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Editorial

Introduction to the Joint School of Nanoscience and Nanoengineering

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Special Issue on

Research at the Joint School of Nanoscience and Nanoengineering

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DEAR EDITOR

Faculty members at the Joint School of Nanoscience and Nanoengineering (JSNN) authored seven papers in this special issue of JSM Nanotechnology and Nanomedicine. As the founding dean of JSNN, I thought a brief introduction to our school might be useful for you and your readers because JSNN is a relatively new school.

JSNN is an academic collaboration of North Carolina Agricultural and Technical State University (NCA&T) and the University of North Carolina at Greensboro (UNCG). JSNN builds on the strengths of the two Universities to offer innovative, interdisciplinary graduate programs that provide training in emerging areas of nanoscience and nanoengineering. The research areas represented in the six papers includes work from our computational nanotechnology, nanobiology and nanoelectronic thrusts. In addition to those areas, JSNN faculty members also work in nanometrology, nanomaterials (with emphasis on nanocomposites and nanofibers), and nanoenergy research areas. JSNN offers a Professional Master of Science in Nanoscience, a Ph.D. in Nanoscience, a Master of Science in Nanoengineering and a Ph.D. in Nanoengineering. JSNN's programs continue to show strong student interest and steady growth. There will be over 100 students in JSNN's graduate programs in Nanoscience and Nanoengineering in the Fall 2014.

JSNN is housed at Gateway University Research Park's South Campus with the intent of providing an environment conducive to commercialization of university developed intellectual property and to create a space where industry/academic collaborations will happen. The JSNN facility is a 105,000 square foot, two-story research building constructed on the Gateway University Research Park South Campus. The facility has twelve laboratories including a 7,000 square foot combination Nanoelectronic and Bio clean room, Analytical laboratory, NMR facility (Agilent 400 MHz and 700 MHz systems), Microscopy suite (including the only Helium Ion Microscope in the southeast), Nanoparticle & Nanofabrication facility, Visualization facility, Nanobiophysics lab, Nanochemistry lab, Nanobiology lab, BSL3 facility, Genomics lab and Biomass Energy Lab. The facility has also recently completed (August 2012) an expansion project for a Siemens 3T MRI system. JSNN has over $15 Million in equipment and has created a unique environment that serves as a "reactor" for emerging technologies and fosters an atmosphere conducive to discovery. Sustainable design has been integrated in all aspects of the JSNN facility enabling it to obtain the USGBC LEED Gold Certification.

JSNN focuses on the development of collaborations. Currently, JSNN has academic and research collaborations with many U.S. universities, burden sharing groups and corporate entities. JSNN has also developed Memoranda of Understanding with two foreign universities, Bharati Vidyapeeth Deemed University (BVDU) of Pune, India on nanotechnology education and research and Xi'an Jiaotong University (XJTU) of Xi'an, China on polymer science research and student exchanges.

JSNN interacts with industry through its Nanomanufacturing Innovation Consortium and the Gateway Materials Testing Center. The goals of the consortium included the development of relationships, as well as enabling partners to have access to JSNN's advanced equipment and technical expertise. The Materials Testing Center is intended to provide testing services to automotive, aerospace and specialty textile firms that require mechanical testing and chemical analysis of their products and product components.

I thank you for the opportunity to provide information on our school and we hope that these papers will promote future collaborations with your readers.

Sincerely,

James G. Ryan, Ph.D.

Founding Dean