling, and control.

Wang, Jee-Ching, Ph.D.

Pennsylvania State University, Associate Professor of Chemical Engineering. Molecular modeling and simulation, nanofluid and nanoparticle technology, interfacial phenomena and dynamics, transport in porous media, parallel computing and new simulation techniques.

Westenberg, David J., Ph.D.

University of California-Los Angeles, Associate Professor of Biological Sciences, Adjunct Associate Professor of Chemical Engineering. Molecular microbiology, microbial diversity, microbial physiology.

Xing, Yangchuan, Ph.D.

Yale University, Adjunct Associate Professor of Chemical Engineering. Synthesis and Characterization of Nanomaterials.

Emeritus Titles in Chemical and Biological Engineering

Crosser, Orrin K., Ph.D.¹

Rice University, Professor Emeritus of Chemical Engineering.

Manley, David B., Ph.D.

University of Kansas, Professor Emeritus of Chemical Engineering.

Morosoff, Nicholas C., Ph.D.

Polytechnic Institute of Brooklyn, Professor Emeritus of Chemical Engineering. Plasma processing and polymerization, bulk and surface characterization of solid polymers, gas transport properties of thin films.

Patterson, Gary, Ph.D.¹

University of Missouri-Rolla, Professor Emeritus of Chemical Engineering. Turbulent mixing, mixed chemical reactors, computed turbulent flow modeling, closures for modeling effects of mixing on chemical reactions, polymer rheology, degradation of polymers and polymer composites.

Rosen, Stephen L., Ph.D.

Cornell University, Professor Emeritus of Chemical Engineering. Polymerization kinetics and mechanism, polymeric materials, applied rheology.

Chemistry

Choudhury, Amitava, Ph.D.

Indian Institute of Science, Bangalore, India, Assistant Professor of Chemistry. Inorganic solid state and materials chemistry. Synthesis of new materials applicable in Li-ion battery, thermoelectrics, solid-state lighting, hydrogen storage, and catalysis. Structure determination employing single-crystal and powder X-ray diffraction methods and investigate structure-property relationships.

Collier, Harvest L., Ph.D.

Mississippi State University, Professor of Chemistry, Vice Provost, Undergraduate Studies. Inorganic-organometallic chemistry, synthesis, structural, electronic analysis of macrocyclic-metal complexes, metal binding polymer, kinetics and mechanism of metal-ligand interactions.

Dawes, Richard, Ph.D.

University of Manitoba, Canada, Assistant Professor of Chemistry. Theoretical spectroscopy and dynamics. Multireference quantum chemistry and potential energy surfaces. Combustion chemistry.

Ercal, Nuran, Ph.D.

Hacettepe University, Ankara, Turkey, Richard K. Vitek/FCR Endowed Chair in Biochemistry and Professor of Chemistry. Analytical biochemistry, radiation biology, and cancer biology.

Kapila, Shubhender, Ph.D.

Dalhousie University, Halifax, Nova Scotia, Canada, Missouri Soybean Research Professor of CEST and Professor of Chemistry. Gas phase reaction kinetics, application of supercritical fluid in organic analysis, organic mass spectrometry, environmental chemistry.

Leventis, Nicholas, Ph.D.

Michigan State University, Curator's Professor of Chemistry. Organic chemistry, materials and surface chemistry, electro-chemistry.

Long, Gary J., Ph.D.

Syracuse University, Professor of Chemistry. Physical inorganic and solid state chemistry, magnetic, electronic, spectral, and structural studies of transition metal complexes, alkaloid and vitamin B6 complexes, X-ray and neutron diffraction, and Mossbauer Effect studies.

Ma, Yinfa, Ph.D.

Iowa State University, Curators' Teaching Professor of Chemistry. Analytical, bioanalytical chemistry. Bio-separation. High performance liquid and thin-layer chromatography. Laser spectroscopy.

Nam, Paul K.S., Ph.D.

University of Missouri-Columbia, Associate Professor of Chemistry. Analytical and environmental chemistry. Instrumentation and method for organic and inorganic analyses; chromatography and mass spectrometry; environmental fate and transport of chemical pollutant; supercritical fluid application; environmentally-benign product and process; chemical and physical characterization of particulate matter.

Nath, Manashi, Ph.D.

Indian Institute of Science, Assistant Professor of Chemistry. Nanomaterials, Inorganic materials and solid-state chemistry, Nanoscience & Technology, nanostructure synthesis, characterization, device fabrication. Designing protocols for production of smart materials and devices. Superconductor synthesis, characterization and morphology control.

Reddy, Prakash V., Ph.D.

Case Western Reserve University, Associate Professor of Chemistry. Organofluorine chemistry. Friedel-Crafts reactions. Carbocation reaction mechanisms. Green chemistry. Protein modifications.

Schuman, Thomas P., Ph.D.

University of Alabama in Huntsville, Associate Professor of Chemistry. Interfacial spectroscopy and chemistry; coatings: adhesion, corrosion protection, adsorption phenomena; organic polymer syntheses; industrial agricultural applications and research.

Shi, Honglan, Ph.D.

Missouri University of Science & Technology, Assistant Research Professor of Chemistry, Sr. Investigator of Environmental Research Center. Bioanalytical chemistry, environmental chemistry, analytical methods development and applications by using state-of-the-art instruments including LC-MSⁿ, ICP-MS, LC-ICP-MS, ICP-OES, GFAA, GC-MS, GC, HPLC, HPCE for organic and inorganic compounds quantitative analysis and compounds identifications.

Sotiriou-Leventis, Chariklia, Ph.D.

Michigan State University, Professor of Chemistry. Bioorganic, physical-organic, and analytical organic chemistry; synthesis, structural characterization, kinetics, and mechanisms of organic reactions.

Stavropoulos, Pericles, Ph.D.

Imperial College of Science, Technology & Medicine, London, United Kingdom., Associate Professor of Chemistry. Transition Metal Mediated Catalysis. Oxygenation and Dechlorination of Hydrocarbons Inspired by Biological Processes. Oxidation of Hydrocarbons on Mixed Metal Oxide Semiconductor Particulates. Metal-Dependent Oxidative Damage of Amyloid Peptides Related to Alzheimer's disease. Asymmetric Carbenoid Insertion Reactions into X-H Bonds (X = Si, C).

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Switzer, Jay A., Ph.D.

Wayne State University, Donald L. Castleman/FCR Missouri Endowed Professor of Discovery in Chemistry and Senior Investigator, Graduate Center for Materials Research. Inorganic materials chemistry and electrochemistry. Research at interface between chemistry and materials science, developing low-temperature chemical processing methods for nanoscale materials and thin-film opto-electronic ceramic materials.

Van De Mark, Michael R., Ph.D.

Texas A&M University, Associate Professor of Chemistry. Organic and polymer chemistry, electrochemistry, surface science, polymer synthesis, corrosion, and polymer/solvent interactions.

Whitefield, Philip D., Ph.D.

University of London–Queen Mary College, London, England, Professor of Chemistry and Department Chair. Analytical and physical chemistry, particulate characterization and heterogeneous chemistry of atmospheric and environmental processes.

Winiarz, Jeffrey, Ph.D.

State University of New York at Buffalo, Associate Professor of Chemistry. Physical Chemistry, Nanoscale Materials, Electro-Optic Polymeric Composites.

Woelk, Klaus, Ph.D.

University of Bonn, Germany, Associate Professor of Chemistry. NMR Spectroscopy, Physical Chemistry. Chemical reactions in supercritical fluids; toroid-cavity rotating-frame NMR microscopy; in situ high-temperature and high-pressure NMR spectroscopy of hydrothermal biomass-to-reaction mechanisms fuel conversion.

Emeritus Titles in Chemistry

Bertrand, Gary L., Ph.D.

Tulane University, Professor Emeritus of Chemistry. Physical chemistry, thermochemical investigations of binary solvent systems, liquid-liquid equilibria ternary systems, classical aqueous thermo-chemistry, heats of solution and solubility in complex systems.

Biolsi, Louis Jr., Ph.D.

Rensselaer Polytechnic Institute, Professor Emeritus of Chemistry. Theoretical chemistry, scattering and transport theory of polyatomic molecules, gas surface interactions.

James, William J., Ph.D.

Iowa State University, Professor Emeritus of Chemistry. Physical chemistry, mechanisms of anodic dissolutions of metals and alloys, passivation studies using potentiostatic methods, studies of point defects in solid preparations, studies of ferroelectric crystals, studies of the structure of magnetic alloys by neutron diffraction.

Stoffer, James O., Ph.D.

Purdue University, Curators¹ Professor Emeritus of Chemistry. Organic and polymer chemistry, isotope effects, carbon acid acidity, trace organic analysis, polymer synthesis and characterization.

Civil, Architectural, and Environmental Engineering

Bate, Bate, Ph.D.

Georgia Institute of Technology, Assistant Professor of Civil Engineering. Soil improvement, beneficial reuse of industrial waste materials, contaminant remediation, physicochemical modeling of fundamental soil behavior, innovative soil characterization tools.

Baur, Stuart W., Ph.D.⁴

University of Missouri-Rolla, Associate Professor of Architectural Engineering. Integrated building systems, advanced building system technologies, green construction.

Burken, Joel G., Ph.D.^{1, 5}

University of Iowa, Professor of Civil Engineering. Phytoremediation of organic contaminants and heavy metals, biological waste water treatment, constructed wetlands, green infrastructure, biomass energy.

Chen, Genda, Ph.D.¹

State University of New York at Buffalo, Professor of Civil Engineering. Structural health monitoring, interface mechanics and deterioration of composite structures, adaptive passive dampers and systems, multi-hazards assessment and mitigation, forensic study, seismic analysis and retrofit, soil-structure interaction, bridge engineering.

Choi, Joon-Ho, Ph.D.

Carnegie Mellon University, Assistant Professor of Architectural Engineering.

Fitch, Mark W., Ph.D.

University of Texas at Austin, Associate Professor of Civil Engineering. Bioremediation of recalcitrant pollutants, membrane reactors, genetically-engineered bacteria for bioremediation, constructed wetlands for metals removal.

Khayat, Kamal H., Ph.D.

University of California, Berkeley, Vernon and Maralee Jones Professor of Civil Engineering. Advanced cement-based materials, including high-performance concrete and self-consolidating concrete, concrete rheology and repair of infrastructure.

Luna, Ronaldo, Ph.D.¹

Georgia Institute of Technology, Professor of Civil Engineering. Soil mechanics and foundation engineering, geotechnical earthquake engineering, hazard modeling, numerical modeling, geographic information systems, and remote sensing.

Mendoza, Cesar, Ph.D.

Colorado State University, Associate Professor of Civil Engineering. Sediment transport, river mechanics, environmental fluid mechanics, hydrodynamics, and mathematical modeling.

Morris, Charles D., Ph.D.¹

University of Illinois, Associate Professor of Civil Engineering. Stochastic hydrology, urban hydrology watershed modeling, fluid mechanics, steady and unsteady fluid flow, mathematical and physical modeling, urban stream morphology.

Morrison, Glenn, Ph.D.

