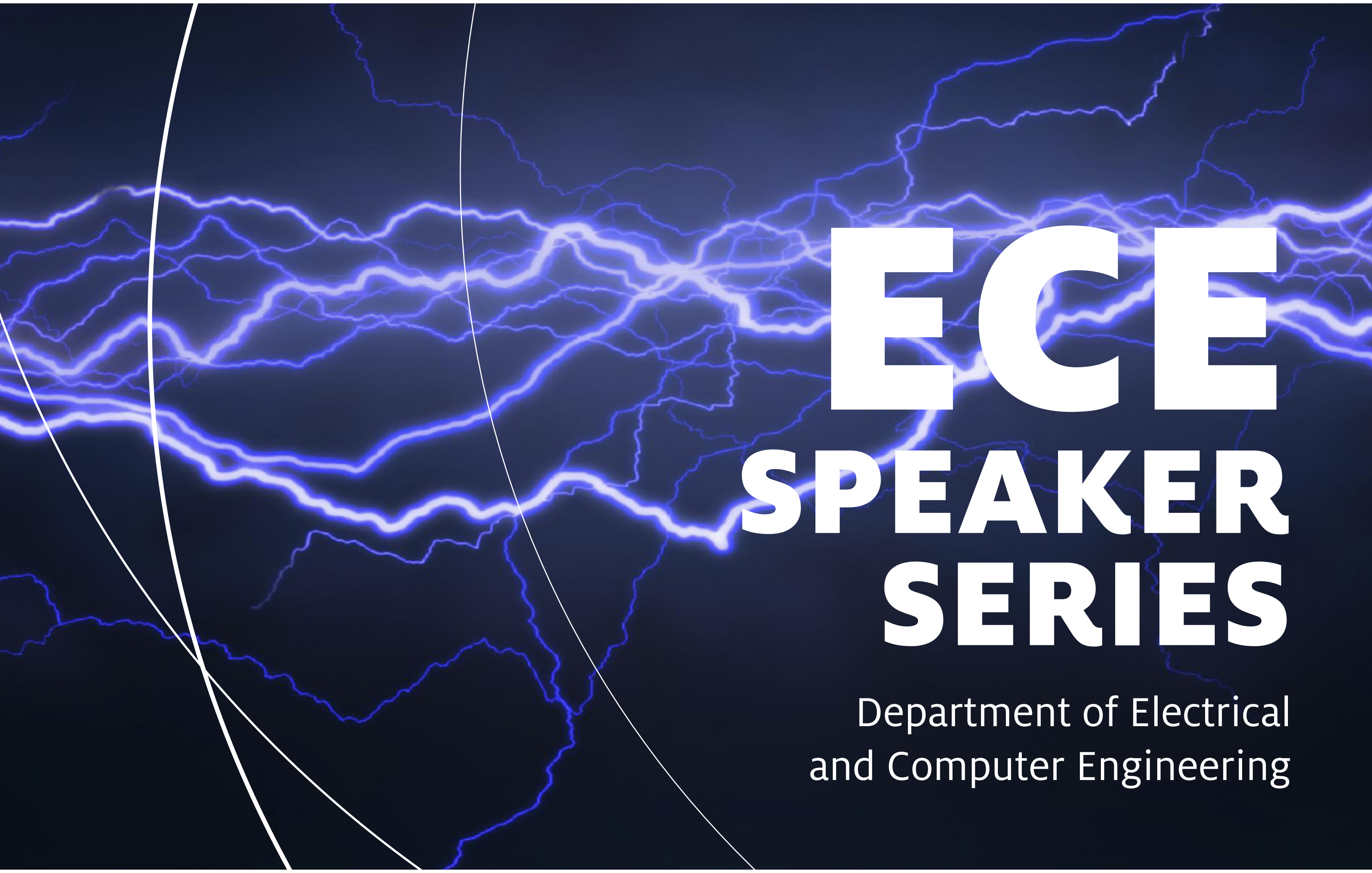

ECE SPEAKER SERIES

Department of Electrical and Computer Engineering

Spring 2016

Web: http://www.ece.uh.edu
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UNIVERSITY of HOUSTON
CULLEN COLLEGE of ENGINEERING
Department of Electrical & Computer Engineering

