

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, all Deans that have administrative responsibility related to graduate programs, Chairs of Departments authorized to offer graduate degree programs, and other members of the instructional and research faculty with rank or rank equivalent to Assistant Professor or higher, who are accepted under the rules of the Graduate Faculty to assume the responsibilities and authorities delegated to it.

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, and 3 in the faculty listing refer to the following common footnotes:

¹Registered Professional Engineer

²Registered Geologist

³Certified Health Physicist

Aerospace Engineering

(See Mechanical and Aerospace Engineering)

Arts, Language and Philosophy

Philosophy

Miller, Richard W., Ph.D.,

University of Illinois, Professor of Philosophy and Department Chair. 19th Century American Philosophy, Logic (specialty in Pedagogy), Philosophy of Science.

Art

Bogan, James Jr., Ph.D.,

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

German

Cohen, Gerald, Ph.D.,

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

Music

Oakley, David L., Ph.D.,

Indiana University, Professor Emeritus of Music.

Speech & Media Studies

Haynes, W. Lance, Ph.D.,

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

Basic Engineering

Carroll, Douglas R., Ph.D.,¹

University of Missouri-Rolla. Professor and Director of Basic Engineering, Student Design Competition Center.

Davis, Robert L., Ph.D.,¹

University of Maryland. Professor Emeritus of Basic Engineering and Director, Instructional Software Development Center. Educational technology, instructional software.

Hubing, Nancy, Ph.D.,

North Carolina State University, Associate Professor of Basic Engineering. Engineering education, instructional technology, electrical engineering.

Philpot, Timothy A., Ph.D.,¹

Purdue University. Assistant Professor of Basic Engineering. Instructional Software, wood structures, structural engineering.

Stone, Robert B., Ph.D.,

The University of Texas at Austin, Associate Professor of Basic Engineering. Design Theory and Methodologies, product architecture, functional representations of design, systems modeling, design languages.

White, Daniel R., Ph.D.,

University of Missouri-Rolla, Associate Professor of Basic Engineering and Senior Investigator-Cloud and Aerosol Science Laboratory. Atmospheric aerosol characterization, development of atmospheric aerosol measurement and characterization instrumentation, laboratory cloud simulation.

Biological Sciences

Aronstam, Robert S., Ph.D.,

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

Brown, Roger F., Ph.D.,

Colorado State, Professor of Biological Sciences. Mammalian cell biology, developmental biology, molecular biology.

Frank, Ronald L., Ph.D.,

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

Gale, Nord L., Ph.D.,

Brigham Young University, Professor Emeritus of Biological Sciences. Cell physiology, comparative physiology, physiological and environmental effect of heavy metals.

Huang, Yue-Wern, Ph.D.,

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

Lutz, Paula M., Ph.D.,

Duke University, Professor of Biological Sciences and Dean of the College of Arts and Sciences. Immunology, immunochemistry, microbiology.

Maglia, Anne, Ph.D.,

University of Kansas, Assistant Professor of Biological Sciences. Ecology, evolutionary biology, developmental biology, bioinformatics.

Mormile, Melanie R., Ph.D.,

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

Niyogi, Dev K., Ph.D.,

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

Porterfield, D. Marshall, Ph.D.,

Louisiana State University, Assistant Professor of Biological Sciences. Plant physiology and sensor technology.

Westenberg, David J., Ph.D.,

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

Biomaterials

Brow, Richard K., Ph.D.,

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

Brown, Roger F., Ph.D.,

Colorado State, Professor of Biological Sciences. Mammalian cell biology, developmental biology, molecular biology.

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.

Hilmas, Gregory E., Ph.D.,

University of Michigan, Associate Professor of Ceramic Engineering. Microstructure-processing-mechanical property relationships in structural ceramics; novel processing techniques for the fabrication of ceramics and ceramic composites; biomaterials.

Miller, F. Scott, Ph.D.

University of Missouri-Rolla, Assistant Professor of Metallurgical Engineering. Electron microscopy, materials characterizations.

Rahaman, Mohamed N., Ph.D.,

University of Sheffield, England, Professor of Ceramic Engineering. Processing and sintering of structural and functional ceramics; sol-gel, chemical precipitation and powder processing; grain growth and micro-structure control; biomaterials.

Van Aken, David C., Ph.D.,¹

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

Wan, Kai-tak, Ph.D.,

University of Maryland at College Park, Assistant Professor of Mechanical Engineering. Cellular Biomechanics, mechanical characterization of single cell / multi-cell aggregate / thin films, adhesion measurements, interaction between bio-capsules and fluids, electronics packaging.

Westenberg, David J., Ph.D.,

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

Business Administration

Kluczny, Raymond, Ph.D.,

Arizona State University, Department Chair of Business Administration, Associate Professor of Engineering Management and Management information systems, decision support systems, and integrated business systems.

Gentry, Lance, Ph.D.,

Michigan State University, Assistant Professor of Business Administration, New Product Development, Forecasting, Technological Innovation, and Consumer Behavior.

Lea, Bih-Ru, Ph.D.

Clemson University, Assistant Professor of Business Administration, Integration of Managerial Accounting, Operation Management, and Information Systems, Enterprisewide Systems, Simulation, Web Programming and Development, System Design and Analysis, and Supply Chain Management.

Reddy, Madhu, Ph.D.

University of California - Irvine, Assistant Professor of Business Administration and Information Science and Technology, Computer-Supported Cooperative Work (CSCW), Medical Informatics, Human-Computer Interaction (HCI), collaborative systems design, ethnographic study, and social analysis of technology.

Ceramic Engineering

The Ceramic Engineering program is in the Department of Materials Science and Engineering.

Brow, Richard K., Ph.D.,

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

Anderson, Harlan U., Ph.D.,

University of California-Berkeley, Curators' Professor Emeritus of Ceramic Engineering; Senior Investigator, Graduate Center for Materials Research and Director, Electronic Materials Applied Research Center. Electrical and dielectric behavior, diffusion, sintering, solid state reactions.

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

Hilmas, Gregory E., Ph.D.,

University of Michigan, Associate Professor of Ceramic Engineering. 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. Senior Investigator, Graduate Center for Materials Research. Vice Provost for Research. Structure-property relationships in ferroelectric, piezoelectric, and ionically-conducting materials.

Ownby, P. Darrell, Ph.D.,¹

Ohio State University, Professor Emeritus of Ceramic Engineering and Research Associate, Graduate Center for Material Research. Solid and liquid surfaces, fabrication to high densities, vapor-solid reactions, atmosphere control, hard inclusion composites.