University of California-Berkeley, Associate Professor of Civil Engineering. Environmental engineering, assessment and control of air pollution, indoor air chemistry, transport and surface interactions, remediation of contaminated buildings.

Myers, John, Ph.D.¹

University of Texas at Austin, Associate Professor of Civil Engineering. High performance concrete (HPC) behavior and durability performance (PC and RC); development of infrastructure systems and monitoring techniques; fiber-reinforced polymers (FRP) in structural repair and strengthening applications with an emphasis related to structural behavior, blast resistance, bond, substrate characterization, and durability performance.

Oerther, Daniel B., Ph.D.^{1, 5}

University of Illinois at Urbana-Champaign, Mathes Chair of Environmental Engineering. Environmental biotechnology, urban sustainability, global development, ensuring universal access to water and sanitation, combating the obesity epidemic, and eliminating extreme poverty.

Philpot, Timothy A., Ph.D.

Purdue University, Associate Professor of Civil Engineering. Engineering mechanics, educational media, wood structures, and structural engineering.

Richardson, David N., Ph.D.¹

University of Missouri-Rolla, Associate Professor of Civil Engineering. Properties of construction materials (aggregate, asphalt, and concrete), pavement analysis and design.

Schonberg, William P., Ph.D.¹

Northwestern University, Professor of Civil Engineering and Department Chair. Armor/anti-armor, penetration mechanics, spacecraft shielding against meteoroid and orbital debris impacts, hypervelocity impact phenomena, building failure and collapse, design and construction of Moon and Mars habitats.

Showalter, W. Eric, Ph. D.^{1, 6}

Purdue University, Associate Teaching Professor of Civil Engineering. Construction engineering and management, cost effectiveness, sustainable design and construction.

Sneed, Lesley, Ph.D.¹

Purdue University, Assistant Professor of Civil Engineering. Reinforced and pre-stressed concrete structural members and systems, structural models and experimental methods, innovative methods of repair and strengthening of structures subjected to seismic loading or other extreme hazards, structural hazard mitigation, design codes and construction specifications for structural concrete.

Thomas, Jeffery, Ph.D.¹

Missouri University of Science and Technology, Assistant Teaching Professor. Innovations in engineering education, engineering mechanics and residential construction.

Volz, Jeffery S., Ph.D.¹

Pennsylvania State University, Assistant Professor of Civil Engineering. Durability and fatigue performance of pre-stressed and reinforced concrete, corrosion of metals in cementitious systems, particularly pre-stressed and reinforced concrete, fatigue and fracture of metals, particularly involving the combination of corrosion and fatigue, evolutionary algorithms to predict critical elements in progressive collapse of multistory structures, building facades under extreme loading events, such as hurricanes, earthquakes, and thermal loadings, sustainability applied to building systems, particularly involving new materials and improving the performance of existing materials.

Wang, Jianmin, Ph.D.¹

University of Delaware, Associate Professor of Civil Engineering. Fate and transport of heavy metals in natural and engineered systems; water and wastewater treatment processes; water chemistry and interfacial phenomena.

Emeritus Titles in Civil, Architectural, and Environmental Engineering

Cheng, Franklin Y., Ph.D.¹

University of Wisconsin, Curators' Professor Emeritus of Civil Engineering. Smart and hybrid control of seismic structures, behavior of inelastic systems subjected to dynamic loads and earthquakes finite element methods, computer methods in elastic and in elastic complex structures, optimum design of structural systems, dynamic instability, nonlinear and random vibrations.

Dare, Charles E., Ph.D.¹

University of Iowa, Professor Emeritus of Civil Engineering. Traffic engineering and traffic safety, environmental impact of transportation systems, applications of quantitative techniques to transportation problems, transportation planning, energy contingency, planning, railway engineering.

LaBoube, Roger A., Ph.D.¹

University of Missouri-Rolla, Curators' Teaching Professor Emeritus of Civil Engineering. Behavior and design of cold-formed steel structures, load and resistance factor design of steel structures, design and behavior of light steel construction, behavior of bolted and welded connections, structural stability, design of plates and shells, application of building code provisions.

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Lentz, Rodney W., Ph.D.¹

Michigan State University, Associate Professor Emeritus of Civil Engineering. Dynamic properties of highway materials, soil properties, soil improvement, soil erosion, geoenvironmental, geosynthetics.

Munger, Paul R., Ph.D.¹

University of Arkansas, Professor Emeritus of Civil Engineering. Electric analog studies of groundwater seepage, flow of non-Newtonian fluids (fluid-solid transport), energy dissipation by means of hydraulic jump, internal spillway type rock fill dams, certain problems involving surface runoff, river mechanics (potamology).

Petry, Thomas M., Ph.D.¹

Oklahoma State University, Professor Emeritus of Civil Engineering. Geotechnical Engineering, characterization of clays and their behavior, physico-chemical phenomena in soils, performance based testing of soils, stabilization of soils and chemical stabilization of clays.

Prakash, Shamsheer, Ph.D.¹

University of Illinois, Professor Emeritus of Civil Engineering. Soil dynamics, earthquake effects on soil, piles, and retaining walls under dynamic loads, liquefaction of silts, prediction and performance of geotechnical engineering.

Senne, Joseph H. Jr., Ph.D.¹

Iowa State University, Professor Emeritus of Civil Engineering. Dynamic loading of bridges and buildings, model analysis of thin shell and other structures, instrumentation techniques, optical tooling, remote sensing, and orbital mechanics.

Stephenson, Richard W., Ph.D.¹

Oklahoma State University, Professor of Civil Engineering. Soil mechanics, foundation design and analysis, laboratory measurement of soil properties, helical anchors, geotechnical earthquake engineering, forensic geotechnical engineering.

Terkonda, Purush K., Ph.D.

University of Texas at Austin, Associate Professor Emeritus of Civil Engineering. Bioremediation of soil and groundwater, biofiltration of gaseous chlorinated solvents, physical and chemical processes, indoor and outdoor air quality.

Westphal, Jerome A., Ph.D.¹

University of Nevada, Professor Emeritus of Civil Engineering. Application of statistical methods and digital modeling techniques to study hydrologic processes. Study of changes in hydrologic regime in response to human activity in rural and urban watersheds. Interrelationships between water quality and hydrologic systems.

Yu, Wei-Wen, Ph.D.¹

Cornell University, Curators' Professor Emeritus of Civil Engineering and Founding Director of the Wei-Wen Yu Center for Cold-Formed Steel Structures. Structural

behavior and optimum design of cold formed steel structures, including structural systems, members, and connections.

Computer Engineering

(See Electrical and Computer Engineering)

Computer Science

Chellappan, Sriram, Ph.D.

The Ohio State University, Assistant Professor of Computer Science. Mobility in Sensor & Wireless Networks, Security.

Cheng, Maggie X., Ph.D.

University of Minnesota, Associate Professor of Computer Science. Wireless Networks.

Ercal, Fikret, Ph.D.

The Ohio State University, Professor of Computer Science. Parallel Algorithms, Bioinformatics and Computer Vision.

Hurson, Ali, Ph.D.

University of Central Florida, Professor of Computer Science and Department Chair, Parallel and Distributed Systems, Databases, Multi-Databases, Global Information Processing, Mobile Databases, Pervasive and Ubiquitous computing.

Jiang, Wei, Ph.D.

Purdue University, Assistant Professor of Computer Science. Privacy and Security.

Kessentini, Marouane, Ph.D.

University of Montreal, Assistant Professor of Computer Science. Software Engineering, Software Quality, Automated Software Engineering, Model Transformation, Software Testing, Refactoring, Artificial Intelligence, Multi-agent System.

Leopold, Jennifer L., Ph.D.

University of Kansas, Associate Professor of Computer Science. Database Design and Analysis, Scientific Visualization, Data Mining, Morphological, Phylogenetic, and Biodiversity.

Lin, Dan, Ph.D.

National University of Singapore, Assistant Professor of Computer Science. Database Systems and Information Security.

Liu, Xiaoqing (Frank), Ph.D.

Texas A&M University, Professor of Computer Science. Software Engineering, Database Systems, and Intelligent Systems.

Madria, Sanjay, Ph.D.

Indian Institute of Technology, Associate Professor of Computer Science. Web Data Management and Wireless Computing.

McMillin, Bruce M., Ph.D.

Michigan State University, Professor of Computer Science. Fault Tolerant Computing, Parallel and Distributed Systems, Formal Methods in Software Engineering and Cyber-Security.

Sabharwal, Chaman L., Ph.D.

University of Illinois, Professor of Computer Science. Graphics, Vision and Parallel algorithms

Sarangapani, Jagannathan, Ph.D.

University of Texas-Arlington, Professor of Electrical and Computer Engineering. The control of computer/communication networks, embedded systems, MEMS, intelligent systems/control, diagnostics/prognostics, bio-medical applications.

Sedigh, Sahra, Ph.D.

Purdue University, Associate Professor of Computer Engineering. Embedded Systems; Environmental and Structural Monitoring; Wireless Sensor Networks; Dependability of Critical Infrastructures; System and Information Quality Assurance.

Tauritz, Daniel R., Ph.D.

Leiden University, Associate Professor of Computer Science. Evolutionary Computing, Artificial Intelligence, and Cyber-Security.

Weigert, Thomas, Ph.D.

University of Illinois, Chicago, Professor. Program Analysis, Verification & Transformation.

Wunsch II, Donald C., Ph.D.

University of Washington, Mary Finley Missouri Distinguished Professor of Computer Engineering. Adaptive critic designs, neural networks, fuzzy systems, surety, nonlinear adaptive control, intelligent agents, applications.

Yin, Zhaozheng, Ph.D.

Pennsylvania State University, Assistant Professor of Computer Science. Computer Vision, Biomedical Imaging, Machine Learning, Signal Processing, and Robotics.

Economics

Chin, Yoo-Mi, Ph.D.

Brown University, Assistant Professor of Economics. Applied Microeconomics, Development Economics, Labor Economics, Population and Family Economics.

Davis, Michael, Ph.D.

University of California, San Diego, Associate Professor of Economics. Macroeconomics and applied econometrics.

Fikru, Mahelet, Ph.D.

Southern Illinois University-Carbondale, Assistant Professor of Economics. Environmental Economics and Industrial Organization.

Gelles, Gregory M., Ph.D.

West Virginia University, Professor of Economics, Department Chair. Finance, risk and uncertainty, mathematical analysis.

Park, Eun Soo, Ph.D.

Northwestern University, Associate Professor of Economics. Law and economics. International trade, industrial organization, Game Theory.

Electrical and Computer Engineering

Acar, Levent, Ph.D.

The Ohio State University, Associate Professor of Electrical and Computer Engineering. Control and systems, intelligent control with applications to robotics, neural network and fuzzy logic systems, large-scale systems and optimization.

Anderson, Max, Ph.D.¹

Arizona State University, Professor Emeritus of Electrical and Computer Engineering. Real-time control and information systems applied to electric utility control and monitoring systems and aerospace systems. Energy storage, optimal control and simulation.