FRI, JAN 29, 2016
11:00am-12:00pm
EGR BLDG 2 RM W122

ON ARCHITECTURES, STRATEGIES AND THEORIES FOR INTEGRATING RENEWABLE ENERGY SOURCES

Dr. P.R. Kumar

Professor
Department of Electrical and Computer Engineering
Texas A&M University
College Station, TX

Abstract:

Renewable energy sources such as solar and wind are time-varying. To enhance their usage, demand will need to be adjusted to meet supply, rather than the other way around as is traditional. This raises several issues lying at the confluence of economic behavior and elasticity, demand pooling, implicit or explicit storage, information availability, privacy, adaptation and control. This talk will propose several architectures, strategies and theories for addressing these issues.

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Biography:

P. R. Kumar obtained his B. Tech. degree in Electrical Engineering (Electronics) from I.I.T. Madras in 1973, and the M.S. and D.Sc. degrees in Systems Science and Mathematics from Washington University, St. Louis, in 1975 and 1977, respectively. From 1977-84 he was a faculty member in the Department of Mathematics at the University of Maryland Baltimore County. From 1985-2011 he was a faculty member in the Department of Electrical and Computer Engineering and the Coordinated Science Laboratory at the University of Illinois. Currently he is at Texas A&M University, where he is a University Distinguished Professor and holds the College of Engineering Chair in Computer Engineering.
Kumar has worked on problems in game theory, adaptive control, stochastic systems, simulated annealing, neural networks, machine learning, queueing networks, manufacturing systems, scheduling, wafer fabrication plants and information theory. His research is currently focused on energy systems, wireless networks, secure networking, automated transportation, and cyberphysical systems. He is a member of the National Academy of Engineering of the USA.

For additional information, please contact Dr. Wei-Chuan Shih at wshih@uh.edu

UNIVERSITY of HOUSTON | ECE

MON, FEB 8, 2016
10:00am-11:00am
EGR BLDG 2 RM W122

ULTRA-FLAT AND ULTRA-SMALL: NEW APPROACHES TO NANOFABRICATION FOR PLASMONICS AND METAMATERIALS

Dr. Sang-Hyun Oh

Associate Professor
Department of Electrical and Computer Engineering
University of Minnesota
Minneapolis, MN

Abstract:

This presentation will focus on two unconventional fabrication techniques: template stripping for making ultra-smooth patterned metals and atomic layer lithography for making ultra-small (< 10 nm) gaps with angstrom-scale control. In template stripping, instead of directly patterning noble metal films, which are difficult to plasma-etch, we create inverse patterns in a silicon template using mature IC processing techniques. After metal deposition and peeling, precisely patterned geometries in the silicon template is faithfully replicated onto a deposited metal film. To date, template stripping has been used to create ultra-smooth plasmonic gratings, nanoholes, pyramids, and wedges for applications including near-field optical microscopy, Raman spectroscopy, biosensing, and particle trapping. We are extending this technique via roller template stripping to create flexible, stretchable, and rollable plasmonic devices and metasurfaces.

Another emerging fabrication technique, called atomic layer lithography, has demonstrated wafer-scale production of ultra-long (> mm) and ultra-small (< 1 nm) slits in metal films. The resulting slits and resonant loops show extremely high field enhancements via gap plasmons and tunable resonances at visible, infrared, and terahertz frequencies. We will describe broader applications of this powerful lithography technique.

ECE SPEAKER SERIES

Biography:

Sang-Hyun Oh obtained his B.S. in Physics from KAIST, Korea, and Ph.D. in Applied Physics from Stanford University. After postdoctoral research at Bell Laboratories, Murray Hill, and the University of California at Santa Barbara, he joined the ECE department at the University of Minnesota, Twin Cities in 2006. He is currently an Associate Professor of ECE and runs a lab focused on plasmonics, nanofabrication, and biosensing. He is a recipient of young faculty awards from the Office of Naval Research, DARPA, NSF, ACS and 3M. He was a visiting professor at Imperial College London and ETH Zurich in 2014.

