

Department of Industrial and Management Systems Engineering

Degrees Offered

- Masters of Science, Industrial Engineering (M.S.I.E.)
- Masters of Science, Safety Management (M.S.)
- Masters of Science, Engineering Management (M.S.)
- Doctor of Philosophy, Industrial Engineering (Ph.D.)
- Doctor of Philosophy, Occupational Safety and Health (Ph.D.)

Department Overview

One of the defining attributes in the success of the department is the dedication and talent of its faculty and staff members. The department offers degree programs in industrial engineering, engineering management, and occupational safety and health. The industrial engineering curriculum provides training on diverse engineering topics including but not limited to manufacturing, production planning and control, supply chain and optimization, and ergonomics. Engineering management students learn to apply specialized knowledge to address contemporary professional challenges and solve complex operational problems to improve business processes. The safety management program is accredited by the Applied and Natural Sciences Accreditation Commission of ABET, <http://www.abet.org>. The mission of the safety management program is to prepare program graduates to preserve and protect the resources – people, property, and business continuity – of the organization. The combined resources and faculty talents of these programs create synergies that provide our students with outstanding academic and research experiences in the fields of engineering and occupational safety and health.

Areas of Research

The research opportunities are available in the areas of:

- smart manufacturing
- operations research
- production planning and control
- data analytics and visualization
- ergonomics
- industrial hygiene
- energy efficiency and sustainability
- safety

FACULTY

CHAIR

- Ashish Nimbarte - Ph.D., P.E., C.E.M. (Louisiana State University)
Occupational Biomechanics, Human Factors Engineering, Industrial Ergonomics, Occupational safety and health, Energy Efficiency and Sustainability

PROFESSORS

- B. Gopalakrishnan - Ph.D., P.E., C.E.M. (Virginia Polytechnic Institute and State University)
Manufacturing Processes and Production Systems, Artificial Intelligence Applications, Expert Systems Development, Industrial Energy Efficiency, Building's Energy Efficiency, Industrial Energy and Waste Minimization, Productivity Improvement
- Ashish Nimbarte - Ph.D., P.E., C.E.M. (Louisiana State University)
Occupational Biomechanics, Human Factors Engineering, Industrial Ergonomics, Occupational Safety and Health, Energy Efficiency and Sustainability
- David A. Wyrick - Ph.D., P.E., P.E.M. (University of Missouri-Rolla)
Engineering Management, Engineering Education, Effective Management of Technology in SMEs

ASSOCIATE PROFESSORS

- Alan McKendall, Jr. - Ph.D. (University of Missouri, Columbia)
Operations Research, Meta-heuristics, Facilities Layout and Materials Handling, Project Scheduling, Integrated Production Systems
- Thorsten Wuest - Ph.D. (University of Bremen, Germany)

Smart and Advanced Manufacturing, Intelligent Manufacturing Systems, Machine Learning / Big Data in Manufacturing Applications, Product Lifecycle Management, Smart Product Design, Information and Knowledge Management, IPPS / Servitization

ASSISTANT PROFESSORS

- Imtiaz Ahmed - Ph.D. (Texas A&M University)
Data science, machine learning, quality control and inventory management
- Avishek Choudhury - Ph.D. (Stevens Institute of Technology)
Cognitive Human Factors, Public Health, Patient Safety, Digital Health Integration, User Experience
- Zeyu Liu - Ph.D. (The University of Tennessee, Knoxville)
Stochastic Linear/Nonlinear Optimization, Machine Learning & Artificial Intelligence
- Zhichao Liu - Ph.D. (Texas Tech University)
Manufacturing processes, Metal additive manufacturing, Sustainable manufacturing
- JuHyeong Ryu - Ph.D. (University of Waterloo)
Safety Management, Human-Robotic Systems, Occupational Ergonomics, Wearables Technologies

TEACHING ASSISTANT PROFESSOR

- Omar Al-Shebeeb - Ph.D. (West Virginia University)
Manufacturing Systems, Design for Manufacturing, CAD/CAM Applications
- Jeremy Gouzd - Ph.D. (West Virginia University)
Occupational safety and health, Risk assessment, Engineering safety
- Makenzie Dolly - Ph.D. (West Virginia University)
Industrial Engineering Capstone, Engineering Statistics, Engineering Education, Manufacturing, Gamification

