# **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 and the Chancellor, the Provost, the Vice Provost for Research, the Vice Provost for Graduate Studies, the Vice Provost for Academic Affairs, and the Vice Provost for Undergraduate Studies, Chairs of Departments authorized to offer graduate degree programs and/or graduate courses and other members of the faculty at the University of Missouri-Rolla who are accepted under the rules of the Graduate Faculty to assume the responsibilities and authorities delegated to it.

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

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

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

<sup>1</sup>Registered Professional Engineer

<sup>2</sup>Registered Geologist

<sup>3</sup>Certified Health Physicist

Changes from the 2006-2007 Graduate Catalog that reference the Vice Provost for Graduate Studies are subject to approval of the Graduate Faculty and Academic Council. Check <a href="http://registrar.umr.edu/cataloginfo/cataloginfo.html">http://registrar.umr.edu/cataloginfo/cataloginfo.html</a> for updates.

# Aerospace Engineering

(See Mechanical and Aerospace Engineering)

# Arts, Language and Philosophy

# Art

Bogan, James Jr., Ph.D.,

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

#### French

Merfeld-Langston, Audra, Ph.D., Penn State, Assistant Professor of French.

#### German

Cohen, Gerald, Ph.D.,

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

#### Music

Cesario, Robert, D.M.A.

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

Oakley, David L., Ph.D.,

Indiana University, Professor Emeritus of Music.

# Philosophy

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.

Potthast, Adam, Ph.D.,

University of Connecticut-Storrs, Assistant Professor. Professional Ethics, Applied Ethics.

#### Russian

Ivliyeva, Irina, Ph.D.,

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

#### Spanish

Porcel, Jorge, Ph.D.,

University of Pittsburgh, Assistant Professor of Spanish.

# Speech & Media Studies

Haynes, W. Lance, Ph.D.,

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

# **Theatre**

Cimics, John, M.F.A.,

University of Hawaii, Directing, University of Conneticut, Acting. Assistant Professor of Theatre.

# **Biological Sciences**

Aronstam, Robert S., Ph.D.,

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

Brown, Roger F., Ph.D.,

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

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# Chen, Ching-Nen Nathan, Ph.D.,

National Taiwan University, Assistant Professor of Biological Sciences. Genetics, cell biology & biochemistry of plants, functional genomics & proteomics.;

#### Frank, Ronald L., Ph.D.,

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

# Huang, Yue-Wern, Ph.D.,

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

#### 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.

#### Shannon Katie, Ph.D.,

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

#### Westenberg, David J., Ph.D.,

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

# **Biomaterials**

# (For faculty information see home departments.)

# Brow, Richard K., Ph.D.,

Pennsylvania State University, Curators' Professor of Ceramic Engineering, (See Materials Science and Engineering.)

# Brown, Roger F., Ph.D.,

Colorado State, Professor of Biological Sciences.

# Day, Delbert, E., Ph.D.,1

Pennsylvania State, Curators' Professor Emeritus of Ceramic Engineering. (See Materials Science and Engineering.)

# Henthorn, David B., Ph.D.

Purdue University, Assistant Professor of Chemical and Biological Engineering.

#### Hilmas, Gregory E., Ph.D.,

University of Michigan, Associate Professor of Ceramic Engineering. (See Materials Science and Engineering.)

#### Miller, F. Scott, Ph.D.,

University of Missouri-Rolla, Assistant Professor of Metallurgical Engineering. (See Materials Science and Engineering.)

#### Rahaman, Mohamed N., Ph.D.,

University of Sheffield, England, Professor of Ceramic Engineering. (See Materials Science and Engineering.)

# Van Aken, David C., Ph.D.,1

University of Illinois, Professor of Metallurgical Engineering. (See Materials Science and Engineering.)

#### Wan, Kai-tak, Ph.D.,

University of Maryland at College Park, Assistant Professor of Mechanical Engineering.

#### Westenberg, David J., Ph.D.,

University of California-Los Angeles, Associate Professor of Biological Sciences.

# **Business Administration**

#### Bouse, Brenda A., M.B.A.

Fontbonne University, M.B.A. Director

# Bradley, Joseph, Ph.D.

Claremont Graduate University, Assistant Professor of Business Administration, Enterprise Resource Planning.

#### Fisher, Caroline, Ph.D.,

Bowling Green State University, Chair of Business Administration Department, Professor of Business Administration, Quality Management, Customer Satisfaction and Loyalty, Service Development and Improvement, and E-Commerce.

#### Gelles, Gregory M., Ph.D.,

West Birginia University, Chair of Economics Department, Professor of Economics, Microeconomic Theory, Health Economics and the Law, DecisionTheory and Financial Theory under Risk, and Mathematical Economics.

#### Gentry, Lance, Ph.D.,

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

#### Hsieh, Chihmao Ph.D.,

Washington University in St. Louis, Assistant Professor of Business Administration, Knowledge-based Approaches to Strategy and Entrepeneurship and Transaction Cost Economics.

#### Kalliny, Morris Ph.D.,

University of Texas-Pan American, Assistant Professor of Marketing, International Marketing, International Business, Impact of Culture and Religion on Marketing, Electronic and Mobile Commerce, and Cross Cultural Consumer Behavior.

#### Lea, Bih-Ru, Ph.D.,

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

#### Patock-Peckham, Julie, Ph.D.,

Arizona State University, Assistant Professor of Psychology and Business Administration, Social Influence, Consumer Behavior, Personality, and Addictive Behaviors.

