



New Horizons in 3D Printing and Digital and Additive Manufacturing



September 29-30, 2014 at Stony Brook University, New York

- **Location:** Charles B. Wang Center
- **Hotel:** Hilton Garden Inn Stony Brook (Tel: 631-941-2980. Please make reservations using <http://hiltongardeninn.hilton.com/en/gi/groups/personalized/I/ISPSBGI-EXCEL-20140928/index.jhtml> by August 29th to receive the conference rate.)
- **Sponsor:** *The New York State Network of Excellence in Materials and Advanced Manufacturing*

Digital and additive manufacturing (including the many types and applications of 3D printing) hold strong promise as an area of research and growth in New York State (as well as nationally and globally). The emphasis placed on this area under the federal National Network for Manufacturing Innovation initiative, as well as many more University and industry led initiatives, attests to this fact. There is a clear opportunity for New York State to become a leader in key transformative technical areas, including functional materials development for digital and additive manufacturing, deposition system design and optimization, and exploring the frontiers of biomedical applications. Through the leveraging of New York's strong history of multi-scale electronic manufacturing and expertise in metals, polymers and composite materials, building collaborations in 3D printing and digital and additive manufacturing will have clear benefits for industry, the research enterprise, academia, and education.

To catalyze the formation of collaborations with academia and industry, and explore the promise of 3D printing and digital and additive manufacturing, this conference will include presentations on

- advances in materials science and engineering related to additive manufacturing
- bioprinting for the synthesis of tissue, implants, and biomedical devices
- advanced technologies for 3D printing and additive manufacturing, from the nano to the macro scale
- emerging industrial needs and opportunities, from energy applications to flexible electronics to clothing
- 3D printing and STEM education

Invited speakers include:

- **Dr. Bradley R. Ringeisen** (Head, Bioenergy and Biofabrication Section, U.S. Naval Research Laboratory)
- **Dr. Hod Lipson** (Cornell University, Co-author of "Fabricated: The New World of 3D Printing")
- **Dr. Denis Cormier** (Earl W. Brinkman Professor, Rochester Institute of Technology)
- **Dr. Guha Manogharan** (Center for Innovation in Additive Manufacturing, Youngstown State University, Ohio; America Makes)
- Plus many more (check the websites below for updates)

In addition, the conference will include student poster presentations, information on current systems for industry and education, a banquet, and plentiful opportunities to meet new collaborators, fellow students, and academic and industrial innovators in this growing field.

For information, contact: Dr. Gary Halada, Department of Materials Science and Engineering, Stony Brook University, Stony Brook, NY 11794-2275 Email: gary.halada@stonybrook.edu.

Register by September 8th for the early bird rate of \$50 (students \$30). A limited number of seats are also available for the conference dinner on September 29th. Register for both at: <https://naples.cc.sunysb.edu/secct/sbfevents.nsf/network>

Additional information (including our program and invited speakers) will be posted at:

<http://sunynetworksofexcellence.org/new-horizons-in-3d-printing-and-digital-and-additive-manufacturing> and at <http://liaec.aertc.org/events.htm>

Images from Computational Modeling Analysis and Design Optimization Research Laboratory, Stony Brook University: (top left) integrated topology optimization and additive manufacturing of soft robotics; (top right) multifunctional tireless wheel based on auxetic metastructures (Shikui Chen, Department of Mechanical Engineering, SBU)