



# Faculty Awards & Ph.D. Hooding Ceremony

Tuesday, May 21, 2019

DeBaun Auditorium, Edwin A. Stevens Hall







---

**ORDER OF CEREMONY**

**ACADEMIC PROCESSION**

**Ph.D. HOODING CEREMONY**

**WELCOME**

**CONSTANTIN CHASSAPIS**

Vice Provost for Graduate Education

**CONGRATULATORY REMARKS**

**NARIMAN FARVARDIN**

President

**CHRISTOPHE PIERRE**

Provost and Vice President for Academic Affairs

**HOODING OF DOCTORAL CANDIDATES**

**FACULTY AWARDS CEREMONY**

**REMARKS**

**CHRISTOPHE PIERRE**

Provost and Vice President for Academic Affairs

**PRESENTATION OF FACULTY AWARDS**

**NARIMAN FARVARDIN**

President

**RECESSIONAL**

**RECEPTION**

To follow in the Babbio Center Atrium

The candidate list and dissertation titles are compiled  
with information accurate as of May 6, 2019



---

CHARLES V. SCHAEFER, JR. SCHOOL OF  
ENGINEERING AND SCIENCE

**IOANNIS AGADAKOS**

Code Surface Reduction By Adaptive Partitioning of Application Code  
and Debilitating Unused Library Code

**MOHAMMAD ALNAKHLI**

Joint Spectrum and Energy Efficiency Optimization in  
5G Device to Device (D2D) Communication

**GHALIB ALSHAMMRI**

Artificial Intelligence Techniques for Diffusion-Based  
Bio-Molecular Nano Communication Networks

**KHALID SALEH ALSHATHRI**

Identification of Cellular Systems Using Deep Learning Algorithms

**HATHAL SALAMAH ALWAGEED**

Modulation Classification Using Deep Learning  
and Machine Learning Based Models

**CARLOS A. CASTILLO**

Inverse Optimization Approach in Multi-Phase Fluid Dynamics

**SHUANGLU DAI**

Multi-Modality Description and Feature Learning  
for Visual Understanding



---

CHARLES V. SCHAEFER, JR. SCHOOL OF  
ENGINEERING AND SCIENCE

**GARY ENGLER**

Stochastic Neural Algorithms

**JENNIFER R. FIELD**

Multi-Agent Analysis of Multi-Actuated Dynamical Systems  
to Inform Failure Accommodation

**FABIAN FOERG**

Privacy-Preserving Two-Party Bartering in the Semi-Honest Model

**ADAM LEE FOLTZ**

Experiment and Numerical Analysis of Small Caliber Gun Barrels  
Under Internal Pressure Fatigue Loading

**BIRUK ASSEFA GEBRE**

Holonomic Multi-Ball Locomotion and Adaptive Gaze Assisted Control  
for Mobile Remote Presence Systems

**BEHNOUSH GOLCHINFAR**

Health Monitoring of Structural Materials with Innovative  
Nondestructive Testing Methods

**ZHUOQIANG JIA**

Manipulation of Colloidal Crystal Structures Using External Forces



---

CHARLES V. SCHAEFER, JR. SCHOOL OF  
ENGINEERING AND SCIENCE

**CHAO JIANG**

Human-Robot Collaboration: Indoor Human Localization  
and Pedestrian Regulation

**HANYU JIANG**

GPU-Based Parallel Algorithms with Architecture-Aware Optimization  
for Large-Scale Process Simulation of Biological Pathways  
and High-Throughput Homologous Sequence Search

**YIQIAN JIN**

Tailorable Electrical Properties of Reduced Graphene Oxide  
for Wearable Sensors and Flexible Electronic Applications

**MOHAMMED ABDULHAMEED O KUTBI**

An Egocentric Computer Vision-Based Robotic Wheelchair

**JING LIANG**

Self-Defensive Antimicrobial-Loaded Microgel-Modified Surfaces

**KAI LIU**

Nanostructured Sapphire Optical Fiber Imbedded with Gold Nanorods  
for Sensing in Harsh Environments

**TIANCHI LIU**

Metallic Nanostructured Functionalized Surface Modification



---

CHARLES V. SCHAEFER, JR. SCHOOL OF  
ENGINEERING AND SCIENCE

**YUE LUO**

Plasmonic Cavity Enhanced Single Photon Emission  
From Low-Dimensional Materials

**SEYED REZA MAHMOODI**

Understanding Fundamental Behavior of Thin, Flexible Micro Fuel Cells  
via Fabrication and Performance Characterization

**AMIR MIRBEIK-SABZEVARI**

High-Resolution Millimeter-Wave Imaging for Tissue Diagnostics

**MUHAMMAD MUSTAFA**

Krypton Tagging Velocimetry Investigation of High-Speed Flows

**NADIRA NAJIB**

Functionalized Cellulose Nanofibrils Adsorbent for Removal of Arsenate  
and Phosphate Oxyanions From Aqueous Solution

**NEIL PANDYA**

Quantum Control Methods for Enhanced Coherent Anti-Stokes Raman  
Spectroscopy With Application to Remote Detection

**SAUMIK PANJA**

Green Remediation of Pharmaceuticals and Nutrients from Secondary  
Wastewater Effluent



---

CHARLES V. SCHAEFER, JR. SCHOOL OF  
ENGINEERING AND SCIENCE

**MAJID RAMEZANI**

Enhancement of Joining Method and Damage Detection Methodology  
in Structural Materials

