

# DEPARTMENT OF INDUSTRIAL & SYSTEMS ENGINEERING RESEARCH



UF ISE Human Systems Engineering Lab Driving Simulator

The **UF Department of Industrial & Systems Engineering** provides a platform for student creative and critical systems thinking that produces research transforming work and society through engineering science.

## #11

**BEST PUBLIC INDUSTRIAL & SYSTEMS  
ENGINEERING GRADUATE PROGRAM**  
2023 U.S. News & World Report

### FACULTY

**21** FACULTY MEMBERS

**15** TENURED/TENURE  
TRACK FACULTY

**5** OPEN POSITIONS  
WE'RE HIRING FOR

### COLLABORATION

UF ISE faculty are currently collaborating with **48** other departments and institutes across campus and beyond including the **College of Design, Construction and Planning, College of Human & Health Performance, College of Education, College of Nursing and UF Health.**

## RESEARCH AREAS

**Data Analytics** - Focus on process monitoring and modeling, adaptive sampling, high dimensional data analysis, integrated simulation and optimization methods

**Health Systems** - Medical decision-making, personalized medicine, treatment models, quantitative human systems analyses in healthcare

**Human Systems** - Human motion monitoring, activity classification, biometrics, usability in safety critical systems, human-robot interaction, driver safety, physiological signal processing/analysis

**Operations Research** - Focus on stochastic and discrete optimization, stochastic modeling and control, data-driven modeling, algorithm design and analysis, and network optimization

**Smart Production & Logistics Systems** - Supply chain design and operation, process datamining, statistical methods for data reduction, machine learning for process classification and decision making, data-driven stochastic inventory control, inventory and production planning for manufacturing and maintenance systems.

## \$6.4M

 IN CURRENT RESEARCH  
AWARD FUNDING

### TOP FUNDING AGENCIES

77% NSF

6% DOD

4% DOE

3% NIH

3% U.S. Department of Agriculture

# DEPARTMENT OF INDUSTRIAL & SYSTEMS ENGINEERING TENURED/TENURE-TRACK FACULTY

## ELIF AKCALI, PH.D.

### *Michael Durham Professor of Creativity, Associate Professor*

Inventory and supply chain systems, lean production systems, sustainability and creativity

## DAVID KABER, PH.D.

### *Dean's Leadership Professor*

Human performance analysis and modeling for design and engineering complex systems, cognitive workload and situation awareness analysis, human-autonomy collaboration

## IRIS RIVERO, PH.D.

### *Paul and Heidi Brown Preeminent Chair in Industrial and Systems Engineering, Department Chair*

Advanced manufacturing, 3D printing, hybrid manufacturing, materials design, biomanufacturing, and nondestructive testing.

## LEO HAMED AMINI, PH.D.

### *Associate Professor*

Quantitative finance, financial technology, systemic risk and stochastic systems

## ALEKSANDR KAZACHKOV, PH.D.

### *Assistant Professor*

Discrete optimization, computational economics, fair mechanisms design

## JORGE SEFAIR, PH.D.

### *Associate Professor*

Discrete, network, and multilevel optimization applied to environmental planning, public policy, and logistics

## WAYNE GIANG, PH.D.

### *Assistant Professor*

Design of decision support tools for human and health systems

## MINHEE KIM, PH.D.

### *Assistant Professor*

Statistical modeling & predictive analysis of industrial & engineering systems, engineering-informed machine learning, quality engineering

## YU YANG, PH.D.

### *Assistant Professor*

Large-scale optimization for supply chain, logistics, and radiation therapy, machine learning to optimize

## YONGPEI GUAN, PH.D.

### *George E. & Rolande G. Willis Endowed Professor*

Stochastic and discrete optimization for energy and power systems

## HONGCHENG LIU, PH.D.

### *Associate Professor*

Data-driven modeling, optimization and high-dimensional learning in health and transportation systems

## XIAOCHEN XIAN, PH.D.

### *Assistant Professor*

Big data analytics, system informatics, data-rich systems modeling, monitoring, and prediction

## BOYI HU, PH.D.

### *Assistant Professor*

Human motion analysis for rehabilitation and human-robot interaction

## MOSTAFA REISI GAHROOEI, PH.D.

### *Assistant Professor*

Systems modeling based on high-dimensional and heterogeneous data for quality control

## XIANG ZHONG, PH.D.

### *Associate Professor*

Stochastic modeling and control in healthcare and service systems