Rahaman, Mohamed N., Ph.D.,

University of Sheffield, England, Professor of Ceramic Engineering. Processing and sintering of structural and functional ceramics; sol-gel, chemical precipitation and

powder processing; grain growth and micro-structure control; biomaterials.

Ray, Chandra S., Ph.D.,

Calcutta University, India, Research Professor, Physics. Composition development, glass formation, structure-property relations and property improvement for specialty glasses such as glasses for laser and non-linear optical applications; development of non-conventional techniques to prepare glasses and glass-ceramics for high temperature applications; studies on melt behavior (homogenizations, bubble motion, vaporization) and glass formation in micro- and high gravity; containerless processing to develop new glasses and improve selected glass properties; kinetics of nucleation, crystallization and phase transformation in glass and glass-ceramic systems.

Schwartz, Robert W., Ph.D.

University of Illinois at Urbana-Champaign, 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.

Chemical and Biological Engineering

Raper, Judy A., Ph.D.,¹

University of New South Wales, Professor of Chemical Engineering and Department Chair. Particle Technology. Characterization of aggregates. Measurement of fractal dimension. Pharmaceutical aerosols. Fly Ash Utilization.

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.

Crosser, Orrin K., Ph.D.,¹

Rice University, Professor Emeritus of Chemical Engineering.

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.

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 chro-

matography; perfusion chromatography; transport phenomena; biochemical engineering.

Ludlow, Douglas K., Ph.D.,
Arizona State University, Professor of Chemical Engineering. Surface characterization, catalysts, adsorption.

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.

Neogi, Parthasakha, Ph.D.,
Carnegie-Mellon University, Professor of Chemical Engineering. Interfacial and transport phenomena.

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.

Reed, X B Jr., Ph.D.,
University of Minnesota, Professor Emeritus of Chemical Engineering. Fluid mechanics of single- and two-phase flows including turbulence and stochastic drop mechanics, coalescence hydrodynamics; multi-component and interphase transport phenomena including complex and nonlinear chemical reactions.

Rosen, Stephen L., Ph.D.,
Cornell University, Professor Emeritus of Chemical Engineering. Polymerization kinetics and mechanism, polymeric materials, applied rheology.

Sitton, Oliver C., Ph.D.,
University of Missouri-Rolla, Associate Professor of Chemical Engineering. Modeling and scale-up of ultrasonic 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.

Strunk, Mailand R., Sc.D.,¹
Washington University, Professor Emeritus of Chemical Engineering.

Waggoner, Raymond C., Ph.D.,¹
Texas A&M, Professor Emeritus of Chemical Engineering.

Wang, Jee-Ching, Ph.D.,
Pennsylvania State University, Assistant 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.

Xing, Yangchuan, Ph.D.,
Yale University, Assistant Professor of Chemical Engineering. Synthesis and Characterization of Nanomaterials.

Chemistry

Sinn, Ekkehard, Ph.D.,
University of New South Wales, Australia, Professor of Chemistry and Department Chair. Inorganic and biological materials. Metalloenzymes. Magnetism. Relation between electronic and molecular structure. Metal containing liquid crystals. Molecular magnets and molecular electronic.

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 thermochemistry, 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.

Blum, Frank D., Ph.D.,
University of Minnesota, Curators' Professor of Chemistry. Polymer-solvent and polymer-surface interactions. Polymer characterization. Dynamics in polymer solutions, bulk and adsorbed polymers. Colloid chemistry. Structure and dynamics in micro-emulsions, liquid crystals, micelles, and vesicles. NMR spectroscopy and diffusion.

Brewer, Terry L., Ph.D.,
North Texas State University, Adjunct Professor of Chemistry. Chemistry of microelectronics.

Chusuei, Charles C., Ph.D.,
George Mason University, Assistant Professor of Chemistry. Analytical, physical chemistry. Surface Science techniques: XPS, AES, SIMS, TPD. Biomaterial interfaces. Thin-film metal oxide deposition. Environmental surface chemistry. Mechanistic studies of biofilm formation. Solid-liquid adsorption of oxyanions, inorganic crystals on mineral surfaces.

Collier, Harvest L., Ph.D.,
Mississippi State University, Professor of Chemistry. Inorganic-organometallic chemistry, synthesis, structural, electronic analysis of macrocyclic-metal complexes, metal binding polymer, kinetics and mechanism of metal-ligand interactions.

Ercal, Nuran, Ph.D.,
Hacettepe University, Ankara, Turkey, Associate Professor of Chemistry. Analytical biochemistry, radiation biology, and cancer biology.

Grandjean, Fernande, Ph.D.,
Universite de Liege, Adjunct Professor of Chemistry. Mossbauer and X-ray absorption spectroscopy. Magnetism and structure.

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.

Kapila, Shubhender, Ph.D.,

Dalhousie University, Halifax, Nova Scotia, Canada, 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, Associate Professor of Chemistry. Organic chemistry, materials and surface chemistry, electrochemistry.

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, Associate Professor of Chemistry. Analytical, bioanalytical chemistry. Bio-separation. High performance liquid and thin-layer chromatography. Laser spectroscopy.

Manuel, Oliver K., Ph.D.,

University of Arkansas, Professor Emeritus of Chemistry. Nuclear chemistry and cosmochemistry, mass spectrometric analysis of noble gases and neutron-activation analysis of other trace elements in meteoritic, terrestrial and lunar samples.

Matthews, Richard H., Ph.D.,

University of Michigan, Ann Arbor. Adjunct Professor of Chemistry. Radiation oncology, bio- and radiochemistry.

Merrow, Clifton N., Ph.D.,

University of Utah, Assistant Professor of Chemistry. Analytical – physical chemistry. Multidimensional laser spectroscopy, remote sensing, infrared and raman spectral prediction, laser spectroscopy of biomaterials and inorganics, development of novel optical sensors.

Reddy, Prakash V., Ph.D.,

Case Western Reserve University, Assistant 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, Assistant Professor of Chemistry. Interfacial spectroscopy and chemistry; coatings: adhesion, corrosion protection, adsorption phenomena; organic polymer syntheses; industrial agricultural applications and research.

Sotiriou-Leventis, Chariklia, Ph.D.,

Michigan State University, Associate Professor of Chemistry. Bioorganic, physical-organic, and analytical or-

ganic chemistry; synthesis, structural characterization, kinetics, and mechanisms of organic reactions.

Stavropoulos, Pericles, Ph.D.,

Imperial College of Science, Tech. & Medicine, London, U.K., 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).

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.

