

Participants

Dr. Barbar Akle

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Barbar Akle holds a PhD in Mechanical Engineering from Virginia Tech and currently is an Associate Professor of Mechanical Engineering and the Assistant Dean of the School of Engineering at the Lebanese American University (LAU). His main research is focused on improving, modeling, and characterizing Electro-Active Polymers (EAP), also known as artificial muscles. His work led to a better understanding of Ionic Polymer Metal Composites (IPMC) and to the development of applications such as robotic jellyfish and wall shear stress sensors. He is currently working on developing Inner Ear Hair Cell sensors for the hearing disabled and recently, he began leading a new research track that focuses on applying technology in helping under-served humans. He has published more than 70 peer-reviewed international articles, and authored 5 US patents. Dr. Akle is an associate editor of the *Journal of Intelligent Material Systems and Structures* and a member of the ASME Adaptive Structures and Material Systems Technical Committee.

Dr. Aleksei Aksimentiev

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Aleksei Aksimentiev received his MSc in Physics from the Ivan Franko Lviv State University in Lviv, Ukraine, and his PhD in Chemistry from the Institute of Physical Chemistry in Warsaw, Poland. After a brief postdoctoral training at Mitsui Chemicals, Japan, he joined the Theoretical and Computational Biophysics Group in Urbana, Illinois, as a Postdoctoral Research Associate. In 2005, Dr. Aksimentiev became a faculty member of the Physics Department at the University of Illinois, where he is currently a Professor of Physics. His research interests include systems that combine biological macromolecules and man-made nanostructures, membrane proteins, and molecular machinery of DNA replication.

Participants

Dr. Mohammed Al Zamil

Associate Professor
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Mohammed Al Zamil earned his PhD degree in Data Mining from the Middle East Technical University in Turkey. His BSc and MSc degrees were in Computer Science and Engineering. He is an Associate Professor at Yarmouk University in Jordan whose current research interests are in developing technological solutions for Smart Cities. Dr. Al Zamil has many published research papers, articles, and posters on building smart systems using wireless sensor networks and his work has focused on developing smart solutions based on data analysis and patterns of actions to predict future behavior for a given entity. Dr. Al Zamil's current work focuses on developing smart water grid architecture for Jordan to reduce residential water consumption and is also a co-PI on a National Academy of Sciences project for building smart irrigation systems. His current research includes classification and clustering approaches, smart water grid systems, prediction techniques, and performance analysis.

Prof. Mazen Al-Ghoul

Professor of Chemistry
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Mazen Al-Ghoul is currently a Professor of Chemistry and Director of the Graduate Program in Computational Science at the American University of Beirut, Lebanon. He received his PhD in Physical Chemistry at McGill University in 1997 before taking a postdoctoral fellowship at Stanford University in the US. His main research interests include theoretical and experimental investigations of systems far from equilibrium. Recently, he developed a reaction-diffusion framework to design and study material with fascinating 3D morphologies. Material such as Layered Double Hydroxides (LDH), Metal Organic Frameworks (MOF), Zinc Imidazolate Frameworks (ZIF), and various Lanthanide-doped lanthanum hydroxides are applied in photocatalysis and in the adsorption of various toxic metals.

Participants

Dr. Ala'aldeen Al-Halhouli

Faculty Member and Exchange Coordinator
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Ala'aldeen Al-Halhouli joined the Mechatronics Engineering Department at the German Jordanian University as an associate professor in February 2013. He obtained a PhD degree from the University of Jordan in 2007 and a Habilitation Degree with Venia Legendi on microfluidics from the Technische Universität Braunschweig (TU BS) in Germany in 2013. In 2005, Dr. Al-Halhouli received a DAAD scholarship to conduct his PhD research in the area of viscous micropumps at the Institute of Microtechnology (IMT) of TU BS and served as a research associate and lecturer there between 2007 and 2013. During the summer of 2014, he was a visiting scientist at the Micro/Nanofluidic BioMEMS Group of the Massachusetts Institute of Technology, USA. He was also a visiting professor at the Nano lab of Tufts University in June 2015 and a visiting scholar to the IMT during the summer of that year.

Dr. Al-Halhouli has a special interest in microfluidic systems for biomedical applications and their design, simulation, fabrication, and testing. He has published more than 60 papers in international journals and conference proceedings and has received several awards including the 2014 GJU Distinguished Researcher Award, 2009 Best Poster Award in the MEMS Alliance at Georgetown University, and the 2007 Cray Award for the best published paper in Microtechnology/Microsystem technology in Braunschweig, Germany.

Dr. Amer Saif Al-Hinai

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Dr. Amer Al-Hinai received a BSc in Electrical Engineering from Sultan Qaboos University, Muscat, Oman in 1997 and his MSc and PhD in Electrical Engineering from West Virginia University in Morgantown, USA. Dr. Amer is an assistant professor in the Electrical & Computer Engineering Department at Sultan Qaboos University, but is currently on leave with the Masdar Institute of Science & Technology in Abu Dhabi, UAE. He is a faculty member at the Institute Center for Energy (iEnergy) and an assistant professor in the Electrical Engineering & Computer Science Department at the Masdar Institute. In addition, Dr. Amer is the Chairman of the Authority of Electricity Regulation – Oman which serves as the nation's electricity regulator. His areas of interest are in the control and operation of power systems, the applications to control power systems through multi-agent systems, power systems optimization techniques, and energy conservation. Dr. Amer has served as the Chairman of the Energy Saving Committee at Sultan Qaboos University and has carried out more than 28 industry-funded research projects related to energy savings, power system analysis, power system quality, and the transient

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stability of power systems. He has published over 50 research papers in international journals and conferences and more than 35 technical reports. Dr. Amer Al-Hinai is an IEEE senior member and was been elected for the chairman position of IEEE Oman in January 2014.

Dr. Yazan Alqudah

Associate Professor

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Yazan A. Alqudah received his PhD degree in Electrical Engineering from Pennsylvania State University, USA in 2003 before joining the Intel Corporation in 2003 as Senior Technologist where he worked with the Logic Technology Development (LTD) and Mobile Wireless groups (MWG). In his capacity, he led the development of LTD yield analysis systems and the development and integration of WiMAX technology. Dr. Alqudah received three Intel recognition awards in 2005 and 2007 for his successful efforts. Since 2008, he has been with the Communication Engineering Department at Princess Sumaya University for Technology as an associate professor. Dr. Alqudah is a senior member of IEEE and serves on the editorial board for the *Journal of Communications and Networks*. In 2014, he won best Researcher Award at PSUT. His current research interests include broadband optical wireless communication, wireless communications, and mobile computing.

Dr. Entissar AlSuhaibani

Associate Professor

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Dr. Entissar AlSuhaibani is an Associate Professor of Cytogenetic at King Saud University. Her main research interest is in the cytogenetic effect of radiation involved in multiple research projects on the subject. Dr. AlSuhaibani has received gold and silver medals at multiple international exhibitions for her patented invention of Sister Chromatid Exchange staining.

Dr. AlSuhaibani is a member of multiple scientific societies and has presented and participated in many regional and international scientific conferences. She was a fellow in the 2010 L'Oreal UNESCO Pan Arab Regional Fellowships and is involved in efforts to encourage Saudi females to engage in science field.