# Qi, Lian, Ph.D.,

University of Florida, Assistant Professor of Supply Chain Management, Supply Chain Design and Optimization, Design and Analysis of Optimization Algorithms, Stochastic Optimization, Production and Inventory Planning and Control, Knowledge Management, and Simumulation.

# Sheng, Hong Ph.D.,

University of Nebraska-Lincoln, Assistant Professor of Information Science and Technology, Technology and Innovation, Human Factors, and Information Systems.

#### Srinivasan, Sundar, Ph.D.

University of Missouri-Rolla, ,Manager, Center for Enterprise Resource Management, Enterprise Resource Planning, Product Cannibalization, Supply Chain Management Systems.

#### Yu, Wen-Bin, Ph.D.,

University of Louisville, Assistant Professor of Information Science & Technology, Business Intelligence, Software Agent Systems, Demand Forecasting in Supply Chain Management, Information Retrieval, Text/Data Mining, and Knowledge Management.

# **Ceramic Engineering**

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

#### 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.

#### Brow, Richard K., Ph.D.,

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

#### Day, Delbert, E., Ph.D.,1

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

#### Dogan, Fatih, Ph.D.,

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

# Fahrenholtz, William G., Ph.D.,

University of New Mexico, Associate Professor of Ceramic Engineering.

#### Hilmas, Gregory E., Ph.D.,

University of Michigan, Associate Professor of Ceramic Engineering.

# Huebner, Wayne, Ph.D.,

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

# Ownby, P. Darrell, Ph.D.,1

Ohio State University, Professor Emeritus of Ceramic Engineering and Research Associate, Graduate Center for Material Research.

# Rahaman, Mohamed N., Ph.D.,

University of Sheffield, England, Professor of Ceramic Engineering.

#### Ray, Chandra S., Ph.D.,

Calcutta University, India, Research Professor, Physics.

# Schwartz, Robert W., Ph.D.,

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

#### Smith, Jeffrey D., Ph.D.,

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

# Chemical and Biological Engineering

# Adams, Craig D., Ph.D.,1

University of Kansas, Mathes Professor of Civil Engineering, Adjunct Professor of Chemical 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.

#### Book, Neil L., Ph.D.,

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

# Forciniti, Daniel, Ph.D.,

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

# Henthorn, David B., Ph.D.,

Purdue University, Assistant Professor of Chemical Engineering. Biomaterials, polymers for use as biomaterials, protein/polymer interactions, controlled protein adsorption, and biomimetic materials.

# Henthorn, Kimberly H., Ph.D.,

Purdue University, Assistant Professor of Chemical Engineering. Characterization and transport of irregular powders; flow behavior of engineered pharmaceutical particles; multiphase microfluidics; particle technology for environmental and biomedical engineering applications.

# Lee, Sunggyu "KB" Lee, Ph.D.,

Case Western Reserve University, Professor of Chemical Engineering. Supercritical fluid technology, materials processing, and polymerization; reactive polymer processing; biodegradable polymers; polymer blends; scale-up and pilot plant studies; environmental technology.

#### Liapis, Athanasios I., Ph.D.,

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

#### Ludlow, Douglas K., Ph.D.,

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

#### Neogi, Parthasakha, Ph.D,

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

# 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.

#### 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.

#### Wan, Kai-tak, Ph.D.,

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

# Wang, Jee-Ching, Ph.D.,

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

# Westenberg, David J., Ph.D.,

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

# Xing, Yangchuan, Ph.D.,

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

# Emeritus Titles in Chemical and Biological Engineering

# Crosser, Orrin K., Ph.D.,1

Rice University, Professor Emeritus of Chemical Engineering.

#### Manley, David B., Ph.D.,

University of Kansas, Professor Emeritus of Chemical Engineering.

# Morosoff, Nicholas C., Ph.D.,

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

# Patterson, Gary, Ph.D.,1

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

#### 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.

# 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.

# Chemistry

# Bertrand, Gary L., Ph.D.,

Tulane University, Professor Emeritus of Chemistry. Physical chemistry, thermochemical investigations of binary solvent systems, liquid-liquid equilibria internary 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, Vice Provost, Undergraduate Studies. Inorganic-organometallic chemistry, synthesis, structural, electronic analysis of macrocyclic-metal complexes, metal binding polymer, kinetics and mechanism of metal-ligand interactions.

#### Ercal, Nuran, Ph.D.,

Hacettepe University, Ankara, Turkey, 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 spectoscopy. 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, 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 B<sub>6</sub> complexes, X-ray and neutron diffraction, and Mossbauer effect studies.

#### Ma, Yinfa, Ph.D.,

Iowa State University, 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.

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

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

#### Reddy, Prakash V., Ph.D.,

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

#### Schuman, Thomas P., Ph.D.,

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

#### Sinn, Ekkehard, Ph.D.,

University of New South Wales, Australia, Professor of Chemistry. Inorganic and biological materials. Metalloenzymes. Magnetism. Relation between electronic and molecular structure. Metal-containing liquid crystals. Molecular magnets and molecular electronic.

#### Sotiriou-Leventis, Chariklia, Ph.D.,

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

# Stavropoulos, Pericles, Ph.D.,

Imperial College of Science, 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 ma-

terials science, developing low-temperature chemical processing methods for nanoscale materials and thin-film optoelectronic ceramic materials.