For additional information, please contact Dr. Wei-Chuan Shih at wshih@uh.edu

UNIVERSITY of HOUSTON | ECE

FRI, FEB 19, 2016
12:00pm-1:30pm
EGR BLDG 2 RM W122

BULK HETEROJUNCTION PEROVSKITE HYBRID SOLAR CELLS WITH LARGE FILL-FACTOR

Dr. Xiong Gong

Associate Professor
Department of Polymer Engineering
University of Akron
Akron, Ohio

Abstract:

In the past five years, methylammonium lead halide ($MAPbX_3$) perovskites as novel photovoltaic materials have been attracted much attention due to their super optical and electrical properties. Over 20% power conversion efficiency (PCE) has been reported from perovskite-based hybrid solar cells (pero-HSCs), but shorter diffusion length of the electrons than that of the holes is one of the major limitations to further boost efficiency of pero-HSCs. To facilitate electron extraction efficiency in pero-HSCs and make it comparable to that of hole, we, for the first time, demonstrate bulk heterojuncion (BHJ) pero-HSCs fabricated by mixture of perovskite materials with water-soluble fullerene derivatives rather than pristine perovskite materials. As compared with planar heterojunction pero-HSCs, more than 22% enhancement in PCE is observed from BHJ pero-HSCs. Therefore, our strategy of using BHJ structure in pero-HSCs offers an efficient and simple way to further boost the device performance.

ECE SPEAKER SERIES

Biography:

Dr. Gong is an Associate Professor in the Department of Polymer Engineering of the College of Polymer Science and Polymer Engineering at the University of Akron. He also holds an Adjunct Chair Professor in the State Key Laboratory of Luminescence Materials and Devices at the South China University of Technology, P. R. China, and holds a Chief Scientist position at Heeger Beijing R&D Center. He has accomplished over 158 articles published in the peer reviewed journals including in Science, with a peer citation over 16,000 times. He earned an H-index of 48. He also contributed 35 granted/pending patents and 9 book chapters. Dr. Gong received many international and national awards and honors including named the top 1% mostly cited researchers 2015, the world's most influential scientific minds 2014 (2015) and the top 1% mostly cited scientists in the field of materials science between 2002 and 2012 (2014) reported by Thomson Reuters, National Science Foundation (NSF) Career award (2014) and NSF of China oversea outstanding Chinese youngest scientist award (2008).

For additional information, please contact Dr. Wei-Chuan Shih at wshih@uh.edu

UNIVERSITY of HOUSTON | ECE

MON, FEB 22, 2016
10:00am-11:00am
EGR BLDG 2 RM W122

MULTI-SCALE ROBOTICS AND AUTOMATION

Dr. David Cappelleri

Assistant Professor
School of Mechanical Engineering
Purdue University
Lafayette, Indiana

Abstract:

Meso to nano-scale systems technology is an extremely strong economic driver today. Market estimations predict large innovations in new products involving this technology within the next decade and more specifically, meso and micro-scale manipulation and assembly shows enormous potential in a vast range of manufacturing and biological applications. Thus, the Multi-Scale Robotics & Automation Lab (MSRAL) at Purdue University performs cutting-edge research on robotic and automation systems at various length scales: macro-scale (cm to m), meso-scale (~100's of um to a few mm's), micro-scale (10's of um to 100's of um), and nano-scale (nm). In this talk, I will discuss some recent MSRAL projects on: 1.) multi-scale robotic manipulation and assembly; 2.) wireless mobile microrobots driven by external magnetic fields, and 3.) a novel, fully actuated, micro aerial vehicle design and associated control schemes for 3D manipulation tasks.