Participants

Prof. Arezoo Ardekani

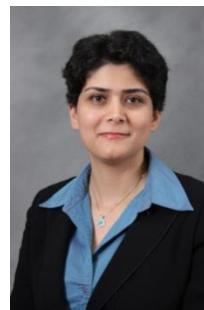
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Dr. Ardekani is currently an assistant professor at Purdue University. Prior to joining Purdue, she was an O'Hara C.S.C. Assistant Professor at the University of Notre Dame and a Shapiro Postdoctoral Fellow at the Massachusetts Institute of Technology before that. She graduated from the University of California Irvine with her PhD in 2009. She received the Society of Women Engineers and Amelia Earhart awards in 2007, Schlumberger Foundation faculty for the future grant in 2009, and NSF CAREER award in 2012. The main objective of her research is to understand fundamental properties of complex fluids and multiphase flows of Newtonian and non-Newtonian fluids that are relevant to biomedical devices, energy applications, and environmental remediation.

Prof. Christopher Bettinger

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Christopher Bettinger is currently an associate professor at Carnegie Mellon University in the Departments of Materials Science and Engineering and Biomedical Engineering. He directs the Laboratory for Biomaterials-based Microsystems and Electronics at CMU, which is broadly interested in the design of novel materials and interfaces that promote the integration of medical devices with the human body. Recent efforts focus on addressing materials challenges in the design and deployment of edible electronics for ingestible diagnostics and therapeutics. Chris has received honors including the National Academy of Sciences Award for Initiatives in Research, the ACS AkzoNobel Award for Polymer Chemistry, the MIT Tech Review TR35 Top Young Innovator under 35, and the DARPA Young Investigator Award. Prof. Bettinger is also a co-inventor on several patents, a finalist in the MIT \$100K Entrepreneurship Competition, and Co-Founder and CTO of Ancure, an early stage controlled release venture. Prof. Bettinger received an S.B. in Chemical Engineering, an M.Eng. in Biomedical Engineering, and a PhD in Materials Science and Engineering as a Charles Stark Draper Fellow, all from the Massachusetts Institute of Technology. He completed his post-doctoral fellowship at Stanford University in the Department of Chemical Engineering as an NIH Ruth Kirschstein Fellow.

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Dr. Christa Brelsford

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Christa Brelsford is a postdoctoral fellow at the ASU/SFI Center for Biosocial Complex Systems. Christa holds a BSc in Civil Engineering from Columbia University and an MA in Climate Science from Columbia University. She earned a PhD from the School of Sustainability at Arizona State University in 2014, where her research focused on the determinants of declines in per capita water consumption in Las Vegas, Nevada. While at the Santa Fe Institute, Christa has been studying the shape of cities from a more general perspective, with special consideration given to which topological transformations are necessary for a slum neighborhood to become part of the formal social and economic fabric of the city.

Prof. Ali Butt

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Ali Butt received his PhD in Electrical and Computer Engineering from Purdue University in 2006. Ali is the recipient of multiple awards including an NSF CAREER Award (2008), IBM Faculty Awards (2008, 2015), a Virginia Tech (VT) College of Engineering (COE) Dean's award for "Outstanding New Assistant Professor" (2009), an IBM Shared University Research Award (2009), and two NetApp Faculty Fellowships (2011, 2015). Ali was named a VT COE Faculty Fellow in 2013 and has served as associate editor for *IEEE Transactions on Parallel and Distributed Systems* since 2013 and Sustainable Computing: Informatics and Systems since 2010. He was selected to participate in National Academy of Engineering's USFOE Symposium in 2009, USJFOE in 2012, Arab-American Frontiers in 2015, and also as an organizer for the USFOE in 2010. Ali's research interests are in operating systems, distributed systems, file and storage systems, and cloud computing. At Virginia Tech he leads the Distributed Systems & Storage Laboratory.

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Prof. Carlos Castro

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Dr. Carlos Castro is an assistant professor in the Department of Mechanical and Aerospace Engineering at Ohio State University. He received both his bachelor's and master's degrees from Ohio State University and his PhD from the Massachusetts Institute of Technology, all in Mechanical Engineering. After receiving his doctorate, Dr. Castro spent one and a half years as an Alexander von Humboldt postdoctoral research fellow at the Technische Universität München working with Dr. Hendrik Dietz, a leader in the field of structural DNA nanotechnology. Dr. Castro's laboratory at Ohio State University, the Nanoengineering and Biodesign Lab, focuses on the development of dynamic DNA nanotechnologies for a number of applications including nanomechanical sensors, probes for studies of single cell and single molecule biophysics, and multi-functional drug delivery vehicles. Recent efforts in his laboratory have led to transformative work in the development of DNA origami mechanisms and machines, which are dynamic DNA nanostructures with complex motions similar to macroscopic machines.

Prof. Nikolaus Correll

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Nikolaus Correll is an Assistant Professor of Computer Science at the University of Colorado at Boulder. His research interests are at the intersection of swarm intelligence and robotics. He obtained a PhD from École Polytechnique Fédérale de Lausanne in Switzerland in 2007 and completed a post-doc at MIT CSAIL from 2007-2009. He is the recipient of the 2012 NASA Early Career Faculty Fellowship and the NSF CAREER award.

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Hayssam Dahrouj received his BE (with high distinction) in Computer and Communications Engineering from the American University of Beirut (AUB), Lebanon, in 2005, and his PhD in Electrical and Computer Engineering from the University of Toronto (UofT), Canada, in 2010. In May 2015, he joined the Department of Electrical and Computer Engineering at Effat University as an assistant professor, and also became a visiting scholar at King Abdullah University of Science and Technology (KAUST). Between April 2014 and May 2015, he was with the Computer, Electrical and Mathematical Sciences and Engineering group at KAUST as a research associate. Prior to joining KAUST, he was an industrial postdoctoral fellow at UofT, in collaboration with BLiNQ Networks Inc., Kanata, Canada, where he worked on developing practical solutions for the design of non-line-of sight wireless backhaul networks. His contributions to the field led to five patents. During his doctoral studies at UofT, he pioneered the idea of coordinated beamforming as a means of minimizing intercell interference across multiple base stations. The journal paper on this subject was ranked second in the 2013 IEEE Marconi Paper Awards in Wireless Communications. His main research interests include cloud radio access networks, cross-layer optimization, cooperative networks, convex optimization, distributed algorithms, and free-space optical communications.

Dr. Ran Dai

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Dr. Ran Dai is a Black & Veatch Assistant Professor in the Aerospace Engineering Department at Iowa State University. She received her BSc from Beihang University and her MSc and PhD degrees in Aerospace Engineering from Auburn University. After graduation, she worked as an engineer in an automotive technology company, Dynamic Research, Inc., and conducted research and consulting in the areas of semi-autonomous vehicle guidance and control. From 2010 to 2012, Dr. Dai joined the Robotics, Aerospace, and Information Networks Lab at the University of Washington as a postdoctoral fellow, where she was involved in an energy management project with application to the next generation of Boeing 787 aircraft power systems. Dr. Dai's research focuses on optimal control, energy management, space systems, and dynamic aerospace networks. She is a recipient of the National Science Foundation CAREER Award and a Senior Member of AIAA.

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Dr. Frank DelRio

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Frank W. DelRio is a research scientist in the Applied Chemicals and Materials Division at the National Institute of Standards and Technology (NIST) in Boulder, CO. He received a BSc from Carnegie Mellon University in 1998, an MSc from Boise State University in 2002, and a PhD from the University of Colorado at Boulder in 2006, all in Mechanical Engineering. After working as a postdoctoral researcher in the Department of Chemical Engineering at the University of California, Berkeley, he joined the Material Measurement Laboratory at NIST, first in Gaithersburg, MD and now in Boulder, CO. At NIST, Frank has been recognized with several awards and honors, including the ASME Orr Early Career Award, the Adhesion Society Outstanding Young Adhesion Scientist Award, the Maryland Academy of Sciences Allan C. Davis Outstanding Young Engineer Award, and the Presidential Early Career Award for Scientists and Engineers. His research interests include measurements and standards related to the elastic, plastic, fracture, interfacial, and charge transport properties of thin films and small-scale structures.

