GTMI
INDUSTRY PARTNERS SYMPOSIUM
AND DISTINGUISHED LECTURE
November 10, 2015
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2015 GTMI Industry Partners Symposium
Georgia Tech Research Institute
Conference Center
250 14th Street, NW, Atlanta, GA 30318

November 10, 2015

11:00 a.m.  Introduction of Speaker -
Steve Cross, Executive Vice President of Research,
Georgia Tech

Distinguished Lecture -
“Accelerating US Manufacturing” – Michelle Gloeckler,
Executive Vice President Consumables and Health &
Wellness, US Manufacturing Lead, Walmart

12:00 p.m.  Lunch

1:00 p.m.  Introduction of Speaker/Master of Ceremonies - John Zegers,
Director, Georgia Center of Innovation for Manufacturing,
Georgia Department of Economic Development

Welcome -
Ben Wang, Executive Director, Georgia Tech Manufacturing
Institute & Chief Manufacturing Officer

1:15 p.m.  Manufacturing and Economic Policy -
Charles Wessner, Research Professor,
Georgetown University

1:45 p.m.  Manufacturing Universities Act of 2015 – Tom Kurfess,
Moderator, Professor, George W. Woodruff School of
Mechanical Engineering, Georgia Tech

Panel:
Jennifer Clark, Associate Professor, Georgia Tech School of
Public Policy
Theresa Kotanchek, CEO, Evolved Analytics, LLC
Jihane Ball, Senior Public Policy Manager, The Dow
Chemical Company
2:30 p.m.  Break

2:45 p.m.  Manufacturing Workforce and Education –
**Ben Hames**, Moderator, Deputy Commissioner, Georgia Economic Development

Panel:
**Niki Knox Vanderslice**, Executive Director, Business Development, Georgia Quick Start
**Brian Cooksey**, Director, Operations Training & Development, Shaw Industries
**John Morehouse**, Director Education Programs, Georgia Tech Manufacturing Institute
**Christopher Gilmore**, Student, West Georgia Technical College
**Devin Brand**, Mechanical Engineering Student, Georgia Tech

3:30 p.m.  Closing Keynote Address -

“This Biomedical Applications of Additive Manufacturing”
**Scott Hollister**, Professor, Biomedical Engineering and Mechanical Engineering, University of Michigan

4:15 p.m.  Closing Remarks -

**Ben Wang**, Executive Director, Georgia Tech Manufacturing Institute

4:30 p.m.  Reception and Poster Session
In addition to serving as Georgia Tech’s Executive Vice President for Research, Dr. Stephen E. Cross is a professor in the H. Milton Stewart School of Industrial and Systems Engineering and an adjunct professor in the College of Computing and the Ernest J. Scheller College of Business. He served as a Vice President and Director of the Georgia Tech Research Institute from 2003 to 2010.

Previously, Dr. Cross was at Carnegie Mellon University as a research faculty member in computer science and Director and CEO of the Software Engineering Institute. Earlier, he was a program manager at the Defense Advanced Research Projects Agency and a faculty member at the Air Force Institute of Technology. A retired military officer, he received the Defense Superior Service Medal and the Air Force Research Award.

Dr. Cross was the University System of Georgia representative to a State of Georgia strategic planning task force on science, technology, and innovation in 2011. He is a member of the Defense Science Board, an advisory service to the Secretary of Defense. A past member of the Air Force Scientific Advisory Board, he has supported studies by the National Research Council, testified to Congress, and served as a consultant to government and industry. During this time he led studies on system-level experimentation and adaptive organizations. He has published widely on leadership, innovation, culture change, software engineering, and technology transition. Dr. Cross is a Fellow of the Institute of Electrical and Electronic Engineers (IEEE) and a former Editor-in-Chief of IEEE Intelligent Systems and an Associate Editor of the Journal of Information, Knowledge, and Systems Management.

He received his BSEE from the University of Cincinnati, his MSEE from the Air Force Institute of Technology, and his PhD from the University of Illinois at Urbana-Champaign.
Michelle Gloeckler is the executive vice president of the consumables and health & wellness divisions and U.S. manufacturing lead for Walmart U.S. In addition to driving merchandising strategies in areas such as beauty and personal care, pets, household paper and chemicals, baby, OTC, pharmacy and optical, Ms. Gloeckler leads a strong team who is responsible for Walmart’s investment of $250 billion in products that support American jobs. She was selected to lead the President’s Global Council of Women Leaders in 2015.