Biography:

David J. Cappelleri is an Assistant Professor in the School of Mechanical Engineering at Purdue University in West Lafayette, IN. Prior to joining Purdue, he was an Assistant Professor in the Department of Mechanical Engineering at Stevens Institute of Technology, Hoboken, NJ. Prof. Cappelleri founded the Multi-Scale Robotics & Automation Lab that performs cutting-edge research on robotic and automation systems at various length scales. Prof. Cappelleri is a recipient of the National Science Foundation CAREER Award (2012), Harvey N. Davis Distinguished Assistant Professor Teaching Award (2010) and the Association for Lab Automation (ALA) Young Scientist Award (2009). He was selected for and participated in the National Academy of Engineering Frontiers on Engineering Education Symposium in 2011 and the German-American Frontiers of Engineering Symposium in 2015 jointly sponsored by the Alexander von Humboldt Foundation and the National Academy of Engineering. Prof. Cappelleri is an elected member of the IEEE Robotics and Automation Society Technical Committee on Micro/Nano Robotics and Automation, ASME Design Engineering Division Mechanisms & Robotics Committee, and the ASME Design Engineering Division Micro/Nano-Systems Technical Committee. He received the B.S. and M.S. degrees in Mechanical Engineering from Villanova University, and The Pennsylvania State University, and a Ph.D. from the University of Pennsylvania in Mechanical Engineering and Applied Mechanics.

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For additional information, please contact Dr. Wei-Chuan Shih at wshih@uh.edu

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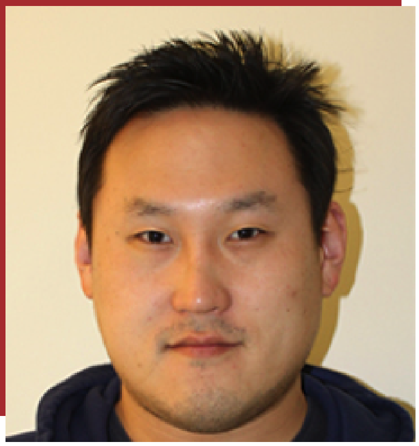

MON, MAR 7, 2016
10:00am-11:00am
EGR BLDG 2 RM W122

EXPLORING PERFORMANCE, ENERGY, RELIABILITY AND ACCURACY OPTIMIZATIONS FOR FUTURE EXASCALE SYSTEMS

Dr. Shuaiwen Leon Song

Research Scientist
High Performance Computing
Pacific Northwest National Lab (PNNL)
Richland, Washington

Abstract:

Future large scale high performance supercomputer systems require high performance and energy efficiency to achieve exaflops computational power and beyond. Exascale initiative from Department of Energy (DOE) has been pushing various foundational research, ranging from efficient big data analysis to energy-efficient computing, in order to help such systems to operate efficiently and reliably before 2022. In this talk, I select three mini topics that I have been working on recently related to DOE ASCR program, including big graph analytics, energy-aware computing under reliability constraints, and approximate computing on heterogeneous architectures. I hope these topics will invoke interesting conversations that will eventually help us tackle various bottlenecks of the upcoming exascale computing.

ECE SPEAKER SERIES

Biography:

Shuaiwen Leon Song is currently a staff research scientist of High Performance Computing group at Pacific Northwest National Lab (PNNL). He graduated with a Ph.D. from Computer Science department at Virginia Tech in May 2013. In the past, he interned with several government and industrial labs including Center for Advanced Computing (CASC) at Lawrence Livermore National Lab (LLNL), Performance Analysis Lab (PAL) at Pacific Northwest National Lab (PNNL), and the Architecture Research Division at NEC Research American at Princeton. He was a 2011 Livermore ISCR scholar and recipient of 2011 Paul E. Torgersen Excellent research award. He has published in the major HPC conferences including IPDPS, ICS, PACT, SC, HiPEAC, etc, and his SC'15 paper is nominated for best student paper. He has served as PC member, session or publicity chair for several major HPC venues including SC, IPDPS, and HPDC. He is currently working on several projects from DOE ASCR, DoD, and DARPA. His research interests lie in broad areas of High Performance Computing . Visit his website for details: https://sites.google.com/site/shuaiwensongsresearch/