Prof. Jason Dwyer

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Jason R. Dwyer is an Associate Professor of Chemistry at the University of Rhode Island in the United States. He received his PhD in Physical Chemistry from the University of Toronto, Canada and completed postdoctoral training at the Max Born Institute in Berlin, Germany and the Applied Biophysics Laboratory at the University of British Columbia, Canada. The Dwyer Research Group works at the nexus of chemistry, physics, biology, and engineering. The unifying focus of the research is the use and development of nanotechnology-based approaches to create new devices for high-resolution characterizations of molecules and intermolecular interactions, with a particular emphasis on biosensing. Nanofluidic devices feature prominently, including single-molecule nanopore sensors, and thin nanofluidic sample cells for transmission electron microscopy on liquid samples. The group strives to bridge fundamental enquiry and application. Prof. Dwyer was a co-founder and former chief scientific advisor to Insight Nanofluidics, Inc. whose research has been supported by a National Science Foundation CAREER award, funding from the National Institutes of Health, and by technology commercialization grants from the Canadian Ontario Centres of Excellence.

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Dr. Nashwa Eassa Mohemed was born in Omdurman, Sudan and is an Assistant Professor of Physics at Al Neelain University in Sudan. Her current research focuses on band-gap engineering of oxide semiconductor photocatalysts to be used in water treatment, solar energy, and photonics materials. She holds a PhD in Physics from the Nelson Mandela Metropolitan University of South Africa and a Master of Science in Material Physics and Nanotechnology from Linkoping University, Sweden.

Dr. Jauad El Kharraz

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Dr. Jauad El Kharraz has served as the Manager of R&D Programs at the Middle-East Desalination Research Center (MEDRC) in Muscat, Oman since October, 2015. He was the Information & Projects Manager at the Euro-Mediterranean Water Information System (EMWIS), France between 2004 and September, 2015. He has a BSc in Physics from the Faculty of Sciences of Tetuan (Morocco, 1998), an MSc and PhD in Remote Sensing Sciences from the University of Valencia (Spain, 2001-2003), and a Master's in Enterprise Management & Strategy from the SKEMA European School of Business (Sophia Antipolis, France). He has worked on a multitude of European research projects funded by the European Commission, European Space Agency, etc. which focused on different topics related to sustainable development, natural resources management, and earth science and include the projects Water Use Efficiency Using Remote Sensing Data, Regional project on Strengthening National Water Information Systems, and Satellite-based Wetland Observation Service. As well as being the author of several well cited publications and reports in more than 40 countries, he is an editor for several peer journals and an expert evaluator for the European Commission Directorate General for Research & Innovation. Dr. El Kharraz is the co-founder & General Secretary of the Arab World Association of Young Scientists, a member of the Global Young Academy. He is also the leader of COST (EU Cooperation on Science & Technology) TN1301 Networking Working Group, and was one of 40 scientists worldwide selected to attend the World Economic Forum 2012 Summer Davos meeting.

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Prof. Jaafar El-Awady

Assistant Professor

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Dr. El-Awady has served as an Assistant Professor of Mechanical Engineering at Johns Hopkins University (JHU) since 2010. He received his BSc in 2001 and MSc in 2003 in Aeronautic and Astronautic Engineering from Cairo University, Egypt, and his PhD in Aerospace Engineering from the University of California, Los Angles in 2008. Prior to joining JHU, Dr. El-Awady was a visiting scientist at the Wright Patterson Air Force Research Laboratory in Dayton, Ohio. Dr. El-Awady's research group focuses on developing multiscale simulation techniques and microscale experiments to predict the underlying deformation, damage, and failure mechanisms in materials. Prof. El-Awady is the recipient of multiple awards including: the DARPA Young Investigator Program in 2012, the ASME Orr Early Career Award in 2014, and the National Science Foundation CAREER Award in 2015.

Prof. Tamer ElBatt

Associate Professor and Director of the Wireless Intelligent Networks Center

Nile University and Cairo University

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Tamer ElBatt received his PhD in Electrical and Computer Engineering from the University of Maryland, College Park, USA in 2000. From 2000 to 2009 he worked at HRL Laboratories and Lockheed Martin ATC in the United States. In July 2009, he joined the Electronics and Electrical Communications Engineering Department Department in the Faculty of Engineering of Cairo University, Egypt, where he is currently an associate professor. He has a joint appointment with Nile University, Egypt since Oct. 2009 and currently serves as the director of the Wireless Research Center (WINC). Dr. ElBatt's research has been supported by national, regional, and international funds including Egypt NTRA and ITIDA, Qatar QNRF, EU FP7 and H2020, General Motors, Microsoft, Google, Erasmus Mundus, and Vodafone Foundation Egypt. He has published more than 80 papers in prestigious journals and international conferences and holds seven U.S. patents. Dr. ElBatt is a Senior Member of the IEEE and currently serves on the Editorial Board of *IEEE Transactions on Mobile Computing* and *Wiley IJSC&N*. He has also previously served on U.S. NSF and Fulbright review panels. He was a visiting professor at Politecnico di Torino, University of Padova and Sabanci University. Dr. ElBatt is the recipient of the 2014 Egypt State Incentive Award and the 2012 Cairo University Incentive Award. His research interests lie in performance analysis, the design and optimization of wireless and mobile networks with emphasis on cognitive radios, cooperative and energy-efficient networks, cross-layer optimization, MAC, sensor and vehicular networks and mHealth.

Participants

Prof. Ahmed M. Eltawil

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Ahmed M. Eltawil is an associate professor at the University of California, Irvine. He has been with the Department of Electrical Engineering and Computer Science since 2005 where he is the founder and director of the Wireless Systems and Circuits Laboratory. His current research interests are in the general area of low power digital circuit and signal processing architectures with an emphasis on mobile systems. He is affiliated with both the Center for Pervasive Communications and Computing (CPCC) and the Center for Embedded and Cyber-Physical Systems (CECS) at the University of California, Irvine. He received his PhD from the University of California, Los Angeles, in 2003 and MSc and BSc degrees (with honors) from Cairo University, Giza, Egypt, in 1999 and 1997, respectively. Dr. Eltawil has been on the technical program committees and steering committees for numerous workshops, symposia, and conferences in the areas of VLSI, low power computing, and wireless communication system design. He has received several best paper awards as well as distinguished grants, including the NSF CAREER grant in 2010 to support his research in low power systems. He held several leading industry positions and continues to be an expert consultant to international companies in the area of wireless system design.

Dr. Imen Filali

Assistant professor

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Dr. Imen Filali has been an assistant professor in the Department of Communications and Networks Engineering at the National Engineering School of Gabes, Tunisia since October 2011. She obtained her master's degree in Networks and Distributed Systems and her PhD from the University of Nice Sophia-Antipolis, France in 2007 and 2011, respectively. Her PhD research was carried out at the French National Institute for Research in Computer Science and Control (INRIA) and focused on improving data storage and retrieval in Peer-to-Peer Systems. From December 2014 to September 2015, she was a postdoctoral researcher at Ecole polytechnique fédérale de Lausanne (EPFL) working within the Distributed Information Systems laboratory (LSIR) on the management of data transfer in Data Centers Networks. Dr. Filali's main research interests include P2P systems, information retrieval for the Semantic Web, cloud computing, and big data analytics.

