

**UREP FACULTY MENTORS  
EXPERTISE AND RESEARCH INTERESTS**

**COMPUTER SCIENCE**

**Kiran Balagani, Ph.D.**

Dr. Balagani is currently an Associate Professor at the College of Engineering and Computing Sciences at NYIT in New York, where he has served since 2011. He earned his Ph.D. in Computational Analysis and Modeling from Louisiana Tech University. He has taught or supervised a variety of computer science courses, including Computer Networks, Artificial Intelligence, Biometrics, Network and Perimeter Security, Senior Project, and Master's Thesis. He specializes in Behavioral Authentication Security, Biometric Security, Adversarial Machine Learning, and Anomaly Detection. He is initiating collaborations with NYITCOM (Dr. Isaac Kurtzer) and SoHP (Dr. Rosemary Gallagher) to study behavioral biometrics in older adults and individuals with Parkinson Disease. Outside of his teaching, he has conducted research and developed three U.S. patents. His research is published in archival journals such as the IEEE Transactions on Pattern Analysis and Machine Intelligence, IEEE Transactions on Knowledge and Data Engineering, IEEE Transactions on Systems, Man, and Cybernetics, IEEE Transactions on Information Forensics and Security, IEEE Computer, and Pattern Recognition Letters. His honors include an Outstanding Research and Service Award, which he received from the Center for Secure Cyberspace in Louisiana Tech in 2011 and NYIT Presidential Award for Student Engagement in Research and Scholarship, which he received in 2016.

**Houwei Cao, Ph.D.**

Dr. Houwei Cao is an Assistant Professor in the Department of Computer Science at the New York Institute of Technology (NYIT) (joined in Fall 2016). She was an adjunct professor at the Computer Science and Engineering Department of the Tandon School of Engineering of New York University before joining NYIT. She obtained her PhD degree in Electronic Engineering from the Chinese University of Hong Kong in 2011, worked on RGC grant of automatic speech recognition of Cantonese-English code-mixing speech. She was a postdoctoral fellow at University of Pennsylvania from 2011 to 2014, worked on NIH grant of computational quantification of emotion in faces and voice for neuropsychiatry, and Tufts University from 2014 to 2015, worked on NSF grant of social robotics and Parkinson's disease. She was also an Insight Data Science fellow in 2015. Her main areas of research are signal processing, machine learning, data mining and their applications in human-centric data analytics, with emphasis on developing computational methods for speech recognition, text analytics, affect detection, and healthcare analysis. She won the audio-visual emotion recognition challenge (AVEC) in 2012. She is a member of International Speech Communication Association (ISCA), the Association for the Advancement of Affective Computing (AAAC), and IEEE. She has served as a reviewer for numerous conferences and journals including Interspeech, ISCSLP, O-COCOSDA, IEEE Transactions on Speech and Audio Processing, Speech Communications, etc.

**Paolo Gasti, Ph.D.**

Dr. Gasti is an Assistant Professor in Computer Science at the College of Engineering and Computing Sciences at New York Institute of Technology. He graduated with a Doctorate in Science and Technology from the University of Genoa, Italy in 2010. He teaches Computer Science courses including Cryptography, Perimeter Protection, Theory of Computation, and Algorithmic Concepts. Dr. Gasti's research focuses on applied cryptography, behavioral authentication, and network security. Specifically, he is interested in exploring privacy-preserving techniques for sharing sensitive information, developing new ways to authenticate users based on their behavior, and securing new Internet architectures. Dr. Gasti's research has been funded by National Science Foundation and the Department of Defense (DARPA). Dr. Gasti has also had the honor of being a Fulbright Scholar in 2007, where he spent a year as a research student at Johns Hopkins University.

**Huanying (Helen) Gu, Ph.D.**

Dr. Gu has been an Associate Professor of Computer Science at NYIT's Manhattan campus since 2009 and is the Associate Dean for Research. Prior to joining the CoECS faculty, she was an Associate Professor of Health Informatics at the University of Medicine and Dentistry of New Jersey. Dr. Gu received her Ph.D. in Computer Science from New Jersey Institute of Technology and has taught both graduate and undergraduate courses at NYIT including Discrete Structures, Data Structures, Design and Analysis of Algorithms, Database Systems, Introduction to Data Mining, among others. Her research interests include ontologies, data mining, knowledge representation, object-oriented modeling, conceptual modeling, and medical informatics. Dr. Gu has been working on designing and developing algorithms and methodologies to improve and enhance the usability, comprehensibility, and maintainability of controlled biomedical terminologies.