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 optoelectronic 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. Analytical and physical chemistry, particulate characterization and heterogeneous chemistry of atmospheric and environmental processes.

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; chromatographic and rheological NMR; in situ high-temperature and high-pressure NMR spectroscopy.

Yelon, William B., Ph.D.,

Carnegie-Mellon University, Adjunct Professor of Chemistry. Solid state materials. Neutron diffraction.

Civil, Architectural, and Environmental Engineering

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, contact/impact problems in engineering mechanics.

90 — Graduate Faculty

Adams, Craig D., Ph.D.¹

University of Kansas, Mathes Professor of Civil Engineering, Director of the Environmental Research Center. Control of antibiotics, endocrine disruptors and SOCs in drinking water, groundwater, and wastewater using oxidation and sorption technologies.

Baur, Stuart W., Ph.D.²

University of Missouri-Rolla, Integrated building systems, advanced building system technologies, green construction, historic structure rehabilitation.

Belarbi, Abdeldjelil, Ph.D.

University of Houston, Professor of Civil Engineering. Design and analysis of reinforced and prestressed concrete, analytical and experimental investigation of full-scale concrete structures, constitutive modeling of reinforced and prestressed concrete materials, continuum mechanics, design and performance of architectural glazing systems in wind and earthquakes, use of FRP composites and smart sensors/actuators in civil infrastructures.

Burken, Joel G., Ph.D.

University of Iowa, Associate Professor of Civil Engineering. Environmental Engineering Research: Phytoremediation of organic contaminants and heavy metals, biological waste water treatment, constructed wetlands, integrated remediation systems.

Chen, Genda, Ph.D.¹

State University of New York at Buffalo, Associate Professor of Civil Engineering. Energy dissipation devices, control of civil engineering structures, damage detection, health monitoring, earthquake hazards assessment and mitigation, seismic retrofit of building and civil infrastructure, soil-structure interaction, structural dynamics and random vibration.

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.

LaBoube, Roger A., Ph.D.¹

University of Missouri-Rolla, Distinguished Teaching Professor 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.

Lentz, Rodney W., Ph.D.¹

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

Luna, Ronaldo, Ph.D.¹

Georgia Institute of Technology, Associate Professor of Civil Engineering. Soil mechanics and foundation engineering, geotechnical earthquake engineering, hazard

modeling, numerical modeling, information systems, and spectral characterization of soils.

Mendoza, Cesar, Ph.D.

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

Morris, Charles K., Ph.D.¹

University of Illinois, Associate Professor of Civil Engineering. Stochastic processes in hydrology, water shed modeling, fluid mechanics, steady and unsteady fluid flow, mathematical modeling, statistics.

Morrison, Glenn, Ph.D.

University of California-Berkeley, Assistant Professor of Civil Engineering. Environmental engineering; assessment and control of air pollution; indoor air chemistry, transport and surface interactions.

Myers, John, Ph.D.¹

University of Texas at Austin, Assistant 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, bond, substrate characterization, and durability performance.

Nanni, Antonio, Ph.D.¹

University of Miami, Coral Gables, Jones Professor of Civil Engineering, Director of the Center for Infrastructure Engineering Studies. Behavior of structural concrete systems, characterization and performance of repair/strengthening technologies, structural assessment of constructed facilities.

Petry, Thomas M., Ph.D.¹

Oklahoma State University, Professor 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.

Qureshi, Mohammad, Ph.D.¹

University of Tennessee, Knoxville, Assistant Professor of Civil Engineering. Traffic operations, design of transportation facilities, airport operations, transportation safety.

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.

Showalter, Eric, Ph.D.¹

Purdue University, Assistant Professor of Civil Engineering. Green construction. IT applications in construction, technology cost effectiveness, productivity simulation.

Silva, Pedro, Ph.D.

University of California, San Diego, Assistant Professor of Civil Engineering. Development of performance-

based procedures for the design and retrofit of civil infrastructures.

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.

Wang, Jianmin, Ph.D.

University of Delaware, Assistant Professor of Civil Engineering. Fate and transport of heavy metals in natural and engineered systems (such as coal fly ash landfill sites); wastewater treatment processes.

Emeritus Titles in Civil, Architectural, and Environmental Engineering

Andrews, William A., Sc.D.

Washington University, Professor Emeritus of Civil Engineering. Analysis of large building trusses, plastic behavior of metals, shells and application of design procedures of ultimate strength of reinforced concrete.

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 inelastic 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.

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 rockfill dams, certain problems involving surface runoff, river mechanics (potamology).

Prakash, Shamsher, 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.

TerKonda, Purush K., Ph.D.

University of Texas at Austin, 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

St. Clair, Daniel, C., Ph.D.

University of Missouri-Rolla, Professor of Computer Science and Department Chair. Artificial intelligence, machine learning, neural networks, data mining.

Cheng, Maggie X., Ph.D.

University of Minnesota, Assistant Professor of Computer Science. Ad Hoc Wireless Networking (routing, location management and network topology control), QOS over Wireless LAN, optimization.

DeKock, Arlan R., Ph.D.

University of South Dakota, Professor of Computer Science. Undergraduate education.

Ercal, Fikret, Ph.D.,

The Ohio State University, Professor of Computer Science. Parallel and distributed computing, algorithms, computer vision, bioinformatics.

Gillett, Billy E., Ph.D.,

Oklahoma State University, Professor Emeritus of Computer Science.

Hilgers, Michael, Ph.D.,

Brown University, Associate Professor of Computer Science. Computational Science, theoretical computer science.

Leopold, Jennifer L., Ph.D.,

University of Kansas, Assistant Professor of Computer Science. Visual programming, end-user programming, and bioinformatics.

Liu, Xiaoqig (Frank), Ph.D.,

Texas A&M University, Associate Professor of Computer Science. Software Engineering.

Madria, Sanjay, Ph.D.,

Indian Institute of Technology, Assistant Professor of Computer Science, Web computing, database systems.

McMillin, Bruce M., Ph.D.,

Michigan State University, Professor of Computer Science. Formal methods fault-tolerant computing, embedded and distributed computing, software engineering.

Pyron, Howard, Ph.D.,

Iowa State University, Associate Professor Emeritus of Computer Science. Numerical analysis, micro systems.

Rigler, A. Kellam, Ph.D.,

University of Pittsburgh, Professor Emeritus of Computer Science.

Sabharwal, Chaman L., Ph.D.,

University of Illinois, Professor of Computer Science. Graphics, visualization and image processing, image databases.

Sager, Thomas J., Ph.D.,

New Mexico, Associate Professor Emeritus of Computer Science. Languages, compilers, algorithms.