Beetner, Daryl G., D.Sc.¹

Washington University, Professor of Electrical and Computer Engineering. Computer Engineering, parallel processing, hardware-software co-design, skin cancer detection, and electro-cardiology. Interests in electro-cardiology include body-surface mapping, the inverse problem, and risk-assessment.

Boone, Jack L., Ph.D.

University of Denver, Professor Emeritus of Electrical and Computer Engineering. Physical electronics, applications and physics of solid state devices, wave interactions in plasmas, solar energy conversion.

Bourquin, Jack J., Ph.D.

University of Illinois, Professor Emeritus of Electrical and Computer Engineering. Circuit and system theory, network analysis and synthesis, active lumped-distributed systems, electronic circuits, signal processing computer-aided design, neural networks, adaptive filtering.

Carlson, Gordon E., Ph.D.¹

Kansas State University, Professor Emeritus of Electrical and Computer Engineering. Signal processing with emphasis on radar systems, radar imaging, remote sensing, sensor and systems applications.

Choi, Minsu, Ph.D.

Oklahoma State University, Associate Professor of Electrical & Computer Engineering. Computer architecture & VLSI, embedded systems, fault tolerance, testing, quality assurance, reliability modeling & analysis, configurable computing, distributed systems, dependable instrumentation & measurement.

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Chowdhury, Badrul H., Ph.D.

Virginia Tech., Professor of Electrical and Computer Engineering. Power System analysis and control, artificial intelligence and neural network applications, power electronics, power quality quality-integration of photovoltaic and wind power sources.

Corzine, Keith A., Ph.D.

University of Missouri-Rolla, Professor of Electrical and Computer Engineering. Power electronics, motor drives, Naval ship propulsion systems, and electric machinery analysis.

Cox, Norman R., Ph.D.¹

University of Texas-Arlington, Associate Professor Emeritus of Electrical and Computer Engineering. Image processing, applied communication theory, power electronics, and instrumentation circuits.

Crow, Mariesa L., Ph.D.¹

University of Illinois, Professor of Electrical and Computer Engineering and Fred Finley Distinguished Professor. Power systems analysis, dynamic stability, computational algorithms, and power electronics.

Cunningham, David R., Ph.D.¹

Oklahoma State University, Professor Emeritus of Electrical and Computer Engineering. Communication theory, decision theory, and probabilistic systems analysis.

Drewniak, James L., Ph.D.

University of Illinois, Director of Materials Research Center and Professor of Electrical and Computer Engineering. Electromagnetic compatibility of high-speed digital electronics, power electronics and electric Machinery; numerical electromagnetic analysis; electronic packaging.

DuBroff, Richard E., Ph.D.¹

University of Illinois, Professor of Electrical and Computer Engineering. Electromagnetics, wave propagation, signal processing, acoustics, geophysics.

Erickson, Kelvin T., Ph.D.

Iowa State University, Professor of Electrical and Computer Engineering and Department Chair. Chemical process control, advanced control algorithms, digital control, programmable logic controllers, system identification.

Fan, Jun, Ph.D.

University of Missouri-Rolla, Associate Professor of Electrical and Computer Engineering. Intra-system electromagnetic compatibility, Radio-Frequency interference, signal/power integrity, high-speed printed circuit boards and packages.

Ferdowsi, Mehdi, Ph.D.

Illinois Institute of Technology, Associate Professor of Electrical and Computer Engineering. Power electronics, power converters and electric drives.

Gajda, W.J. Jr., Ph.D.

Massachusetts Institute of Technology, Professor Emeritus of Electrical and Computer Engineering. Semiconductor Physics and Devices, submicron device physics, organic semiconductors, environmental effects of UHV transmission lines, electromagnetic properties of composite materials.

Grant, Steven, Ph.D.

Rutgers University, Wilkens Missouri Telecommunications, Associate Professor in Electrical and Computer Engineering. Telecommunications and signal processing.

Hahn, J.H., Ph.D.¹

University of Missouri-Rolla, Associate Professor Emeritus of Electrical and Computer Engineering. Electronics, digital systems, and circuit theory.

Hegler, Burns, E., Ph.D.¹

Kansas State University, Professor Emeritus of Electrical Engineering. Energy conservation, electrical safety, illumination, and general circuit theory.

Kern, Frank J., Ph.D.¹

University of Oklahoma, Professor Emeritus of Electrical Engineering. System theory, applications of modern control theory to computer-aided design.

Kim, Chang-Soo, Ph.D.

Kyungpook National University (KNU), Taegu, Korea, Associate Professor of Electrical and Computer Engineering. Micro-and nano-sensors, bio-MEMS (Micro Electro Mechanical System), engineering of electrogenic (neural and cardiac) cells, single cell analysis.

Kimball, Jonathan W., Ph.D.¹

University of Illinois, Assistant Professor of Electrical and Computer Engineering. Power electronics, energy harvesting, alternative energy, multi-phase converters.

Kosbar, Kurt L, Ph.D.

University of Southern California, Associate Professor of Electrical and Computer Engineering. Statistical communication theory, spread spectrum systems, computer aided design of communication systems, stochastic process theory, digital signal processing.

McPherson, George Jr., M.S.¹

The Ohio State University, Professor Emeritus of Electrical Engineering. Electrical machinery, electrical power systems, industrial control.

Moss, Randy H., Ph.D.¹

University of Illinois, Professor of Electrical and Computer Engineering. Machine vision systems including industrial (vision systems for robots) and medical (computer assisted diagnosis) applications, pattern recognition, image processing, digital systems, analog and digital circuits.

Pommerenke, David, Dr.-Ing.

Technical University Berlin, Germany, Professor of Electrical and Computer Engineering. Electromagnetic compatibility

with emphasis on measurement techniques and the application of numerical methods and the application of FR methods to high voltage problems.

Pottinger, Hardy J., Ph.D.

University of Missouri-Rolla, Associate Professor Emeritus of Electrical and Computer Engineering. Embedded system design, electronic design automation, and application specific parameters.

Richards, Earl F., Ph.D.¹

University of Missouri-Rolla, Professor Emeritus of Electrical Engineering. Automatic control, simulation and modeling techniques, stability, expert systems and computer application applied to power systems.

Sarangapani, Jagannathan, Ph.D.

University of Texas-Arlington, Rutledge Distinguished Professor of Electrical and Computer Engineering. The control of computer/ communication networks, embedded systems, MEMS, intelligent systems/control, diagnostics/prognostics, biomedical applications.

Sedighsarvestani, Sahra, Ph.D.

Purdue University, Associate Professor of Electrical and Computer Engineering and the Information Science and Technology Department. Component-based software engineering and enterprise integration.

Shi, Yiyi, Ph.D.

University of California-Los Angeles, Assistant Professor of Electrical and Computer Engineering. VLSI Design Automation, 3D, ICs, and Renewable Energy.

Stanek, E. Keith, Ph.D.¹

Illinois Institute of Technology. Professor Emeritus of Electrical and Computer Engineering. Analysis and prediction of system reliability, especially electric distribution systems, inductive interference analysis, prediction and elimination, energy conservation.

Stanley, R. Joe, Ph.D.

University of Missouri-Columbia, Associate Professor of Electrical and Computer Engineering. Image processing, pattern recognition software methods, automation and medical informatics.

Stigall, Paul D., Ph.D.¹

University of Wyoming, Professor Emeritus of Electrical and Computer Engineering. Computer engineering, modeling and simulation of computer systems and networks, digital design, computer architecture, fault-tolerant digital systems.

Stuller, John, Ph.D.

University of Connecticut, Professor Emeritus of Electrical and Computing Engineering. Statistical communication theory, estimation and decision theory, information theory, digital signal processing and circuits.

Tranter, William H., Ph.D.

University of Alabama, Professor Emeritus of Electrical Engineering. Statistical communication theory, analog and digital modulation systems, information theory and coding, digital signal processing.

Van Doren, Thomas P., Ph.D.¹

University of Missouri-Rolla, Professor Emeritus of Electrical and Computer Engineering. Electromagnetic.

Watkins, Steve E., Ph.D.

The University of Texas at Austin, Professor of Electrical and Computer Engineering. Fiber optic sensing, optical and electronic materials, electro-optic devices and Fourier optics.

Wu, Cheng-Hsiao, Ph.D.

University of Rochester, Professor of Electrical and Computer Engineering. Quantum resistor network theory, semiconductor device modeling. DLTS measurement, optical computing.

Wunsch II, Donald C., Ph.D.¹

University of Washington, Mary Finley Missouri Distinguished Professor of Computer Engineering. Adaptive critic designs, neural networks, fuzzy systems, surety, nonlinear adaptive control, intelligent agents, applications, financial engineering.

Xiao, Chengshan, Ph.D.

University of Sydney, Australia, Professor of Electrical and Computer Engineering. Wireless Communications, Information Theory, Signal Processing, and Underwater Acoustic Communications.

Xiao, Hai, Ph.D.

Virginia Tech., Professor of Electrical and Computer Engineering. Novel photonic device design and fabrication, nanomaterials and nanostructures for chemical and biological sensing, sensors for harsh environments, optical spectroscopy, and machine vision.

Zawodniok, Maciej, Ph.D.

Missouri S&T, Assistant Professor of Electrical and Computer Engineering. Embedded systems for cyber infrastructure, wireless sensor and ad hoc networks, and general wireless communications systems.

Zheng, Y. Rosa, Ph.D.

Carleton University, Ottawa, Canada, Associate Professor of Electrical and Computer Engineering. Wireless communication systems, wireless ad hoc/sensor networks, array signal processing, and real time digital signal processing.

Zoughi, Reza, Ph.D.

University of Kansas, Schlumberger Distinguished Professor of Electrical and Computer Engineering. Electromagnetics, Microwave Engineering, and Microwave and millimeter wave nondestructive evaluation.

108 - Graduate Faculty

Engineering Management and Systems Engineering

Allada, Venkat, Ph.D.

University of Cincinnati, Professor of Engineering Management & Systems Engineering; Vice Provost of Graduate Studies. Sustainable product development, product platform design, mass customization, product innovation, lean manufacturing, intelligent manufacturing systems, process planning, supply chain management.

Corns, Steven, Ph.D.

Iowa State University, Assistant Professor of Engineering Management & Systems Engineering, Systems Engineering Research Focus Area: computational intelligence, modeling and simulation, risk modeling and assessment.

Cudney, Elizabeth A., Ph.D.

University of Missouri-Rolla, Assistant Professor of Engineering Management & Systems Engineering. Quality, Six Sigma, Robust Engineering, and Lean Enterprise.

Dagli, Cihan H., Ph.D.

The University of Birmingham, England, Professor of Engineering Management & Systems Engineering. Director of Systems Engineering Program and Director of the Smart Engineering Systems Laboratory. Systems Architecting as Engineering, Systems of Engineering, Smart Engineering System Design, Systems Architecting, Neural Networks, Fuzzy Logic, Evolutionary Programming, Data Mining, Nesting Problems.

Dow, Duke, Ph.D.

Purdue University, Adjunct Associate Professor. Project Management, Management.