#### Tokuhiro, Tadashi, Ph.D.,

Tokyo Institute of Technology, Adjunct Professor of Chemistry. Chemical physics/Physical chemistry of NMR; Phase science, particularly for physicochemical principles of polymer gels; NMR imaging of bio-tissues.

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

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

# Whitefield, Philip D., Ph.D.,

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

#### Winiarz, Jeffrey, Ph.D.,

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

# Woelk, Klaus, Ph.D.,

University of Bonn, Germany, Associate Professor of Chemistry. NMR Spectroscopy, Physical Chemistry. Chemical reactions in supercritical fluids; torpid-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

# 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 surption technologies.

#### Ayoub, Ashraf, Ph.D.,

University of California-Berkeley, Assistant Professor of Civil Engineering. Non-linear finite element analysis of structural systems, performance-based methods, remote health monitoring, and damage identification of bridge structures.

# Baur, Stuart W., Ph.D.,2

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

# Belarbi, Abdeldjelil, Ph.D.,1

University of Houston, Curators' Teaching Professor of Civil Engineering. Constitutive modeling of reinforced and prestressed concrete; large scale testing of structures and structural components. Continuum mechanics, design and performance of architectural glazing systems in wind and earthquakes, use of FRP composites and smart sensors in civil infrastructures.

Bham, Ghulam, Ph.D., University of Illinois at Urbana-Champaign, Assistant Professor of Civil Engineering. Traffic operations, modeling, and simulation, traffic flow theory, driver-vehicle behavior, pavement management.

#### Burken, Joel G., Ph.D.,

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

#### Chen, Genda, Ph.D.,1

State University of New York at Buffalo, 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.

#### Ge, Louis, Ph.D.,

University of Colorado at Boulder, Assistant Professor of Civil Engineering. Soil mechanics, constitutive modeling, finite element analysis of geotechnical engineering system, soil-structure interaction, imaged based full-field deformation measurement system, geotechnical earthquake engineering, and centrifuge modeling.

#### LaBoube, Roger A., Ph.D.,1

University of Missouri-Rolla, Curators' 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.

#### 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, geographic information systems, and remote sensing.

#### Mendoza, Cesar, Ph.D.,

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

#### Morris, Charles D., Ph.D.,1

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

# Morrison, Glenn, Ph.D.,

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

#### Myers, John, Ph.D.,1

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

#### Richardson, David N., Ph.D.,1

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

#### Schonberg, William P., Ph.D.,1

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

#### Showalter, Eric, Ph.D.,1

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

#### 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; water and wastewater treatment processes; water chemistry and interfacial phenomena.

# 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.

# Lentz, Rodney W., Ph.D.,1

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

# Munger, Paul R., Ph.D.,1

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

#### Petry, Thomas M., Ph.D.,1

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

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

# Westphal, Jerome A., Ph.D.,1

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

#### Yu, Wei-Wen, Ph.D.,1

Cornell University, Curators' Professor Emeritus of Civil Engineering and Founding Director of the Wei-Wen Yu Center for Cold-Formed Steel Structures. Structural behavior and optimum design of cold formed steel structures, including structural systems, members, and connections.

# Computer Engineering

(See Electrical and Computer Engineering)

# **Computer Science**

#### Chellappan, Sriram, Ph.D.,

The Ohio State University, Assistant Professor. Mobility in Sensor & Wireless networks, Security in sensor networks, security in overlay & peer-to-peer networks.

# 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 in wireless ad hoc sensor networks, Combinatorial Optimizaton.

# Ercal, Fikret, Ph.D.,

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

#### Leopold, Jennifer L., Ph.D.,

University of Kansas, Assistant Professor of Computer Science. Scientific visualization, data mining, morphological, phylogenic, and biodiversity database design and analysis.

# Liu, Xiaoqing (Frank), Ph.D.,

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

# Madria, Sanjay, Ph.D.,

Indian Institute of Technology, Associate Professor of Computer Science, Web and mobile computing, database systems.

# McMillin, Bruce M., Ph.D.,

Michigan State University, Professor of Computer Science and Graduate Coordinator. Formal methods fault-tolerant

computing, embedded and distributed computing, software engineering, cyber security.

# Sabharwal, Chaman L., Ph.D.,

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

#### Tauritz, Daniel R., Ph.D.,

Leiden University, Assistant Professor of Computer Science. Evolutionary computing, artificial intelligence and cyber security.

# Thakur, Mayur, Ph.D.,

University of Rochester, Assistant Professor of Computer Science. Applied network and graph theory, complexity theory, theory of simulation modeling, quantum computation.

#### Weigert, Thomas, Ph.D.,

University of Illinois, Chicago. Professor and Daniel St. Clair Endowed Chair. Software engineering, program analysis and verification, embedded and distributed systems.

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

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

# **Economics and Finance**

#### Bryant, Richard R., Ph.D.,

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

#### Davis, Michael, Ph.D.,

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

#### Gallaway, Julie, Ph.D.,

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

#### Gelles, Gregory M., Ph.D.,

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

#### Park, Eun Soo, Ph.D.,

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

# Xing, Xuejing, Ph.D.,

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

#### Zhang, Duo, Ph.D.,

West Virginia University, Assistant Professor of Economics and Finance. Financial economics, applied microeconomics, international finance.

# Electrical and Computer Engineering

# Acar, Levent, Ph.D.,

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

# 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.

#### Anderson, Max, Ph.D.,1

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

# Beetner, Daryl G., D.Sc.,1

Washington University, Associate Professor of Electrical and Computer Engineering. Computer Engineering, parallel processing, hardware-software co-design, skin cancer detection, and electrocartiology. Interests in electrocordiology 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 computeraided design, neural networks, adaptive filtering.