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Abbygail Foster is a postdoctoral researcher in the Department of Materials Science and Engineering at Stanford University. Her research interests focus on answering scientific questions at the intersection of materials engineering, cell biology, and chemical engineering through the use of biomaterials to probe cell interactions and direct cell fate. Prior to her postdoctoral work, she obtained her PhD in Chemical Engineering at the University of Delaware. Her expertise includes the design of biomaterials with tunable stiffness, ligand presentation, and control of gene release to modulate cell function. Using recombinant protein engineering techniques she develops new classes of engineered protein polymers which self-assemble to provide nano- and micro-scale organization required to interact with cells. She strives to use these novel technologies to more effectively interface with cells and provide precise control of cell function for applications in protein and drug screening, toxin detection, and regenerative medicine.

Dr. Tyrone Grandison

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Dr. Tyrone W A Grandison is currently the Deputy Chief Data Officer at the US Department of Commerce. Formerly, he was a White House Presidential Innovation Fellow (2014-15) working with the US Department of Labor and the US CENSUS Bureau on their data and API (application programming interface) initiatives. He is also the CEO of Proficiency Labs International, which specializes in supporting organizations design, build and evaluate privacy and security solutions for their systems. He is one of the managing partners of METIS, Inc. - a services company that specializes in solving organizational problems. He co-founded woyhd.org, a service to help consumers determine the privacy awareness of mobile healthcare apps. He is the co-founder of Hipaaentrepreneurs, a service to help healthcare professionals with compliance with healthcare law. He is one of the founding chairs of the Diversity in Privacy and Security Seminar (Di-PaSS) series, which seeks to increase the number of minority professionals and researchers in the privacy and security space. He is a founding partner of Wonder Women Hacks, which is a hackathon dedicated to increasing the number of women in tech, providing a support system for female technologists and helping to solve issues relevant to women. He is a founding partner of Hacks for Humanity (a collaboration with Arizona State University's Project Humanities), which seeks to develop technology to reconnect people to their humanity. He is also an adjunct professor at the University of Technology in Kingston, Jamaica.

Participants

Dr. Grandison's career started as a software engineer in Jamaica. He received a BSc degree in Computer Studies (Computer Science and Economics) from the University of the West Indies in 1997, a MSc degree in Software Engineering in 1998 and a PhD degree in Computer Science from the Imperial College of Science, Technology & Medicine in London in 2003.

Prof. Ahmed Helmy

Professor

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Dr. Ahmed Helmy is a professor at the Computer and Information Science and Engineering (CISE) Department at the University of Florida (UF), and the founder and director of the Mobile Networking Lab. He received both his PhD in Computer Science and MSc in Electrical Engineering from the University of Southern California (USC), in 1999 and 1995, respectively, and a BSc in Electrical Engineering from Cairo University, Egypt in 1992. He was a key researcher in the Network Simulator and Multicast projects at USC/ISI from 1995 to 1999 and was a faculty member of the Department of Electrical Engineering at USC from 1999 to 2006, where he founded and directed the Wireless and Sensor Networks Labs. In 2002, he received the NSF CAREER Award and Best Paper Award from IEEE MMNS and was a winner in the ACM MobiCom 2007, a finalist in 2008 SRC, a winner (2nd place) in the ACM MobiCom WiNTECH demo competition in 2010, and runner-up in the 2012 SRC. In 2013, he won Best Paper Award from ACM SIGSPATIAL IWCTS and in 2014, he won the Epilepsy Foundation Award for Innovation, the ACM MobiCom Mobile App Competition and was second place in the Startup Pitch competition. In 2015, he won the Internet Technical Committee (ITC) Best Paper Award. His research interests include design and analysis of wireless ad hoc, sensor and mobile social networks, mobility modeling, multicast protocols, IP mobility, and network simulation. He has published over 150 journal articles, papers, and book chapters and has over 11,600 citations with a Google Scholar H-index of 48. He is a senior member of IEEE and an ACM Distinguished Scientist. More information can be found on his webpage at cise.ufl.edu/~helmy.

Prof. Juejun Hu

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Dr. Juejun (JJ) Hu received his PhD from MIT in 2009 and is currently an assistant professor and the Merton C. Flemings Career Development Chair in the Department of Materials Science & Engineering at MIT. Prior to joining MIT in 2015, he was an assistant professor in the Department of Materials Science & Engineering at the University of Delaware. Dr. Hu's primary research interest focuses on the enhanced photon-matter interactions in nanophotonic structures, with an emphasis on on-chip spectroscopy and

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chemical sensing applications using novel infrared glasses. His research also covers materials and devices for magneto-optics, photovoltaics and solid state light emitters. Since becoming a faculty member in 2010, Hu has been recognized with multiple awards including: the NSF CAREER Award (2015), the University of Delaware College of Engineering Outstanding Junior Faculty Member (2014), the Gerard J. Mangone Young Scholars Award (2013), and the University of Delaware Excellence in Teaching Award (2013). Dr. Hu has authored and co-authored over 50 refereed journal publications and has been awarded eight US patents.

Prof. Muhammad Mustafa Hussain

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Dr. Muhammad Mustafa Hussain received his PhD in Electrical and Computer Engineering from UT Austin in 2005 and before joining KAUST, was the Program Manager of Emerging Technology Program in SEMATECH, Austin where his program was funded by the DARPA NEMS, CERA and STEEP programs. A regular panelist of US NSF grants reviewing committees, Dr. Hussain is the Editor-in-Chief of Applied Nanoscience (Springer) and an IEEE Senior Member. He has served as first or corresponding author in 75% of his 214 research papers which include 15 cover articles and 87 journal papers and has 15 issued and pending US patents. His students are serving as faculty and researchers at KFUPM, UC Berkeley, TSMC, KACST, and DOW Chemicals. Scientific American has listed his research as one of the Top 10 World Changing Ideas of 2014 and he has received 19 research awards including this year's Outstanding Young Texas Exes Award 2015, a UT Austin Alumni Award.

Dr. Yaser Jararweh

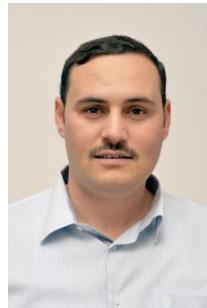
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Yaser Jararweh received his PhD in Computer Engineering from the University of Arizona in 2010. He is currently an Assistant Professor of Computer Sciences at the Jordan University of Science and Technology in Jordan. He has co-authored about 70 technical papers in established journals and conferences in fields related to cloud computing, IoT, networks, HPC, SDN, and big data. He was one of the TPC Co-Chairs for the IEEE Globecom 2013 International Workshop on Cloud Computing Systems, Networks, and Applications (CCSNA) and is a Steering Committee member for CCSNA 2014 and CCSNA 2015 with ICC. He is the General Co-Chair for the IEEE International Workshop on Software Defined Systems (SDS -2014) and SDS-2015. He has also chaired many IEEE events such as ICICS, SNAMS, BDSN, IoTSMS, among others and is the Steering Committee Chair of the IBM Cloud Academy Conference. Dr. Jararweh has served as guest editor on multiple special issues in different established journals.

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Abla Kammoun was born in Sfax, Tunisia. She received a BSc in Signal and Systems Engineering from the Tunisia Polytechnic School, La Marsa, and her master's and PhD degrees in digital communications from Telecom Paris Tech (then Ecole Nationale Supérieure des Télécommunications). From June 2010 to April 2012, she served as a postdoctoral researcher in the TSI Department of Telecom Paris Tech before moving to Supélec at the Large Networks and Systems Group (LANEAS) until December 2013. Currently, she is a research scientist at KAUST and her research interests include performance analysis, random matrix theory, and semi-blind channel estimation.