Enke, David, Ph.D.

University of Missouri-Rolla, Professor of Engineering Management & Systems Engineering and Department Chair. Investments, Derivatives, Options and Futures, Financial Forecasting, Trading Strategies, Hedge Funds, Endowment Investing, Financial Risk Management, Engineering Economy, Computational Finance, Computational Intelligence, Neural Networks.

Gosavi, Abhijit, Ph.D.

University of South Florida, Assistant Professor of Engineering Management & Systems Engineering. Supply chain management, simulation based optimization, and lean enterprise.

Guardiola, Ivan, Ph.D.

Texas Tech University, Assistant Professor of Engineering Management & Systems Engineering. Simulation and modeling, risk modeling and assessment, systems engineering processes and design, network centric systems, wireless communications networks, stochastic and probability modeling, operations research, birth-death process modeling, speaker recognition and identification systems (pattern recognition), and rare event probability modeling.

Grantham, Katie, Ph.D.

University of Missouri-Rolla, Assistant Professor of Engineering Management & Systems Engineering. Risk Assessment, Green Leaf Manufacturing, Engineering Education, Product Design.

Long, Suzanna, Ph.D.

University of Missouri-Rolla, Assistant Professor of Engineering Management & Systems Engineering. Strategic Management, change management, business logistics, and marketing.

Murray, Susan L., Ph.D.¹

Texas A & M University, Associate Professor of Engineering Management & Systems Engineering. Industrial engineering, productivity improvement, human factors and safety.

Qin, Ruwen, Ph.D.

Pennsylvania State University, Assistant Professor of Engineering Management & Systems Engineering. Financial engineering, real options, and operations research.

Ragsdell, Kenneth M., Ph.D.¹

University of Texas, Professor of Engineering Management & Systems Engineering; Director of the Design Engineering Center. Engineering design process, optimization, quality engineering and total quality management.

Raper, Stephen A., Ph.D.

University of Missouri-Rolla, Associate Professor of Engineering Management & Systems Engineering; Associate Chair of Undergraduate Studies in Engineering Management. Packaging engineering, operations, productivity, total quality management, packaging systems design, environmental aspects of packaging, and statistical process control.

Schuman, Joan, Ph.D.

University of Southern Mississippi, Adjunct Assistant Professor. Project Management and Engineering Economics.

Wiebe, Henry, A., Ph.D.

University of Arkansas, Professor of Engineering Management & Systems Engineering; Dean of Extended Studies. Quality management, statistical process control and the Malcolm Baldrige criterion.

Emeritus Professors

Amos, John M., Ph.D.

The Ohio State University, Professor Emeritus of Engineering Management. Quantitative techniques, production management; environmental and motivation problems.

Babcock, Daniel L., Ph.D.¹

University of California-Los Angeles, Professor Emeritus of Engineering Management. Management of engineering and technology, project and systems management, engineering management education.

Daily, Madison, Ph.D.

University of Missouri-Rolla, Professor Emeritus of Engineering Management. Decision support systems, application of microcomputers in business, finance, management science and distance education.

Metzner, Henry E., Ph.D.

University of Utah, Associate Professor Emeritus of Engineering Management. Industrial marketing, logistics management techniques, development of technical markets, purchasing, and procurement.

Omurtag, Yildirim, Ph.D.¹

Iowa State University, Professor Emeritus of Engineering Management. Engineering management and manufacturing engineering education, manufacturing production/ process and strategy, industrial engineering and management of technology.

Shaller, David A., J.D.

Missouri Bar, Cleveland State University, Assistant Professor Emeritus of Engineering Management. Organizational behavior, industrial organization, legal environment of enterprise, labor relations law, collective bargaining, financial management, and marketing management.

Sineath, Henry H., Ph.D.

Georgia Institute of Technology, Professor Emeritus of Engineering Management. Packaging systems, and materials, product and process development.

English and Technical Communication

Bryan, Eric, Ph.D.

St. Louis University, Assistant Professor of English. Medieval Literature and Linguistics.

Cotterill, Anne, Ph.D.

Washington University in St. Louis, Associate Professor. Renaissance British Literature.

Drowne, Kate, Ph.D.

University of North Carolina-Chapel Hill, Associate Professor of English and the Director of the Writing Center. American Literature.

Malone, Ed, Ph.D.

Southern Illinois University-Carbondale, Associate Professor of English and Technical Communication.

Northcut, Kathryn, Ph.D.

Texas Tech. University, Assistant Professor of Technical Communication.

Swenson, Kristine, Ph.D.

University of Iowa, Associate Professor and Department Chair of English. Nineteenth Century and contemporary British Literature.

Watts, Trent, Ph.D.

University of Chicago, Assistant Professor of American Studies. Cultural studies of the American South

Wright, David, Ph.D.

Oklahoma State University, Assistant Professor of English and Technical Communication.

Explosives Engineering

Faculty involved in the program include existing faculty from the Department of Mining and Nuclear Engineering at Missouri S&T and instructors from industry augmented by faculty from the Department of Civil Engineering at Missouri S&T and faculty from UMC, University of Kentucky and Texas Tech University.

Baird, Jason, Ph.D.

University of Missouri-Rolla, Associate Professor.

Bullock, Richard, D. Eng.

Missouri School of Mines, Professor Emeritus.

Freeman, Bruce, Ph.D.

University of California-Davis, Professor.

Frimpong, Samuel, Ph.D.

University of Alberta, Professor and Chair.

Lusk, Braden, Ph.D.

University of Missouri-Rolla, Associate Professor.

Myers, John, Ph.D.

University of Texas-Austin, Associate Professor.

Weeks, Brandon, Ph.D.

University of Cambridge, Assistant Professor.

Worsey, Gillian, Ph.D.

University of Missouri-Rolla, Adjunct Assistant Professor.

Worsey, Paul, Ph.D.

University of Newcastle upon Tyne, Professor.

Geological Engineering

The Geological and Petroleum Engineering programs are in the Department of Geological Sciences and Engineering.

Anderson, Neil L., Ph.D.^{1, 2}

University of Calgary, Professor of Geophysics. Acquisition processing.

Anwar, Shadab, Ph.D.

Florida International University, Assistant Professor of Geological Engineering. Karst hydrology, carbon sequestration, environmental hydrogeology, groundwater remediation, numerical modeling.

110 - Graduate Faculty

Barr, David J., Ph.D.¹

Purdue University, Professor Emeritus of Geological Engineering. Remote sensing, geographic information systems and site evaluation.

Cawfield, Jeffrey D., Ph.D.^{1, 2}

University of California-Berkeley, Professor of Geological and Petroleum Engineering, Director of Freshman Engineering. Probabilistic modeling and geo-statistics, ground-water and contaminant transport analysis, and computer applications in geological engineering.

Elmore, A. Curt, Ph.D.¹

University of Arizona, Associate Professor of Geological Engineering. Groundwater remediation, groundwater development, stochastic analysis, and remedial design.

Gertsch, Leslie, Ph.D.

Colorado School of Mines, Assistant Professor of Geological Engineering. Rock mechanics, mechanical mining and excavating, mine design and rock fragmentation.

Maerz, Norbert, Ph.D.²

University of Waterloo, Associate Professor of Geological Engineering and Program Head. Rock mass classification, rock engineering, slope stability, joint genesis, computer applications and image processing.

Rogers, J. David, Ph.D.^{1, 2}

University of California-Berkeley, Hasselmann Professor of Geological Engineering, Associate Professor of Geological Engineering. Seismic hazards, geotechnical engineering, dam safety and earth structures.

Warner, Don L., Ph.D.^{1, 2}

University of California-Berkeley, Professor Emeritus of Geological Engineering and Dean Emeritus, School of Mines and Metallurgy. Water resources, water pollution and environmental studies, subsurface exploration and exploitation, engineering properties of soil and rocks.

Geology and Geophysics

The Geology and Geophysics program is in the Department of Geological Sciences and Engineering.

Abdelsalom, Mohamed, Ph.D.

University of Texas-Dallas, Professor of Geology. Structural Geology and tectonics, remote sensing and GIS, Geology of Africa.

Gao, Steve, Ph.D.

University of California, Los Angeles, Professor of Geophysics. Seismology, solid earth geophysics, crustal deformation, computational geophysics, plate tectonics.

Hagni, Richard D., Ph.D.

University of Missouri-Columbia, Professor of Geology, and Curator's Professor Emeritus. Economic geology, ore microscopy, genesis of ore deposits, process mineralogy, igneous and metamorphic petrology and petrography.

Hogan, John P., Ph.D.

Virginia Polytechnic Institute and State University, Associate Professor of Geology. Igneous petrology, crust and mantle evolution.

Laudon, Robert C., Ph.D.¹

University of Texas, Professor Emeritus. Petroleum geology, reserve estimates, prospect evaluations, sedimentation, and stratigraphy.

Liu, Kelly, Ph.D.

University of California, Los Angeles, Professor of Geophysics. Exploration geophysics, digital signal processing, seismic hazard, earth structure and dynamics.

Oboh-Ikuenobe, Francisca E., Ph.D.

Cambridge, Professor of Geology and Program Head of Geology and Geophysics. Palynology, biostratigraphy, clastic petrology, diagenesis.

Rupert, Gerald B., Ph.D.

University of Missouri-Rolla, Professor Emeritus of Geophysics. Theory of seismic waves, automated interpretation of geophysical data, general exploration geophysics.

Spreng, Alfred C., Ph.D.¹

University of Wisconsin, Professor Emeritus of Geology. Stratigraphy, Paleozoic paleontology, sedimentation.

Wronkiewicz, David J., Ph.D.

University of New Mexico Institute of Mining and Technology, Associate Professor Geochemistry. Environmental geochemistry.

Geotechnics

Faculty information see Geological and Petroleum Engineering, Mining Engineering, Civil Engineering, and Geology

Cawfield, Jeffrey D., Ph.D.^{1, 2}

University of California-Berkeley, Professor of Geological Sciences and Engineering and Director of Freshman Engineering.

Gertsch, Leslie, Ph.D.

Colorado School of Mines, Assistant Professor of Geological Engineering.

Luna, Ronaldo, Ph.D.¹

Georgia Institute of Technology, Associate Professor of Civil Engineering.

Maerz, Norbert H., Ph.D., P. Eng.¹

University of Waterloo, Associate Professor of Geological Engineering.

Rogers, J. David, Ph.D., R.G.^{1, 2}

University of California-Berkeley, Hasselmann Professor of Geological Engineering, Associate Professor of Geological Engineering.

Stephenson, Richard W., Ph.D.¹

Oklahoma State University, Professor of Civil Engineering.

Summers, David A., Ph.D., Eur., Ing.

University of Leeds, Curators' Professor of Mining Engineering and Director of Rock Mechanics and Explosives Research Center and High Pressure Waterjet Laboratory.

Worsey, Paul N., Ph.D., Eur. Ing.

Newcastle Upon Tyne, Professor of Mining Engineering and Senior Research Investigator, Rock Mechanics and Explosives Research Center.

History and Political Science

Ahmad, Diana, Ph.D.