Currently, she is the NYIT site PI for the NCI/NIH funded research project "A Family-based Framework of Quality Assurance for Biomedical Ontologies." As a CO-PI, she is working on the ISRC funded project "Energy-efficient body area sensor network for nonintrusive freezing-of-gait study of individuals with Parkinson's Disease." Dr. Gu's research has been supported by the NIH, the UMDNJ foundation, PDR network, and NYIT ISRC grants. Her research work has resulted many journal and conference articles, appearing on top medical informatics journals and conference proceedings. Her honors include the Dean's award for Excellence in Research from the UMDNJ and 9<sup>th</sup> to 16<sup>th</sup> (2010-2017) Annual Faculty Scholars Award from NYIT. She is the member of the American Medical Informatics Association and the American Society for Engineering Education, and has served as a reviewer for journals and conferences on medical informatics.

**Xueqing (Summer) Huang, PhD.**

Dr. Huang is an Assistant Professor in the Department of Computer Science at New York Institute of Technology (NYIT), College of Engineering and Computer Sciences. She received her Ph.D. degree in Electrical Engineering from New Jersey Institute of Technology (NJIT) in 2017, and awarded the Hashimoto Prize for her Ph.D. dissertation in NJIT. The National Science Foundation supported her research at NJIT, and her primary research interests span Internet of Things, physical layer and network security, green and secure cooperative mobile edge. Her research work has resulted 11 journal articles and 10 conference papers. In addition, Huang has served as a reviewer for numerous IEEE journals, including IEEE Transactions on Wireless Communications, IEEE Transactions on Mobile Computing, IEEE Communications Letters, IEEE Transactions on Vehicular Technology and IEEE Journal on Selected Area in Communications. At NYIT, Dr. Huang teaches undergraduate course: Senior Design Project, and graduate courses: Network security and Special Topics.

**Wenjia Li, Ph.D.**

Dr. Wenjia Li joined the Computer Science Department at NYIT as an Assistant Professor in the Fall 2014. He obtained his Ph.D. in computer science from University of Maryland, Baltimore County (UMBC) in August 2011. Between August 2011 and July 2014, Dr. Li was a tenure-track Assistant Professor in computer science at Georgia Southern University, Statesboro, Georgia, USA. Dr. Li's primary research interests are in the wide areas of wireless networking, mobile computing, and cyber security, especially security, trust, and privacy issues in wireless networks, cyber-physical systems, internet of things, intelligent transportation systems, and mobile healthcare systems. Dr. Li is a member of ACM and IEEE. His research has been supported by both by federal government agencies such as National Institutes of Health (NIH) and US Department of Transportation (DOT) through the Region 2 University Transportation Research Center (UTRC), and also by industrial partners such as Northrop Grumman. Dr. Li has published research papers in top-level archived journals such as the IEEE Transactions on Intelligent Transportation Systems (SCI Impact Factor: 3.724), IEEE Internet of Things Journal (SCI Impact Factor: 7.596), and ACM/Springer Mobile Networks and Applications (SCI Impact Factor: 3.259). Dr. Li has served as a panelist for National Science Foundation (NSF). He has also served on the organizing committee and technical program committee for numerous international conferences, including IEEE INFOCOM, GLOBECOM, ICC, WCNC, MDM, IPCCC, ICCCN, ACM WiSec, and others. Dr. Li has also served as reviewers for many prestigious journals, such as IEEE Transactions on Parallel and Distributed Systems (TPDS), IEEE Transactions on Information Forensics and Security (T-IFS), IEEE Transactions on Wireless Communications (TWC), IEEE Transactions on Dependable and Secure Computing (TDSC), ACM/Springer Wireless Network (WINET), Elsevier Computer Networks, Ad Hoc Networks, Springer Wireless Personal Communications, and so on. In addition, he enjoys sharing his knowledge with students, and has experience teaching a variety of both undergraduate and graduate courses including Computer Programming I and II, Data Structures, Computer Networks, Distributed Database Systems, Algorithm Concepts, Undergraduate Senior Capstone Project, Master's Projects and Theses, and several other topics.