For additional information, please contact Dr. Wei-Chuan Shih at wshih@uh.edu

UNIVERSITY of HOUSTON | ECE

MON, MAR 21, 2016
10:00am-11:00am
EGR BLDG 2 RM W122

BIOSENSORS FOR GENES, PATHOGENS, PARASITES, BIOMARKERS AND TOXINS

Dr. Rajakkannu Mutharasan

Professor
Chemical and Biological Engineering
Drexel University
Philadelphia, PA

Abstract:

Our work over the last decade and a half has examined a number of platforms for detecting significant biological entities. These includes classical fluorescence based measurements (such as intracellular NAD(H) in bacterial and mammalian cells), optical evanescent field sensors for proteins, magneto-elastic film devices and electromechanical resonators, especially cantilevers that have integrated piezoelectric films. In this talk, I will focus on the latter device as its design has yielded extraordinary sensitivity. The methods we have developed allow for eliminating false negatives, a critical performance requirement for bioterrorism, medical, environmental and food safety applications. The cantilever sensors are self-excited devices that exhibit high-order modes near ~ 0.1 to 1 MHz and show sub-femtogram sensitivity. One significant property they demonstrate is that nonspecific binding is low or absent due to the surface being under constant out of plane oscillation. Several examples of practical importance (E. coli O157:H7, biomarkers, waterborne parasites, food and water toxins, and B. anthracis) will be illustrated using both antibody-based sensors and specific gene sequence as a molecular identifier without an amplification step.

ECE SPEAKER SERIES

Biography:

Raj Mutharasan received his bachelor's degree in chemical engineering from Indian Institute of Technology Madras (India) and a Ph. D in Chemical Engineering from Drexel University in 1973. After a post doctoral year at the University of Toronto in Canada, he joined Drexel University on the faculty and has been there since 1974. Currently he is the Program Director of NanoBiosensing at the National Science Foundation. He is a Fellow of American Institute of Chemical Engineers (2000), Fellow of American Institute for Medical and Biological Engineering (2006) and Fellow of the American Association of Advancement of Science (2011). He has published extensively in the areas of biosensors, bioreactors and materials processing. At Drexel, Raj directs research on cantilever, fiber optic and magneto-elastic sensors for detecting pathogens, proteins and DNA. His biosensors research is funded by the NSF, USDA, EPA, Pennsylvania Department of Health, and by the Department of Transportation/Department of Homeland Security. Mutharasan's inventions have lead to several patents – in the area of aluminum processing and biosensors.

For additional information, please contact Dr. Wei-Chuan Shih at wshih@uh.edu

UNIVERSITY of HOUSTON | ECE

MON, MAR 28, 2016
10:00am-11:00am
EGR BLDG 2 RM W122

IMPLANTABLE OPTICAL BIOSENSORS: MATERIALS FOR NEXT-GENERATION MONITORING

Dr. Mike McShane

Professor
Department of Biomedical Engineering
Texas A&M University
College Station, Texas

Abstract:

Personal health monitoring is becoming increasingly accessible as the ease of producing low-cost, low-power embedded systems has fueled a rapid growth in consumer products aimed at “measuring me.” While new products are released regularly, a major technology gap is in the space of continuouschemical sensing. Commercial devices for continuous glucose monitoring are examples of progress in this area; yet, they are invasive and lack longevity. Fully-implantable or completely noninvasive systems face significant hurdles to implementation. Our research is focused on developing miniature, injectable, “passive” biosensor implants with microscale and nanoscale organization to enable observation of interstitial biochemistry. These materials provide specificity through use of specific receptors and enhance sensitivity through optical amplification; specifically, these hydrogel-based biochemical sensors change optical properties as measured by luminescence intensity and lifetime or Raman scattering. Further, they employ materials that can integrate naturally with tissue, such as porous gels and microparticle suspensions, enhancing prospects for accurate, rapid response and long-term monitoring. This talk will briefly overview the state of the art in wearable medical devices, focusing on non-/minimally-invasive diagnostics and monitoring tools. After reviewing recent advances and current trends, the solutions being pursued in our research will be described. Finally, the lecture will highlight the major challenges to long-term in vivo monitoring.