University of Missouri-Columbia, Associate Professor of History and Archivist, American West, Jefferson-Jackson, Modern East Asia, American Pacific.

Bledsoe, Wayne M., Ph.D.

Michigan State, Professor Emeritus of History. Ancient, Medieval, Theories of Civilization.

Bruening, Michael W., Ph.D.

University of Arizona, Assistant Professor of Reformation, Ancient, Medieval, Renaissance.

Buhite, Russell D., Ph.D.

Michigan State University, Professor of History. Recent U.S., U.S. Diplomatic History, U.S. East Asia Relations, History of Baseball.

Christensen, Lawrence O., Ph.D.

University of Missouri-Columbia, Curators' Teaching Professor Emeritus of History. History of Black America, History of Missouri, History of American South.

Eisenman, Harry J., Ph.D.

Case Western Reserve University, Professor Emeritus of History. History of Technology, History of Science, Recent American History.

Fogg, Shannon, Ph.D.

University of Iowa, Associate Professor of History, Modern France, French Revolution, Precolonial and Modern Africa.

Gragg, Larry D., Ph.D.

University of Missouri-Columbia, Curators' Teaching Professor of History and Department Chair of History and Political Science. Colonial America, Revolutionary America, History of the American Family, Religion and Witchcraft in Early America.

Huber, Patrick, Ph.D.

University of North Carolina, Associate Professor of History, Missouri History, American South, Recent America.

Isaac, Tseggai, Ph.D.

University of Missouri-Columbia, Associate Professor of Political Science. Public Policy, Third World Politics and Political Economy.

McManus, John, Ph.D.

University of Tennessee, Associate Professor of History and Political Science, U.S. Military, Civil War and Reconstruction.

Meagher, Michael, Ph.D.

Southern Illinois University-Carbondale, Associate Professor of Political Science. American Government, Executive Politics, Political Thought and Philosophy.

Oster, Don B., Ph.D.

University of Missouri-Columbia, Associate Professor Emeritus of History. American Urban, American Frontier, American Intellectual.

Ridley, Jack B., Ph.D.

University of Oklahoma, Curators' Teaching Professor Emeritus of History & Political Science. 19th Century Europe, Modern France, Engineering Education.

Schramm, Jeffrey W., Ph.D.

Lehigh University, Associate Professor of History, Technology, Science, Modern U.S.

Sheppard, Kathleen, Ph.D.

University of Oklahoma, Assistant Professor of History. History of Science, Women in Science, and Victorian England.

Williams, Lance, Ph.D.

Georgia, Associate Professor Emeritus of History. Great Britain Since 1700, European Social, Contemporary Europe.

Information Science and Technology

Chiu, Yu-Hsien, M.S.

University of Wisconsin-Milwaukee, Assistant Teaching Professor of Business & Information Technology. Enterprise resource planning, accounting information systems.

Claybaugh, Craig, Ph.D.

University of Wisconsin-Milwaukee, Assistant Professor of Business & Information Technology. Enterprise software usage, information technology vendor-client relationships, online trust, social networking, Internet abuse.

Flachsbart, Barry, Ph.D.

Stanford University, Professor of Information Science & Technology. Expert Systems, Artificial Intelligence, Neural Networks, Fuzzy Logic, large databases, manufacturing information systems, information system project management.

112 - Graduate Faculty

Hall, Richard H., Ph.D.

Texas Christian University, Professor of Information Science & Technology. Cognitive processes in academic learning, in particular cooperative/collaborative learning (especially scripted-cooperative learning); spatial text displays (in particular knowledge maps); and the role of advanced technologies; in particular the world wide web, in education.

Hilgers, Michael, Ph.D.

Brown University, Professor of Information Science & Technology. Learning information systems, virtual reality, participative simulations.

Lea, Bih-Ru, Ph.D.

Clemson University, Associate Professor of Business Administration. Enterprise resource planning, performance dashboards, accounting information systems, data visualization, business process integration, and supply chain management.

Lockwood, Nick, Ph.D.

Indiana University Bloomington, Assistant Professor of Information Science & Technology. Communication, collaboration, social media, Web 2.0, virtual worlds, human-computer interaction, psychophysiological research methods.

Sheng, Hong, Ph.D.

University of Nebraska-Lincoln. Assistant Professor in Business Administration and Information Science & Technology. Human-Computer Interaction, information systems management, E-Commerce, mobile commerce and ubiquitous commerce, strategic implications of mobile technology, trust and privacy issues in information systems, RFID in Health Care.

Siau, Keng, Ph.D.

University of British Columbia, Professor of Information Science & Technology, Chair, Department of Business & Information Technology. Design science, virtual worlds and 3D web, electronic, mobile, and ubiquitous business, and business intelligence/analytics.

Yu, Vincent (Wen-Bin), Ph.D.

University of Louisville, Associate Professor of Information Science & Technology. Agent based systems, supply chain management, demand forecasting, simulation, and business intelligence.

Manufacturing Engineering

Allada, Venkat, Ph.D.

University of Cincinnati, Professor of Engineering Management & Systems Engineering; Vice Provost for Graduate Studies.

Balakrishnan, S.N., Ph.D.

University of Texas Austin, Professor of Aerospace Engineering.

Birman, Victor, Ph.D.

Technion (Israel), Professor of Mechanical & Aerospace Engineering and Director of Engineering Education Center in St. Louis.

Carroll, Douglas R., Ph.D.

University of Missouri-Rolla. Professor of Mechanical Engineering.

Chandrashekhara, K., Ph.D.

Virginia Polytechnic Institute and State University, Curator's Professor of Mechanical and Aerospace Engineering.

Cudney, Elizabeth, Ph.D.

University of Missouri-Rolla, Assistant Professor of Engineering Management and Systems Engineering.

Dagli, Cihan H., Ph.D.

The University of Birmingham, England, Professor of Engineering Management and Systems Engineering. Director of Systems Engineering Program and Director of the Smart Engineering Systems Laboratory.

Daughton, William, Ph.D.

University of Missouri-Columbia, Professor of Engineering Management and Department Chair.

Dharani, Lokeswarappa, Ph.D.

Clemson University, Curator's Professor of Mechanical and Aerospace Engineering and Senior Investigator in Graduate Center for Materials Research.

Du, Xiaoping, Ph.D.

University of Illinois, Assistant Professor of Mechanical Engineering.

Ercal, Fikret, Ph.D.

The Ohio State University, Professor of Computer Science.

Erickson, Kelvin T., Ph.D.

Iowa State University, Professor of Electrical & Computer Engineering and Department Chair.

Galecki, Grzegorz, Ph.D.

Technical University of Wroclaw, Research Associate Professor of Mining Engineering.

Gosavi, Abhijit, Ph.D.

University of South Florida, Assistant Professor of Engineering Management & Systems Engineering.

Grasman, Scott, Ph.D.

University of Michigan, Associate Professor of Engineering Management & Systems Engineering.

Hilmas, Gregory E., Ph.D.

University of Michigan, Professor of Ceramic Engineering.

Kim, Chang-Soo, Ph.D.

Kyungpook National University (KNU), Taegu, Korea, Associate Professor of Electrical & Computer Engineering.

Kohser, Ronald A., Ph.D.

Lehigh University, Professor of Metallurgical Engineering.

Krishnamurthy, K., Ph.D.

Washington State University, Professor of Mechanical Engineering; Vice Provost for Research.

Landers, Robert, Ph.D.

University of Michigan, Associate Professor of Mechanical Engineering.

Lea, Bih-Ru, Ph.D.

Clemson University, Associate Professor of Business Administration.

Leu, Ming C., Ph.D.

University of California-Berkeley, Keith and Pat Bailey Distinguished Professor of Mechanical & Aerospace Engineering.

Liou, Fue-Wen "Frank", Ph.D.

University of Minnesota, Professor of Mechanical Engineering and Director of Manufacturing Engineering.

Midha, Ashok, Ph.D.

University of Minnesota, Professor of Mechanical Engineering and Department Chair.

Mishra, Rajiv S., Ph.D.

University of Sheffield, England, Curator's Professor of Metallurgical Engineering.

Moss, Randy H., Ph.D.

University of Illinois, Professor of Electrical & Computer Engineering.

Murray, Susan L., Ph.D.¹

Texas A & M University, Associate Professor of Engineering Management and Systems Engineering.

Okafor, Anthony, Ph.D.

Michigan Technological University, Professor of Mechanical Engineering.

Peaslee, Kent D., Ph.D.

University of Missouri-Rolla, Professor of Metallurgical Engineering and F. Kenneth Iverson Steelmaking Chair.

Ragsdell, Kenneth M., Ph.D.

University of Texas, Professor of Engineering Management and Director, Design Engineering Center.

Raper, Stephen A., Ph.D.

University of Missouri-Rolla, Associate Professor of Engineering Management and Systems Engineering.

Richards, Von L., Ph.D.

University of Michigan, Robert L. Wolf Professor of Metallurgical Engineering.

Sarangapani, Jagannathan, Ph.D.

University of Texas, Professor of Electrical and Computer Engineering.

Stutts, Daniel S., Ph.D.

Purdue University, Associate Professor of Mechanical Engineering and Engineering Mechanics.

Summers, David A., Ph.D.

University of Leeds, Curators' Professor of Mining Engineering and Director of Rock Mechanics and Explosives Research Center and High Pressure Waterjet Laboratory.

Takai, Shun, Ph.D.

Stanford University, Assistant Professor of Mechanical Engineering.

Tsai, Hai-lung, Ph.D.

University of California-Berkeley, Professor of Mechanical Engineering.

Watkins, Steve E., Ph.D.

The University of Texas at Austin, Professor of Electrical & Computer Engineering.

Wu, Cheng H., Ph.D.

University of Rochester, Professor of Electrical & Computer Engineering.

Xing, Yangchuan, Ph.D.

Yale University, Associate Professor of Chemical and Biological Engineering.

Materials Science and Engineering

Brow, Richard K., Ph.D.

Pennsylvania State University, Curators' Professor of Ceramic Engineering and Senior Investigator, Graduate Center for Materials Research. Physics and chemistry of inorganic glasses; spectroscopic characterization of glass structure; biomaterials; optical materials.

Day, Delbert, E., Ph.D.¹

Pennsylvania State, Curators' Professor Emeritus of Ceramic Engineering and Senior Investigator, Graduate Center for Materials Research. Structure and properties of glass, oxynitride glasses, composites, solids and nuclear waste disposal, biomaterials.

Dogan, Fatih, Ph.D.

Technical University of Berlin, Germany, Professor of Ceramic Engineering. High temperature superconductors, solid oxide fuel cells, dielectrics, nanostructured electronic ceramics.

Fahrenholtz, William G., Ph.D.

University of New Mexico, Professor of Ceramic Engineering. Thermodynamics, phase equilibria, reactive processing, ultra-high temperature ceramics.

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Hilmas, Gregory E., Ph.D.

University of Michigan, Curators' Professor of Ceramic Engineering and Senior Investigator, Graduate Center for Materials Research. Microstructure-processing-mechanical property relationships in structural ceramics; novel processing techniques for the fabrication of ceramics and ceramic composites; biomaterials.