Subramanya, S.R., Ph.D.,

George Washington University, Assistant Professor of Computer Science. Multimedia information systems, computer security.

Tauritz, Daniel R., Ph.D.,

Leiden University, Assistant Professor of Computer Science. Evolutionary computation, information filtering, and artificial intelligence.

Wilkerson, R.W., Ph.D.,

Southern Illinois University, Professor of Computer Science and Graduate Coordinator. Automated reasoning, intelligent systems.

Xia, Franck, Ph.D.,

Universite' Pierre et Marie CURIE (Paris VI), Institut Blaise PASCAL, Associate Professor of Computer Science, Software engineering.

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

University of Louisville, Assistant Professor of Information Science and Technology and Computer Science, Agent Based Systems, Supply Chain Management, Demand Forecasting, Simulation, and Textile Processes.

Zobrist, George W., Ph.D.,

University of Missouri-Columbia, Professor Emeritus of Computer Science.

Economics and Finance

Gelles, Gregory M., Ph.D.,

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

Bryant, Richard R., Ph.D.,

University of California-Davis, Associate Professor of Economics. Labor studies, cost benefit analysis, environmental/natural resources.

Davis, Michael, Ph.D.,

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

Gallaway, Julie, Ph.D.,

Colorado State University, Assistant Professor of Economics. Labor Markets, Gender issues, Economic Development, Micro-Finance.

Park, Eun Soo, Ph.D.,

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

Xing, Xuejing, Ph.D.,

University of Missouri-Columbia, Assistant Professor. Corporate finance, investments, capital markets, international finance, market microstructure, and statistical applications in finance.

Zhang, Duo, Ph.D.,

West Virginia University, Assistant Professor. Financial economics, applied microeconomics, international finance.

Electrical and Computer Engineering

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.

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.

Agarwal, Sanjeev, Ph.D.,

University of Missouri-Rolla, Research Assistant Professor of Electrical and Computer Engineering. Image and Signal Processing, Computer Vision, Virtual and Augmented Visualization, Spatial Point Processes, Neural Networks, Genetic Algorithms, Intelligent Processing.

Al-Assadi, Waleed K., Ph.D.,

Colorado State University, Assistant Professor of Electrical and Computer Engineering. Computer Engineering, VLSI Design, Test and Design for Test, VLSI Synthesis and Verification, Microprocessor Design.

Ali, Shoukat, Ph.D.,

Purdue University, Assistant Professor of Electrical and Computer Engineering. Distributed computing and communications systems, grid computing systems, re-

source allocation, robustness issues in distributed computing systems, networking.

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.,

Washington University, Associate Professor of Electrical and Computer Engineering. Computer Engineering, parallel processing, hardware-software co-design, skin cancer detection, and electrocardiology. Interests in electrocardiology 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.

Carson, Ralph S., Ph.D.,

University of Illinois, Professor Emeritus of Electric Engineering. Electronic circuits.

Choi, Minsu, Ph.D.,

Oklahoma State University, Assistant 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.

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.

Cox, Norman R., Ph.D.,¹

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

Crow, Mariesa L., Ph.D.,¹

University of Illinois, Associate Dean of School of Engineering, Professor of Electrical and Computer Engineer-

ing. Power systems analysis, dynamic stability, computational algorithms, 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.

Dawson, Darrow F., Ph.D.,¹

University of Arizona, Professor Emeritus of Electrical and Computer Engineering. Design of digital systems, sequential machines and automata theory, microcomputer applications.

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.

Fahimi, Babak, Ph.D.,

Texas A & M University, Assistant Professor of Electrical and Computer Engineering. Application of power electronics, design and analysis of advanced control strategies in adjustable speed motor drives, design of electric machines and drives, design of power electronics converters.

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

Massachusetts Institute of Technology, Professor 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.

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.

Hubing, Todd H., Ph.D.,

North Carolina State University, Professor of Electrical and Computer Engineering. Electromagnetics, electromagnetic compatibility, EMI/RFI, electrostatic discharge, numerical electromagnetic modeling.

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, Assistant Professor of Electrical and Computer Engi-

neering. Micro- and nano-sensors, bio-MEMS (Micro-ElectroMechanical System), engineering of electrogenic (neural and cardiac) cells, single cell analysis.

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.

Miller, Ann, Ph.D.,

St. Louis University, Cynthia Tang Missouri Distinguished Professor of Computer Engineering. Information technology, computer and network security, software engineering, satellite communications software and real-time software.

Mitchell, O. Robert, Ph.D.,¹

Massachusetts Institute of Technology, Professor of Electrical and Computer Engineering and Dean of the School of Engineering. Computer vision, image processing, land mine detection.

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.

Pekarek, Steven K., Ph.D.,

Purdue University, Associate Professor of Electrical and Computer Engineering. Energy sources and systems, automatic control.

Pommerenke, David, Dr.-Ing.

Technical University Berlin, Germany, Associate 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, application specific parameters.

Rao, Vittal S., Ph.D.,

Indian Institute of Technology, Delhi, William A. Rutledge Emerson Electric Company Distinguished Professor of Electrical and Computer Engineering. Intelligent and robust control, control of smart structural systems, structural health monitoring, environmentally conscious manufacturing, and intelligent sensor data fusion.

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, Associate Professor of Electrical and Computer Engineering. The control of computer/communication networks, embedded systems, MEMS, intelligent systems/control, diagnostics/prognostics, biomedical applications.

Skitek, Gabriel G., M.S.,

University of Missouri School of Mines and Metallurgy, Professor Emeritus of Electrical Engineering. Electromagnetics, antenna theory and design.

Smith, Scott C., Ph.D.,

University of Central Florida, Assistant Professor of Electrical and Computer Engineering. Computer architecture, logic design, embedded system design, and VLSI design.

Stanek, E. Keith, Ph.D.,¹

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

Stanley, Ronald Joe, Ph.D.,

University of Missouri-Columbia, Assistant 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

UMR, Professor Emeritus of Electrical and Computer Engineering. Electromagnetic compatibility.

Venyagamoorthy, Ganesh Kumar, Ph.D.,

University of Natal, Durban, South Africa, Assistant Professor of Electrical and Computer Engineering. Power systems dynamics, control systems and signal processing applying neural networks, reinforcement learning, fuzzy logic, genetic algorithms, dynamic programming

to maximize the throughput/performance of systems with implementation on real-time embedded systems for processes.

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.

Weeks IV, William, Ph.D.,

University of Illinois at Urbana-Champaign, Assistant Professor of Electrical and Computer Engineering. Communication theory, information theory, coding theory, digital signal processing, statistical mechanics, and cryptography.