**Tao Zhang, Ph.D.**

Tao Zhang is a Professor of Computer Science at NYIT in Old Westbury. She joined the faculty at NYIT in 2005. She earned her Ph.D and M.S. degrees, both in Computer Science, from the University of Texas, Dallas in 2005 and 2003, respectively. Her expertise spans three areas: wireless communications and networking, cloud computing, and optical networks. Specifically, her research focuses on the design and analysis of network architectures and protocols in mobile and ad hoc networks, sensor networks, and optical packet/burst switched networks, and the design and evaluation of algorithms and protocols for supporting high-performance cloud computing. She teaches Computer Networks, Algorithm Concepts, Programming Language Concepts, Discrete Structure, C & Unix, and Computer Programming I & II, and advises graduate Thesis, Projects, Senior Design Projects.

Dr. Zhang was a Principal Investigator of two grants funded by the National Science Foundation (NSF). In 2011, she was the first member of the NYIT CoECS faculty to receive a grant from NSF in the past 20 years. This grant opened the door for NYIT faculty to receive NSF grants, given the NSF's considering of the school's past grant history. This project helped ECE students prepare for their careers significantly and helped promote NYIT engineering programs through outreach and dissemination activities. In 2013, as a PI, she secured a second grant from NSF which led to the creation of CoECS's clean room and nano/micro fabrication facility. Her research findings are published in leading IEEE journals and conferences, such as, IEEE Transactions on Wireless Communications, IEEE Wireless Communications, IEEE Internet of Things Journal, IEEE INFOCOM, etc. Dr. Zhang is a senior member of the IEEE. She constantly served on NSF proposal Review

Panel. She served as a program chair of IEEE BigDataSecurity 2016, IEEE CSCloud 2015, etc. She has served as a technical committee member in numerous IEEE conferences and a reviewer for many prestigious IEEE journals.

## **ELECTRICAL AND COMPUTER ENGINEERING**

### **Reza K. Amineh, Ph.D.**

Dr. Amineh is currently an Assistant Professor at the Department of Electrical and Computer Engineering, NYIT. Prior to NYIT, he was a Principal Scientist in the Department of Sensor Physics at Halliburton Co. He received the Ph.D. degree in electrical engineering from McMaster University, Canada, in 2010. He was a Post-Doctoral Fellow with University of Toronto and McMaster University, from 2012 to 2013 and from 2010 to 2012, respectively. He was a Ph.D. Intern with the Advanced Technology Group, BlackBerry, in 2009. He has authored/co-authored over 55 journal and conference papers and two book chapters. His research interests include forward modeling and inverse solutions in electromagnetics with applications in biomedical imaging, water and soil sensing, antenna and microwave component design, and nondestructive testing. Dr. Amineh's research has been funded by NSF and NYIT's ISRC grants. Dr. Amineh was a recipient of the prestigious Banting Post-Doctoral Fellowship from the Government of Canada, in 2012-2013 and the Ontario Ministry of Research and Innovation (OMRI) Post-Doctoral Fellowship in 2010-2011. During his Ph.D. program, he was awarded the McMaster Internal Prestige Scholarship Clifton W. Sherman from 2008 to 2009. He has co-authored an Honorable Mention Paper presented at the IEEE Symposium on Antennas and Propagation, and the International Union of Radio Science, in 2008. He has contributed in over 40 patent disclosures in applied electromagnetics.

### **Nabi Sertac Artan, Ph.D.**

N. Sertac Artan is an Assistant Professor of Electrical and Computer Engineering at New York Institute of Technology (NYIT) College of Engineering and Computer Sciences. Prior to joining NYIT, Dr. Artan was a faculty member at New York University (NYU) School of Engineering. He also worked as an ASIC (Application Specific Integrated Circuit) Design Engineer designing integrated circuits for commercial, academic and military applications. Dr. Artan got his Ph.D. degree in Electrical Engineering from Polytechnic University and his M.S. and B.S. degrees from Istanbul Technical University. Dr. Artan served in the organizing committees of the ACM/IEEE Symposium on Architectures for Networking and Communications Systems (ANCS), and IEEE Sarnoff Symposium in 2011 and 2012, respectively.

