# **Graduate Faculty**

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

The membership of the Graduate Faculty consists of the following: The President of the University of Missouri, the Chancellor, the Vice Chancellor for Academic Affairs, all Deans that have administrative responsibility related to graduate programs, Chairs of Departments authorized to offer graduate degree programs, and other members of the instructional and research faculty with rank or rank equivalent to Assistant Professor or higher, who are accepted under the rules of the Graduate Faculty to assume the responsibilities and authorities delegated to it.

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

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

<sup>1</sup>Registered Professional Engineer

<sup>2</sup>Registered Geologist

# **Aerospace Engineering**

(See Mechanical and Aerospace Engineering and Engineering Mechanics)

# **Basic Engineering**

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

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

#### Davis, Robert L., Ph.D.<sup>1</sup>

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

# Fannin, D. Ronald, Ph.D.,1

Texas Tech University, Professor and Chair of Basic Engineering and Director of Freshman Engineering. Engineering education, advising techniques and administration, freshman design, nonlinear control.

# Hubing, Nancy, Ph.D.,

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

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

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

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

The University of Texas at Austin, Assistant Professor of Basic Engineering. Design Theory and Methodologies,

product architecture, functional representations of design, stystems modeling, design languages.

#### White, Daniel R., Ph.D.,

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

# **Biological Sciences**

#### Lutz, Paula M., Ph.D.,

Duke University, Professor of Biological Sciences and Department Chair. Immunology, immunochemistry, microbiology.

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

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

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

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

#### Gale, Nord L., Ph.D.,

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

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

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

#### Mormile, Melanie R., Ph.D.,

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

#### Porterfield, D. Marshall, Ph.D.,

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

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

University of California-Los Angeles, Assistant Professor of Biological Sciences. Molecular micro-biology, micro-bial diversity, microbial physiology.

# **Ceramic Engineering**

# Huebner, Wayne, Ph.D.,

University of Missouri-Rolla, Professor of Ceramic Engineering and Department Chair. Senior Investigator, Graduate Center for Materials Research. Structure-property relationships in ferroelectric, peizoelectric, and ionically-conducting materials.

# Anderson, Harlan U., Ph.D.,

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

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

Pennsylvania State University, Professor of Ceramic Engineering, and Senior Investigator, Graduate Center for Materials Research. Physics and chemistry of inorganic glasses; spectroscopic characterization of glass structure; preparation of novel glasses for seals and packaging.

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

Pennsylvania State, Curators' Professor 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.

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

University of New Mexico, Assistant Professor of Ceramic Engineering. Thermodynamics, phase equilibria, reactive-metal processing, composites.

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

University of Michigan, Assistant Professor of Ceramic Engineering. Micro-structure processing of mechanical properties of structural ceramics; novel processing techniques for the fabrication of fibrous monoliths.

#### Mattox, Douglas M., Ph.D.,

Rutgers University, Professor of Ceramic Engineering. Microelectronic ceramic processing, glass-to-metal sealing, ceramic coatings, glass properties.

#### Moore, Robert E., Ph.D.,

University of Missouri-Columbia, Curator's Professor of Ceramic Engineering. Mechanical properties of polycrystalline ceramics, thermal shock behavior, creep of refractories, biomaterials, composites.

#### Ownby, Paul D., Ph.D.,1

Ohio State University, Professor 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 Egnineering. Processing and sintering of structural and functional ceramics; sol-gel, chemical precipitation and powder processing; grain growth and micro-structure control, ceramic matrix composites.

# **Chemical Engineering**

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

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

#### Azbel, David, D.Sc.,

Mendeleev Institute of Chemical Technology (Moscow), Professor Emeritus of Chemical Engineering.

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

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

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

Rice University, Professor Emeritus of Chemical Engineering.

#### Forciniti, Daniel, Ph.D.,

North Carolina State University, Associate Professor of Chemical Engineering. Applications of molecular theories to problems in biochemical engineering and science. Bioseparation. Liquid state theories.

#### Johnson, James W., Ph.D.,1

University of Missouri-Columbia, Professor Emeritus of Chemical Engineering. Electrode kinetics, corrosion, adsorption.