ECE SPEAKER SERIES

Biography:

Dr. Mike McShane is Professor in the Departments of Biomedical Engineering and Materials Science & Engineering and is currently Director of Graduate Programs for BME. He has a broad engineering background, with specific training in instrumentation, optics, biosensor technology, and biomaterials with extensive experience in micro/nanofabrication for smart materials. Prior to joining Texas A&M, Professor McShane was on the faculty of Louisiana Tech University from 1999 to 2006 (Biomedical Engineering and the Institute for Micromanufacturing). Over the past 20 years, Prof. McShane has pioneered the use of micro/nanoparticles, capsules, and polymer-particle composites for development of optical biosensing systems, including some being evaluated for inclusion in commercial products. This research is primarily funded by the US National Science Foundation (NSF), National Institutes of Health (NIH), and private companies, and has resulted in approximately 100 journal papers and book chapters. Professor McShane is a fellow of AIMBE, a Senior Member of IEEE, and President of the IEEE Sensors Council (2016-2017).

For additional information, please contact Dr. Wei-Chuan Shih at wshih@uh.edu

UNIVERSITY of HOUSTON | ECE

MON, APR 4, 2016
10:00am-11:00am
EGR BLDG 2 RM W122

INTERFEROMETRIC SYNTHETIC APERTURE MICROSCOPY: PHYSICS-BASED IMAGE RECONSTRUCTION FROM OPTICAL COHERENCE TOMOGRAPHY DATA

Dr. Scott Carney

Professor
Department of Electrical and Computer Engineering
University of Illinois
Urbana, Illinois

Abstract:

Optical coherence tomography (OCT) has provided an alternative to physical sectioning that allows for imaging of living samples and even in vivo examination of cell structure and dynamics. The sectional imaging of OCT is achieved by direct visualization of raw data obtained in focused optical range finding. As a result, there is, in the OCT community, a widely held belief that there exists a trade-off between transverse resolution and the thickness of the volume that may be imaged with a fixed focal plane. In this talk I will show that solution of the inverse scattering problem enables a new method we call interferometric synthetic aperture microscopy (ISAM) that provides a spatially invariant point-spread function for the system with resolution everywhere equal to the best resolution in the raw data (in the focal plane). Moreover, aberrations and other supposed flaws in the optical system are eliminated by the same method. I will give several examples of the method in use in biological systems and some recent clinical results in breast cancer.

Biography:

Prof Carney holds a BS in Engineering Physics from UIUC (1994), and a PhD in Physics from the University of Rochester (1999). He was a post-doctoral associate at Washington University from 1999 to 2001 when he joined the faculty of UIUC ECE. He is a theorist with research interests in inverse problems, imaging, coherence theory and other branches of optical physics. He is also the cofounder of Diagnostic Photonics, Inc., a company bringing innovations in computed imaging to the surgical market. He is active in the community beyond his research, serving as the editor-in-chief of the Journal of the Optical Society of America A and General Co-Chair of the 2016 Frontiers in Optics conference.