He was a member of the technical program committees of various conferences including IEEE ICC, IEEE SmartGridComm, IEEE CMC, IEEE EnergyCon, IEEE Sarnoff and Chinacom. Dr. Artan has 7 issued US patents. His research focus is on hardware design for biomedical devices and for security applications. His current biomedical device design projects include wireless transcutaneous (through-skin) power transfer to implantable biomedical devices, VLSI circuit design for biomedical data acquisition, low-power algorithms for detecting epileptic seizures, and embedded system design for assistive medical devices for patients with Parkinson's disease. His security projects include design of high-speed network appliances for information-centric networking, and identification and continuous authentication of drivers. Webpage: <http://iris.nyit.edu/~nartan>

### **Ahmadreza Baghaie, Ph.D.**

Dr. Baghaie is an Assistant Professor in the Department of Electrical and Computer Engineering at New York Institute of Technology (NYIT), College of Engineering and

Computing Sciences. Before joining NYIT, he was a postdoctoral scholar in Weldon School of Biomedical Engineering at Purdue University. He received his Ph.D. degree in Electrical Engineering from University of Wisconsin-Milwaukee in 2016. His research has resulted in 15 journal publications and many conference abstracts and presentations, and he has authored several educational books in various fields of engineering and computer programming. He serves as an academic editor for the PLoS ONE journal and is a reviewer for several top-tier journals, including IEEE Transactions on Biomedical Engineering, Journal of Biophotonics, IEEE Journal of Biomedical and Health Informatics, Remote Sensing, Signal Processing, Computer Methods and Programs in Biomedicine, Biomedical Signal Processing and Control etc. His main areas of research are image processing and analysis, computer vision and computer graphics with focus on biomedical and life science applications.

### **Batu Chalise, Ph.D.**

Dr. Chalise is an Assistant Professor of Electrical and Computer Engineering at NYIT's College of Engineering and Computing Sciences. He received the M.Sc. and Ph.D. degrees in Electrical Engineering from the University of Duisburg-Essen, Germany. He was a Visiting Assistant Professor with the Department of Electrical Engineering and Computer Science, Cleveland State University, OH, from 2015 to 2017. From 2013 to 2015, he was a wireless systems research engineer with ArrayComm, San Jose, CA, where he developed algorithms for LTE and LTE-A communication systems. He was a Postdoctoral Research Fellow with the Center for Advanced Communications, Villanova University, Villanova, PA, from 2010 to 2013. He has held various research and teaching positions at the University of Duisburg-Essen, Catholic University of Louvain, Belgium, and Villanova University.

Dr. Chalise's current research interests include signal processing, optimization, and statistics for wireless and radar systems, wireless sensor and energy harvesting networks, smart systems, and machine learning. In wireless networks, his research is focused to mm-wave communications, cognitive radios, full-duplex, and massive MIMO systems. In radar systems, he is conducting research in the areas of passive-radar systems, over-the-horizon, and UAVs. His research interests also include coexistence of communication and radar systems, signal processing for biomedical applications, big data, and smart grids. His research in radar systems is funded by US Air Force Research Lab. Dr. Chalise has published 23 peer-reviewed journal and 38 conference articles, and 3 book chapters. He was an Associate Editor of EURASIP Journal of Wireless Communications and Networking from 2013 to 2017. He serves as a Technical Program and Organizing Committee Member in various IEEE conferences and received an exemplary reviewer award from the IEEE Communications Society in 2013. He is a Senior Member of IEEE and the recipient 2016 Air Force Research Lab Summer Faculty Fellowship.

### **Ziqian (Cecilia) Dong, Ph.D.**

Dr. Dong is an Associate Professor of Electrical and Computer Engineering at NYIT New York Campus. She holds her Ph.D. and M.S. degrees in Electrical Engineering from New Jersey Institute of Technology. Her research interests are the architecture design and analysis of high-performance packet switches, network security and forensics, wireless sensor networks, cloud data center networks, and assistive medical devices. She was awarded the Hashimoto Prize for the best Ph.D. dissertation in Electrical Engineering in 2008. She is the recipient of 2006 and 2007 Hashimoto Fellowship for outstanding scholarship and recipient of the New Jersey Inventors Hall of Fame Graduate Student Award for her inventions in network switches. She received NYIT Presidential Engagement Award for Student Engagement in Research and Scholarship in 2015. Her team has multiple ongoing projects designing new sensors and sensor network for environmental monitoring, as well as body area sensor network, motorized walker, and virtual and augmented reality