#### 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.

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

University of Kansas, Professor Emeritus of Chemical Engineering. Thermodynamcis, vapor-liquid equilibrium, distillation, process design and development.

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

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

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

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

#### Patterson, Gary, Ph.D.,1

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

#### Reed, X B Jr., Ph.D.,

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

# Sitton, Oliver C., Ph.D.,

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

## Sourlas, Dionyssios D., Ph.D.,

University of California Los Angeles, Assistant Professor of Chemical Engineering. Control; process dynamics; optimization; pollution prevention through process engineering.

## Strunk, Mailand R., Sc.D.,1

Washington University, Professor Emeritus of Chemical Engineering.

## Waggoner, Raymond C., Ph.D.,1

Texas A&M, Professor Emeritus of Chemical Engineering.

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

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

# Chemistry

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

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

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

Tulane University, Professor Emeritus of Chemistry. Physical chemistry, thermochemical investigations of binary solvent systems, liquid-liquid equilibria internary systems, classical aqeous 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.

#### Collier, Harvest L., Ph.D.,

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

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

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

#### Grandjean, Fernande, Ph.D.,

Universite de Liege, Adjunct Professor of Chemistry. Mossbauer and X-ray absorption 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, Shudhender, 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.

#### Kirkby, Scott, Ph.D.,

Univeristy of Toronto, Assistant Professor of Chemistry. Physical materials chemistry. Spectroscopic and crystallographic characterization of novel inorganic microporous materials. Research on reactions occurring within the pore structure.

#### Leventis, Nicholas, Ph.D.,

Michigan State University, Associate Professor of Chemistry. Organic chemistry, materials and surface chemistry, electrochemistry.

#### Long, Gary J., Ph.D.,

Syracuse University, Professor of Chemistry. Physical inorganic and solid state chemistry, magnetic, electronic, spectral, and structural studies of transition metal complexes, alkaloid and vitamin  $B_{\rm G}$  complexes, X-ray and neutron diffraction, and Mossbauer effect studies.

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

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

#### Manuel, Oliver K., Ph.D.,

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

#### Matthews, Richard H., Ph.D.,

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

# Merrow, Clifton N., Ph.D.,

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

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

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

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

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

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

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

#### Stoffer, James O., Ph.D.,

Purdue University, 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, Curators' Professor of Chemistry and Senior Investigator, Graduate Center for Materials Research. Inorganic materials chemistry and electrochemistry. Research at interface between chemistry and materials science, developing low-temperature chemical processing methods for nanoscale materials and thin-film optoelectronic ceramic materials.

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

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

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

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

# Yelon, William B., Ph.D.,

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

# **Civil Engineering**

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

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

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

University of Kansas, Mathes Professor of Civil Engineering, Director of the Environmental Research Center. Physicochemical technology development for industrial wastewater, hazardous waste, groundwater, and drink-

ing water treatment; ozonation and advanced oxidation processes, adsorption, precipitation, electrowinning, ion exchange, pollution prevention, heavy metal recovery, and biodegradability enhancement.

# Belarbi, Abdeldjelil, Ph.D.,

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

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

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

# Chen, Genda, Ph.D.,1

State University of New York at Buffalo, Assistant Professor of Civil Engineering. Structural dynamics, random vibration, soil-structure interaction, bridge retrofit schemes, analysis and design of buildings and bridges, energy dissipation devices, health monitoring and active control of civil engineering structures.

#### Fitch, Mark W., Ph.D.,

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

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

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

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

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

# Luna, Ronaldo, Ph.D.,1

Georgia Institute of Technology, Associate Professor of Civil Engineering. Soil mechanics and foundation engineering, geotechnical earthquake engineering, hazard modeling, numerical modeling and information systems. Geotechnical engineering standards for acquisition of field and laboratory data. Spatial analysis, modeling and representation of geotechnical data in 3D/2D space for use in information systems (e.g., GIS, remote sensing, data visualization, and macro/micro image processing).