Huebner, Wayne, Ph.D.

University of Missouri-Rolla, Professor of Ceramic Engineering, Department Chair. Structure-property relationships in ferroelectric, piezoelectric, and ionically-conducting materials.

Kohser, Ronald A., Ph.D.

Lehigh University, Professor of Metallurgical Engineering. Metal forming, surface and wear behavior.

Miller, F. Scott, Ph.D.

University of Missouri-Rolla, Associate Teaching Research Professor of Metallurgical Engineering. Electron microscopy, materials characterization.

Newkirk, Joseph W., Ph.D.

University of Virginia, Associate Professor of Metallurgical Engineering. Intermetallic alloys, alloys for corrosion and high temperature, powder metallurgy.

O'Keefe, Matthew J., Ph.D.

University of Illinois, Professor of Metallurgical Engineering and Director of Materials Research Center. Thin film and coating materials deposition, process development and characterization.

Peaslee, Kent D., Ph.D.¹

University of Missouri-Rolla, Curator's Professor of Metallurgical Engineering and F. Kenneth Iverson Chair of Steelmaking Technology. Manufacturing and process metallurgy, environmental concerns and recycling in metals industry.

Rahaman, Mohamed N., Ph.D.

University of Sheffield, England, Professor of Ceramic Engineering. Processing of ceramics; sintering and microstructure control; biomaterials.

Reidmeyer, Mary, Ph.D.

University of Missouri-Rolla, Teaching Associate Professor of Ceramic Engineering and Outreach Coordinator.

Richards, Von L., Ph.D.

University of Michigan, Associate Professor of Metallurgical Engineering. Metal casting, mold materials, property enhancement of cast alloys.

Robertson, David G.C., Ph.D.

University of New South Wales, Australia, Emeritus Professor of Metallurgical Engineering. Pyrometallurgical processing.

Schlesinger, Mark E., Ph.D.¹

University of Arizona, Professor of Metallurgical Engineering. Pyrometallurgical processing, high temperature thermochemistry and kinetics.

Schwartz, Robert W., Ph.D.

University of Illinois at Urbana-Champaign, VPAA and Professor of Ceramic Engineering. Dielectric and ferroelectric ceramics; ceramic thin films: processing and microstructure control; functional materials; structure-property relationships in ceramics.

Smith, Jeffrey D., Ph.D.

University of Missouri-Rolla, Associate Professor of Ceramic Engineering. Thermochemistry and high temperature phase equilibria of condensed and non-condensed ceramic systems; chemical, mineralogical and microstructural analysis of refractory materials.

Van Aken, David C., Ph.D.¹

University of Illinois, Curator's Professor of Metallurgical Engineering. Thermal spraying, fatigue and fracture, rapid solidification, advanced alloy design, electron microscopy.

Mathematics and Statistics

Adekpedjou, Akim, Ph.D.

University of South Carolina, Assistant Professor of Statistics. Recurrent event data analysis, stochastic processes, survival analysis, actuarial science.

Akin-Bohner, Elvan, Ph.D.

University of Nebraska, Associate Professor of Mathematics. Ordinary differential equations, difference equations, boundary value problems, oscillation, dynamic equations on time scales.

Bohner, Martin, Ph.D.

University of Ulm, Germany, Professor of Mathematics. Ordinary differential equations, difference equations, Hamiltonian systems, variational analysis, boundary value problems, control theory, oscillation, dynamic equations on time scales.

Charatonik, Wlodzimierz J., Ph.D.

University of Warsaw, Professor of Mathematics. Topology, continuum theory, hyperspaces, inverse limits.

Clark, Stephen L., Ph.D.

University of Tennessee, Professor of Mathematics. Operator theory, direct and inverse spectral theory, boundary value problems.

Dwilewicz, Roman J., Ph.D., D.Sc.

University of Warsaw. Professor of Mathematics. Geometric analysis, complex analysis, algebraic geometry, number theory.

Grow, David E., Ph.D.

University of Nebraska, Associate Professor of Mathematics. Fourier analysis, mathematical physics, functional analysis.

Hall, Leon M., Ph.D.

University of Missouri - Rolla, Professor of Mathematics and Department Chair. Ordinary differential equations, mathematical analysis, geometry.

He, Xiaoming, Ph.D.

Virginia Tech University, Assistant Professor of Mathematics. Computational partial differential equation, computational fluid dynamics, computational electromagnetic, interface problems, stochastic partial differential equations, extrapolation, boundary integral equations.

Insall, Eugene M., Jr., Ph.D.

University of Houston, Associate Professor of Mathematics. Algebra, nonstandard methods, logic, applications.

Le, Vy Khoi., Ph.D.

University of Utah, Professor of Mathematics. Nonlinear differential equations, bifurcation, calculus of variations.

Morgan, Ilene H., Ph.D.

Pennsylvania State University, Associate Professor of Mathematics. Algebra, finite fields and application to combinatorics.

Olbricht, Gayla R., Ph.D.

Purdue University, Assistant Professor of Statistics. Statistical genomics and epigenomics, hidden Markov models, mixed models, and modeling dependent data.

Paige, Robert L., Ph.D.

Colorado State University, Associate Professor of Statistics. Saddlepoint approximations, non-parametric methods, biostatistics.

Roe, Robert P., Ph.D.

University of Wyoming, Associate Professor of Mathematics. Chaotic dynamical systems, topological dynamics, geometric topology, geometric analysis.

Samaranayake, V.A., Ph.D.

Kansas State University, Professor of Statistics. Reliability, time series analysis, statistical applications in biology, economics, and engineering.

Singler, John R., Ph.D.

Virginia Tech University, Assistant Professor of Mathematics. Computational partial differential equations, fluid dynamics.

Wen, Xuerong, Ph.D.

University of Minnesota, Associate Professor of Statistics. Dimension reductions, nonparametric regression, statistical genetics, biostatistics, regression graphics.

Zhang, Yanzhi, Ph.D.

National University of Singapore, Assistant Professor of Mathematics. Computational and applied mathematics,

multiscale material modeling and simulation, optimal control problems, Bose-Einstein condensation and superconductivity.

Mechanical and Aerospace Engineering

Alofs, Darryl J., Ph.D.

University of Michigan, Professor Emeritus of Mechanical Engineering. Fluid mechanics, aerosol mechanics, atmospheric aerosols, and the role of clouds in global climate.

Armaly, Bassem F., Ph.D.

University of California at Berkeley, Curators' Professor Emeritus of Mechanical Engineering. Heat transfer and fluid mechanics, thermophysical properties, heat pipes, combined conduction-convection and radiation heat transfer problems, solar energy, cryogenics, and thermal effects in manufacturing processes.

Avula, Xavier J.R., Ph.D.

Iowa State University, Professor Emeritus of Mechanical and Aerospace Engineering. Vibration control systems, neural networks, fuzzy systems, machinery failure diagnostics, composite materials, bio-mechanical systems, electric and hybrid vehicle systems, micro-electromechanical systems, solid-fluid interaction problems.

Balakrishnan, S.N., Ph.D.

University of Texas Austin, Professor of Aerospace Engineering. Control of aerospace and mechanical systems, flight and orbital mechanics, optimization identification and estimation, numerical methods and stochastic processes, neural networks, wavelets.

Barker, Clark R., Ph.D.

University of Illinois, Professor Emeritus of Mechanical Engineering. Kinematics, dynamics, vibrations, analysis and design of mechanical systems; and computer simulations of systems.

Basye, Charles B., Ph.D.

Iowa State University, Professor Emeritus Engineering Mechanics. Failure analysis, fracture mechanics, fatigue, product liability and engineering design, vibration and dynamics.

Birman, Victor, Ph.D.

Technion (Israel), Professor of Mechanical and Aerospace Engineering and Director Engineering Education Center in St. Louis. Composite material structures, smart structures and materials, structural dynamics and vibration, buckling and dynamic stability.

Chandrashekhara, K., Ph.D.

Virginia Polytechnic Institute and State University, Curators' Professor of Engineering Mechanics. Composite materials, smart structures, structural dynamics, finite element analysis, composite manufacturing and experimental characterization.

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Chen, Ta-Shen, Ph.D.

University of Minnesota, Curators' Professor Emeritus of Mechanical Engineering. Convective heat and mass transfer; natural and mixed convection in clear fluids, in porous media, in separated flows, and in condensation; linear and nonlinear instability of laminar flow; wave and thermal instability of natural and mixed convection flows; and turbulent heat transfer in natural and mixed convection.

Cronin, Donald L., Ph.D.

California Institute of Technology, Professor Emeritus of Mechanical and Aerospace Engineering. Structural dynamics; vibrations, test and analysis, nonlinear systems, structures; dynamics; optimization; sensitivity; mechanical design; design; numerical methods.

Crosbie, Alfred L., Ph.D.

Purdue University, Curators' Professor Mechanical Engineering. Multidimensional radiative heat transfer, laser processing of materials, radiative heat transfer in combustion processes, microscale heat transfer, biomedical optics, interaction of radiation with conduction and convection, multiple scattering and polarization of laser beams, solutions of integral equations, and numerical heat transfer.

Cunningham, Floyd M., Ph.D.

Iowa State University, Associate Professor Emeritus of Engineering Mechanics. Vibrations, mechanics of materials.

Dharani, Lokeswarappa R., Ph.D.

Clemson University, Curators' Professor of Engineering Mechanics and Aerospace Engineering and Senior Investigator in Graduate Center for Materials Research. Micromechanics of bi-material interfaces, composite materials, fracture mechanics, fatigue and failure analysis of welded structures, wear and friction in composites, fracture and failure of laminated glass.

Drallmeier, James A., Ph.D.

University of Illinois, Curators' Teaching Professor of Mechanical Engineering and Department Chair. Combustion, laser based diagnostics for sprays and combustion, optical measurement systems, fuel injection, and internal combustion engines.

Du, Xiaoping, Ph.D.

University of Illinois at Chicago, Associate Professor of Mechanical Engineering. Design optimization, multidisciplinary design optimization, probabilistic/statistical methods, system/structural reliability, robust design, model validation, and mechanism synthesis.

Edwards, Charles L., Ph.D.

University of Arkansas, Associate Professor Emeritus of Mechanical Engineering. Kinematics, dynamics of machinery, robotics.

Eversman, Walter, Ph.D.

Stanford University, Curators' Professor of Mechanical and Aerospace Engineering. Noise control, acoustics, vibrations, aircraft structural dynamics and aeroelasticity, systems and control.

Finaish, Fathi, Ph.D.

University of Colorado, Professor of Aerospace Engineering. Aerodynamic testing, unsteady flows, vortex dynamics in separated flows, physical and numerical flow visualizations, variable density flows, and flow control.

Flanigan, Virgil J., Ph.D.

University of Missouri-Rolla, Professor Emeritus of Mechanical Engineering; Director, Center for Environmental Science & Technology. Alternate energy studies including biomass gasification systems, fuel combustion studies, waste utilization and coal characteristics, mechanical and hydraulic control systems, renewable energy sources, soybean utilization and soy oil extraction processes.