for the study of Parkinson's Disease and various haptic cues to improve gait, mobility and quality of life for individuals with Parkinson's Disease. She holds seven patents and has authored over 50 articles in peer-reviewed journals and conferences. Her research is supported by the National Science Foundation, Northrop Grumman, Motorola Solutions, National Collegiate Inventors and Innovators Alliance, and Xilinx. At NYIT, Dr. Dong teaches undergraduate courses: Signals and Systems, Capstone Senior Design Project, Career Discovery and graduate courses: Computer Networks and Special Topics. She is the Principal Investigator and a faculty mentor for the Research Experience for Undergraduates Program on smartphone and wireless network security at NYIT funded by the National Science Foundation. She is also faculty mentor for the Society of Women Engineer NYIT student chapter. She is a senior member of the IEEE Communications Society, IEEE Women in Engineering and a member of the American Society for Engineering Education (ASEE), ACM, and the Environmental Sensing, Networking and Decision-Making (ESND) technical committee. She served as the General Chair of the 37<sup>th</sup> IEEE Sarnoff Symposium 2016. She has served in technical program committee of IEEE GLOBECOM, IEEE ICC, IEEE HPSR, IEEE Sarnoff, IEEE GreenCom, IEEE ICCCN, IEEE ICNSC and ChinaCom, and as a reviewer for IEEE and other professional journals, conferences and U.S. National Science Foundation proposal review panels.

#### **Aydin Farajidavar, Ph.D.**

Dr. Aydin Farajidavar is Co-Chair and Associate Professor of Electrical and Computer Engineering and the Director of the Bioengineering Program and Integrated Medical System (IMS) Laboratory at New York Institute of Technology (NYIT). Before joining NYIT, he was a Post-doctoral Fellow in the School of Electrical and Computer Engineering at the Georgia Institute of Technology. He received the Ph.D. degree in Biomedical Engineering from the Joint program of the University of Texas at Arlington and the University of Texas Southwestern Medical Center, Dallas in 2011. His research interests include: Implantable/Wearable Medical Devices, Assistive Technologies, Biological Signal Processing, Modeling Biological Phenomena, and Medical Cyber Physical Systems. His research agenda has been sponsored by National Institutes of Health, National Science Foundation, Auckland Bioengineering Institute, and NYIT.

Dr. Farajidavar has authored over 50 articles in peer-reviewed journal and conference papers. His research has been highlighted by the American Society of Engineering Education (ASEE), the "Physiological Measurement" journal, the "Scope" Magazine, and NYIT. He is a member of the Institute of Electrical and Electronics Engineers (IEEE), IEEE Engineering in Medicine and Biology Society (EMBS), and IEEE Microwave Theory and Techniques Society (MTT-S). He serves on the Technical Program Committee (TPC) for MTT-10 of IEEE MTT-S.

#### **Azhar Ilyas, Ph.D.**

Dr. Ilyas is an Assistant Professor of Electrical and Computer Engineering and the Director of Bio-nanotechnology and Biomaterials (BNB) Laboratory at New York Institute of Technology (NYIT). Prior to joining NYIT, he was a post-doctoral fellow at Texas A&M University in the Department of Biomedical Sciences. He received his Ph.D. in Electrical Engineering from University of Texas at Arlington in 2013. His research experience and interests are in a broad area of nano-biotechnology with particular focus towards nano-biosensor, BioMEMS, point of care devices, biomaterials, cell-surface interactions, bone regeneration and drug delivery systems.

Dr. Ilyas has published his work at many prestigious peer-reviewed journals including Biosensors and Bioelectronics, Advanced Healthcare Materials, ACS Applied Materials and Interfaces and Nanotechnology. His research work was featured as journal cover image several times for different journals including Lab-on-a-Chip and IEEE Transactions on

Nanotechnology. He has authored/coauthored 15+ peer-reviewed journal papers, 4 full length conference papers, over 30 conference abstracts, 1 book chapter and 4 patent/IP disclosures. He is recipient of various awards and fellowships including N.M. Stelmakh Award, Young Scientist Lecture Competition Award, and Best Paper Award at 5th IEEE/NIH 2011 Life Science Systems and Applications Workshop (LISSA' 11) on NIH campus at Bethesda. He is a member of the Institute of Electrical and Electronics Engineers (IEEE) and IEEE Engineering in Medicine and Biology Society (EMBS). He also serves as reviewer for various prestigious journals including Nanoscale, Analyst, ACS Applied Materials and Interfaces, Nanoscale Research Letters and Biosensors and Bioelectronics, to name a few. He also serves on the Research & Development Policy committee (RDPC) for IEEE-USA.