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

Colorado State University, Associate Professor of Civil Engineering. Interaction of stream beds with turbulent flow, water quality in streams and lakes, floodwaves.

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

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

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

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

#### Nanni, Antonio, Ph.D.,1

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

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

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

# Qureshi, Mohammad, Ph.D.,1

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

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

University of Missouri-Rolla, Associate Professor of Civil Engineering. Properties of construction materials, properties of shale, pavement analysis and design.

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

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

#### Silva, Pedro, Ph.D.,

University of California, San Diego, Assistant Professor of Civil Engineering. Development of performance-based procedures for the design and retrofit of civil infrastructures.

#### Spring, Gary S., Ph.D.,1

University of Massachusetts, Associate Professor of Civil Engineering. Traffic operations and safety, systems and system evaluation, highway engineering and design, applications of advanced technologies to transportation problems, and sustainable development.

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

Oklahoma State University, Professor of Civil Engineering. Foundation design, engineering behavior of soils, embankment dams, geoenvironmental engineering.

#### Zhang, Xiaoqi (Jackie), Ph.D.,

University of Cincinnati, Assistant Professor of Civil Engineering. Biofilm-based wastewater treatment processes, biofilm structure, properties of extracellular polymeric substances (EPS), and pollutant transport/removal mechanisms.

# **Emeritus Titles in Civil 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. Behavior of inelastic systems subjected to dynamic loads and earthquakes finite element methods, computer methods in elastic and inelastic complex structures, optimum design of structural systems, dynamic instability, nonlinear and random vibrations.

#### Dare, Charles E., Ph.D.,1

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

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

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

#### Prakash, Shamsher, Ph.D.,1

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

#### Senne, Joseph H. Jr., Ph.D.,1

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

#### TerKonda, Purush K., Ph.D.,

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

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

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

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

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

# **Computer Engineering**

(See Electrical and Computer Engineering)

# **Computer Science**

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

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

#### DeKock, Arlan R., Ph.D.

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

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

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

#### Fu, Yongjian, Ph.D.,

Simon Fraser University, Canada, Assistant Professor of Computer Science. Data mining, intelligent databases, distributed database systems.

#### Gillett, Billy E., Ph.D.,

Oklahoma State University, Professor Emeritus of Computer Science.

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

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

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

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

# Madria, Sanjay, Ph.D.,

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

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

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

#### Noh, Sanguk, Ph.D.,

University of Texas at Arlington, Assitant Professor of Computer Science, Artificial intelligence, intelligent agents and theoretical computing.

# Prater, John B., Ph.D.,

University of Missouri-Rolla, Associate Professor Emeritus of Computer Science.

#### Pyron, Howard, Ph.D.,

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

# Rigler, A. Kellam, Ph.D.,

University of Pittsburgh, Professor Emeritus of Computer Science.

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

University of Illinois, Professor of Computer Science. Parallel algorithms, visualization and image processing, graphics, image databases.

# Sager, Thomas J., Ph.D.,

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

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

George Washington University, Assistant Professor of Computer Science. Multimedia information systems, parallel processing.

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

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

#### Xia, Franck, Ph.D.,

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

# Zobrist, George W., Ph.D.,

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

# **Economics**

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

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

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

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

# Gallaway, Julie, Ph.D.,

Colorado State University, Assistant Professor of Economics. Labor Market, Gender issues in Economic Development.

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

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

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

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

#### Sen, Amit, Ph.D.,

North Carolina State University, Assistant Professor of Economics. Econometrics.

# **Electrical and Computer Engineering**

#### Stanek, E. Keith, Ph.D.,1

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

# Acar, Levent, Ph.D.,

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

# Anderson, Max, Ph.D.,1

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

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

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

#### Boone, Jack L., Ph.D.,

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

#### Bourguin, Jack J., Ph.D.,

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

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

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

# Carson, Gorden E., Ph.D.,

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

#### Chowdhury, Badrul H., Ph.D.,

Virginia Tech., Professor of Electrical and Computer Engineering. Power System analysis and control, artificial intelligence and neural network applications, power

electronics, power quality quality-integration of photovoltaic and wind power sources.