## Carlson, Gordon E., Ph.D.,1

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

#### Choi, Minsu, Ph.D.,

Oklahoma State University, 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.

#### Corzine, Keith A., Ph.D.,

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

#### Cox, Norman R., Ph.D.,1

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

#### Crow, Mariesa L., Ph.D.,1

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

# Cunningham, David R., Ph.D.,1

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

#### Drewniak, James L., Ph.D.,

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

#### DuBroff, Richard E., Ph.D.,1

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

#### Erickson, Kelvin T., Ph.D.,

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

#### Ferdowsi, Mehdi, Ph.D.,

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

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

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

#### Grant. Steven, Ph.D.,

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

#### Hahn, J.H., Ph.D.,1

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

# Hegler, Burns, E., Ph.D.,1

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

#### Kern, Frank J., Ph.D.,1

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

#### Kim, Chang-Soo, Ph.D.,

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

#### 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.

#### Moss, Randy H., Ph.D.,1

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

# Pommerenke, David, Dr.-Ing.

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

#### Sedigh Sarvestani, Sahra, Ph.D.

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

#### Skitek, Gabriel G., M.S.,

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

# Smith, Scott C., Ph.D.,

University of Central Florida, Associate 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. Professor Emeritus of Electrical and Computer Engineering. Analysis and prediction of system reliability, especially electric distribution systems, inductive interference analysis, prediction and elimination, energy conservation.

#### Stanley, Ronald Joe, Ph.D.,

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

#### Stigall, Paul D., Ph.D.,1

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

#### Stuller, John, Ph.D.,

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

#### Tranter, William H., Ph.D.,

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

#### Van Doren, Thomas P., Ph.D.,1

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

# Venyagamoorthy, Ganesh Kumar, Ph.D.,

University of Natal, Durban, South Africa, Associate 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 throughout/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.

#### Xiao, Hai, Ph.D.,

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

# 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.

# Zheng, Y. Rosa, Ph.D.,

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

# Zoughi, Reza, Ph.D.,

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

# **Engineering Management** and Systems Engineering

# Allada, Venkat, Ph.D.,

University of Cincinnati, Professor of Engineering Management and Systems Engineering and Vice Provost of Graduate Studies. 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 and Systems Engineering. Director of Systems Engineering Program and Director of the Smart Engineering Systems Laboratory. Systems Architecting as Engineering, Systems of Engineering, Smart Engineering System Design, Systems Architecting, Neural Networks, Fuzzy Logic, Evolutionary Programming, Data Mining, Nesting Problems.

#### Daughton, William, Ph.D.,

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

#### Grasman, Scott E., Ph.D.,

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

# Luechtefeld, Ray, Ph.D.,

Boston College, Assistant Professor of Engineering Management and Systems Engineering. Action research, dialogue, and group/organizational learning, simulations and games for learning and research, computational modeling of individual / social processes.

# Murray, Susan L., Ph.D., 1.

Texas A and M University, Associate Professor of Engineering Management and Systems Engineering. 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 and Systems Engineering. Management of technology, technical entrepreneurship, technology transfer, product management, and legal aspects of technology management.

#### Ragsdell, Kenneth M., Ph.D.,1

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

Raper, Stephen A., Ph.D.,

# 190 — Graduate Faculty

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

#### Tseng, Chung-Li, Ph.D.,

UC Berkeley, Associate Professor of Engineering Management and Systems Engineering. Power system scheduling, operations, and economic analysis, financial engineering, risk management, project and infrastructure management and optimization and operations research.

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

University of Arkansas, Professor of Engineering Management and Systems Engineering and Dean of Extended Studies. Quality management, statistical process control and the Malcolm Baldridge 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 Communication

# Cotterill, Anne, Ph.D.,

Washington University in St. Louis, Renaissance British Literature

#### Doty, Gene, M.A.,

Emporia State University, Associate Professor of English and Department Chair. 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.

#### Malone, Ed, Ph.D.,

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

#### Northcut, Kathryn, Ph.D.,

Texas Tech. University, Assistant Professor of Technical Communication.

# Swenson, Kristine, Ph.D.,

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

#### Watts, Trent, Ph.D.,

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

#### Wright, David, Ph.D.,

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

# Geological Engineering

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

# Anderson, Neil L., Ph.D.,

University of Calgary, Professor of Geophysics. Acquisition processing.

#### Barr, David J., Ph.D.,1

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

# Cawlfield, Jeffrey D., Ph.D.,1

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

#### Elmore, A. Curt, Ph.D.,1

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

#### Gertsch, Leslie, Ph.D.,

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

#### Maerz, Norbert, Ph.D.,

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

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

**Abdelsalom, Mohamed, Ph.D.**, University of Texas-Dallas, Associate Professor. Structural Geology and tectonics, remote sensing and GIS, Geology of Africa.

#### Gao, Steve, Ph.D.,

University of California, Los Angeles, Associate Profess or Geophysics. Seismology, solid earth geophysics, crustal deformation, computional geophysics, plate tectonics.

#### Hagni, Richard D., Ph.D.,

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

#### Hogan, John P., Ph.D.,

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

#### Laudon, Robert C., Ph.D.,1

University of Texas, Professor and Department Chair of Geological Sciences and Engineering. Petroleum geology, reserve estimates, prospect evaluations, sedimentation, and stratigraphy.