### **Maryam Ravan, Ph.D., SMIEEE**

Dr. Ravan is an Assistant Professor at the Department of Electrical and Computer Engineering at New York Institute of Technology (NYIT). Her research interests include biomedical signal and image processing, statistical analysis, machine learning, microwave holography, radar systems and space time adaptive beamforming, and nondestructive testing. Before joining NYIT, Maryam Ravan was a senior research scientist in the Department of Research and Development at LivaNova PLC, where her work focused on developing quantitative biomarkers and machine learning algorithms for investigating the efficacy of closed-loop Vagus nerve stimulation (VNS) therapy for epilepsy. She received a Ph.D. degree in electrical engineering from Amirkabir University of Technology (Tehran Polytechnic). She was a post-doctoral fellow with University of Toronto, McMaster University, and Ryerson University, where she was involved in solving forward modeling and inverse problems and the related signal/image processing techniques for biomedical, radar systems, and non-destructive testing (NDT) applications and a lecturer in the School of Computational Engineering & Science, McMaster University. She has authored/co-authored over 60 journal and conference papers, a book and a book chapter. She was a recipient of DND/NSERC Research Partnership Grant with Defense Research and Development Canada (DRDC) and Raytheon Canada Ltd, MITACS Internship with St. Joseph's Hospital, Hamilton, Canada, and NSERC Engage Grant with Raytheon Canada Ltd. She has also authored a paper selected among the journal of Inverse Problems "Highlights Collection of 2010". She is a senior member of IEEE.

### **Anand Santhanakrishnan, Ph.D.**

Dr. Santhanakrishnan received his Ph.D. degree from the Indian Institute of Science, Bangalore, India, in 2004. His thesis on performance analysis of resource allocation schemes in cellular networks was awarded the best thesis in the Division of Electrical Sciences (including the Departments of Electrical Engineering, Telecommunications Engineering, Micro Electronics, Computer Science and System Sciences and Automation). His current areas of research include a diverse range of topics like data analytics for dynamics of Wikipedia and social media, spectrum management and security in dynamic spectrum access networks and covert timing channels, connected vehicular networks, body area networks, accident prevention systems, side channel attacks and fake news propagation. He has experience in standardization of architecture and mobility management for the 4G-LTE wireless systems, where he represented Samsung Electronics in 3GPP and IEEE Standards meetings. He also represented Stevens Institute of Technology in the 1900.3A Study group meetings on the standardization of security of cognitive radio devices. Dr. Santhanakrishnan has over 10 granted patents in architecture, mobility management and packet scheduling in wireless networks, some of which have also gone in as contributions to the LTE standards. He has over 40 publications in refereed international journals and conferences, in the area of social media analytics, security in wireless networks, resource management in wireless networks and dynamics of peer production projects. Over all he has 14 years of research experience in the industry as well as in academic environments. He joined the department of

Electrical & Computer Engineering at New York Institute of Technology, in Fall 2015. His teaching interests and experience include Electrical Circuits, Probability Theory and Stochastic Processes, Queuing Theory, Electromagnetic Theory, Multimedia Compression, Design and Analysis of Algorithms, Discrete Mathematics, Information Theory, Optimization and Business Analysis (listed as Management Sciences) and Economics. He introduced a new course Wireless Communications and Networks, in effect in NYIT since Spring 2018.

**Sabiha Wadoo, Ph.D.**

Dr. Wadoo is an Associate Professor of Electrical and Computer Engineering at NYIT's Long Island campus. She holds her Ph.D. in Electrical Engineering and M.S. degrees in Mathematics and Electrical Engineering, all from Virginia Tech. Her research interests are the feedback control of nonlinear systems, intelligent transportation systems, and feedback control of distributed parameter systems. At NYIT, Dr. Wadoo has helped to develop the robotics and control systems curriculum, and has introduced new graduate and undergraduate courses such as "Multivariable Control" and "Principles of Robotics." She also serves as the Associate Editor of IEEE Transactions on Intelligent Transportation Systems, a top journal in transportation sciences.