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

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

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

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

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

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

## Dawson, Darrow F., Ph.D.,1

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

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

University of Illinois, 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. Chemical process control, advanced control algorithms, digital control, programmable logic controllers, system identification.

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

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

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

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

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

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

#### Hubing, Todd H., Ph.D.,

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

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

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

#### Kosbar, Kurt L, Ph.D.,

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

# McPherson, George Jr., M.S.,1

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

#### Miller, Ann, Ph.D.,

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

#### Mitchell, O. Robert, Ph.D.,1

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

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

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

# Pekarek, Steven K., Ph.D.,

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

#### Pottinger, Hardy J., Ph.D.,

University of Missouri-Rolla, Associate Professor 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 and Director, Intelligent Systems Center. Intelligent and robust control, control of smart structural systems, structural health monitoring, environmentally conscious manufacturing, and intelligent sensor data fusion.

#### Reza, Zoughi, Ph.D.,

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

#### 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.

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

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

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

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

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

University of Wyoming, Professor 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 Eningeering. Satistical 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.

#### Watkins, Steve E., Ph.D.,

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

#### Weeks IV, William, Ph.D.,

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

#### Wu, Cheng-Hsiao, Ph.D.,

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

# Wunsch II, Donald C., Ph.D.,1

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

# **Engineering Management**

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

University of Arkansas, Professor of Engineering Management and Department Chair. Total quality management applied to all organizations and the use of quality tools such as the Malcolm Baldridge criteria to achieve performance excellence.

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

University of Cincinnati, Associate Professor of Engineering Management. CAD/CAM/CIM, Concurrent Engineering, Feature-Based Design, Intelligent Manufacturing Systems, Product Design, Tolerancing.

#### Amos, John M., Ph.D.,

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

# Ammeter, Tony, Ph.D.,

University of Texas at Austin, Assistant Professor of Engineering Management. Organization Science and behavior in the modern corporation.

## 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.

#### Brooks, William Allen, Ph.D., C.P.A.,

University of Kansas, Professor Emeritus of Engineering Management. Improving accounting reporting systems, usages of accounting data for managerial decision making and matters of finance.

#### Dagli, Cihan H., Ph.D.,

The University of Birmingham, England, Professor of Engineering Management. Smart engineering system design, Neural networks, fuzzy logic, evolutionary programming, data mining, scheduling, nesting problems.

#### Daily, Madison, Ph., D.,

University of Missouri-Rolla, Professor Emeritus of Engineering Management and Koplar Professor of Teaching with Technology. Director NTU Outreach Programs. Decision support systems, application of microcomputers in business, finance, Management Science and distance education.

#### Enke, David, Ph.D.,

University of Missouri-Rolla, Assistant Professor of Engineering Management. Applications of artificial intelligence to financial decision making.

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

University of Michigan, Assistant Professor of Engineering Management. Applied probability and statistics, engineering economics, operations management and operations research.

## Kluczny, Raymond, Ph.D.,

Arizona State University, Associate Professor of Engineering Management. Management information sys-

tems, decision support systems, reliability engineering and design of experiments.

# Meinert, Timothy S., Ph.D.,

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

#### Metzner, Henry E., Ph.D.,

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

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

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

#### Myers, Donald D., J.D.,1

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

#### Nystrom, Halvard E., Ph.D.,

Arizona State University, Assistant Professor of Engineering Management. Strategic planning, marketing, comparative and multinational management, financial modeling, management of technology and distance education.

#### 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.

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

Certified Packaging Professional. University of Missouri-Rolla, Associate Professor of Engineering Management. Packaging engineering, operations, productivity, total quality management, packaging systems design, environmental aspects of packaging, and statistical process control.

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

University of Texas, Professor of Engineering Management and Director, Design Engineering Center. Engineering design processes with a specialty in optimization, quality engineering and total quality and management.

#### Saygin, Can, Ph.D.,

Middle East Technical University – Turkey, Assistant Professor of Engineering Management. Flexible manufacturing systems, shop floor control, production planning scheduling, integration in manufacturing.