Prof. Pierre Karam

Assistant Professor

American University of Beirut

Department of Chemistry

Riad El-Solh

Beirut

Lebanon



Pierre Karam started at the American University of Beirut (AUB) where he obtained a master's degree working on developing sensors for the detection of hydrogen peroxide and glucose. In 2011, he obtained his PhD from McGill University working under the supervision of Dr. Cosa and developing single molecule fluorescent techniques. He then completed a one year postdoc at UC Berkeley working on microorganism interaction with nanostructured materials in Dr. Peidong Yang's group. Before joining AUB as an assistant professor in Sept 2012, he accepted a FQRNT postdoctoral fellowship sponsored by the Quebec government to work in Dr. Kelley's Toronto group on DNA sensing project. His lab currently focuses on three main research lines including: 1)Developing sensors for biological applications using fluorescent and electrochemical methods. More specifically, biosensors for the detection of circulating DNA, miRNA and specific biomarkers in serum. The lab is also actively involved in developing nanothermometers to enable temperature mapping at the nanoscale level; 2) Enhancing the photophysical properties of conjugated polymer and formulating them into small nanoparticles that could be used in imaging and sensing applications; and 3)Developing biomaterials with antibacterial activities.

Participants

Dr. Ala' Khalifeh

Assistant Professor

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Jordan



Ala' Khalifeh received his PhD in Electrical and Computer Engineering from the University of California, Irvine in 2010. He is currently an assistant professor in the Communication Engineering Department at the German Jordanian University and is currently the department chair. Dr. Khalifeh was the recipient of the Fulbright Scholarship (2005-2007) sponsored by the Bureau of Educational and Cultural Affairs of the United States Department of State and the University of California Pedagogical Fellowship for his excellent teaching and leadership skills. He is currently the IEEE Chair for the Communication Society in Jordan. Dr. Khalifeh's research interests are in communications technology, signal processing, and networking with particular emphasis on optimal resource allocations for multimedia transmission over wired and wireless networks, VoIP, E-health applications, and speech, video and audio signal processing. He has published numerous research papers in national and international journals, conference proceedings and book chapters.

Prof. Goutam Koley

Professor

Clemson University

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Dr. Goutam Koley is currently a professor in the Department of Electrical and Computer Engineering at Clemson University. He received his B. Tech. degree from the Indian Institute of Technology, Kharagpur, in 1998, and PhD degree from Cornell University, in 2003, both in Electrical Engineering. After completing his doctoral studies, Dr. Koley joined the Department of Electrical Engineering at the University of South Carolina, Columbia, where he was an assistant professor from 2003 to 2009, and an associate professor from 2009 to 2014. He joined the Department of Electrical and Computer Engineering at Clemson University as a professor in 2014. His current research interests include micro and nanoscale sensors and electronic devices, MEMS/NEMS, bio-implantable sensors, and scanning probe microscopy. A strong focus area for his research is the development of self-sensing III-Nitride microelectromechanical sensors for chemical, biological and radiological sensing applications. Dr. Koley has won grants totaling more than \$4 million, including a National Science Foundation CAREER Award in 2009. He has authored and co-authored 60 journal articles, more than 125 conference presentations and seminars, 14 invited talks/seminars, and two book chapters. His research has resulted in three issued patents and several other pending patents. He is a co-founder and shareholder of three start-up companies, a senior member of the IEEE, and a member of the APS.

Participants

Prof. Gert Lanckriet

Professor

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Gert Lanckriet is a Professor of Electrical and Computer Engineering at UC San Diego, where he currently heads the Computer Audition Laboratory (CALab) and leads an interdepartmental group on Computational Statistics and Machine Learning (COSMAL). His research interests are in data science, on the interplay between machine learning, applied statistics, and large-scale optimization, with applications to music and video search and recommendation, multimedia, and personalized, mobile health. He has also worked on applications in bioinformatics and financial engineering. He was awarded the SIAM Optimization Prize in 2008 and is the recipient of a Hellman Fellowship, an IBM Faculty Award, an NSF CAREER Award, and an Alfred P. Sloan Foundation Research Fellowship. In 2011, *MIT Technology Review* named him one of the 35 top young technology innovators in the world (TR35). In 2014, he received the Best Ten-Year Paper Award at the International Conference on Machine Learning.

Dr. Lanckriet co-founded Keevio, Inc., a content-based music, sound, and video analytics company, and Benefunder, an innovative organization that works with wealth management firms to connect philanthropists with leading researchers across the nation to fund their research. He received a master's degree in Electrical Engineering from the Katholieke Universiteit Leuven, Belgium, and MSc and PhD degrees in Electrical Engineering and Computer Science from UC Berkeley.

Dr. Qizhen Li

Associate Professor

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Qizhen Li received her PhD in Materials Science and Engineering from Ohio State University in 2004. After graduation, she worked as a postdoctoral fellow in the Department of Materials Science and Engineering at Northwestern University from 2004 to 2006. She is currently an associate professor in the School of Mechanical and Materials Engineering at Washington State University. Her research interests include design and manufacture of advanced materials for structural, energy, and bio-applications, mechanical behavior of materials, nano/micro-mechanics, fatigue and fracture, relationships among processing, structure and property of advanced materials, and bone/dental implant materials.

Participants

Dr. Lauren Linderman

Assistant Professor

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Lauren E. Linderman is currently an assistant professor in the Department of Civil, Environmental, and Geo- Engineering at the University of Minnesota. She earned her PhD and MSc degrees in Civil Engineering from the University of Illinois at Urbana-Champaign in 2013 and 2009, respectively. In 2007, Dr. Linderman received her BSc in Civil Engineering from Washington University in St. Louis. She is a member of IEEE, SPIE, and ASCE and serves on the ASCE EMI Technical Committee on Structural Health Monitoring and Control. Dr. Linderman's research interests lie in the area of smart structures for improving the long-term performance of civil infrastructure through both monitoring and vibration mitigation. Within the field of smart structures, the topics of most interest to her include data acquisition, signal processing, wireless sensor technology, networked estimation and feedback control, modal analysis, and experimental methods. Dr. Linderman's research group combines both analytical and experimental studies of wireless sensor networks for control and monitoring. The experimental work consists of both field studies of monitoring systems and lab-scale implementations, which often require the use of a hydraulic shake table. Her teaching activities parallel her research and focus on the fundamentals for structural control and monitoring with a particular focus on structural dynamics, earthquake engineering, and sensors for civil engineering.

Prof. (Yu) David Liu

Associate Professor

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Yu David Liu is an associate professor at the State University of New York at Binghamton in the US. His current research focuses on improving state of the art energy-efficient and data-intensive software through programming language and software engineering approaches. David was a recipient of a US National Science Foundation CAREER Award and a Google Faculty Research Award. He received his PhD in Computer Science from the Johns Hopkins University in 2007.