Gao, Jie, Ph.D.

Columbia University, Assistant Professor of Mechanical Engineering. Nanophotonics devices based on silicon photonics, plasmonics and metamaterials; light-matter interactions in photonic nanostructures; optical sensing; quantum dots; quantum optics and quantum information processing; solar energy harvesting; light emitting devices.

Homan, Kelly O., Ph.D.

University of Illinois at Urbana-Champaign, Associate Professor of Mechanical Engineering. Fluid dynamics, heat transfer and thermodynamics of energy systems, heat and mass transfer in buoyant flows, second-law and energy analysis, numerical simulation of transport phenomena and experimental methods.

Hosder, Serhat, Ph.D.

Virginia Polytechnic Institute and State University, Assistant Professor of Aerospace Engineering. Computational fluid dynamics, aerodynamics, multidisciplinary design and optimization, uncertainty and error quantification in computational simulations, robust design, micro/nano flows, hypersonic flows, numerical methods.

Howell, Ronald H., Ph.D.

University of Illinois, Professor Emeritus of Mechanical Engineering. Air curtains, jet mixing, heating, refrigeration, air conditioning, building energy analysis and conservation techniques, industrial energy conservation, heat pump analysis, fluid dynamics, psychometrics, system simulation.

Isaac, Kakkattukuzhy M., Ph.D.

Virginia Polytechnic Institute and State University, Professor of Aerospace Engineering and Associate Chair for Aerospace Engineering. Fluid dynamics and combustion, aero-structure interaction and control, intelligent aircraft, active flow control, wave-riders, microfluidics, MEMS, flow and combustion in porous media, multiphase flow, emissions from combustion and evaporative systems, lean premixed combustion, combustion instability, active

combustion control, atomization and sprays, particle image velocimetry (PIV) and CFD applications in fluid dynamics and combustion problems.

Kinzel, Howard, Ph.D.

Purdue University, Assistant Professor of Mechanical Engineering. Infrared metamaterials for radiation heat-transfer, optical antennas, near-field optics, and nanophotonics for laser based manufacturing, particularly at the micro/nanoscale and direct energy conversion.

Koval, Leslie R., Ph.D.

Cornell University, Professor Emeritus of Mechanical and Aerospace Engineering. Smart structures, vibrations, acoustics, structural dynamics.

Koylu, Umit O., Ph.D.

The University of Michigan at Ann Arbor, Professor of Mechanical Engineering. Combustion, environmental technology, soot formation, turbulent flames, laser diagnostics, flame radiation, formation and emission of pollutants, synthesis of nanoparticles, micro-energy systems.

Krishnamurthy, K., Ph.D.

Washington State University, Professor of Mechanical Engineering and Vice Provost for Research. Advanced manufacturing systems, intelligent control, micro-electromechanical systems, nanotechnology, robotics.

Landers, Robert G., Ph.D.

University of Michigan, Professor of Mechanical Engineering. Manufacturing, systems, and control; modeling, analysis, monitoring, and control of manufacturing processes; metal cutting processes; laser metal deposition; friction stir welding; freeze extrusion fabrication; integrated design and control; control of alternative energy systems; digital control applications.

Lee, Shen C., Ph.D.

University of Washington, Professor Emeritus of Mechanical and Aerospace Engineering. Computational fluid dynamics, numerical simulation of transport phenomena, experimental methods in turbulent flows, fluid mechanics and thermodynamics for environmental and energy systems, power generation and energy conservation.

Lehnhoff, Terry F., Ph.D.

University of Illinois, Professor Emeritus of Mechanical and Aerospace Engineering. Fastener analysis by finite element methods, mechanical design, finite element simulation, fatigue, and failure analysis.

Leu, Ming C., Ph.D.

University of California, Berkeley, Keith and Pat Bailey Distinguished Professor of Aerospace and Mechanical Engineering. Rapid prototyping, intelligent manufacturing, virtual reality, CAD/CAM, robotics, mechatronics, automatic control.

Liou, Fue-Wen "Frank", Ph.D.

University of Minnesota, Michael and Joyce Bytnar Product Innovation and Creativity Professor of Mechanical Engineering; Director of Manufacturing Engineering. Computer-aided design and manufacturing, rapid prototyping, rapid manufacturing, virtual manufacturing, and micro-machining.

Look Jr, Dwight C., Ph.D.

University of Oklahoma, Professor Emeritus of Engineering Mechanics. Experimental scattering and reflection of thermal radiation, thermophysical properties, radiative heat transfer, solar energy, and polarization effect on scattering (Stokes Vector and Mueller Matrix determination), fins.

MacSithigh, Gearoid P., Ph.D.

University of Minnesota, Associate Professor of Engineering Mechanics. Finite elasticity, viscoelasticity, liquid crystal hydrodynamics, solid and continuum mechanics.

Medrow, Robert A., Ph.D.

University of Illinois, Associate Professor Emeritus of Mechanical Engineering. Internal and external viscous flows, elasto-hydrodynamics and liquid film lubrication, numerical techniques associated with transport phenomena.

Midha, Ashok, Ph.D.

University of Minnesota, Professor Mechanical Engineering and Director of the Product Innovation Creativity Center. Mechanical design, rigid-body and compliant mechanism design, high-performance machinery analysis and design, machine vibration and stability.

Nisbett, J. Keith, Ph.D.

University of Texas at Arlington, Associate Professor of Mechanical Engineering and Associate Chair for Mechanical Engineering. Kinematics, mechanical design, and synthesis of mechanisms.

Oetting, Robert B., Ph.D.

University of Maryland, Professor Emeritus of Mechanical and Aerospace Engineering. Experimental aerodynamics, including V-STOL, propulsion studies, and flight simulation.

Okafor, A., Ph.D.

Michigan Technological University, Professor of Mechanical Engineering. Manufacturing including intelligent machining, metal forming, machine tool dynamics, acoustic emission, sensors, multi-sensor fusion and signal processing, CNC, CAD/CAM, virtual manufacturing, machine tool metrology, neural network and expert system applications; smart structures including intelligent health monitoring, damage assessment of composite structures; non-destructive evaluation.

Pernicka, Henry J., Ph.D.

Purdue University, Associate Professor of Aerospace Engineering. Astrodynamics, orbital mechanics, spacecraft design, spacecraft mission design, satellite attitude dynamics, nonlinear analysis, dynamics and control, optimization.

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Podzimek, Josef, Ph.D.

Charles University, Prague, Czechoslovakia, Professor Emeritus of Mechanical and Aerospace Engineering and Senior Research Investigator, Cloud and Aerosol Sciences Laboratory. Aerosol mechanics, experimental aerodynamics, experimental cloud physics, and low Reynolds number aerodynamics.

Remington, Charles R., M.S.

University of Missouri School of Mines and Metallurgy, Professor Emeritus of Mechanical Engineering. Heat transfer by conduction in solids, liquids and gases, thermophysical properties and measurements, thermal resistance of bonds and contacts.

Riggins, David W., Ph.D.

Virginia Polytechnic Institute and State University, Professor of Mechanical & Aerospace Engineering. Fluid dynamics, computational fluid dynamics, hyper/sonic propulsion systems, computational analysis of jet mixing, flow losses and mixing enhancement in combustors, aircraft gas turbine scramjet propulsion systems, and scramjet performance.

Rovey, Joshua L., Ph.D.

University of Michigan, Assistant Professor of Aerospace Engineering. Plasma aerospace applications, advanced plasma space propulsion, Hall thrusters, ion thrusters, plasma aerodynamics and flow control, plasma-enhanced combustion, plasma-based energy systems, hypersonics/re-entry body plasma interactions, plasma physics and rarefied gas dynamics.

Selberg, Bruce P., Ph.D.

University of Michigan, Professor Emeritus of Aerospace Engineering. Aerodynamics, aerospace systems design, fluid mechanics, propulsion, aerothermochemistry.

Sheffield, John W., Ph.D.

North Carolina State University, Professor of Mechanical and Aerospace Engineering. Industrial energy management and waste minimization, conduction heat transfer, thermal contact conductance/resistance, phase change materials/thermal energy storage, hydrogen energy.

Stutts, Daniel S., Ph.D.

Purdue University, Associate Professor of Mechanical Engineering and Engineering Mechanics. Dynamics, vibrations, modeling and development of piezo-actuators and transducers-mechatronics, mechanics of bone, design of orthopedic implants, structural dynamics, optimal design, acoustics.

Tsai, Hai-Lung, Ph.D.

University of California-Berkeley, Professor of Mechanical Engineering. Solidification processes, heat transfer and fluid mechanics in materials processing and manufacturing (alloy casting, welding, crystal growth, metal matrix composites, injection molding), laser-based manufacturing (laser welding, cladding, micro-machining, rapid prototyping).

Yang, Xiaodong, Ph.D.

Columbia University, Assistant Professor of Mechanical Engineering. Optical materials and devices in nanophotonics and plasmonics; physics and applications of optical metamaterials; nanoscale optomechanics, optical nanoelectromechanical systems (NEMS); integrated optofluidic devices and optical sensors; photon management for solar/thermal energy harvesting; optical device micro-/nano-fabrication.

Metallurgical Engineering

The Metallurgical Engineering program is in the Department of Materials Science and Engineering. For more information about faculty members listed below, see Materials Science and Engineering.

Kohser, Ronald A., Ph.D.

Lehigh University, Professor of Metallurgical Engineering.

Miller, F. Scott, Ph.D.

University of Missouri-Rolla, Associate Teaching Professor of Metallurgical Engineering.

Mishra, Rajiv S., Ph.D.

University of Sheffield, England, Curator's Professor of Metallurgical Engineering.

Newkirk, Joseph W., Ph.D.

University of Virginia, Associate Professor of Metallurgical Engineering.

O'Keefe, Matthew J., Ph.D.

University of Illinois, Professor of Metallurgical Engineering and Director of Materials Research Center.

Peaslee, Kent D., Ph.D.¹

University of Missouri-Rolla, Curators' Professor of Metallurgical Engineering and F. Kenneth Iverson Chair of Steelmaking Technology.

Richards, Von L., Ph.D.

University of Michigan, Associate Professor of Metallurgical Engineering.

Robertson, David G.C., Ph.D.

University of New South Wales, Australia, Emeritus Professor of Metallurgical Engineering.

Schlesinger, Mark E., Ph.D.¹

University of Arizona, Professor of Metallurgical Engineering.

Van Aken, David C., Ph.D.¹

University of Illinois, Curator's Professor of Metallurgical Engineering.

Mining Engineering

Awuah-Offei, Kwame, Ph.D.

University of Missouri-Rolla, Assistant Professor of Mining Engineering. Dredging, environmental and reclamation engineering, formation excavation, mineral processing, systems modeling and optimization.

Baird, Jason, Ph.D.

University of Missouri-Rolla, Associate Professor of Mining Engineering. Defense against blast, energetic materials, advanced composite materials, explosive taggants, structural integrity of materials, explosive-driven pulsed power.

Bullock, Richard L., D.Eng.