#### Schmidt, Peter J., Ph.D.,

UMR, Assistant Professor of Engineering Management. Quality and reliability, total quality management, and finance for engineers.

#### 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 laws, 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.

# Spurlock, David G., Ph.D.,

University of Illinois - Champaign, Assistant Professor of Engineering Management. Management of human relations in the context of technological organizations.

# **Engineering Mechanics**

(See Mechanical and Aerospace Engineering and Engineering Mechanics)

# **English**

#### Cummins, Elizabeth, Ph.D.,

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

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

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

#### Knight, W. Nicholas, Ph.D.,

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

#### Sweeney, Michelle, Ph.D.,

Trinity College Dublin, Assistnat Professor of English. Old and Middle English.

#### Swenson, Kristine, Ph.D.,

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

#### Vonalt, Larry, Ph.D.,

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

# Zepernick, Janet S., Ph.D.,

The Pennsylvania State University, Assistant Professor of English. British Literature, technical writing.

# **Geological and Petroleum Engineering**

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

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

#### 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 and Head of Geological Engineering. Probabilistic modeling and geostatistics, ground-water and contaminant transport analysis, and computer applications in geological engineering.

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

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

#### Elifrits, C. Dale, Ph.D.,

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

#### Gupta, Anuj, Ph.D.,1

University of Texas-Austin, Associate Professor of Petroleum Engineering. Drilling, well logging, reservoir characterization with specific applications to naturally fractured reservoirs and rock-fluid interactions including dynamic filtration of drilling and fracturing fluids.

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

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

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

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

#### Rockaway, John D. Jr., Ph.D.<sup>2</sup>

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

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

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

#### Santi, Paul M., Ph.D.,2

Colorado School of Mines, Associate Professor of Geological Engineering. Engineering geology and geotech-

nics, subsurface exploration, engineering properties of rocks and soils and groundwater hydrology.

# 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**

#### Gregg, Jay M., Ph.D.,

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

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

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

#### Bolter, Ernst A., Ph.D.,

Goettingen, Germany, Professor Emeritus of Geo-chemistry. Geochemical exploration, environmental geochemistry, biogeochemistry, clay mineralogy, coal petrology.

#### Cardimona, Steve J., Ph.D.,

University of Texas, Assistant Professor of Geophysics. Environmental and engineering geophysics.

#### Grant, Sheldon K., Ph.D.,

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

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

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

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

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

#### Kisvarsanyi, Geza, Ph.D.,

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

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

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

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

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

#### Rechtien, Richard D., Ph.D.,

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

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

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

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

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

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

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

# History and Political Science

# Ahmad, Diana, Ph.D.,

University of Missouri-Columbia, American West, American Environmental Modern East Asia.

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

Michigan State, Professor of History and Department Chair of History and Political Science. Ancient, medieval, theories of civilization.

# Boettcher, Susan, Ph.D.,

University of Wisconsin – Madison, Assistant Professor of History. The European Reformation, Modern Germany, History of the Mexico.

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

University of Missouri-Columbia, Distinguished Teaching Professor. History of black America, History of Missouri, History of American South.

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

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

# Gragg, Larry D., Ph.D,

University of Missouri-Columbia, Professor of History. Colonial America, Revolutionary America, History of the American Family, Religion and Witchcraft in Early America.

#### Huber, Patrick, Ph.D.,

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

# Isaac, Tseggai, Ph.D.,

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

#### Meagher, Michael, Ph.D.,

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

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

University of Oklahoma, Distinguished Teaching Professor. 19<sup>th</sup> century Europe, Engineering Education.

#### Williams, Lance, Ph.D.,

Georgia, Associate Professor of History. Social Britain—Since 1700, Modern Britain, Contemporary Europe.

# **Mathematics and Statistics**

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

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

#### Bain, Lee J., Ph.D.,

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

#### Bekker, Miron, Ph.D.,

Institute of mathematics, Kiev. Assistant Professor of Mathematics. Operator theory in Hilbert space, harmonic analysis, control theory.

#### Ben Rhouma, Mohamed, Ph.D.,

University or Missouri-Columbia. Assistant Professor of Mathematics. Dynamical systems, optimization, clustering.