Participants

Dr. Dionysia-Angeliki Lyra

Postdoc Fellow

International Center for Biosaline Agriculture

Al ruwayyah

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United Arab Emirates



Dr. Dionyssia Lyra works as a Post-Doc researcher at the International Center for Biosaline Agriculture (ICBA). Prior to her work with ICBA, she also had a Post-Doc fellowship in the Laboratory of Agronomy at the Agricultural University of Athens in Greece, where she was involved in the evaluation of barley genotypes for drought resistance and crop yield. She has participated in EU and national projects on: 1) parasitic weeds; 2) integrated management of vegetation at archaeological sites; and 3) identification and evaluation of indigenous medicinal species with potential economic value for breeding purposes. Currently, Dr. Lyra has been working on projects related to: 1) the evaluation of agronomic characteristics of selected *Salicornia bigelovii* and native halophyte populations using seawater irrigation; 2) seed multiplication of *Salicornia bigelovii* populations by using groundwater irrigation; 3) on-farm management of available water resources (low quality, brackish, saline water and aquaculture water residues) to optimize crop production and minimize environmental risk; 4) on-farm demonstration of using available technologies (desalinated water from RO units) for managing farms; and 5) exploring the potential of Integrated Aqua-Agriculture Systems (IAAS) in arid areas. Dr. Lyra recently received a grant from USAID to improve economics of IAAS. She has significant teaching experience and has published more than 40 research publications in peer reviewed journals and conference proceedings.

Dr. Mouna Marrakchi Ep Sellami

Assistant Professor

Higher Institute of Applied Biological Science

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Tunisia



Mouna Marrakchi is an assistant professor in the Higher Institute of Applied Biological Sciences of Tunis (ISSBAT) at Tunis El Manar University and a researcher in the Laboratory of Microbial Ecology and Technology (LETMi) of the National Institute of Applied Sciences and Technology (INSAT). She received an Engineering degree in Industrial Biology from the National Institute of Applied Sciences and Technology of Tunisia (INSAT) in 2002 and a master's degree in Medical and Biological Engineering from the Claude Bernard University of Lyon in 2003. In December 2006, she obtained her PhD in Biological Engineering from the Ecole Centrale of Lyon, France. Her research activities focus on the immobilization of different types of bioreceptors as enzymes, microorganisms, and antibodies for biosensor development with special focus on the environmental monitoring of different toxic as enteric viruses, pesticides, and toxins. Different types of businesses (immunological and enzymatic) are tested to develop a sensitive and reliable analytical systems for mycotoxin detection in foods. She also worked on the use of a new type of antimicrobial peptide for bacterial pathogen detection during her Fulbright

Participants

experience in Clarkson University. Dr. Marrakchi has received numerous awards including a 2015 Arab American Frontiers fellowship, the French High-Level Scientific Fellowship in 2014, and a Fulbright in 2013.

Prof. Matthew McCabe

Associate Professor

King Abdullah University of Science and Technology

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Prof. McCabe's research interests encompass the modeling and observation of the Earth system, with a focus on the hydrological cycle and its linked processes and interactions. The research undertaken in his group combines models and observations to answer questions on the distribution, variability, and exchanges of water on local, regional, and global scales. Satellite and airborne remote sensing approaches and in-situ monitoring techniques are used to observe the terrestrial system, while a range of modeling and statistical approaches are employed to understand and predict hydrological behavior.

Dr. David Mendoza-Cozatl

Assistant Professor

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David Mendoza-Cozatl received a PhD in Biochemistry from the National University in Mexico City and completed his post-doctoral training in molecular biology at the University of California, San Diego. In 2011, David joined the Division of Plant Sciences at the University of Missouri as an assistant professor. In 2013 David received a NSF CAREER award to pursue research on the mechanisms by which plants mobilize nutrients between leaves and seeds. David has been interested for more than a decade in the mechanisms by which cells sense and accumulate nutrients and also how cells detoxify toxic elements such as cadmium and arsenic. David's research contributed to the discovery of key genes and mechanisms required to detoxify arsenic in plants (the US National Academy of Sciences recognized this discovery with the Cozzarelli prize in 2010). Currently, David's lab has been describing how plants sense and maintain an optimal concentration of essential nutrients in leaves and roots, which is key to enhancing the nutritional value of crops and plant-based products. David's research has been published in 24 peer-reviewed articles cited more than 1100 times and he holds one patent. David is a member of the editorial advisory panel of the *Biochemical Journal* and associate editor of *Frontiers in Plant Science*.

Participants

Dr. George Mitri

Associate Professor and Director of the Land and Natural Resources program at the Institute of the Environment
University of Balamand
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Tripoli
Lebanon



George Mitri is the Director of the Land and Natural Resources program at the Institute of the Environment, and an associate professor in the Department of Environmental Sciences at the University of Balamand. Dr. Mitri holds a PhD in Methods for Environmental Bio-monitoring and has 15 years of research experience in the field of Geo-information in environmental management. His research is focused on forest and forest fire management, use of geo-information (satellite remote sensing data and Geographic Information Systems) in environmental management, evaluating exposure to land degradation and desertification, landcover/landuse mapping and monitoring, greenhouse gas emissions/removals from landuse, landuse change, and forestry. He has more than 60 publications in peer-reviewed journals, book chapters, and conference proceedings.

Dr. Rola Naja

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Rola Naja was awarded a PhD in Computer Networking at the Ecole Nationale Supérieure des Télécommunications (ENST)-Paris and a Habilitation to Direct Research (HDR) from the University of Versailles Saint Quentin. Her research studies lie in the area of resource allocation and mobility handling in wireless multiservice networks. She has published several papers in international conferences and journals focused on network modeling and performance, network adaptability, and quality of service provisioning. She is an associate professor at the Lebanese University as well as a researcher at the PRISM Laboratory (CNRS UMR 8114) of Versailles University.

Participants

Prof. Ammar Nayfeh

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Ammar Nayfeh was born in Urbana IL in 1979. He received his bachelor's degree from the University of Illinois Urbana Champaign in 2001, his master's degree in 2003 from Stanford University and a PhD from Stanford University in 2006, all in electrical engineering. His graduate research at Stanford focused on the heteroepitaxy of Germanium on Silicon. After his PhD, he joined AMD as a researcher working in collaboration with IBM. Following that, he then spent a year as a consultant with PDF solutions and later joined a silicon valley start up, Innovative Silicon, in 2008. He also worked part time professor at SJSU during this time. In June 2010, he joined MIT as a visiting scholar and became a faculty member at the Masdar Institute in Abu Dhabi, UAE. At Masdar, he is an associate professor in the Department Electrical Engineering and Computer Science (EECS) and the Director of the Nano Electronics and Photonics Laboratory where his primary research interests include novel PV devices, low-power nano-electronics, high-performance nano-electronics, nano-photonics, and nano-memory technologies. Professor Nayfeh has authored or co-authored over 80 publications, and holds two patents. He is a member of IEEE, MRS, and Stanford Alumni Association. He has received the Material Research Society Graduate Student Award, the Robert C. Maclinche Scholarship at UIUC, and a Stanford Graduate Fellowship.

Prof. Michael Niemack

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Michael Niemack received his BA in Physics from Amherst College in 2002, followed by a PhD in Physics from Princeton University in 2008. At Princeton, he worked on instrumentation to improve measurements of the cosmic microwave background (CMB) radiation, which included designing telescope optics, building some of the largest arrays of superconducting sensors, and deploying them on the Atacama Cosmology Telescope in Chile. In 2008 Professor Niemack became a National Research Council Postdoctoral Fellow at the National Institute of Standards and Technology in Boulder, Colorado, where he worked on developing new superconducting detector and optics technologies to probe the formation and evolution of the the universe by measuring the polarization of the CMB. In 2013, he became an assistant professor in the Cornell University Physics Department. His research group continues to study cosmology, astrophysics, and fundamental physics by developing new telescope optics and superconducting sensors cooled to a fraction of a degree Kelvin, with which they use to measure the oldest light in the universe.