ECE SPEAKER SERIES

For additional information, please contact Dr. Wei-Chuan Shih at wshih@uh.edu

UNIVERSITY of HOUSTON | ECE

MON, APR 11, 2016
10:00am-11:00am
EGR BLDG 2 RM W122

MULTIFUNCTIONAL MATERIALS FOR ELECTRONICS AND PHOTONICS

Dr. Federico Rosei

Professor
National Institute of Scientific Research
Université du Québec
Quebec, Canada

Abstract:

The bottom–up approach is considered a potential alternative for low cost manufacturing of nanostructured materials. It is based on the concept of self–assembly of nanostructures on a substrate, and is emerging as an alternative paradigm for traditional top down fabrication used in the semiconductor industry. We demonstrate various strategies to control nanostructure assembly (both organic and inorganic) at the nanoscale. We study, in particular, multifunctional materials, namely materials that exhibit more than one functionality, and structure/ property relationships in such systems, including for example: (i) control of size and luminescence properties of semiconductor nanostructures, synthesized by reactive laser ablation; (ii) we developed new experimental tools and comparison with simulations are presented to gain atomic scale insight into the surface processes that govern nucleation and growth; (iii) we devised new strategies for synthesizing multifunctional nanoscale materials for electronics and photovoltaics.

ECE SPEAKER SERIES

Biography:

Federico Rosei has held the Canada Research Chair in Nanostructured Organic and Inorganic Materials since 2003. He is Professor and Director of Institut National de la Recherche Scientifique, Énergie, Matériaux et Télécommunications, Université du Québec, Varennes (QC) Canada. Since January 2014 he holds the UNESCO Chair in Materials and Technologies for Energy Conversion, Saving and Storage. He received MSc and PhD degrees from the University of Rome "La Sapienza" in 1996 and 2001, respectively.

In 2014, he has been elected Fellow of the Royal Society of Canada. He is Member of the European Academy of Sciences, Fellow of the American Physical Society, Honorary Fellow of the Chinese Chemical Society, Fellow of the American Association for the Advancement of Science, Fellow of SPIE, Fellow of the Canadian Academy of Engineering, Fellow of ASM International, Fellow of the Royal Society of Chemistry (UK), Fellow of the Institute of Physics, Fellow of the Institution of Engineering and Technology, Fellow of the Institute of Materials, Metallurgy and Mining, Fellow of the Institute of Nanotechnology, Senior Member of the IEEE, Fellow of the Engineering Institute of Canada, Member of the Global Young Academy, Fellow of the Australian Institute of Physics and Member of the Sigma Xi Society.

For additional information, please contact Dr. Wei-Chuan Shih at wshih@uh.edu

UNIVERSITY of HOUSTON | ECE

Dr. Mark Arnold

Professor
Department of Chemistry
University of Iowa
Iowa City, Iowa

ECE SPEAKER SERIES

FRI, APR 22, 2016
12:00pm-1:30pm
EGR BLDG 2 RM W122

NONINVASIVE SPECTROSCOPY FOR ANALYTICAL MEASUREMENTS OF GLUCLOSE IN PEOPLE AND POLARIZABILITY IN NOVEL ORGANIC CO-CRYSTALINE MATERIALS

Abstract:

Noninvasive spectroscopy provides the means to analyze a sample in a nondestructive manner. The concept is to pass a selected band of electromagnetic radiation through the sample of interest and extract the desired chemical information from an analysis of the resulting spectrum. The power if this approach is realized by collecting chemical information without modifying the sample, thereby enabling direct, in situ measurements both continuously and in real-time. The trick is to find a way to get the desired chemical information in a selective and reliable manner given the inability to use separations or reagents to enhance the measurement. This presentation will focus on two types of noninvasive spectroscopy. First, the potential of near infrared spectroscopy will be discussed for the measurement of glucose in people with diabetes as well as the measurement of cellular nutrients in bioreactors used to produce bio-therapeutics. Second, terahertz time domain spectroscopy (THz-TDS) is a relatively new spectroscopic method that produces high signal-to-noise measurements over the 0.5-100 cm-1 spectral range. The analytical potential of THz-TDS will be demonstrated for the measurements of the dielectric and polarizability properties of organic co-crystals.