University of Missouri-Rolla, Professor Emeritus in Mining Engineering. Surface and underground mining methods, industrial minerals and metal mining, mine evaluation and feasibility, and tunneling and underground construction.

Frimpong, Samuel, Ph.D.

University of Alberta, Professor and Chair of Mining and Nuclear Engineering, and Robert H. Quenon Endowed Chair Professor. Surface mining, oil sands extraction, machine-formation interactions, mine machinery health and longevity, bulk material transport, risk and safety engineering, operations research.

Galecki, Grzegorz, Ph.D.

Technical University of Wroclaw, Research Associate Professor. High-pressure waterjet technology, designing special equipment and processes supported by waterjets, design for manufacturing, computer integrated manufacturing.

Ge, Maochen, Ph.D.

Penn State, Associate Professor. Rock mechanics, ground support, ground movement, mathematic modeling.

Grayson, R. Larry, Ph.D.

West Virginia University, Professor Emeritus in Mining Engineering. Coal mining, mine safety and health, respirable dust, mine management, computer applications in Mining, operations research, and optimization.

Golosinski, Tad, Ph.D.

University of Mining and Metallurgy, Cracow, Professor Emeritus of Mining Engineering. Mining methods, mine plant, mine planning and design.

Haas, Charles J., D.Sc.

Colorado School of Mines, Professor Emeritus of Mining Engineering. Rock mechanics, explosive and impact loading, rock properties, design and stability of underground structures.

Saperstein, Lee W., Ph. D

Oxford University, Dean Emeritus and Professor of Mining Engineering. Surface mining, mine environmental engineering, mine safety and health, quality in engineering education.

Summers, David A., Ph.D.

University of Leeds, Curators' Professor Emeritus of Mining Engineering. Waterjet technology, drilling, blasting, rock mechanics, project design, non-explosive rock fragmentation, and strata control.

Tien, Jerry C., Ph.D.

University of Missouri-Rolla, Associate Professor of Mining Engineering. Mine ventilation, safety and health, operations research, economics.

Wilson, John W., Ph.D.

University of Witwatersrand, Professor Emeritus of Mining Engineering. Mine planning, mine management, coal mining, applied rock mechanics, mine mechanization, and mining.

Worsey, Paul N., Ph.D.

Newcastle Upon Tyne, Professor of Mining Engineering. Explosives, blasting and excavation engineering, commercial pyrotechnics.

Nuclear Engineering

Alajo, Ayodeji Babatunde, Ph.D.

Texas A&M University, Assistant Professor of Nuclear Engineering. High fidelity nuclear systems design and modeling, advanced fuel cycles, radioactive waste management, and nuclear systems safety.

Castano, Carlos, H., Ph.D.

University of Illinois, Assistant Professor of Nuclear Engineering. Plasma material interactions and vacuum breakdown, nuclear materials, and radiochemistry.

Kumar, Arvind, Ph.D.

University of California-Berkeley, Professor of Nuclear Engineering and Program Chair. Nuclear materials, radiation damage, and mechanical properties.

Lee, Hyoung Koo, Ph.D.

University of California, Berkeley, Associate Professor of Nuclear Engineering. Radiation imaging systems (x-ray, gamma, and neutron), digital image processing and CT reconstruction, medical and industrial applications of radiation imaging.

Liu, Xin, Ph.D.

University of Wisconsin-Madison, Assistant Professor of Nuclear Engineering. Radiation detection and measurement, medical imaging system, Monte Carlo simulation, advanced nuclear energy system design.

Mueller, Gary Edward, Ph.D.¹

University of Missouri-Rolla, Associate Professor of Nuclear Engineering. Nuclear power safety analysis, heat transfer and fluid flow, packed bed characteristics.

Usman, Shoaib, Ph.D.

University of Cincinnati, Associate Professor of Nuclear Engineering. Turbulence and dispersion, environmental radon measurement, radiation measurement and effects on materials, and radiation interaction with fluids.

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Petroleum Engineering

Baojun Bai, Ph.D.

New Mexico Institute of Mining and Technology, Associate Professor of Petroleum Engineering. Conformance control, enhanced oil recovery (EOR), numerical modeling and reservoir simulation, multiple-phase fluid flow in porous media, and carbon sequestration.

Dunn-Norman, Shari, Ph.D.

Heriot-Watt University, Associate Professor of Petroleum Engineering. Well completions, including completion reliability and benchmarking, well stimulation, well productivity, production engineering and offshore operations.

Eckert, Andreas, Ph.D.

University of Karlsruhe, Assistant Professor of Petroleum Engineering. Mechanical earth modeling, finite element methods in petroleum engineering, petroleum geomechanics and geophysics.

Flori, Ralph, Ph.D.

University of Missouri-Rolla, Associate Professor of Petroleum Engineering. Engineering mechanics, mechanical earth modeling, reservoir engineering, reservoir simulation, engineering education.

Koederitz, Leonard F., Ph.D.¹

University of Missouri-Rolla, Curators' Teaching Professor Emeritus of Petroleum Engineering. Petroleum economics, transient pressure analysis, reservoir simulation, and reservoir engineering.

Numbere, Daopu T., Ph.D.

University of Oklahoma, Professor of Petroleum Engineering. Reservoir engineering, secondary and tertiary recovery.

Nygaard, Runar, Ph.D.

University of Oslo, Assistant Professor of Petroleum Engineering. Drilling, geomechanics, carbon sequestration.

Wei, Mingzhen, Ph.D.

New Mexico Institute of Mining and Technology. Reservoir simulation, reservoir engineering, data modeling, data management, and advanced application development using artificial intelligence computation in the Petroleum Engineering.

Physics

Adawi, Ibrahim H., Ph.D.

Cornell University, Professor Emeritus of Physics.

Alexander, Ralph W., Ph.D.

Cornell University, Professor Emeritus of Physics.

Bieniek, Ronald J., Ph.D.

Harvard University, Professor of Physics. Theoretical atomic and molecular collision processes; Physics education.

Carstens, John C., Ph.D.

University of Missouri-Rolla, Professor Emeritus of Physics.

DuBois, Robert D., Ph.D.

University of Nebraska, Professor of Physics. Experimental atomic and molecular collisions.

Gerson, Robert, Ph.D.

New York University, Professor Emeritus of Physics.

Hagen, Donald E., Ph.D.

Purdue University, Professor of Physics. Experimental and theoretical studies of condensation, nucleation, and aerosol physics.

Hale, Barbara N., Ph.D.

Purdue University, Professor of Physics. Theoretical atmospheric physics involving studies of nucleation and growth of ice.

Hale, Edward B., Ph.D.

Purdue University, Professor Emeritus of Physics.

Hor, Yew San, Ph.D.

Rutgers University, Assistant Professor of Physics. Growth and characterization of exotic materials.

Jentschura, Ulrich D., Ph.D.

Dresden University of Technology, Assistant Professor of Physics. Dynamics of few-electron atoms and ions.

Madison, Don H., Ph.D.

Florida State University, Curators' Professor of Physics. Theoretical studies of electron-atom collisions.

Medvedeva, Julia, Ph.D.

Russian Academy of Science, Associate Professor of Physics. Theoretical condensed matter physics. First principles computational methods.

Olson, Ronald E., Ph.D.

Purdue University, Curators' Professor Emeritus of Physics.

Park, John T., Ph.D.

University of Nebraska, Professor Emeritus of Physics and Chancellor Emeritus.

Parris, Paul E., Ph.D.

University of Rochester, Professor of Physics. Theoretical condensed matter physics. Transport in disordered materials, photoelectronic polymers, polaron physics.

Peacher, Jerry L., Ph.D.

Indiana University, Professor of Physics. Theoretical atomic and molecular collisions.

Pringle, Oran Allan, Ph.D.

University of Missouri-Columbia, Curators' Teaching Professor of Physics. Experimental solid state physics. Magnetism, neutron scattering and Mossbauer spectroscopy.

Schmitt, John L., Ph.D.

University of Michigan, Associate Professor of Physics. Instrumentation, vapor to liquid nucleation, and astrophysics.

Schulz, Michael, Ph.D.

University of Heidelberg, Curators' Professor of Physics. Experimental atomic and molecular collisions.

Sparlin, Don M., Ph.D.

Northwestern University, Professor Emeritus of Physics.

Story, J. Greg, Ph.D.

University of Southern California, Associate Professor of Physics. Experimental atomic and molecular physics. Laser excitation of atoms.

Vojta, Thomas, Ph.D.

University of Chemnitz, Professor of Physics. Theoretical condensed matter and statistical physics. quantum and classical phase transitions, transport, and disorder.

Waddill, Dan, Ph.D.

Indiana University, Professor of Physics and Department Chair. Experimental solid state physics. Surface physics and nano-scale magnetism.

Wilemski, Gerald, Ph.D.

Yale University, Professor of Physics. Theoretical chemical physics. Nucleation, aerosols, and neutron scattering.

Yamilov, Alexey, Ph.D.

City University of New York, Assistant Professor of Physics. Theoretical optical Physics. Wave propagation in complex media.

Psychology

Bichsel, Jacqueline, Ph.D.

University of Alabama, Assistant Professor of Psychology. Cognitive and personality predictors of attitudes and health outcomes; anxiety, working memory, and cognitive performance; relations between cognition and personality across the lifespan.

Haemmerlie Montgomery, Frances (Dee), Ph.D.

Florida State University, Distinguished Teaching Professor of Psychology. Clinical psychology and the interface between clinical and social psychology; factors associated with self-esteem and success in college students including gender issues, body image, personality; and leadership skills, effective education and prevention approaches for problems associated with college student alcohol abuse.

Henslee, Amber M., Ph.D.

Auburn University, Assistant Professor of Psychology. Clinical psychology; college student drinking and substance use-related behaviors; intervening with college students; brief interventions and empirically supported interventions; motivational interviewing and motivational enhancement therapy; addiction and posttraumatic stress disorder treatment-related issues; the role of religious coping in response to negative life events.

Martin, James H., Ph.D.

Louisiana State University, Associate Professor of Psychology. Industrial and Organizational Psychology, motivational processes and performance, and the role of global and facet personality traits.

Montgomery, Robert L., Ph.D.

Oklahoma State University, Professor of Psychology. Social Psychology and organizational behavior; leadership; persuasion; group dynamics; research design, measurement, and issues relating to evaluation research; personality and success; and personnel selection.

Sharpsteen, Don J., Ph.D.

University of Denver, Associate Professor of Psychology. Social and personality psychology and social cognition, as it relates to emotions and close relationships (especially romantic ones); attachment processes in close relationships; evolutionary influences on dating behavior, romantic jealousy, and gossiping; intimacy in friendships; parents' reasons for spanking their children.

Stone, Nancy J., Ph.D.

Texas Tech University, Professor of Psychology. Industrial-Organizational Psychology and Human Factors; Environmental design; group processes, team work, and distributed teams; student learning; training; research design and statistics; program evaluation; and the interview process.

Systems Engineering

(See **Engineering Management and Systems Engineering**)

Technical Communication

(See **English and Technical Communication**)