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.

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.

Engineering Management

Daughton, William, Ph.D.,

University of Missouri-Columbia, Professor Engineering Management and Department Chair. Process management, Malcolm Baldrige Quality Award, strategic planning, engineering education, organizational development.

Allada, Venkat, Ph.D.,

University of Cincinnati, Associate Professor of Engineering Management. Director of the Sustainable Design Laboratory, Sustainable product development, product platform design, mass customization, product innovation, lean manufacturing, intelligent manufacturing systems, process planning, supply chain management.

Dagli, Cihan H., Ph.D.,

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

Enke, David, Ph.D.,

University of Missouri-Rolla, Assistant Professor of Engineering Management. Director of the Laboratory for Investment and Financial Engineering. Financial engineering, financial forecasting, financial risk management, investment, marketing efficiency, technical analysis, engineering economics, intelligent systems, and electricity markets.

Grasman, Scott, Ph.D.,

University of Michigan, Assistant Professor of Engineering Management. Operations and supply chain management, operations research, simulation, financial engineering, engineering economics.

Luechtefeld, Ray, Ph.D.,

Boston College, Assistant Professor of Engineering Management (joint appointment in School of Management and Information Systems). Action research, dialogue, and group/organizational learning, simulations and games for learning and research, computational modeling of individual / social processes.

Meinert, Timothy S., Ph.D.,

University of Arkansas, Assistant Professor of Engineering Management. Discrete event simulation, operations research/mathematical modeling, logistics systems modeling and design, manufacturing and material handling systems modeling and design, capacity planning and capacity driven design, concurrent engineering.

Murray, Susan L., Ph.D.¹

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

Myers, Donald D., J.D.,¹, St. Louis University, Missouri PE, Missouri Bar, U.S. Patent Bar, Professor of Engineering Management. Management of technology, technical entrepreneurship, technology transfer, product management, and legal aspects of technology management.

Nystrom, Halvard E., Ph.D.,

Arizona State University, Associate Professor of Engineering Management. Marketing, financial management, management of technology, market acceptance of new products and strategic planning.

Ragsdell, Kenneth M., Ph.D.,¹

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

Ramakrishnan, Sreeram, Ph.D.,

Pennsylvania State University. Assistant Professor of Engineering Management. Director of the Systems Modeling and Simulation Laboratory. Simulation, simulation-based control, stochastic modeling, supply chain modeling, manufacturing control, information systems.

Raper, Stephen A., Ph.D.,

University of Missouri-Rolla, Associate Professor of Engineering Management. Packaging engineering,

operations, productivity, total quality management, packaging systems design, environmental aspects of packaging, and statistical process control.

Saygin, Can, Ph.D.,

Middle East Technical University - Turkey, Assistant Professor of Engineering Management. Director of the Integrated Systems Facility. Web-based manufacturing, flexible manufacturing systems, shop floor control, automation and integration in manufacturing.

Spurlock, David G., Ph.D.,

University of Illinois - Champaign, Assistant Professor of Engineering Management. Individual and group judgment and decision making processes, managing people in organizations, organizational change and development and program evaluation, influence of technological change on workplace behavior.

Wiebe, Henry, A., Ph.D.,

University of Arkansas, Professor of Engineering Management and Vice Provost-UMR Global. 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, to 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.

Engineering Mechanics

(See Mechanical and Aerospace Engineering)

English and Technical Communications

Vonalt, Larry, Ph.D.,

University of Florida, Associate Professor of English and Department Chair. Modern and contemporary American Literature.

Cummins, Elizabeth, Ph.D.,

University of Illinois – Champaign, Professor Emeritus of English. Modern British and American; science fiction; literature by women.

Doty, Gene, M.A.,

Emporia State University, Associate Professor of English. Fantasy and religion in literature; creative writing.

Drowne, Kate, Ph.D.

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

Knight, W. Nicholas, Ph.D.,

University of Indiana, Professor Emeritus of English. Law & Literature; Shakespeare.

Malone, Edward, Ph.D.

Southern Illinois University-Carbondale, Assistant Professor of Technical Communication.

Northcut, Kathryn, Ph.D.,

Texas Tech. University, Assistant Professor of Technical Communications.

Swenson, Kristine, Ph.D.,

University of Iowa, Associate Professor 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

Geological and Petroleum Engineering

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

Gregg, Jay M., Ph.D.,

Michigan State University, Professor of Geology and Department Chair of Geological Sciences and Engineering. Carbonate petrology, dolomitization, cathodoluminescence, and coal geology.

Barr, David J., Ph.D.,¹

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

Cawlfeld, Jeffrey D., Ph.D.,¹

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

Dunn-Norman, Shari, Ph.D.,

Heriot-Watt University, Associate Professor of Petroleum Engineering. Well completions, production engineering, and offshore operations.

Elifrits, C. Dale, Ph.D.,

University of Missouri-Rolla, Professor Emeritus of Geological Engineering and Associate Director, Freshman Engineering Program. Remote sensing, land use and reclamation practice, and mining subsidence.

Elmore, A. Curt, Ph.D.,¹

University of Arizona, Assistant 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.

Koederitz, Leonard F., Ph.D.,¹

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

Maerz, Norbert, Ph.D.,

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

Numbere, Daopu T., Ph.D.,

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

Rockaway, John D. Jr., Ph.D.²

Purdue University, Professor Emeritus of Geological Engineering. Engineering geology and geotechnics, engineering properties of geologic materials, environmental and land use planning, statistical geology.

Rogers, J. David, Ph.D.,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.

Whitworth, T. Michael, Ph.D.,

Purdue University, Associate Professor of Geological Engineering. Geomorphology, clay membranes, pollution prevention and environmental engineering.

Geology and Geophysics

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

Gregg, Jay M., Ph.D.,

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Anderson, Neil L., Ph.D.,

University of Calgary, Professor of Geophysics. Acquisition processing, and interpretation of convention and high-resolution seismic data.

Atekwana, Eliot A., Ph.D.,

Assistant Professor, Western Michigan.

Atekwana, Estella A., Ph.D.,

Associate Professor, Dalhousie

Grant, Sheldon K., Ph.D.,

University of Utah, Professor Emeritus of Geology. Mineralogy, volcanic stratigraphy, mineral deposits in igneous rocks, structural analysis of mineral deposits.

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.

Kisvarsanyi, Geza, Ph.D.,

University of Missouri-Rolla, Professor Emeritus of Geology. Economic geology, ore deposits of magmatic and sedimentary origin, geotechnics, astrogeology, and remote sensing of geological sources.