Previously, Ms. Gloeckler was senior vice president of the home division, overseeing buying, branding, product development and collaboration across functions. In January of 2013, Walmart announced its commitment to grow U.S. manufacturing, and her responsibilities expanded to lead that effort.

Prior to leading the home division, Ms. Gloeckler was senior vice president of merchandise execution, where she led a team responsible for implementing merchandising strategies at store level across Walmart U.S. operations. Ms. Gloeckler joined Walmart in 2009 as the vice president of candy, seasonal food gifts and impulse items for Walmart U.S.

Prior to Walmart, Ms. Gloeckler spent 21 years at The Hershey Company, working in the field and at the home office in vice president roles overseeing sales, marketing, and category development for all of Hershey’s U.S. retailers and brands.

Ms. Gloeckler serves on both industry and education boards. She is on the LSA Dean’s Advisory Council for University of Michigan as well as Retail Advisory Board for NACDS.

She gives her time locally to the American Heart Association, Susan G. Komen and the Walton Arts Center and served as a United Way Board Member in Pennsylvania.

Ms. Gloeckler is a graduate of The University of Michigan. She and her husband, Scott, and their two boys reside in Bentonville.
John Zegers is a 24-year career manufacturing veteran and alumnus of Florida State University. Mr. Zegers has served as Director of Georgia’s Center of Innovation for Manufacturing, a program of the Georgia Department of Economic Development, for over 7 years where he provides manufacturers the technical industry expertise, collaborative research, and partnerships necessary to compete and grow globally.

Previously, Mr. Zegers spent his career representing dozens of engineered component manufacturers, from around the world, who supply OEM’s in most industries. Mr. Zegers started a manufacturer’s representative firm in 2005 and an elementary school foundation in 2004, both of which remain active today. He expanded the focus of the Center of Innovation for Manufacturing by opening an office at GTMI and developing close ties with the resources at Georgia Tech and Georgia’s other universities and technical colleges.
Dr. Ben Wang is Executive Director of Georgia Tech Manufacturing Institute. He holds the Gwaltney Chair in Manufacturing Systems in the School of Industrial and Systems Engineering and is Professor of Materials Science and Engineering.

Dr. Wang serves on the National Materials and Manufacturing Board (NMMB). He is a Fellow of the Institute of Industrial Engineers (IIE), Society of Manufacturing Engineers (SME), and Society for the Advancement of Material and Process Engineering (SAMPE) and a member of two Honor Societies: Tau Beta Pi and Alpha Pi Mu.

Dr. Wang’s primary research interest is in applying emerging technologies to improve manufacturing competitiveness. He specializes in process development for affordable composite materials. Dr. Wang is widely acknowledged as a pioneer in the growing field of nanomaterials science.

Because of his contributions to advanced manufacturing and materials, Dr. Wang was invited to deliver a presentation to the U.S. National Research Council Review Panel in support of the U.S. National Nanotechnology Initiative in 2005. In 2012, he was invited to give testimony before the National Academies Committee on Manufacturing Extension Partnership. In 2012 he was invited to participate in the Roundtable on Strengthening U.S. Advanced Manufacturing in Clean Energy in the White House.


Dr. Wang earned his bachelor’s in industrial engineering from Tunghai University (Taiwan), and his master’s in industrial engineering and Ph.D. from the Pennsylvania State University.
Dr. Charles Wessner is a distinguished scholar and a powerful advocate of effective innovation policies. After 20 years as the Founder and Director of the National Academies Innovation and Entrepreneurship Program, he joined the faculty of Georgetown University at Edmund Walsh School of Foreign Service, Program on Science and Technology. The position involves teaching and research on Global Innovation Policies with a special emphasis on the evolution and performance of US policy, including the Obama Administration's strategy on manufacturing clusters, the results of the partnerships to develop new sources of energy and the support offered to early stage firms through the $2.7 billion SBIR program. There is also a major focus on policies to encourage university and industry cooperation to support the needs of existing firms and the measures needed to encourage the development of new high tech clusters.

Reflecting his strong global interest in innovation and policy expertise, Dr. Wessner is frequently asked to address issues of shared policy interest with foreign governments, universities, and research institutes, often briefing government ministers and senior officials. He frequently gives keynote addresses and presentations to international organizations such as UNCTAD, the UN Economic Commissions for Europe and for Latin America, the World Bank, the Inter-American Development Bank, the OECD, and the European Investment Bank, as well as the European Commission.