#### Liu, Kelly, Ph.D.,

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

#### Oboh-I kuenobe, Francisca E., Ph.D.,

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

### Rupert, Gerald B., Ph.D.,

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

### Spreng, Alfred C., Ph.D.,1

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

## Wronkiewicz, David J., Ph.D.,

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

# Geotechnics

(For individual faculty information see home department.)

# Apel, Derek, Ph.D.,

Queens University, Associate Professor of Mining Engineering.

#### Cawlfield, Jeffrey D., Ph.D., 1

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

#### Gertsch, Leslie, Ph.D.,

Colorado School of Mines, Assistant Professor of Geological Engineering.

# Luna, Ronaldo, Ph.D., 1

Georgia Institute of Technology, Associate Professor of Civil Engineering.

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

University of Waterloo, Associate Professor of Geological Engineering.

# Rogers, J. David, Ph.D., R.G., 2

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

# Stephenson, Richard W., Ph.D., 1

Oklahoma State University, Professor of Civil Engineering.

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

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

## Whitworth, T. Michael, Ph.D.,

Purdue University, Associate Professor of Geological 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.

# History and Political Science

#### Ahmad, Diana, Ph.D.,

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

#### Bledsoe, Wayne M., Ph.D.,

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

#### Buhite, Russell D., Ph.D.,

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

#### Christensen, Lawrence O., Ph.D.,

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

# Eisenman, Harry J., Ph.D.,

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

# Fogg, Shannon, Ph.D.,

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

# Gragg, Larry D., Ph.D.,

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

# Huber, Patrick, Ph.D.,

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

#### Isaac, Tseggai, Ph.D.,

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

#### McManus, John, Ph.D.,

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

# Meagher, Michael, Ph.D.,

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

#### Oster, Don B., Ph.D.,

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

# Ridley, Jack B., Ph.D.,

University of Oklahoma, Curators' Teaching Professor Emeritus of History & Political Science. 19<sup>th</sup> 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, Professor of Information Science and Technology and Department Chair. Expert Systems, Artificial Intelligence, Neural Networks, Fuzzy Logic, large databases, manufacturing information systems, 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 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.

#### Hilgers, Michael, Ph.D.,

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

#### Kehr, William, Ph.D.,

University of Missouri-Rolla. Instructor in Information Science and Technology. Telecommunication Networks, E-Commerce, Technology Management.

#### 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.

# Sheng, Hong. Ph.D.,

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

# 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, De mand Forecasting, Simulation, and Textile Processes.

# Interdisciplinary Engineering

#### Carroll, Douglas R., Ph.D.,1

University of Missouri-Rolla. Professor of Interdisciplinary Engineering, Solar powered cars, composite materials.

#### Davis, Robert L., Ph.D.,1

University of Maryland. Professor Emeritus of Interdisciplinary Engineering. Educational technology, instructional software.

#### Grantham Lough, Katie A., Ph.D.,

University of Missouri-Rolla. Assistant Professor of Interdisciplinary Engineering. Design Theory and Methodologies, Risk Analysis.

#### Philpot, Timothy A., Ph.D.,1

Purdue University. Associate Professor of Interdisciplinary Engineering. Instructional Software, wood structures, structural engineering.

#### Stone, Robert B., Ph.D.,

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

# Takai, Shun, Ph.D.,

Stanford University. Assistant Professor of Interdisciplinary Engineering. Design for Manufacture, Marketing Research, Decision Analysis.

# Manufacturing Engineering

# Agarwal, Sanjeev, Ph.D.,

University of Missouri-Rolla, Research Assistant Professor of Electrical and Computer Engineering.

#### Allada, Venkat, Ph.D.,

University of Cincinnati, Professor Engineering Management and Vice Provost for Graduate Studies.

#### Balakrishnan, S.N., Ph.D,

University of Texas Austin, Professor of Aerospace Engineering.

#### Birman, Victor, Ph.D.,

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

# Carroll, Douglas R., Ph.D.,

University of Missouri-Rolla. Professor and Director of Basic Engineering.

#### Chandrashekhara, K., Ph.D.,

Virginia Polytechnic Institute and State University, Professor of Engineering Mechanics.

# Choi, Joohyun, Ph.D.

University of Illinois-Champaign, Assistant Professor of Mechanical Engineering.

# 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.

# Daughton, William, Ph.D.,

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

# Dharani, Lokeswarappa, Ph.D.,

Clemson University, Professor of Engineering Mechanics and Aerospace Engineering and Senior Investigator in Graduate Center for Materials Research.

# Du, Xiaoping, Ph.D.,

University of Illinois, Professor of Mechanical Engineering.

#### Ercal, Fikret, Ph.D.,

The Ohio State University, Professor of Computer Science.

# Erickson, Kelvin T., Ph.D.,

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

## Galecki, Grzegorz, Ph.D.,

Technical University of Wroclaw, Research Associate Professor.

#### Grasman, Scott, Ph.D.,

University of Michigan, Assistant Professor of Engi - neering Management.

# Hilmas, Gregory E., Ph.D.,

University of Michigan, Professor of Ceramic Engineering.

# 194 — Graduate Faculty

# Kim, Chang-Soo, Ph.D.,

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

#### Kohser, Ronald A., Ph.D.,

Lehigh University, Professor of Metallurgical Engineering.