**Amir Javan-Khoshkholgh, Ph.D.**

Dr. Javan joined New York Institute of Technology as a postdoctoral researcher at the Integrated Medical Systems laboratory of the Department of Electrical and Computer Engineering (ECE) in March 2017. Prior to that appointment and as part of his Ph.D. program, he was a visiting research scholar at the Microwave Microsystem Laboratory at the University of California, Davis. He received his M.Sc. and Ph.D. degrees in electronic engineering from Polytechnic University of Turin, Italy, in 2011 and 2015, respectively.

His research is focused on low power wireless instrumentation and embedded systems for medical applications; wireless power transfer for implantable devices; and biological signal processing. Since arriving in New York Tech, he has authored more than 15 journal and conference papers in biomedical instrumentation and wearable and implantable medical devices and systems. Furthermore, he has been a peer reviewer for several journal publications and IEEE conferences.

As a research assistant professor, Dr. Javan continues his research into innovative solutions for human health at the intersection of biomedical engineering and electrical engineering.

**MECHANICAL ENGINEERING**

**Dorinamaria Carka, Ph.D.**

Dr. Carka is Assistant Professor in the Department of Mechanical Engineering at NYIT's College of Engineering and Computing Sciences. Her area of expertise is mechanics of multifunctional materials and she specializes in computational solid mechanics, fracture and modeling of multifunctional, smart materials such as ferroelectrics and ferromagnetics at different length scales. Her research focus has been on the modeling of coupled multi-physics phenomena occurring in material systems which combine electric and magnetic properties in order to better understand and promote the design of novel and energy efficient nanoscale devices with potential biomedical applications. Examples of such designs include the use of voltage driven magnetic walls to drive the motion of bio functionalized magnetic particles in fluid environment.

Prior to joining New York Institute of Technology in 2015, Dorinamaria served as a Postdoctoral Scholar at the Translational Applications of Nanoscale Multiferroic Systems Engineering Center at the University of California at Los Angeles. She received her Ph.D. in

Engineering Mechanics at the University of Texas at Austin, and her Diploma and M.Sc. in Mechanical Engineering at the University of Thessaly in Greece.

**Fang Li, Ph.D.**

Dr. Li is an Associate Professor of Mechanical Engineering at NYIT. Her research areas are biosensors, Lab-on-a-chip devices, piezoelectric transducers, and non-destructive evaluations. Her research interests include micro/nano devices and stretchable electronics for biomedical applications, and wireless acoustic wave sensors for harsh environment applications. At NYIT, Dr. Li teaches various mechanical engineering courses including: Vibrations and System Dynamics, Statistical Design I, Engineering Mechanics II: Dynamics, Introduction to Material Science, Strength of Materials, and Heat Transfer.

She received her Ph.D. degree in Mechanical Engineering from the University of Pittsburgh where her doctoral research focused on bulk and surface acoustic wave sensors for monitoring cell behaviors and characterizing cell mechanical properties. She also studied how cell shape and mechanical stress affect cellular function using cell patterning techniques. After completing her doctoral studies, she worked for several years at Intelligent Automation, Inc., of Maryland, before joining NYIT's faculty in 2012. At Intelligent Automation, Inc., she was the Principal Investigator of multiple SBIR and STTR projects funded by US ARMY, NAVY and Air Force. Her work there focused on developing portable cell-based sensor system for drinking water toxicity detection and surface acoustic microscopy system for Rapid NDE of ceramic balls. Dr. Li has published over 20 peer-reviewed journal papers and 25+ conference papers. Her research work was featured on the cover of prestigious journal "Lab-on-a-Chip" twice. She is a member of IEEE, IEEE UFFC, ASME, and SAE and has served as a reviewer for many prestigious journals, such as ASME and IEEE conferences, as well as NSF panels.

**Milan Toma, Ph.D.**

Dr. Toma is an Assistant Professor in the Department of Mechanical Engineering at NYIT, College of Engineering and Computing Sciences. His areas of expertise are: Image Processing, High performance computing, Computational mechanics, Computational biomechanics, Biomechanical/Biomedical engineering, Trefftz elements, Hydrated soft tissue, Impact biomechanics, Head and Brain Injuries, Cardiovascular fluid-structure interaction. After he received his Ph.D. in Engineering Science from Technical University of Lisbon in Portugal, he worked as a project researcher in Altair Engineering France in Paris, with the focus on computational analysis of brain injuries. From Paris he moved to Japan where he worked as a research assistant professor at Tokyo University and a research institute RIKEN, where he developed numerical algorithms for cardiovascular fluid-structure interaction simulations. After three years in Japan, he moved to the Kingdom of Saudi Arabia where he worked in the field of computational combustion at King Abdullah University of Science and Technology, as a visiting researcher. After one year in KSA, he moved to USA where he worked at a cardiovascular fluid mechanics laboratory under the guidance of Dr. Ajit Yoganathan, a member of National Academy of Engineering, at Georgia Institute of Technology.