Dr. Wessner has served as advisor to the 30-nation OECD Committee on Science and Technology Policy, as a member of the Canadian Council of Academies’ Expert Committee on Science and Technology in Canada, as advisor to the national technology agencies of Finland (TEKES) and Sweden (VINNOVA), and as a member of the Norwegian Technology Forum.
Dr. Thomas R. Kurfess received his S.B., S.M. and Ph.D. degrees in mechanical engineering from M.I.T. in 1986, 1987 and 1989, respectively. He also received an S.M. degree from M.I.T. in electrical engineering and computer science in 1988.

Following graduation, he joined Carnegie Mellon University where he rose to the rank of Associate Professor. In 1994 he moved to the Georgia Institute of Technology where he rose to the rank of Professor in the George W. Woodruff School of Mechanical Engineering. In 2005 he was named Professor and BMW Chair of Manufacturing in the Department of Mechanical Engineering at Clemson University’s International Center for Automotive Research. In 2012 he returned to Georgia Tech where he was appointed the HUSCO/Ramirez Distinguished Chair in Fluid Power and Motion Control and Professor of Mechanical Engineering.

During 2012-2013 he was on leave serving as the Assistant Director for Advanced Manufacturing at the Office of Science and Technology Policy in the Executive Office of the President of the United States of America. In this position he had responsibility for engaging the Federal sector and the greater scientific community to identify possible areas for policy actions related to manufacturing. He has served as a special consultant of the United Nations to the Government of Malaysia in the area of applied mechatronics and manufacturing, and as a participating guest at the Lawrence Livermore National Laboratory in their Precision Engineering Program.

He currently serves on the Board of Directors for the Society of Manufacturing Engineers, the National Center for Defense Manufacturing and Machining, and the National Center for Manufacturing Sciences, and on the Board of Trustees for the MT Connect Institute. His research focuses on the design and development of advanced manufacturing systems targeting digital manufacturing, additive and subtractive processes, and large scale production enterprises.
In addition to her work as an associate professor and director of the CUI, Dr. Clark publishes work on the development and diffusion of regional policies and their effect on cities and their economic resilience.


Dr. Clark writes, consults, and speaks on the subject of national and regional development policies related to innovation and manufacturing and production (esp. among small and medium sized firm networks). She has collaborated on manufacturing and innovation policy projects with a broad range of national and state/provincial governments and non-governmental organizations.

Dr. Clark's academic leadership includes serving as Vice-Chair (2015-2016) with a subsequent term as Chair (2016-2018) for the Economic Geography Specialty Group (EGSG) of the Association of American Geographers (an academic association with over 10,000 members in 60 countries). Dr. Clark is also an honorary visiting research fellow with the Institute of Advanced Studies at the University of Birmingham, UK through 2016. Since the mid-1990s, Dr. Clark has studied the spatial and organizational dynamics of the optics, imaging, and photonics industry both in the U.S. and internationally.
Dr. Theresa Kotanchek is the Chief Executive Officer and Co-founder of Evolved Analytics, LLC, a data science and system design, software and solutions provider (www.evolved-analytics.com). Prior to assuming this role, she spent 23 years in executive and leadership positions at Dow Chemical, including most recently as Vice President for Sustainable Technologies and Innovation Sourcing. From 2005-2010, she served as the Chief Technology Officer of Dow Chemical China Company Limited, leading Asia Pacific R&D, including the development of Dow's state-of-the-art 1 million square foot R&D center in Shanghai, China and the staffing of >1200 scientists and engineers across the region. Over the course of her Dow tenure, she held numerous business and corporate roles, including Global R&D Director in Dow Plastics, Dow Ventures and Corporate R&D. In 2011-2012, she served as the industrial led and working group co-chair of President Obama's Advanced Manufacturing Partnership Initiative.