#### Krishnamurthy, K., Ph.D.,

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

#### Landers, Robert, Ph.D.,

University of Michigan, Assistant Professor of Mechanical Engineering.

#### Lea, Bih-Ru, Ph.D.,

Clemson University, Assistant Professor of Business Administration.

#### Leu, Ming C., Ph.D.,

University of California-Berkeley, Keith and Pat Bailey Distinguished Professor.

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

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

#### McAdams, Daniel A., Ph.D.,

University of Texas at Austin, Assistant Professor of Mechanical Engineering.

#### Midha, Ashok, Ph.D.,

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

#### Mishra, Rajiv S., Ph.D.,

University of Sheffield, England, Associate Professor of Metallurgical Engineering.

# Mitchell, O. Robert, Ph.D.,

Massachusetts Institute of Technology, Professor of Electrical & Computer Engineering and Dean of the School of Engineering.

#### Moss, Randy H., Ph.D.,

University of Illinois, Professor of Electrical & Computer Engineering.

#### Murray, Susan L., Ph.D., 1.

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

# Okafor, Anthony, Ph.D.

Michigan Technological University, Professor of Mechanical Engineering.

# Peaslee, Kent D., Ph.D.,

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

# Ragsdell, Kenneth M., Ph.D.,

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

# Ramsay, Christopher W., Ph.D.,

Colorado School of Mines, Associate Professor of Metallurgical Engineering.

#### Raper, Stephen A., Ph.D.,

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

#### Richards, Von L., Ph.D.,

Michigan, Associate Professor of Metallurgical Engineering.

# Saygin, Can, Ph.D.,

Middle East Technical University-Turkey, Assistant Professor of Engineering Management.

# Stone, Robert B., Ph.D.,

The University of Texas at Austin, Associate Professor of Interdisciplinary Engineering.

#### Stutts, Daniel S., Ph.D.,

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

#### Summers, David A., Ph.D.,

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

# Takai, Shun, Ph.D.,

Stanford University. Assistant Professor of Interdisciplinary Engineering.

# Tsai, Hai-lung, Ph.D.,

University of California-Berkeley, Professor of Mechanical Engineering.

# Watkins, Steve E., Ph.D.

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

# Wu, Cheng H., Ph.D.,

University of Rochester, Professor of Electrical & Computer Engineering.

#### Xing, Yangchuan, Ph.D.,

Yale University, Assistant Professor of Chemical Engineering.

# Materials Science and Engineering

#### 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.

# Brow, Richard K., Ph.D.,

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

#### Day, Delbert, E., Ph.D.,1

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

# Dogan, Fatih, Ph.D.,

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

# Fahrenholtz, William G., Ph.D.,

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

#### Hilmas, Gregory E., Ph.D.,

University of Michigan, 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, Department Chair. 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 of ceramics; sintering and microstructure 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-liner optical applications; 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.

# Kohser, Ronald A., Ph.D.,

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

# Miller, F. Scott, Ph.D.,

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

# 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, Professor of Metallurgical Engineering. Manufacturing and process metallurgy, environmental concerns and recycling in metals industry.

# Ramsay, Christopher W., Ph.D.,

Colorado School of Mines, Adjunct 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. Pyrometallurgical processing.

#### 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.

# Mathematics and Statistics

# 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.

#### 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, Wlodzimierz J., Ph.D.,

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

#### Clark, Stephen L., Ph.D.,

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

# 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.,

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

#### Gadbury, Gary L., Ph.D.,

Colorado State University, Associate Professor of Statistics. Statistical applications in forestry and genetics, causality, nonparametric modeling, modeling of high dimensional biological data, and aerosol particulate data.

#### Grow, David E., Ph.D.,

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

#### Hall, Leon M., Ph.D.,

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

# Hering, Roger H., Ph.D.,

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

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

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

# Le, Vy Khoi., Ph.D.,

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

#### Morgan, Hene H., Ph.D.,

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

#### 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.

# Mechanical and Aerospace Engineering and Engineering Mechanics

#### 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.

#### 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.

#### 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 Vice Provost for Research. 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, Associate Professor of Mechanical Engineering and Associate Chair for Graduate Studies. 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.

#### Midha, Ashok, Ph.D.,

University of Minnesota, Professor Mechanical Engineering and Department Chair. Mechanical design, rigid-body and compliant mechanism design, high-performance machinery analysis and design, machine vibration and stability.

#### Nisbett, J. Keith, Ph.D.,

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

#### Oetting, Robert B., Ph.D.,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 thermophysical 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).

# Metallurgical Engineering

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

#### Kohser, Ronald A., Ph.D.,

Lehigh University, Professor of Metallurgical Engineering.

# Miller, F. Scott, Ph.D.

University of Missouri-Rolla, Assistant Professor of Metallurgical Engineering.

# Mishra, Rajiv S., Ph.D.,

University of Sheffield, England, Professor of Metallurgical Engineering.

# Newkirk, Joseph W., Ph.D.,

University of Virginia, Associate Professor of Metallurgical Engineering.

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

University of Illinois, Professor Metallurgical Engineering.

#### 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.

#### Peaslee, Kent D., Ph.D.,1

University of Missouri-Rolla, Professor of Metallurgical Engineering.

# Ramsay, Christopher W., Ph.D.,

Colorado School of Mines, Adjunct Professor of Metallurgical Engineering.

#### Richards, Von L., Ph.D.,

Michigan, Professor of Metallurgical Engineering.