**James Scire, Ph.D.**

Dr. Scire is an Assistant Professor at the College of Engineering and Computing Sciences at NYIT. He graduated with a Ph.D. in Mechanical and Aerospace Engineering from Princeton University. His research interests include optical sensors, imaging systems, combustion, acoustics, numerical simulation, and optimization.

Prior to joining NYIT, he worked at Advanced Fuel Research Inc., of East Hartford, CT, where he was a Senior Engineer in the Combustion Monitoring and Control Group. Since joining NYIT, Dr. Scire has worked on digital holography, algorithms for gas-temperature

measurement from spectral data, and long-wavelength infrared imaging pyrometry. He has applied high-speed, pulsed digital holography to study acoustic levitation. In his work in pyrometry, he has developed electronics, software, and optics to measure turbine blade temperatures inside running jet engines. Dr. Scire is a member of Tau Beta Pi, Pi Tau Sigma, ASME, AIAA, IEEE, and ASA.

**Xun Yu, Ph.D.**

Dr. Yu is the Chair and Professor of Mechanical Engineering at New York Institute of Technology (NYIT). He received his Ph.D. in mechanical engineering from the University of Minnesota-Twin Cities in 2006. He then joined the Department of Mechanical and Industrial Engineering at the University of Minnesota-Duluth, where he worked as an assistant professor from 2006-2010 and associate professor from 2010 -2011. Dr. Yu was an Associate Professor at the University of North Texas from 2011-2015 before joining NYIT. His primary research areas include nanotechnology-based smart materials and smart structures, multifunctional materials for energy and biomedical applications, bioengineering, sensors, and controls. Dr. Yu is an Associate Editor for ASME Journal of Engineering and Science in Medical Diagnostics and Therapy.

As a Principal Investigator, he has received external research funding from the National Institutes of Health (NIH), National Science Foundation (NSF), Federal Highway Administration (FHWA), Federal Aviation Administration (FAA), and other agencies. He also has led several award-winning national student design competitions and best conference paper competitions. Dr. Yu is a Fellow of ASME (American Society of Mechanical Engineers).

**ENERGY MANAGEMENT MS PROGRAM**

**Ehsan Kamel, Ph.D.**

Ehsan Kamel obtained his Ph.D. in Civil Engineering from the Pennsylvania State University in 2017. His research is focused on building energy modeling (BEM), the application of building information modeling (BIM) in BEM, energy-smart homes, and building energy retrofit. He also has a background in building science, building enclosure design, and seismic engineering, with an emphasis on the seismic behavior of reinforced lightweight concrete. He is a member of the editorial boards and reviewer of multiple energy-related journals.

His recent work has been focused on reducing heating and cooling loads by developing model predictive control algorithms using sensors, prediction of building energy consumption through data-driven methods, and application of dynamic façade system in building energy retrofit.

**ENVIRONMENTAL TECHNOLOGY AND SUSTAINABILITY MS PROGRAM**

**David Nadler, Ph.D.**

Dr. Nadler is Assistant Professor and the Chair of the Environmental Technology and Sustainability MS Program at the College of Engineering and Computing Sciences of NYIT. He comes to NYIT after a long tenure as a director within the New York City Department of Environmental Protection. An alumni of the program as well as an adjunct faculty member, Nadler joined NYIT in 2017 as chair of Environmental Technology and Sustainability. He received his Ph.D. in Health Science from Touro University in 2013 and conducted research that modeled allergy development to prenatal antibiotic exposure. His test of the hygiene hypothesis can be applied to any environmental system.

By applying his backgrounds in health science and environmental technology, Nadler focuses on making the Environmental Technology and Sustainability degree truly interdisciplinary. He is focused on showing how proper environmental infrastructure improves the quality of life and health for society. His research projects include biological nutrient control in wastewater and stormwater runoff, using wastewater influent and effluent as energy sources, and developing VR environments for safety engineering. Lastly, he serves as a reviewer for the *Journal of Bioremediation* and the *Journal for Environmental Studies and Sciences*.