Laudon, Robert C., Ph.D.,¹

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

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

Cambridge, Associate Professor of Geology. Palynology, biostratigraphy, clastic petrology, diagenesis.

Rechtien, Richard D., Ph.D.,

Washington University, Associate Professor Emeritus of Geophysics. Elastic wave propagation, potential field theory, shallow subsurface exploration.

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

Maerz, Norbert H., Ph.D., P. Eng.,

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Apel, Derek , Ph.D.,

Queens University, Assistant Professor of Mining Engineering. Rock mechanics, mathematical modeling, exploration, mineral economics, and mine ventilation.

Cawlfeld, Jeffrey D., Ph.D.,¹

University of California-Berkeley, Professor and Chair of Geological and Petroleum 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, Assistant 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.

Koederitz, Leonard F., Ph.D.,¹

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

Lentz, Rodney W., Ph.D.,¹

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

Luna, Ronaldo, Ph.D.,¹

Georgia Institute of Technology, Associate Professor of Civil Engineering. Soil mechanics and foundation engineering, geotechnical earthquake engineering, hazard modeling, numerical modeling, information systems, and spectral characterization of soils.

Petry, Thomas M., Ph.D.,¹

Oklahoma State University, Professor 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.

Rogers, J. David, Ph.D., R.G.,²

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

Saperstein, Lee W., Ph.D.,¹

Queens College, Professor of Mining Engineering. Mining production, environmental and safety aspects of mining.

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.

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. High-pressure waterjet cutting, jet drilling, novel excavation technology, rock mechanics, stata control.

Whitworth, T. Michael, Ph.D.,

Purdue University, Associate Professor of Geological Engineering. Geomorphology, clay membranes, pollution prevention and environmental engineering.

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

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

History and Political Science

Gragg, Larry D., Ph.D.,

University of Missouri-Columbia, Distinguished 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.

Ahmad, Diana, Ph.D.,

University of Missouri-Columbia, 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.

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, Distinguished Teaching Professor Emeritus. 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.

Huber, Patrick, Ph.D.,

University of North Carolina, 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.

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, Distinguished Teaching Professor Emeritus. 19th Century Europe, Modern France, Engineering Education.

Williams, Lance, Ph.D.,

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

Information Science and Technology

Flachsbart, Barry, Ph.D.

Stanford University, Department Chair and Professor of Information Science and Technology, Expert Systems, Artificial Intelligence, Neural Networks, Fuzzy Logic, large databases, and information system project management.

Gentry, Lance, Ph.D.

Michigan State University, Assistant Professor of Business Administration, New Product Development, Forecasting, Technological Innovation, and Consumer Behavior.

Hall, Richard H., Ph.D.,

Texas Christian University, Professor and Director of Information Science and 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.

Kluczny, Raymond, Ph.D.,

Arizona State University, Department Chair of Business Administration, Associate Professor of Engineering Management and Management information systems, decision support systems, and integrated business systems.

Lea, Bih-Ru, Ph.D.,

Clemson University, Assistant Professor of Business Administration. Supply chain management, integrated business systems, simulation, managerial accounting, and large business databases.

Reddy, Madhu, Ph.D.

University of California - Irvine, Assistant Professor of Business Administration and Information Science and Technology, Computer-Supported Cooperative Work (CSCW), Medical Informatics, Human-Computer Interaction (HCI), collaborative systems design, ethnographic study, and social analysis of technology.

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

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Manufacturing Engineering

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

University of Minnesota, Professor of Mechanical Engineering and Director of Manufacturing Engineering. Computer-aided design and manufacturing, rapid prototyping, rapid manufacturing, lean manufacturing, and virtual prototyping.

Materials Engineering

Brow, Richard K., Ph.D.,

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

Kohser, Ronald A., Ph.D.,

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

Mathematics and Statistics

Hall, Leon M., Ph.D.,

UMR, Professor of Mathematics and Department Chair. Ordinary differential equations, mathematical analysis, geometry.

Akin-Bohner, Elvan., Ph.D.,

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

Bain, Lee J., Ph.D.,

Oklahoma State University, Professor Emeritus of Statistics. Mathematical statistics, interval estimation with multiple parameters, and nuisance parameters, sufficiency with nuisance parameters, nonparametric problems.

Bekker, Miron, Ph.D.,

Institute of mathematics, Kiev. Assistant Professor of Mathematics. Operator theory functional analysis, moment and interpolation problems, complex analysis.

Bohner, Martin, Ph.D.,

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

Charatonik, Włodzimierz J., Ph.D.,

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

Clark, Stephen L., Ph.D.,

University of Tennessee, Professor of Mathematics. Differential and difference equations, direct and inverse spectral theory, inequalities.

Drain, David C., Ph.D.,

Arizona State University, Assistant Professor of Statistics. Design of experiments, response surface methods, heuristic optimization, statistical process control, spatial statistics, reliability, industrial and applied statistics.

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

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Gadbury, Gary L., Ph.D.,

Colorado State University, Assistant Professor of Statistics. Statistical applications in forestry and genetics, causality, nonparametric modeling.

Gan, Gaoxiong, Ph.D.,

Kansas State University, Associate Professor of Statistics. Mathematical Statistics, probability theory, extreme value theory, stochastic processes.

Grimm, Louis J., Ph.D.,

University of Minnesota, Professor Emeritus of Mathematics. Ordinary differential equations, functional differential equations.

Grow, David E., Ph.D.,

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

Haddock, A. Glen, Ph.D.,

Oklahoma State University, Professor Emeritus of Mathematics. Topology, functional analysis.

Hering, Roger H., Ph.D.,

Southern Illinois University, Associate Professor of Mathematics. Ordinary and functional differential equations, stability theory, oscillation theory.

Hicks, Troy L., Ph.D.,

Cincinnati University, Professor Emeritus of Mathematics. General topology, functional analysis.

Insall, E., Ph.D.,

University of Houston, Associate Professor Mathematics. Algebra, nonstandard analysis, logic.

Le, Vy Khoi., Ph.D.,

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

Morgan, Ilene H., Ph.D.,

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

Patel, Jagdish K., Ph.D.,

University of Minnesota, Professor Emeritus of Statistics. Nonparametric statistics, reliability theory.

Penico, Anthony J., Ph.D.,

University of Pennsylvania, Professor Emeritus of Mathematics. Theory of topological groups, abstract harmonic analysis, calculus of variations, invariance principles, conservation laws in physics.