Participants

Dr. Omer Oralkan

Associate Professor

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United States



Omer Oralkan received a BSc degree from Bilkent University, Ankara, Turkey, in 1995, an MSc degree from Clemson University, Clemson, SC, in 1997, and a PhD from Stanford University, Stanford, CA, in 2004, all in electrical engineering. Dr. Oralkan was a research associate (2004-2007) and a senior research associate (2007-2011) in the E. L. Ginzton Laboratory at Stanford University, and an adjunct lecturer (2009-2011) in the Department of Electrical Engineering at Santa Clara University, Santa Clara, CA. In 2012, he joined the Department of Electrical and Computer Engineering at North Carolina State University, Raleigh, as an associate professor. His current research focuses on developing devices and systems for ultrasound imaging, photoacoustic imaging, image-guided therapy, biological and chemical sensing, and ultrasound neural stimulation. Dr. Oralkan is an associate editor for *IEEE Transactions on Ultrasonics, Ferroelectrics and Frequency Control* and serves on the Technical Program Committee of the IEEE Ultrasonics Symposium. He received the 2013 DARPA Young Faculty Award and the 2002 Outstanding Paper Award of the IEEE Ultrasonics, Ferroelectrics, and Frequency Control Society. Dr. Oralkan has authored more than 140 scientific publications.

Prof. Digambara Patra

Associate Professor

American University of Beirut
Department of Chemistry
Beirut
Lebanon



Digambara Patra obtained an MSc in Chemistry and MPhil from Sambalpur University, India in 1996 and 1997 respectively. In 2001, he acquired a PhD degree in Chemistry from the Indian Institute of Technology Madras. He then worked as a postdoctoral fellow at the University of Basel, Switzerland from 2001 to 2002 and researched as a Humboldt Research Fellow in Germany from 2002-2004 at Forschungszentrum Juelich, Germany. In 2003, he was awarded the Europe Research Fellowship to visit Katholieke Universiteit Leuven, Belgium followed by a JSPS Postdoctoral Fellowship at the National Institute of Natural Science Okazaki in Japan from 2004 to 2005 and later in Waseda University, also in Japan, from 2005 to 2006. Professor Patra worked as visiting lecturer in Waseda University from 2006 to 2007 before joining the American University of Beirut, Lebanon as an Assistant Professor of Chemistry from 2007 to 2013. He also received a Humboldt Renewed Research Fellowship in 2010 and visited Gottingen University. In 2013, he visited Abo Academy University, Turku, Finland and has been working as an associate professor at the American University of Beirut since 2013. He has more than 69 research publications in various international peer-reviewed journals in chemistry and his research areas include optical sensing, fluorescence spectroscopy, biophysical chemistry, biosensing, and nanochemistry.

Participants

Prof. Noureddine Raouafi

Associate Professor

University of Tunis El-Manar

Avenue Bechir Salem BelKhireia

Campus universitaire de Tunis El-Manar

Tunis

Tunisia



Noureddine Raouafi earned a Bsc in 1999, an MSc in 2001, a PhD in 2004, and his Habilitation degree in 2009, all in Chemistry from the University of Tunis El-Manar in Tunisia. Since 2001, he has held the positions of assistant professor (2001-2011), associate professor (2011-2015), and will soon be a full professor (under review, due by the end 2015). He has received several post-doctoral trainings and took a post-doctoral position in molecular electrochemistry with Prof. Christian Amatore and Prof. Bernd Schollhorn at the Ecole Normale Supérieure in Paris, France from 2005 to 2009. His research interests are mainly focused on the design of functional nanomaterials (gold nanoparticles, nanoparticles of metal oxides, silica nanoparticles, and carbon nanotubes and graphene) and their applications in opto-electrochemical (bio)sensing devices, as well as the electrocatalysis of DNA, proteins, and environmental contaminants. He is working in close collaboration with several research groups from Spain, Germany and France. Professor Raouafi is a member of the Tunisian Chemical Society (since 2001), member of the Royal Society of Chemistry (since 2012), and General Secretary of the Tunisian branch of the Royal Society of Chemistry. He is founding member and the Acting President of the Tunisian Nanomaterials and Applications Society (founded in 2014).

Prof. Sherief Reda

Associate Professor of Engineering

Brown University

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Sherief Reda is a tenured associate professor at the School of Engineering, Brown University. He joined the Computer Engineering Group at Brown University in 2006 after receiving his PhD in computer science and engineering from University of California, San Diego. He received his BSc (with Honors) and MSc. in electrical and computer engineering from Ain Shams University, Cairo, Egypt in 1998 and 2000 respectively. His research interests are in the area of computer engineering, with focus on energy-efficient computing systems, design automation and test of integrated circuits, and reconfigurable computing. Prof. Reda has over 70 refereed conference and journal papers and has served as a member of technical program committees for many IEEE and ACM conferences. Professor Reda received a number of research awards, including the Best Paper Award from Design Automation Test in Europe (DATE) in 2002 and the International Symposium on Low-Power Electronics and Design (ISLPED) in 2010, and best paper nominations from the International Conference on Computer-Aided Design (ICCAD) in 2005, Asian South-Pacific Design Automation Conference (ASPDAC) in 2008, and from ICCAD in 2015. In addition, he received Brown University Salomon award in 2008 and a National Science Foundation (NSF) CAREER award in 2010. His research has been funded by NSF, DoD, DARPA, AMD, Intel, and Qualcomm. He is a senior member of IEEE.

Participants

Prof. Khalid Salaita

Associate Professor

Emory University

Department of Chemistry

Department of Biomedical Engineering

Atlanta, Georgia

United States



Khalid obtained his PhD under the guidance of Prof. Chad Mirkin at Northwestern University in 2006. During that time, he studied the electrochemical properties of organic adsorbates patterned onto gold films and developed massively parallel dip-pen nanolithography approaches. From 2006-2009, Khalid was a postdoctoral scholar with Prof. Jay T. Groves at UC Berkeley. As a postdoc, he developed electrostatic-based approaches for DNA microarray readout, and also investigated the role of EphA2 receptor clustering in modulating cell signaling. In 2009, Khalid started his own lab at Emory University, where he currently investigates biophysical aspects of receptor-mediated cell signaling. To achieve this goal, his group has pioneered the development of molecular force probes and nano-mechanical actuators that are integrated with living cells. These materials are used to investigate a number of pathways where forces are thought to be important such as the Notch-Delta pathway, T cell activation and the integrin-based focal adhesion pathway. In recognition of his independent work, Khalid has received a number of awards, most notably the Alfred P. Sloan Research Fellowship (2013), the Camille-Dreyfus Teacher Scholar award (2014), and the NSF Early CAREER award (2014).

Dr. Samer Samarah

Faculty Member

Yarmouk University

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Samer Samarah is an associate professor in the Computer Information Systems Department at Yarmouk University, Jordan. He obtained his PhD in Computer Science from the University of Ottawa, Canada in 2008 and his research interests focus on data mining techniques for wireless sensor networks, big data analysis, and smart water grids.

Participants

Dr. Mohamed Moncef Serbaji

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Dr. Serbaji earned a PhD from the Faculty of Sciences of Tunis in 2000 in the field of geology and environment and now teaches in the Department of Georesources and Environment of the National Engineering School of Sfax at the University of Sfax. He has been significantly involved in applied research using remote sensing and Geographic Information Systems (GIS) in several interdisciplinary themes including water resources, environmental sciences and ecology, land degradation and desertification, environmental assessment, integrated coastal management, and sustainable development. He is an expert in the field of environment for management and planning development projects. He has multiple relevant publications in the fields of environmental assessment and management.