CAREER & PROFESSIONAL MENTOR

- Philomena Krosmico - MSIE (West Virginia University)
Engineering Statistics, Lean Process Improvement

RESEARCH ASSOCIATE

- Christopher Moore - Ph.D. (West Virginia University)
Occupational Safety and Health, Industrial Sustainability, Pollution Prevention

ADJUNCT INSTRUCTOR

- Alvin Guthrie - BSIE (West Virginia University)
Operations management, Manufacturing systems, Production planning and control
- Daniel Kniska - MSIE (West Virginia University)
Engineering economy, Statistics, Production planning and control
- Nelson F. Rekos - BSME (University of Maryland), MBA (West Virginia University)
Project Management, Materials Science, Advanced Energy Systems, Government Contracting

PROFESSORS EMERITI

- Rashpal S. Ahluwalia - Ph.D., P.E. (Western Ontario University)
Manufacturing systems, Quality and reliability engineering, Robotics and automation
- Jack Byrd Jr. - P.E. (West Virginia University)
Operations research, Workforce development, Work design, Integrated product development
- Robert C. Creese - Ph.D., P.E. (Pennsylvania State University)
Manufacturing processes/systems, Foundry engineering, Cost engineering, Engineering economics
- Daniel E. Della-Giustina - Ph.D. (Michigan State University)
Playground and recreation safety, Sport safety, Highway and traffic management, Safety, fire, and emergency response
- Steven Guffey - Ph.D., C.I.H. (North Carolina State University)
Ventilation systems theory and design, Noise measurement and control, Exposure assessment
- Wafik Iskander - Ph.D., P.E. (Texas Tech University)
Operations research and optimization, Simulation modeling and analysis, Production planning and control, Applied statistics, Energy efficiency, Transportation planning
- Majid Jaridi - Ph.D. (University of Michigan)
Statistics, Quality control, Forecasting and transportation research
- Warren Myers - Ph.D., C.I.H. (West Virginia University)
Industrial hygiene and safety, Worker exposure assessment and modeling, Aerosol filtration, Occupational respiratory protection design and testing

- Ralph W. Plummer - Ph.D. (West Virginia University)
Systems safety engineering, Energy conservation, Human factors, Ergonomics

ASSOCIATE PROFESSOR EMERITUS

- Andrew J. Sorine - Ed.D. (West Virginia University)
Benchmarking, Safety and Health Programs, Safety Management Information Systems

VISITING AND ADJUNCT PROFESSORS

- Lorenzo G. Cena - Ph.D. (University of Iowa)
Occupational health and safety, Aerosol generation and characterization, Exposure assessment
- Christopher Coffey - Ph.D. (West Virginia University)
Occupational Safety and Health, Assessment, Evaluation of Respiratory Protective Equipment
- Ren Dong - Ph.D. (Concordia University)
Human Factors Engineering, Ergonomics, Safety engineering
- John R. Etherton - Ph.D. (West Virginia University)
Safety Engineering, Human Factors
- Martin Harper - Ph.D. (London School of Hygiene and Tropical Medicine)
Industrial Hygiene, Exposure Assessment
- James R. Harris - Ph.D., P.E. (West Virginia University)
Safety Research, Human Factors
- Hongwei Hsiao - Ph.D. (University of Michigan)
Safety Engineering, Human Factors
- Kevin Michael - Ph.D. (Pennsylvania State University)
Acoustics, Hearing Protection, Industrial Hygiene
- Christopher Pan - Ph.D. (University of Cincinnati)
Industrial Hygiene, Exposure Assessment
- Ju-Hyeong Park - Sc.D. M.P.H., C.I.H. (Harvard University)
Industrial Hygiene, Exposure Assessment
- M. Abbas Virgi - Sc.D., C.I.H. (University of Massachusetts)
Exposure assessment, Epidemiology, Biostatistics
- Ziqing Zhuang - Ph.D. (West Virginia University)
Exposure Assessment, Assessment and Evaluation of Respiratory Protective Equipment