# Bohner, Martin, Ph.D.,

University of Ulm, Assistant Professor of Mathematics. Ordinary differential equations, difference equations, Hamiltonian systems, variational analysis, boundary value problems, control theory.

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

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

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

University of Tennessee, Associate Professor of Mathematics. Analysis, differential equations.

#### Dwilewicz, Roman J., D.Sc.,

University of Warsaw. Associate Professor of Mathematics. Global analysis, several complex variables, algebraic geometry, number theory.

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

Colorado State University, Assistant Professor of Statistics. Statistics, experimental design, nonparametric modeling.

#### Gan, Gaoxiong, Ph.D.,

Kansas State University, Associate Professor of Statistics. Mathematical Statistics.

# Grimm, Louis J., Ph.D.,

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

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

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

# Haddock, A. Glen, Ph.D.,

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

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

Southern Illinois University, Associate Professor of Mathematics. Differential equations.

#### Hicks, Troy L., Ph.D.,

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

# Ingram, William T., Ph.D.,

Auburn University, Professor of Mathematics. Continuum theory, topology.

# Insall, E., Ph.D.,

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

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

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

# Morgan, Ilene H., Ph.D.,

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

# Pagano, Sylvester J., M.A.,

Washington University, Professor Emeritus of Mathematics. Special functions, boundary value problems.

# Patel, Jagdish K., Ph.D.,

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

#### Penico, Anthony J., Ph.D.,

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

# Pursell, Lyle E., Ph.D.,

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

# Randolph, Timothy, Ph.D.,

University of Oregon, Associate Professor o Mathematics. Functional analysis.

# Roe, Robert P., Ph.D.,

University of Wyoming, Associate Professor of Mathematics. Nonlinear dynamical systems, continuum theory.

# Samaranayake, V.A., Ph.D.,

Kansas State University, Associate Professor of Statistics. Time series analysis, regression analysis.

#### Stanojevic, Caslav V., Ph.D.,

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

# Trimble, Selden Y., Ph.D.,

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

# Mechanical and Aerospace Engineering and Engineering Mechanics

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

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

# Alofs, Darryl J., Ph.D.,

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

#### Armaly, Bassem F., Ph.D.,

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

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

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

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

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

# Barker, Clark R., Ph.D.,

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

#### Basye, Charles B., Ph.D.,1

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

# Birman, Victor, Ph.D.,

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

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

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

#### Chen, Ta-Shen, Ph.D.,

University of Minnesota, Curators' Professor Emeritus of Mechanical Engineering. Convective heat and mass transfer, natural and mixed convection in 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 complex flow geometrics in natural and mixed convection.

#### Choi, Joohyun, Ph.D.,

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

#### Cronin, Donald L., Ph.D.,

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

#### Crosbie, Alfred L., Ph.D.,

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

#### Cunningham, Floyd M., Ph.D.,

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

# Dharani, Lokeswarappa R., Ph.D.,

Clemson University, Professor of Engineering Mechanics and Aerospace Engineering and Senior Investigator in Graduate Center for Materials Research and Associate Dean of Engineering. Micromechanics, composite materials, fracture mechanics, process modeling, wear and friction in composites, fracture and failure of laminated glass.

#### Drallmeier, James A., Ph.D.,

University of Illinois, Associate Professor of Mechanical Engineering. Combustion, laser based diagnostics for sprays and combustion, optical measurement systems, fuel injection, and internal combustion engines.

#### 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 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.

# 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, turbulent flames, laser diagnostics, flame radiation, formation and emission of pollutants, flame synthesis of nanoparticles.

# Krishnamurthy, K., Ph.D.,

Washington State University, Professor of Mechanical Engineering and Assoc. Chair for Graduate Studeis Intelligent control, robotics, advanced manufacturing systems.

#### 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; integrated design and control; supervisory control; 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. Computer-aided design and manufacturing, rapid prototyping, automatic assembly, and virtual prototyping.