**ALEXANDER N. SEDUNOV**

Passive Acoustic Methods for Air and Maritime Border Security

**AMIN SHAHVERDI**

Signal-to-Noise Ratio Enhancement via Mode Selective Frequency  
Conversion

**KAMRAN SHAYAN**

Optical and Magnetic Manipulation of Solid-State Quantum Emitters

**MICHAEL J. TAMKUTONIS**

Existence Theorems for the Safronov and Smoluchowski Coagulation  
Equations for Certain Fast-Growing Kernels

**JIAN XU**

Controlled Adhesion of Oil Droplets on PPy(DBS) Surfaces  
for Oil Absorption and Surface Regeneration





---

CHARLES V. SCHAEFER, JR. SCHOOL OF  
ENGINEERING AND SCIENCE

**SIHANG XU**

Mass Spectrometric Investigation of Structural Properties  
of Protomers of Some Small Molecules, and Identification  
of Defensive Allomones of Insects

**FAN YANG**

Long-Period Optical Fiber Gratings Enabled by Functional Polyelectrolyte  
Coatings for Multi-Parameter Sensing Applications

**SIYANG YANG**

Chemical and Dynamic Heterogeneities in Interfacial Layers  
of Polymer Nanocomposites

**LUN YIN**

Modelling Spatio-Temporal Relationships with Deep Neural Networks  
to Estimate Coastal Water Levels

**CHONGFENG ZHANG**

Polyelectrolyte-Grafted Nanoparticles: From Self-Assembly in Solution  
Toward Evaporation-Induced Ordering

**MIN ZHENG**

Individualized Causal Model for Assisting Real World Decision Making



---

## SCHOOL OF SYSTEMS AND ENTERPRISES

### **SAUD ALMAHDI**

Reinforcement Learning and Recurrent Reinforcement Learning  
for Dynamic Portfolio Optimization

### **TURKI ALELYANI**

Framework for Design Factors in Software Crowdsourcing: Improving  
Performance of Competition-Based Crowdsourcing

### **SERKAN ALKAN**

Complex Mutual Information-Theoretic Stock Networks

### **AHMED B. BAHABRY**

Efficient UAV Fleet Operations for Smart City Applications: A Generic  
Navigation and Scheduling Framework

### **JORGE RODRIGUEZ BUENFIL**

Application of Systems Engineering to the Architecture and  
Implementation of a Deep Learning-Based Security System for Automated  
Contraband Detection with Human in the Loop

### **ABBAS EHSANFAR**

Allocative Mechanisms and Information Exchange in Task Processing  
and Interactive Networks

### **RAZIEH LOTFALIAN SAREMI**

A Hybrid Simulation Model for Open Software Development Processes

### **ANTONIO PUGLIESE**

Development of Spectral Structural Complexity Metrics  
in Cyber-Physical Systems



---

SCHOOL OF BUSINESS

**JINHYOUNG KIM**

Pricing, Hedging and Risk Assessment of Variable Annuities

**SERHAN CEM KOTILOGLU**

Essays on Organizational Risk Taking and Risk Management

**SERGIO LUNA**

Exploration of Public Sentiment as an Indicator of Public Response to  
Natural Disasters: An Analysis of Hurricane Scenarios

**MEHRNOOSH OGHBAIE**

Three Investigations to Aid Decision Making in Complex Systems

**AMIN SALIGHEHDAR**

Combining Distinct Measurements into a Comprehensive Indicator:  
A Study in High Frequency Finance and Climatology

**MILOS TOPIC**

The Role of Chief Information Officers in Driving Innovation  
Within Higher Education

**SEBASTIAN TUDOR**

Volatility Models in Mathematical Finance: Solvable Diffusions, Transition  
Probability Kernels and Fractional Stochastic Processes



---

FACULTY AWARDS

**MASTER OF ENGINEERING (HONORIS CAUSA)**

**KISHORE POCHIRAJU**

Associate Dean for Undergraduate Studies  
and Professor, Mechanical Engineering  
School of Engineering and Science

**PROVOST'S AWARD FOR RESEARCH EXCELLENCE**

**HONGBIN LI**

Professor, Electrical and Computer Engineering  
School of Engineering and Science

**PROVOST'S EARLY CAREER AWARD  
FOR RESEARCH EXCELLENCE**

(co-recipients)

**STEPHANIE LEE**

Assistant Professor, Chemical Engineering and Materials Science  
School of Engineering and Science  
and

**NICHOLAUS PARZIALE**

Assistant Professor, Mechanical Engineering  
School of Engineering and Science

**JESS H. DAVIS MEMORIAL AWARD  
FOR RESEARCH EXCELLENCE**

**ANTHONY PENNINO**

Assistant Professor  
College of Arts and Letters



---

FACULTY AWARDS

**HENRY MORTON DISTINGUISHED  
TEACHING PROFESSOR AWARD**

**KEVIN LU**

Teaching Professor, Electrical and Computer Engineering  
School of Engineering and Science

**ALEXANDER CROMBIE HUMPHREYS DISTINGUISHED  
TEACHING ASSOCIATE PROFESSOR AWARD**

**EDUARDO BONELLI**

Teaching Associate Professor, Computer Science  
School of Engineering and Science

**HARVEY N. DAVIS DISTINGUISHED TEACHING  
ASSISTANT PROFESSOR AWARD**

**LINDSEY CORMACK**

Assistant Professor  
College of Arts and Letters

**PROVOST'S AWARD FOR EXCELLENCE IN  
ONLINE TEACHING**

**KEVIN RYAN**

Teaching Professor and Program Director of the Network and  
Communications Management Services  
School of Business







**STEVENS**  
INSTITUTE *of* TECHNOLOGY  
THE INNOVATION UNIVERSITY®

[stevens.edu](http://stevens.edu)