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

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

#### Schlesinger, Mark E., Ph.D.,1

University of Arizona, Professor of Metallurgical Engineering.

# Van Aken, David C., Ph.D.,1

University of Illinois, Professor of Metallurgical Engineering.

# Mining Engineering

# Apel, Derek, Ph.D.,

Queens University, Associate Professor of Mining and Nuclear Engineering. Rock mechanics, ground support, ground movement instrumentation, underground hard rock mining, mine radiation, exploration, mathematical modeling, mine safety and applied geophysics.

# Baird, Jason, Ph.D.,

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

#### Bullock, Richard L., DEng,

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

# Frimpong, Samuel, Ph.D.,

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

#### Galecki, Grzegorz, Ph.D.,

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

#### Grayson, R. Larry, Ph.D.,

West Virginia University, Union Pacific/Rocky Mountain Energy Professor of Mining Engineering and Director of the Western Mining Safety & Health Training and Translation Center. Coal mining, mine safety and health, respirable dust, mine management, computer applications in Mining, operations research, and optimization.

#### Golosinski, Tad, Ph.D.,

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

#### Haas, Charles J., DSc

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

#### Saperstein, Lee W., DPhil (Oxon)

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

## Summers, David A., Ph.D.,

University of Leeds, Curators' Professor of Mining Engineering and Director of Rock Mechanics and Explosives Research Center and High Pressure Waterjet Laboratory. Waterjet technology, drilling, blasting, rock mechanics, project design, non-explosive rock fragmentation, and strata control.

# Tien, Jerry C., Ph.D.,

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

#### Wilson, John W., Ph.D.,

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

# Worsey, Paul N., Ph.D.,

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

Explosives Research Center. Explosives, blasting and excavation engineering, commercial pyrotechnics.

# **Nuclear Engineering**

# 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 and Program Chair. 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.

# Usman, Shoaib, Ph.D.,

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

# Petroleum Engineering

# Baojun Bai, Ph.D

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

#### Dunn-Norman, Shari, Ph.D.,

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

#### Koederitz, Leonard F., Ph.D.,1

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

#### Numbere, Daopu T., Ph.D.,

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

# **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.

#### 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, Associate 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.

# Medvedeva, Julia, Ph.D.,

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

# 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.

#### 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.

# 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, Curators' Teaching Professor of Physics. Experimental solid state physics. Magnetism, neutron scattering and Mossbauer spectroscopy.

#### Schmitt, John L., Ph.D.,

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

#### Schulz, Michael, Ph.D.,

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

#### Sparlin, Don M., Ph.D.,

Northwestern University, Professor Emeritus of Physics.

#### Story, J. Greg, Ph.D.,

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

#### Vojta, Thomas, Ph.D.,

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

#### Waddill, Daniel, Ph.D.,

Indiana University, 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.

# Yamilov, Alexey, Ph.D.,

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

# Psychology

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

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

#### Martin, James H., Ph.D.,

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

#### Montgomery, Robert L., Ph.D.,

Oklahoma State University, Professor of Psychology 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 personnel selection.

# Nelson, Michael D., Ph.D.,

Dartmouth College, Assistant Professor of Psychology. Cognitive neuroscience and visual attention;

psychophysics and neurologic control of saccadic eye movements; visual perception; cross-modal (visual and auditory) integration; meta-analysis; neuroanatomic correlates of schizophrenia.

# Patock-Peckham, Julie, Ph.D.,

Arizona State University, Assistant Professor of Psychology. Social influence, alcohol use and abuse, addictive behaviors, aggression, health psychology, anger communication styles, social psychology, parenting styles, and the scientific study of religiosity.

# Sharpsteen, Don J., Ph.D.,

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

# Systems Engineering

(See Engineering Management and Systems Engineering)

# Core Faculty

# Allada, Venkat

University of Cincinnati, Professor of Engineering Management and Systems Engineering and Vice Provost for Graduate Studies, Systems Engineering Research Focus Area: Systems Architecting, Systems Engineering Process and Design, Network Centric Systems.

# Chandrashekhara, K.

Virginia Polytechnic Institute and State University, Professor of Mechanical and Aerospace Engineering, Systems Engineering Research Focus Area: Structures, Network Centric Manufacturing and Control.

# Dagli, Cihan

The University of Birmingham, England, Professor of Engineering Management and Systems Engineering, Director of Systems Engineering Graduate Program, Systems Engineering Research Focus Area: Network Centric Systems, Systems Architecting, Systems Engineering Process and Design, Modeling and Simulation, Computational Intelligence.

#### Grantham Lough, Katie, Ph.D.

University of Missouri-Rolla. Assistant Professor of Interdisciplinary Engineering. Systems Engineering Research Focus Area: Systems Engineering Process and Design.

# Grasman, Scott

University of Michigan, Assistant Professor of Engineering Management and Systems Engineering, Systems Engineering Research Focus Area: Modeling and Simulation, Systems Engineering Process and Design, Systems

tems Architecting, Network Centric Systems, Risk Modeling and Assessment.

#### Miller, Ann

St. Louis University, Cynthia Tang Missouri Distinguished Professor of Electrical and Computer Engineering, Systems Engineering Research Focus Area: Network Centric Systems, Systems Engineering Process and Design, Network Centric Manufacturing and Control.

#### Ragsdell, Kenneth

University of Texas, Professor of Engineering Management and Systems Engineering, Systems Engineering Research Focus Area: Systems Engineering Process and Design.

