

NC STATE UNIVERSITY



EDWARD P. FITTS DEPARTMENT OF  
INDUSTRIAL AND SYSTEMS ENGINEERING



# FALL COMMENCEMENT CEREMONY

DECEMBER 19, 2019 | 2 PM  
BROOKS AVENUE CHURCH OF CHRIST  
700 BROOKS AVENUE | RALEIGH, NC 27607

*Have family and friends who couldn't attend? Watch  
the ceremony live at [go.ncsu.edu/ISEGraduation](https://go.ncsu.edu/ISEGraduation)*

## WELCOME

Dr. Kanton Reynolds  
Teaching Associate Professor and Director of Undergraduate Programs

## INTRODUCTION OF FACULTY AND STAFF

Dr. Julie Swann  
A. Doug Allison Distinguished Professor and Department Head

## COMMENCEMENT ADDRESS

Maria Mayorga  
Professor of Personalized Medicine

## AWARDING OF DIPLOMAS

Dr. Julie Swann  
Dr. Yahya Fathi  
Dr. Kanton Reynolds

*You are cordially invited to a reception in the Fellowship  
Hall at the conclusion of this program.*

## FACULTY

Mahmoud A. Ayoub	Thom J. Hodgson	Henry L. W. Nuttle	Julie L. Swann
Richard H. Bernhard	Julie S. Ivy	Osman Y. Ozaltin	Javad Taheri
Karen B. Chen	Michael G. Kay	Richard G. Pearson	Reha Uzsoy
Paul H. Cohen	Russell E. King	Kanton Reynolds	Hong Wan
C. Thomas Culbreth	Yuan-Shin Lee	Stephen D. Roberts	Harvey West II
Jingyan Dong	Yunan Liu	Christopher D. Rock	James R. Wilson
Shu-Cherng Fang	Jason C. Low	Ezat T. Sanii	Richard A. Wysk
Xiaolei Fang	Louis Martin-Vega, Dean	Sara Shashaani	Xu Xu
Yahya Fathi	Maria E. Mayorga	Rohan A. Shirwaiker	Robert E. Young
Leila Hajibabai	Brandon M. McConnell	Clarence L. Smith	
Ola L. A. Harrysson	Chang S. Nam	Binil Starly	

## STAFF

Debbie Allgood-Staton	Justin Lancaster	Jasmine Petway	Karen Welton
Steven Bigelow	Robert Lasson	Christina Pucci	Heather White
Wendy Coleman Blue	Daniel Leonard	Linda Smith	Dawn Wilkins
Fabiola Doissaint	Tim McGlothlin	Danita Taylor	Chet Wyrick
Gary Downey	Stephen McNierney	Nataliya Vanchosovych	
Jeffrey Hoyle	Mirtha Perazza	Mike Walsh	

## DOCTOR OF PHILOSOPHY IN INDUSTRIAL ENGINEERING

### LENA A. ABU-EL-HAIJA

**Dissertation:** PRECiSE: PancREatic Cancer Prioritization and Screening Evaluation Tool  
**Advisor:** Dr. Julie Ivy

### ATIN ANGRISH

**Dissertation:** Search and Tracking of 3D Product Manufacturing Data Using Deep Learning and Blockchain  
**Advisor:** Dr. Binil Starly

### BRADLEY K. ASHBAUGH

**Dissertation:** Extending the Kingman General Arrival, General Service Queuing Approximation to Overhead Allocation and Service Pricing  
**Advisors:** Dr. Michael Kay and Dr. Robert Handfield

### ANKIT BANSAL

**Dissertation:** Coordinating Capacity Negotiations In The Semiconductor Industry  
**Advisor:** Dr. Reha Uzsoy

### YULIN DENG

**Dissertation:** Influence of Automation Transparency on Driver Skill Decay in Use of High-level Automated Driving Systems  
**Advisors:** Dr. David Kaber and Dr. Jing Feng

### ASHRAF AHMED ALI EL GAAL

**Dissertation:** Optimization Models for Melting Patterns in Powder Bed Fusion Additive Manufacturing  
**Advisors:** Dr. Christopher Rock and Dr. Timothy Horn

### SHAN JIANG

**Dissertation:** Sub-one lp Quasi-norm Minimization and Applications  
**Advisor:** Dr. Shu-Cherng Fang

### YAYUN JIN

**Dissertation:** Modeling and Analysis of the End-of-life Inventory for Spare Parts  
**Advisors:** Dr. Donald Warsing and Dr. Russell King

### NA YOUNG KIM

**Dissertation:** Effective Connectivity Based ACT-R Modeling of Workload Transition in Multitasking  
**Advisors:** Dr. Chang Nam

### LOKESH KARTHIK NARAYANAN

**Dissertation:** Manufacturability considerations in Biofabrication – Functional Mapping, Risk Assessment and Dielectric Impedance Spectroscopy-based Non-destructive Quality Evaluation  
**Advisor:** Dr. Rohan Shirwaiker

### SAEED SAFFARI

**Dissertation:** Set Covering Problem with Conflict Constraints  
**Advisor:** Dr. Yahya Fathi

### GERMAN ANDRES VELASQUEZ DIAZ

**Dissertation:** Inventory Prepositioning and Evacuation Planning for Disaster Preparedness  
**Advisors:** Dr. Maria Mayorga and Dr. Osman Ozaltin

## MASTER OF SCIENCE IN INDUSTRIAL ENGINEERING

### PARTH CHANSORIA

**Thesis:** Characterizing the effects of sterilization processes on the chemical, mechanical, printability and biocompatibility characteristics of alginate  
**Advisor:** Dr. Rohan Shirwaiker