Dr. Kotanchek holds a Ph.D. in Materials Science, an MS in Ceramic Science, and a BS in Ceramic Science & Engineering from The Pennsylvania State University. She has published over 100 technical articles, holds 6 US patents and has given over 200 invited talks. She is an active member of the American Chemical Society, Materials Research Society, Council of Industrial Research and Society of Women Engineers. She has served on the Shanghai American Chamber of Congress Science & Technology Subcommittee, and is currently serving on the US National Academy of Engineers “Making Value for America” Committee. She also serves on numerous university External Advisory Boards, including Penn State, Georgia Tech and University of Michigan.
Dr. Jihane Ball is a Senior Public Policy Manager in Dow’s Government Affairs Group. In this role, Dr. Ball manages an issue portfolio that includes policies relating to chemicals and health, environmental regulations with a special focus on regulatory reform, labor, STEM education, and workforce development. As part of this role, she also engages in Dow’s advanced manufacturing messaging platform.

Dr. Ball joined Dow in 2006 as a Regulatory and Product Stewardship Specialist in the Microbial Control business unit. Prior to her current role, she worked in several roles within the Dow Environmental Health and Safety group – leading emerging markets product compliance and serving as a Global Product Stewardship Leader for several business units including both upstream and market-facing businesses.

Prior to joining Dow, Dr. Ball worked as an environmental toxicologist and regulatory specialist at The Estée Lauder Companies in the United Kingdom.

Dr. Ball completed her studies in the United Kingdom, earning both her Master’s degree in Toxicology and her Ph.D. in Environmental Toxicology from the University of Surrey. She also received her Bachelor’s degree (First Class Honors) in Biochemistry and Microbiology from the University of Westminster in London.
Ben Hames is a Deputy Commissioner at the Georgia Department of Economic Development, where he leads the Workforce Division, a unit that is focused on training Georgians for in-demand jobs and boosting the overall competitiveness of Georgia’s workforce. Currently, the Workforce Division oversees the Go Build Georgia program, which educates the next generation about the benefits of career paths in the skilled trades; Operation Workforce, which helps returning veterans transition from service to the civilian workforce; Rapid Response, which helps prevent and respond to layoffs and the Governor’s High Demand Career Initiative, which identifies workforce gaps facing Georgia businesses. These workforce services are administered through Workforce Investment Act funds under the leadership of the State Workforce Investment Board.

A veteran of two governor’s administrations, Mr. Hames began his career in public service serving as the Governor’s Speechwriter. Mr. Hames worked in the Communications department until his promotion to Deputy Chief Operating Officer. In this position, Mr. Hames oversaw and supported the work of approximately 60 state agencies and authorities, with a particular focus on problem-solving and coordinating inter-agency efforts. In addition to this coordinating role, he led a number of significant statewide projects.

Mr. Hames is a graduate of both the University of Georgia where he attended the Franklin College of Arts and Sciences earning a Bachelor of Arts and Southeastern Baptist Theological Seminary in Wake Forest, North Carolina where he earned a Master of Divinity. He and his wife, Erin, both natives of Clarkesville, Georgia, have one son. They reside in Atlanta and are active members of Buckhead Church.
NIKI KNOX VANDERSLICE  
Executive Director,  
Business Development/External Affairs,  
Technical College System of Georgia

Niki Knox Vanderslice is the Executive Director of Business Development and External Affairs for the Technical College System of Georgia’s Quick Start program. In this role, Ms. Vanderslice will liaise with external local, regional and state economic development entities in business recruitment efforts, and will support continuous improvement initiatives to maximize the professional effectiveness of the statewide technical college vice presidents of economic development in serving new, expanding and existing companies in their service delivery areas.

Ms. Vanderslice holds an Associate of Arts degree from ABAC, a B.A. in Business Administration from Georgia Southwestern State University and a Master’s in Organizational Development and Leadership from Saint Joseph’s University. Prior to joining the Technical College System of Georgia, Ms. Vanderslice served as Director of Governmental Relations for the Georgia Department of Community Affairs. She began her 15-year career in economic development working with local communities, including serving as the Department of Community Affairs’ Office of Downtown Development Regional Representative for regions 1, 2 and 4, and also as the Downtown Development Director for Valdosta and Douglas. Ms. Vanderslice has also served as Senior Community Development Consultant for Georgia EMC, where she was responsible for providing economic development assistance to communities across Georgia on behalf of the 42 Electric Membership Corporations (EMCs).