#### Sarangapani, Jagannathan

University of Texas - Arlington, Professor of Electrical and Computer Engineering, Systems Engineering Research Focus Area: Computational Intelligence, Network Centric Systems, Network Centric Manufacturing and Control.

#### Tseng, Chung-Li

UC Berkeley, Associate Professor of Engineering Management and Systems Engineering, Systems Engineering Research Focus Area: Computational Intelligence, Risk Modeling and Assessment, Systems Architecting, Systems Engineering Process and Design, Modeling and Simulation.

# Wunsch II, Donald.

University of Washington, Mary Finley Missouri Distinguished Professor of Electrical and Computer Engineering, Systems Engineering Research Focus Area: Network Centric Systems, Modeling and Simulation, Computational Intelligence.

# Supporting Faculty

# Balakrishnan, S.N

University of Texas - Austin, Professor of Mechanical and Aerospace Engineering Systems Engineering Research Focus Area: Network Centric Systems, Distributed Systems Modeling, Network Centric Manufacturing and Control, Computational Intelligence.

# Belarbi, Abdeldjelil

University of Houston, Curators' Teaching Professor of Civil, Architectural and Environmental Engineering, Systems Engineering Research Focus Area: Structures.

#### Chen, Genda, Ph.D.

State University of New York at Buffalo, Associate Professor of Civil, Architectural and Environmental Engineering. Systems Engineering Research Focus Area: Infrasturcture Systems and Structures.

#### Choi, Minsu

Oklahoma State University, Assistant Professor of Electrical and Computer Engineering, Systems Engineering Research Focus Area: Network Centric Systems, Distributed Systems Modeling, Network Centric Manufacturing and Control, Risk Modeling and Assessment, Modeling and Simulation.

### Dharani, Lokesh

Clemson University, Professor of Mechanical and Aerospace Engineering, Systems Engineering Research Focus Area: Modeling and Simulation, Structures.

#### Du, Xiaoping

University of Illinois at Chicago, Assistant Professor of Mechanical and Aerospace Engineering, Systems Engineering Research Focus Area: Modeling and Simulation.

#### Erickson, Kelvin

Iowa State University, Professor of Electrical and Computer Engineering, Systems Engineering Research Focus Area: Network Centric Manufacturing and Control

#### Flachsbart, Barry

Stanford University, Professor of Information Science and Technology, Systems Engineering Research Focus Area: Computational Intelligence.

#### Isaac, Kakkattuk0uzhy

Virginia Polytechnic Institute and State University, Professor of Mechanical and Aerospace Engineering, Systems Engineering Research Focus Area: Modeling and Simulation.

#### Krishnamurthy, K.

Washington State University, Professor of Mechanical and Aerospace Engineering, Systems Engineering Research Focus Area: Network Centric Manufacturing and Control.

## Landers, Robert

University of Michigan, Assistant Professor of Mechanical and Aerospace Engineering, Systems Engineering Research Focus Area: Network Centric Manufacturing and Control, Modeling and Simulation.

#### Leopold, Jennifer

University of Kansas, Assistant Professor of Computer Science, Systems Engineering Research Focus Area: Systems Engineering Process and Design, Distributed Systems Modeling, Modeling and Simulation, Computational Intelligence.

#### Liou, Frank

University of Minnesota, Professor of Mechanical and Aerospace Engineering, Systems Engineering Research Focus Area: Network Centric Manufacturing and Control, Modeling and Simulation.

# Liu, Xiaoqing (Frank)

Texas A&M University, Associate Professor of Computer Science, Systems Engineering Research Focus Area:

Systems Architecting, Systems Engineering Process and Design.

#### Luna, Ronaldo

Georgia Institute of Technology, Associate Professor of Civil, Architectural and Environmental Engineering, Systems Engineering Research Focus Area: Structures.

#### Madria, Sanjay

Indian Institute of Technology, Assistant Professor of Computer Science, Systems Engineering Research Focus Area: Network Centric Systems, Distributed Systems Modeling.

#### Myers, John

University of Texas - Austin, Associate Professor of Civil, Architectural and Environmental Engineering, Systems Engineering Research Focus Area: Structures.

#### Richards, Von

Michigan, Professor of Material Science and Engineering, Systems Engineering Research Focus Area: Network Centric Manufacturing and Control, Structures.

# Sedigh Sarvestani, Sahra, Ph.D.

Purdue University, Assistant Professor of Electric and Computer Engineering and Information Science Technology. Systems Engineering Research Focus Area: Computational Intelligence, Network Centric Systems and Distributed Systems Modeling.

# Stanley, R. Joe

University of Missouri - Columbia, Associate Professor of Electrical and Computer Engineering, Systems Engineering Research Focus Area: Computational Intelligence, Modeling and Simulation.

# Tauritz, Daniel

Leiden University, Assistant Professor of Computer Science, Systems Engineering Research Focus Area: Computational Intelligence.

#### Venayagamoorthy, Ganesh

University of Natal, Durban, South Africa, Assistant Professor of Electrical and Computer Engineering, Systems Engineering Research Focus Area: Computational Intelligence, Modeling and Simulation

#### Xia, Franck

Université' Pierre et Marie CURIE (Paris VI), Institute Blaise PASCAL, Associate Professor of Computer Science, Systems Engineering Research Focus Area: Distributed Systems Modeling.

#### Zhao, Ying

University of Minnesota, Assistant Professor of Computer Science, Systems Engineering Research Focus Area: Computational Intelligence.