Pursell, Lyle E., Ph.D.,

Purdue University, Professor Emeritus of Mathematics. Algebra and analysis, rings of real functions and other applications of algebra to analysis, geometry, topology.

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 and economics.

Stanojevic, Caslav V., Ph.D.,

University of Belgrade, Professor Emeritus of Mathematics. Analysis and probability.

Trimble, Selden Y., Ph.D.,

University of Kentucky, Associate Professor Emeritus of Mathematics. Complex analysis, univalent function theory.

Mechanical and Aerospace Engineering and Engineering Mechanics

Midha, Ashok, Ph.D.,

University of Minnesota, Professor Mechanical Engineering and Department Chair. Mechanical design, rigid-body and compliant mechanism design, high-perform-

ance machinery analysis and design, machine vibration and stability.

Alofs, Darryl J., Ph.D.,

University of Michigan, Professor 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 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 and Engineering Mechanics. 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.,¹

Iowa State University, Professor Emeritus of 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, Professor of Engineering Mechanics. Composite materials, smart structures, structural dynamics, finite element analysis, composite manufacturing and experimental characterization.

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.

Choi, Joohyun, Ph.D.,

University of Illinois-Champaign, Assistant Professor Mechanical Engineering. Virtual manufacturing, rapid production realization, layered manufacturing, CAE/CAD, machine design, laser aided intelligent manufacturing, on-line diagnostics techniques using lasers, laser materials processing, and transport phenomena in materials processing.

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, 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, Professor of Mechanical Engineering. 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, Assistant 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.,¹

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

Eversman, Walter, Ph.D.,¹

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

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Finaish, Fathi, Ph.D.,

University of Colorado, Professor and Associate Chair for 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.,¹

University of Missouri-Rolla, Professor Emeritus of Mechanical Engineering and 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.

Hansen, Peter G., Sc.D.,¹

Washington University, Professor Emeritus of Engineering Mechanics. Experimental stress analysis, elastic stability, plasticity.

Homan, Kelly O., Ph.D.,

University of Illinois at Urbana-Champaign, Assistant 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.

Howell, Ronald H., Ph.D.,¹

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, heatpump analysis, fluid dynamics, psychometrics, system simulation.

Isaac, Kakkattukuzhy M., Ph.D.,

Virginia Polytechnic Institute and State University, Professor of 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.

Koval, Leslie R., Ph.D.,¹

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, Associate 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 Associate Chair for Graduate Affairs.

Advanced manufacturing systems, intelligent control, microelectromechanical systems, nanotechnology, robotics.

Landers, Robert, Ph.D.,

University of Michigan, Assistant Professor of Mechanical Engineering. Manufacturing, systems, and control; modeling, analysis, monitoring, and control of manufacturing processes; metal cutting processes; laser metal deposition; integrated design and control; discrete event systems; digital control applications.

Lee, Shen C., Ph.D.,¹

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.,¹

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. Rapid prototyping, intelligent manufacturing, virtual reality, CAD/CAM, robotics, mechatronics, automatic control.

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

University of Minnesota, Professor of Mechanical Engineering and Director of Manufacturing Engineering. Computer-aided design and manufacturing, rapid prototyping, rapid manufacturing, virtual manufacturing, and micro-machining.

Look, Dwight C. Jr., Ph.D.,

University of Oklahoma, Professor Emeritus of Mechanical Engineering. 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.

McAdams, Daniel A., Ph.D.,

University of Texas at Austin, Assistant Professor of Mechanical Engineering. Design theory and methodology, design for manufacturing, tolerance design, and applied mathematics for design modeling and manufacturing.

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.

Miller, Brad A., Ph.D.,

Georgia Institute of Technology, Assistant Professor of Mechanical Engineering. Dynamics of gas lubricated

bearings and seals, rotordynamics, computational methods in dynamics, tribology, nondestructive evaluation algorithms.

Nelson, H. Frederick, Ph.D.,
Purdue University, Professor of Aerospace Engineering. Radiative transfer, laser-gas and/or surface interaction, aerothermochemistry, combustion, applied aerodynamics.

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.,¹
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.

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.,¹
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 ramjet propulsion systems, and scramjet performance.

Sauer, Harry J. Jr., Ph.D.,¹
Kansas State University, Professor of Mechanical and Aerospace Engineering. Heat transfer and thermophys-

ical property measurements, boiling and condensation, HVAC systems, energetics.

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).

Wan, Kai-tak, Ph.D.,
University of Maryland at College Park, Assistant Professor of Mechanical Engineering. Cellular Biomechanics, mechanical characterization of single cell / multi-cell aggregate / thin films, adhesion measurements, interaction between bio-capsules and fluids, electronics packaging.

Metallurgical Engineering

The Metallurgical Engineering program is in the Department of Materials Science and Engineering.

Brow, Richard K., Ph.D.,
Pennsylvania State University, Professor of Ceramic Engineering, Department Chair of Materials Science and Engineering, and Senior Investigator, Graduate Center for Materials Research. Physics and chemistry of inorganic glasses; spectroscopic characterization of glass structure; biomaterials; optical materials.

Askeland, Donald R., Ph.D.,
University of Michigan, Distinguished Teaching Professor Emeritus of Metallurgical Engineering. Metals casting, cast irons, and welding.

Kohser, Ronald A., Ph.D.,
Lehigh University, Professor of Metallurgical Engineering. Metal forming, surface and wear behavior.

Leighly, Hollis P. Jr., Ph.D.,^{1,2}

University of Illinois, Professor Emeritus of Metallurgical Engineering. Defect structures, mechanical properties, electron microscopy.

Miller, F. Scott, Ph.D.

University of Missouri-Rolla, Assistant Professor of Metallurgical Engineering. Electron microscopy, materials characterizations.

Mishra, Rajiv S., Ph.D.,

University of Sheffield, England, Associate Professor of Metallurgical Engineering. Nano – crystalline materials, superplastic forming, friction stir welding.

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, Associate Professor Metallurgical Engineering. Thin film and coating materials deposition, process development and characterization.

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

University of Missouri-Rolla, Curators' Professor Emeritus of Metallurgical Engineering and Senior Research Investigator, Graduate Center for Materials Research. Electrodeposition, corrosion, and hydrometallurgy.

Peaslee, Kent D., Ph.D.,¹

University of Missouri-Rolla, Associate Professor of Metallurgical Engineering. Manufacturing and process metallurgy, environmental concerns and recycling in metals industry.

Ramsay, Christopher W., Ph.D.,

Colorado School of Mines, Associate Professor of Metallurgical Engineering. Metal joining, solidification, ferrous metallurgy, casting, NDT, failure analysis, and heat treatment.