## 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.

#### Lu, Wen F., Ph.D.,

University of Minnesota, Associate Professor of Mechanical Engineering. Automation, CAD/CAM, computer integrated manufacturing, intelligent sensing and control, solid freeform manufacturing, machine tool dynamics, micro electromechanical system, (MEMS) and AI applications.

#### Mac Sithigh, Gearoid P., Ph.D.,

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

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

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

# Medrow, Robert A., Ph.D.,

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

#### Miller, Brad A., Ph.D.,

Georgia Tech University, Assistant Professor of Mechanical Engineering. Dynamics of gas lubricated bearings and seals, mechanics and dynamics of rotating machinery, computational methods in dynamics, tribology.

## Nelson, H. Frederick, Ph.D.,

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

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

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

#### Oetting, Robert B., Ph.D.,1

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

#### Okafor, A., Ph.D.,

Michigan Technological University, Associate 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.

## 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 compustors, aircraft gas turbine ramjet propulsion systems, and scramjet performance.

#### Roy, Samit, Ph.D.,

Virginia Polytechnic Institute and State University, - Associate Professor of Engineering Mechanics and Senior Investigator in Rock Mechanics and Explosives Research Center. Nonlinear finite element analysis, elastic-plastic and visco-plastic constitutive modeling, computational fracture mechanics, failure and stability analysis, durability of composite materials, analysis of viscoelastic

materials with penetrant diffusion, large deformation kinematics, computer simulation of high velocity impact, nanomaterials.

# 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.

#### Schowalter, Ralph E., M.S.,1

University of Missouri School of Mines and Metallurgy, Professor Emeritus of Mechanical Engineering. Machine design, kinematics, lubrication, gas lubricated bearings, thermal stress analysis.

#### 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

# Watson, John L., Ph.D.,

Bristol University, England, Professor of Metallurgical Engineering, Department Chair. Computer simulation and control, mineral process assessment, hydrometallurgy, and treatment of mineral and metal wastes.

#### Askeland, Donald R., Ph.D.,

University of Michigan, Distinguished Teaching Professor of Metallurgical Engineering. Metals casting, cast irons, and welding.

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

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

#### Leighly, Hollis P. Jr., Ph.D., 1,2

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

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

University of Sheffield, England, Assistant 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, power metallurgy.

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

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

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

UMR, Curators' Professor Emeritus of Metallurgical Engineering and Senior Research Investigator, Graduate Center for Materials Research. electrodeposition, corrosion, and hydrometallurgy.

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

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

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

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

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

University of New South Wales, Australia, Professor of Metallurgical Engineering and Director, Center for Pyrometallurgy. Process engineering of pyrometallurgy.

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

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

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

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

# Mining Engineering

#### Grayson, R. Larry, Ph.D.,1

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

# Bullock, Richard L., D. Eng.

University of Missouri-Rolla, Robert H. Quenon Professor in Mining Engineering. Surface and underground mining methods, hardrock and metalliferous mining, mine evaluation and feasibility.

#### Haas, Charles J., D.Sc.,1

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

#### Mazurkiewicz, Marian, D. Sc.,

Wroclaw University, Poland, Professor of Mining Engineering and Senior Research Investigator, Rock Mechanics and Explosives Research Center. Waterjet cutting, drilling and grinding.

## Saperstein, Lee W., Ph.D.,

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

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

University of Leeds, Curators' Professor of Mining Engineering and Director of Rock Mechanics and Explosives Research Center and High Pressure Waterjet Laboratory. High-pressure waterjet cutting, jet drilling, novel excavation technology, rock mechanics, stata control.

## Tien, Jerry C., Ph.D.,1

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

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

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

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

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

#### Zipf, Karl, Ph.D.,

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

# **Nuclear Engineering**

# Kumar, Arvind, Ph.D.,

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

#### Edwards, D. Ray, Sc.D.,1

Massachusetts Institute of Technology, Professor of Nuclear Engineering. Probabilistic risk assessment, computer applications, transport theory, computer simulation of radiation damage, heat transfer in rod bundles, nuclear fuel cycle analysis.

# Keyvan, Shahla, Ph.D.,

University of California-Berkeley, Associate Professor of Nuclear Engineering. Reactor noise analysis, nuclear power plant diagnostics, artificial intelligence.