Dr. Puneet Singla

Associate Professor

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Dr. Puneet Singla is an associate professor and the Director of Graduate Studies of Mechanical & Aerospace Engineering at the University at Buffalo (UB). He has developed a vigorous research program in the general area of estimation and control with specific focus on uncertainty quantification and characterization at the University at Buffalo. He has authored over 100 papers to-date, one book, and 26 journal articles covering a wide array of problems. During his tenure at UB, he has secured several research grants as a PI or co-PI from the National Science Foundation (NSF), Air Force Office of Scientific Research (AFOSR), Air Force Research Laboratory (AFRL), National Geospatial Intelligence Agency (NGA) and the University at Buffalo. He has received the competitive NSF CAREER award for his work on Uncertainty Propagation and Data Assimilation for Toxic Cloud Prediction and the AFOSR Young Investigator Award for his work on Information Collection and Fusion for Space Situational Awareness. He has also been awarded the UB's "Exceptional Scholar" Young Investigator Award in recognition of his scholarly activities.

Participants

Dr. Besma Smida

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Besma Smida is an Associate Professor of Electrical and Computer Engineering at the University of Illinois at Chicago. From 2009 to 2015, she was a Visiting and then Tenure-Track Assistant Professor of Electrical and Computer Engineering at Purdue University, Calumet. From 2006 to 2009, she was a lecturer and postdoctoral fellow at the School of Engineering and Applied Sciences of Harvard University. From 1999 to 2002, she was a research engineer in the Technology Evolution and Standards group of Microcell Inc. (now ROGERS Wireless), Montreal, surveying and studying radio-communication technology evolution. Dr. Smida also took part in major wireless normalization committees including 3GPP and T1P1. She received her PhD and MSc from University of Quebec (INRS), Montreal, Canada in 2006 and 1998, respectively and the Diplome d'Ingenieur degree in Telecommunications from Ecole Supérieure des Communications de Tunis (SUPCOM), Tunisia. Her research work is focused in the areas of wireless communication theory. She is the recipient of the 2007 Academic Gold Medal of the Governor General of Canada and a 2015 NSF CAREER award.

Prof. Iris Tien

Assistant Professor
Georgia Institute of Technology
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School of Civil and Environmental Engineering
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United States



Dr. Iris Tien joined the faculty in the School of Civil and Environmental Engineering at the Georgia Institute of Technology in 2014 after receiving her PhD in Civil Systems Engineering from the University of California, Berkeley, in 2014. She received her MSc in Civil and Environmental Engineering in 2010, and graduated High Honors with a BSc in Civil and Environmental Engineering and a Minor in English in 2008 from UC Berkeley. Tien has a unique interdisciplinary background that encompasses traditional topics of civil engineering, sensing technologies, probabilistic risk assessment, stochastic processes, signal processing, and machine learning. For her research work in developing Bayesian network methods for system modeling and reliability analysis, Tien was awarded the Paper Award from the ASCE Engineering Mechanics Institute Probabilistic Methods Committee in 2013. Tien's work has been published in journals ranging from engineering to medicine, and is funded by both state and national agencies, including the Center for Information Technology in the Interest of Society, Georgia Department of Transportation, and National Science Foundation. Tien is a recipient of the Regents' and Chancellor's Scholarship, University of California Chancellor's Fellowship for Graduate Study, National Science Foundation Graduate Research Fellowship, and National Science Foundation Engineering Innovation Fellowship.

Participants

Prof. Kimani Toussaint

Associate Professor

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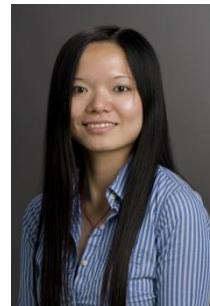


Dr. Kimani C. Toussaint, Jr. is an associate professor in the Department of Mechanical Science and Engineering, and an affiliate faculty in the Departments of Electrical and Computer Engineering, and Bioengineering, as well as the Beckman Institute for Advanced Science and Technology at the University of Illinois at Urbana-Champaign (UIUC). He also holds an affiliate faculty position in the Department of Ophthalmology at UIC. Professor Toussaint directs the Laboratory for Photonics Research of Bio/nano Environments (PROBE Lab), an interdisciplinary research group which focuses on developing both nonlinear optical microscopy techniques for quantitative imaging of biological structures and plasmonic nanoantennas for light-driven control of matter. Professor Toussaint is a recipient of a 2010 NSF CAREER Award, the 2015 UIUC Dean's Award for Excellence in Research, and holds senior member positions in the OSA, IEEE, and SPIE. In addition, from May 2014-June 2015, he was a Dr. Martin Luther King, Jr. Visiting Associate Professor in the Department of Mechanical Engineering at MIT. Professor Toussaint has previously been selected for both the National Academy of Science's 18th Annual Kavli Frontiers of Science Symposium, and the 8th Annual National Academies Keck Futures Initiative on Imaging Science. In addition, he has been on the UIUC List of Teachers Ranked as Excellent by Their Students for six consecutive years due to his commitment to teaching.

Dr. Linwei Wang

Associate Professor

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Dr. Linwei Wang is an associate professor in the PhD Program of Computing and Information Sciences at the Rochester Institute of Technology (RIT) in Rochester, New York. Her research interests center around data-driven modeling, statistical inference and learning, and data inversion of complex systems and their application to computational physiology and personalized biomedicine. She currently directs the Computational Biomedical Lab in RIT, with a recent research focus on multi-modal sensor fusion for personalized cardiovascular and cognitive modeling with application to improve patient care and wellbeing. Her research is funded by the National Science Foundation and the National Institutes of Health, and she is a recipient of the 2014 CAREER award from the National Science Foundation. Dr. Wang obtained her bachelor degree in Optic-Electrical Engineering from Zhejiang University (China) in 2005, her master's in Electronic and Computer Engineering from the Hong Kong University of Science and Technology in 2007, and her PhD in Computing and Information Sciences from RIT in 2009.

Participants

Prof. Hang Hubert Yin

Associate Professor of Chemistry and Biochemistry
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Hang Hubert Yin received his PhD in Chemistry from Yale University in 2004 under the supervision of Professor Andrew Hamilton. He joined the faculty of the University of Colorado at Boulder in 2007 from the University of Pennsylvania, where he was a postdoctoral fellow with Professor William DeGrado. His current research interests lie at the interface of chemistry, biology, and engineering, with particular focus on cancer biology, structure-based drug design, cell signaling biochemistry, and biotechnology development. Yin has received the SU2C IRG, NSF CAREER award, CAPA Distinguished Junior Faculty Award, AACR Elion Award, NIH CEBRA Award, and Early Career Award in Chemistry of Drug Abuse and Addiction.

Dr. Tina Yuan

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Tina Yuan's graduate studies in biomedical sciences were conducted at Harvard University in the laboratory of Dr. Lewis Cantley, where she studied mechanisms of PI3K-driven tumorigenesis. She then joined Dr. Frank McCormick's laboratory at the University of California, San Francisco, and began her postdoctoral studies in understanding the complex signaling networks downstream of oncogenic KRAS. In her current position as an instructor at the Harvard Medical School/Dana-Farber Cancer Institute and senior scientist at The Broad Institute, she investigates KRAS-driven networks using genome-wide perturbation screens and multi-dimensional data collection. Dr. Yuan's goals are to develop novel approaches to data extraction, analysis, and interpretation in order to identify treatments for KRAS-mutant cancers. These cancers, which comprise 30% of all solid human cancers, do not benefit from targeted therapies and are often refractory to conventional chemotherapy. She anticipates that such cancers will require personalized combinatorial treatments, which she hopes to identify using novel screening tools that can investigate the immense combinatorial space of multi-gene targeting.