Richards, Von L., Ph.D.,

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, Professor of Metallurgical Engineering and Director, Center for Pyrometallurgy. Process engineering of pyrometallurgy.

Schlesinger, Mark E., Ph.D.,¹

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

Van Aken, David C., Ph.D.,¹

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

Mining Engineering

The Mining Engineering program is in the Department of Mining and Nuclear Engineering.

Grayson, R. Larry, Ph.D.,¹

West Virginia University, Professor of Mining Engineering and Department Chair of Mining and Nuclear Engineering. Coal mining, coal preparation, mine health and safety, computer applications in mining, mine operations, and management.

Apel, Derek, Ph.D.,

Queens University, Assistant Professor of Mining Engineering. Rock mechanics, mathematical modeling, exploration, mineral economics, and mine ventilation.

Baird, Jason, Ph.D.

University of Missouri-Rolla, Research Assistant Professor. Energetic materials and applications; and explosives engineering.

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, Robert H. Quenon Endowed Chair of Mining Engineering. Intelligent mining systems, materials excavation and handling, simulation of mine production, risk and safety engineering, and oil/tar sands.

Galecki, Grzegory, Ph.D.

Technical University of Wroclaw, Research Associate Professor. Modeling of material processing with high pressure water jets, excavation equipment, and special tool design.

Golosinski, Tad, Ph.D.,

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

Haas, Charles J., D.Sc.,¹

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

Jones, James A., B.S.

Colorado School of Mines, Lecturer. Mineral processing.

Saperstein, Lee W., D. Phil.,¹

Queens College, Professor of Mining Engineering and Dean-School of Mines and Metallurgy. Mining production, environmental and safety aspects of mining.

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. High-pressure waterjet cutting, jet drilling, novel excavation technology, rock mechanics, stata control.

Tien, Jerry C., Ph.D.,¹

University of Missouri-Rolla, Associate Professor Mining Engineering. Mineral industry economics, mine management, and mine ventilation.

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 economics.

Worsey, Paul N., Ph.D.,

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

Zipf, Karl, Ph.D.,

Pennsylvania State University, Adjunct Assistant Professor of Mining Engineering. Rock mechanics, rock properties, design and stability of underground structures.

Nuclear Engineering

The Nuclear Engineering program is in the Department of Mining and Nuclear Engineering.

Grayson, R. Larry, Ph.D.,¹

West Virginia University, Professor of Mining Engineering and Department Chair of Mining and Nuclear Engineering. Coal mining, coal preparation, mine health and safety, computer applications in mining, mine operations, and management.

Kim, Seungjin, Ph.D.,

Purdue University, Assistant Professor of Nuclear Engineering. Advanced two-phase flow modeling and experiment, bubble dynamics, reactor safety, severe accident analysis, and two-phase flow instrumentation.

Kumar, Arvind, Ph.D.,

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

Mueller, Gary Edward, Ph.D.,¹

University of Missouri-Rolla, Associate Professor of Nuclear Engineering. Nuclear power safety analysis, heat transfer and fluid flow, space nuclear power systems.

Tokuhiro, Akira, Ph.D.,

Purdue University, Assistant Professor of Nuclear Engineering; Director, UMR Nuclear Reactor Facility; licensed Senior Reactor Operator. Experiments in thermal-fluid sciences, thermohydraulics, reactor safety, instrumentation, safety issues and policy.

Tsoufanidis, Nicholas, Ph.D.,¹

University of Illinois, Professor Emeritus of Nuclear Engineering, and Radiation Safety Officer. Radiation transport and shielding, health physics, nuclear fuel cycle and radioactive waste management.

Physics

Parris, Paul E., Ph.D.,

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

Adawi, Ibrahim H., Ph.D.,

Cornell University, Professor Emeritus of Physics.

Alexander, Ralph W., Ph.D.,

Cornell University, Professor of Physics. Experimental, solid state physics involving far infrared spectroscopy.

Anderson, Richard A., Ph.D.,

Kansas State University, Professor Emeritus of Physics.

Bieniek, Ronald J., Ph.D.,

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

Bertino, Massimo F., Ph.D.,

University of Göttingen, Assistant Professor of Physics. Experimental research on surface nanostructures, ultra thin films, and surface-cluster interactions.

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.

Madison, Don H., Ph.D.,

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

McFarland, Robert H., Ph.D.,

University of Wisconsin, Professor Emeritus of Physics.

Olson, Richard E., Ph.D.,

Purdue University, Curators' Professor of Physics. Theoretical studies of elastic and inelastic heavy particle collision processes.

Park, John T., Ph.D.,

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

Peacher, Jerry L., Ph.D.,

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

Pringle, Oran Allan, Ph.D.,

University of Missouri-Columbia, 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, 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.

Ullrich, Carsten, Ph.D.,

Universität Würzburg, Assistant Professor of Physics. Theoretical condensed matter physics; Density functional theory, optical and electrical response of materials.

Vojta, Thomas, Ph.D.,

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

Waddill, Daniel, Ph.D.,

Indiana University, Associate Professor of Physics. 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.

Psychology

Montgomery, Robert L., Ph.D.,

Oklahoma State University, Professor of Psychology and Department Chair. Social Psychology and Organizational Behavior, leadership, persuasion, group dynamics, research design, measurement, and issues relating to evaluation research, personality and success, and binge drinking among college students.

End, Christian M., Ph.D. in Social Psychology,

Miami University, Assistant Professor of Psychology. Research interests: Development and maintenance of one's social identities; identification with sports teams; responses to social identity threat; sport fan aggression, online identity maintenance and other social aspects of technology.

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

Florida State University, Distinguished Teaching Professor of Psychology, Associate Dean for Undergraduate Affairs, College of Arts & Sciences. 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.

Martin, James H., Ph.D.,

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

Nelson, Michael D., Ph.D.,

Dartmouth College, Assistant Professor of Psychology. Cognitive neuroscience of visual attention; psychophysics and neurologic control of saccadic eye movements; visual perception; cross-modal (visual and auditory) integration; meta-analysis; neuroanatomic correlates of schizophrenia.

Sharpsteen, Don J., Ph.D.,

University of Denver, Associate Professor of Psychology. 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.

Systems Engineering

Dagli, Cihan H., Ph.D.,

Systems Engineering Program Director and Professor of Engineering Management. The University of Birmingham, England, Systems Engineering, Smart engineering system design, Neural networks, Fuzzy logic, Evolutionary programming, data mining, Nesting problems.