Biography:

Mark Arnold is the Edwin B. Green Chair Professor of Laser Chemistry at the University of Iowa. He earned his doctorate in analytical chemistry from the University of Delaware in 1982 and has since been a member of the chemistry faculty at the University of Iowa. He has recently been appointed Director for the Center for Biocatalysis and Bioprocessing, a campus-wide interdisciplinary biotechnology center focusing on advancing basic and translational research associated with the broad field of biocatalytic science. Professor Arnold's research program focuses on the development of in situ chemical sensing technology designed to record concentrations of selected chemicals within a system of interest. Examples include noninvasive glucose measurements in people with diabetes and real-time monitoring of hemodialysis during treatment of people with end-stage renal failure. In the spirit of translational research and economic development, Professor Arnold has teamed with others to create ASL Analytical, Inc. for the purpose of commercializing this near infrared sensing technology for real-time monitoring and control of bioprocess platforms used in the production of a variety of commercial products, including biotherapeutics. Recently, his academic research program has expanded to include developing the analytical capabilities of terahertz time domain spectroscopy (THz-TDS) for the noninvasive characterization of novel cocrystal materials.

For additional information, please contact Dr. Wei-Chuan Shih at wshih@uh.edu

UNIVERSITY of HOUSTON | ECE

FRI, APR 29, 2016
UH Hilton

FOLLOW THE NANO BRICK ROAD

Dr. Teri Odom

Professor
Department of Chemistry
Northwestern University
Evanston, Illinois

Abstract:

The seed ideas for manipulating matter at the nanoscale were planted in Richard Feynman's famous speech in 1959: There's Plenty of Room at the Bottom. Nearly 40 years after this prophetic talk, the establishment of nanoscience as a major field of research was well on its way, with major breakthroughs in synthesizing nanomaterials, characterizing their physical properties, and integrating them into devices. This talk will describe my journey into and my contributions to nanoscience. I will discuss how a confluence of resources, environment, and mentoring gave my research lab a jump-start into this exciting field as well as how collaborations and opportunities provide the fuel to continue building our yellow brick road out of nano-gold and structured nanoscale materials.

Biography:

Teri W. Odom is Charles E. and Emma H. Morrison Professor of Chemistry and Professor of Materials Science and Engineering at Northwestern University. She is an expert in designing structured nanoscale materials that exhibit extraordinary size and shape-dependent optical properties. Odom has pioneered a suite of multi-scale nanofabrication tools that has resulted in flat optics that can manipulate light at the nanoscale and beat the diffraction limit, plasmon-based nanoscale lasers that exhibit tunable color, and hierarchical substrates that show controlled wetting and super-hydrophobicity. She has also invented a class of biological nanoconstructs that are facilitating unique insight into nanoparticle-cell interactions and that show superior imaging and therapeutic properties because of their gold nanostar shape. Odom has received numerous honors and awards, including being named a Fellow of the Royal Society of Chemistry; the Carol Tyler Award from the International Precious Metals Institute; a Blavatnik Young Scientist Finalist; a Radcliffe Institute for Advanced Study Fellowship at Harvard University; the ACS Akron Section Award; an NIH Director's Pioneer Award from the National Institutes of Health; the Materials Research Society Outstanding Young Investigator Award; the National Fresenius Award from Phi Lambda Upsilon and the ACS; the Rohm and Haas New Faculty Award; an Alfred P. Sloan Research Fellowship; a DuPont Young Investigator Grant; a National Science Foundation CAREER Award; the ExxonMobil Solid State Chemistry Faculty Fellowship; and a David and Lucile Packard Fellowship in Science and Engineering. Odom was the first Chair of the Noble Metal Nanoparticles Gordon Research Conference, whose inaugural meeting was in 2010. In addition, Odom was an Associate Editor for RSC's flagship journal Chemical Science (2009-2013) and is on the Editorial Advisory Boards of ACS Nano, Chemical Physics Letters, Materials Horizons, Annual Reviews of Physical Chemistry, and Nano Letters. She serves as founding Executive Editor of the new journal ACS Photonics (2013 -).

ECE SPEAKER SERIES

For additional information, please contact Dr. Wei-Chuan Shih at wshih@uh.edu

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For additional information, please contact Dr. Wei-Chuan Shih at wshih@uh.edu

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