### MUJEEB TEMITOPE LAWAL

**Thesis:** Modeling Complex Diseases in Patients with Sepsis  
**Advisor:** Dr. Julie Ivy

### SYED NABEEL MEHDI

**Thesis:** Witness Box Protocol: Automatic Machine Identification and Authentication in Smart Manufacturing Environments  
**Advisor:** Dr. Binil Starly

### RIDDHIMAN SHERLEKAR

**Thesis:** Fog Computing Provisioned Data Distribution for Smart Manufacturing: Design & Implementation  
**Advisors:** Dr. Paul H. Cohen and Dr. Binil Starly

### TREVOR L. THOMPSON

**Thesis:** Investigation of Dielectric Spectroscopy as an Enabling Tool for Process Analytical Technology in 3D Biofabrication  
**Advisor:** Dr. Binil Starly

### MOUDA TUNG

**Thesis:** In-situ Electron Imaging for the Electron Beam Melting Process  
**Advisor:** Dr. Tim Horn

### REBECCA L. WIDMAYER

**Thesis:** Emergency Medicine Patient Lift Training Simulation in Virtual Reality  
**Advisor:** Dr. Karen Chen

### JIE ZHAI

**Thesis:** Investigation of Computational Reduction Strategies for Markov Decision Processes  
**Advisor:** Dr. Russell King

## MASTER OF INDUSTRIAL ENGINEERING

### SHAHID AKBAR

**Advisor:** Dr. Michael G. Kay

### SHARISE EBERHARD

**Advisor:** Dr. Karen Chen

### MARCO-ANTONIO ALEJANDRO ESPINOZA JARA

**Advisor:** Dr. Michael G. Kay

### SURABHI SUDHIR LALE

**Advisor:** Dr. Michael G. Kay

### MOHAMMED FAISAL SAIZAD MITHAWALA

**Advisor:** Dr. Michael G. Kay

### NITHISH PADIPURAVILLA SAJI

**Advisor:** Dr. Michael G. Kay

### KIRTIKUMAR GORDHANBHAI PADSALA

**Advisor:** Dr. Michael G. Kay

### VARUN PRAKASH

**Advisor:** Dr. Michael G. Kay

### MEET BHARAT RACHHADIA

**Advisor:** Dr. Michael G. Kay

### KARL G. SCHUCHARD

**Advisor:** Dr. Rohan Shirwaiker

### ALLY E. SCHUENEMAN

**Advisor:** Dr. Michael G. Kay

### MIKAYLA L. SLOMSKI

**Advisor:** Dr. Michael G. Kay

### RISHI BIMAL THACKER

**Advisor:** Dr. Michael G. Kay

### VARUN DEEPAK VAN

**Advisor:** Dr. Michael G. Kay

## DOCTOR OF PHILOSOPHY IN OPERATIONS RESEARCH

### AZADEH BAHMANINEZHAD

**Dissertation:** Exact and Heuristic Approaches for Solving the Multi-Vehicle Advance Request Dial-a-Ride Problem

**Advisor:** Dr. John Baugh

### KYLE A. HOVEY

**Dissertation:** Analysis and Control of Service Systems with Non-Stationary Demand

**Advisor:** Dr. Yunan Liu

### ROBERT M. LOCKE

**Dissertation:** Deterministic End-of-Life Spare Parts Policies

**Advisors:** Dr. Russell E. King and Dr. Thom J. Hodgson

### NEHA PATANKAR

**Dissertation:** Addressing Uncertainty in Energy System Optimization Models Over a Long Planning Horizon

**Advisor:** Dr. Joseph DeCarolis

### HANG SUN

**Dissertation:** Sourcing Risk Detection and Prediction with Online Public Data: An Application of Machine Learning Techniques in Supply Chain Risk Management

**Advisor:** Dr. Robert Handfield

## MASTER OF OPERATIONS RESEARCH

### JEREMY ADDISON

**Advisor:** Dr. George List

### ZHEMING GAO

**Advisor:** Dr. Negash G. Medhin

### YUQI SU

**Advisor:** Dr. Michael G. Kay

### PEDRO HENRIQUE CHAGAS ANCHIETA

**Advisor:** Dr. Ranji S. Ranjithan

### MUHAMMAD ALI HAIDER

**Advisor:** Dr. Michael G. Kay

### YUVARAJ VIVEKANANDAN

**Advisor:** Dr. Michael G. Kay

### BENJAMIN CRAVER

**Advisor:** Dr. Michael G. Kay

### MD HAFIZUL ISLAM

**Advisor:** Dr. Michael G. Kay

## BACHELOR OF SCIENCE IN INDUSTRIAL ENGINEERING

CLAUDIA ESPINO ALVARADO

YASH MATHRADAS

ALEXANDER BALABANOV

ETHAN MILLER

KEVIN CHURCH

MATTHEW NEGA

JASMINE COOPER

DAVID NEWKIRK

ASHTON DANIEL

NICOLE NIEMER

PEDRO FERNANDEZ

MATTHEW PARKER

JACOB GREEN

JOHN SCHELL

REBECCA GRIFFIN

SAMUEL STUMP

JULIA HANSEN

ALBERTO SUCRE

ZACK HOEKSEL

CONNER WALKER

ALEX JANUS

SAMANTHA WINTERROWD

THU LE

SAMUEL YOUNG

STEVEN LEPORE

### UNDERGRADUATE DEGREE HONOR DESIGNATIONS

**CUM LAUDE** - GPA 3.25 - 3.499  
White Sash

**MAGNA CUM LAUDE** - GPA 3.5 - 3.749  
Silver Sash

**SUMMA CUM LAUDE** - GPA 3.75 +  
Gold Sash

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