#### Mueller, Gary Edward, Ph.D.,1

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

#### Tokuhiro, Akira, Ph.D.,

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

#### Tsoulfanidis, Nicholas, Ph.D.,1

University of Illinois, Assistant Dean, School of Mines and Metallurgy, Professor of Nuclear Engineering, and Radiation Safety Officer. Radiation transport and shielding, health physics, nuclear fuel cycle and radioactive waste management.

#### Bolon, Albert E., Ph.D.,1

Iowa State University, Associate Professor Emeritus of Nuclear and Metallurgical Engineering. Basic and applied research on materials for nuclear engineering application, radiation effects in materials, nuclear plant safety and licensing.

# **Philosophy and Liberal Arts**

#### Art

#### Bogan, James Jr., Ph.D.,

University of Kansas, Professor of Art.

## German

#### Cohen, Gerald, Ph.D.,

Columbia University, Professor of German & Russian

# Music

#### Oakley, David L., Ph.D.,

Indiana University, Professor of Emeritus of Music.

# **Philosophy**

# Miller, Richard W., Ph.D.,

University of Illinois, Professor of Philosophy.Speech & Media Studies

#### Haynes, W. Lance, Ph.D.,

University of Minnesota, Associate Professor of Speech & Media Studies.

# Williams, David C., Ph.D.,

University of Kansas, Assistant Professor of Speech & Media Studies.

# **Physics**

#### Parris, Paul E., Ph.D.,

University of Rochester, Department Chair, Professor of Physics. Theoretical solid state physics. Transport in disordered solids.

#### Adawi, Ibrahim H., Ph.D.,

Cornell University, Professor Emeritus of Physics.

#### Alexander, Ralph W., Ph.D.,

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

# Anderson, Richard A., Ph.D.,

Kansas State University, Professor Emeritus of Physics.

# Bieniek, Ronald J., Ph.D.,

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

#### 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 Physics. Experimental and theoretical studies of condensation, nucleation, and aerosol physics.

# Hale, Barbara N., Ph.D.,

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

#### Hale, Edward B., Ph.D.,

Purdue University, Professor Emeritus of Physics.

#### Madison, Don H., Ph.D.,

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

# McFarland, Robert H., Ph.D.,

University of Wisconsin, Professor Emeritus of Physics.

# Olson, Richard E., Ph.D.,

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

#### Park, John T., Ph.D.,

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

# Peacher, Jerry L., Ph.D.,

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

#### Pringle, Oran Allan, Ph.D.,

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

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

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

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

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

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

Northwestern University, Professor of Physics. Experimental solid state.

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

University of Southern California, Associate Professor of

# 78 — Graduate Faculty

Physics. Experimental atomic and molecular physics. Laser excitation of atoms.

# Waddill, George, D., Ph.D.,

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

#### Wilemski, Gerald, Ph.D.,

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

# Zenor, Hughes M., Ph.D.,

Rice University, Professor Emeritus of Physics.

# **Psychology**

#### Kellogg, Ronald T., Ph.D.,

University of Colorado, Professor of Psychology and Department Chair. Thinking, attention, concept learning, and memory, cognitive processes in written composition.

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

Florida State University, Professor of Psychology. Interface between clinical and social psychology; the etiology and treatment of human interaction problems including the role of personality factors; understanding and reducing problems of drug use by adolescents; university involvement in economic development activities.

# Hall, Richard H., Ph.D.,

Texas Christian University, Associate Professor of Psychology. 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.

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

Oklahoma State University, Professor of Psychology. The application of social psychology principles to behavior in organizations, group processes and group dynamics; personnel selection; the psychology of persuasion and the effect of action on beliefs; the enhancement of organizational effectiveness through training in leadership, motivation, performance, communication, and attitude test construction.

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

University of Denver, Associate Professor of Psychology. Social cognition, as it relates to emotions and close relationships (especially romantic ones); attachment processes in close relationships; evolutionary influences on dating behavior, romantic jealousy, and gossiping; intimacy in friendships.