A Georgia native, Ms. Vanderslice is a member of the Abraham Baldwin Agricultural College (ABAC) Foundation Board and Alumni Association, chair of the Public Policy committee for the Georgia Economic Developers Association, and past president of the Georgia Downtown Association. She is also a 2010 graduate of Leadership Georgia and graduate of Leadership Lowndes and New Century Leaders (Coffee County). She and her husband, Ed, reside in Fayette County.
Brian Cooksey is the Director of Operations Training for Shaw Industries Group, Inc., in Dalton, Georgia. Shaw, a subsidiary of Berkshire Hathaway, Inc., is the world’s largest carpet manufacturer and a leading floor covering provider (carpet, hardwood, laminate, ceramic, resilient & sports turf products) with approximately $4.8 billion in annual sales and over 23,000 associates.

Shaw’s corporate university, the Shaw Learning Academy has been named one of the world’s Top 125 Training Organizations by Training Magazine every year since 2005 and has also been named to ELearning Magazine’s Learning 100 list every year since 2011, three times ranking in the top 5. In 2015, Shaw earned the #8 national ranking on the Forbes list of America’s Best Employers. In 2013, Shaw was named the Lt. Governor’s Business Partner of the Year for their work with College & Career Academies.

Mr. Cooksey was honored to be named as the June 2015 “Face of Manufacturing” by the Georgia Manufacturing Extension Partnership (GaMEP) at Georgia Tech. In addition to working at Shaw he serves on the board of directors for two public charter College & Career Academies in Whitfield County and Gordon Counties. Mr. Cooksey also is a member of the Georgia’s Charter Advisory Committee and has previously served on the NWGA Regional Workforce Investment Board and the Tri-State Regional Workforce Alliance board. Mr. Cooksey is a graduate of the University of Georgia’s Terry College of Business.
John Morehouse is the Director of Manufacturing Education Programs at GTMI. He joined Georgia Tech as a Research Engineer in 2003 after spending six years as a Manufacturing Engineer in the electronics manufacturing industry.

In his role as a Research Engineer, Mr. Morehouse focused on sponsored program development, performance, and management in the precision machining field. He was an integral contributor to more than 54 research proposals which led to 24 new sponsored projects and more than $4.7M in new funding for Georgia Tech. In 2012 he was named the Director of Manufacturing Education Programs at GTMI. In this role he has led the development of GTMI’s partnership with the Technical College System of Georgia (TCSG), which was formed to address the skills gap in the advanced manufacturing workforce in Georgia. As a direct outcome of this partnership, Mr. Morehouse serves as the PI for the WGTC – GTMI internship program in which students from WGTC intern at GTMI, performing complex design and fabrication work to support GTMI research and technology transfer. Mr. Morehouse also leads the graduate-level Manufacturing Certificate program at GTMI, and the soon-to-be launched undergraduate-level Manufacturing Scholars program.

He serves as a co-PI and Project Director for the NSF-funded Research Experience for Student Veterans in Advanced Manufacturing and Entrepreneurship (REVAMP) program REU summer site, as well as the GTLI-GTMI Summer Language, Culture, and Advanced Manufacturing Immersion Program. Finally, Mr. Morehouse has made significant contributions to the development of Georgia Tech’s Professional Master’s Degree in Manufacturing Leadership (PMML) and the development of manufacturing-related short courses, in an effort to increase continuing education opportunities for the manufacturing professional.
Christopher Gilmore is a 20-year-old undergraduate student at West Georgia Technical College. He is an alumnus of Northgate High School located in Newnan, GA. He graduated in 2013 as an honor student with a 3.5 GPA. In his senior year, he began a dual enrollment program with West Georgia Technical College, and initiated a kick start to his college career. Guided by a passion towards engineering, he took several automotive, welding, machining and pre-engineering course. Mr. Gilmore was accepted in April of 2015 into an internship program thorough Georgia Tech’s Manufacturing Institute. He plays an active role in the design and manufacturing of prototype parts and assemblies.

“To have been given the opportunity to be an apprentice here at Georgia Tech as a prototyping machinist has been an extreme blessing and eye opening experience. I have learned more than I could have ever imagined through this opportunity, and it has confirmed my desire to want to pursue a mechatronic engineering degree,” said Mr. Gilmore. He plans on transferring to Georgia Tech or Kennesaw State to pursue his degree in engineering. Mr. Gilmore is enjoying the educational experience he is developing, while also remaining actively productive in the prototyping facility.
Devin Brand is a full-time senior Mechanical Engineering student at the Georgia Institute of Technology. He works part-time for the Prototype Lab at GTMI as a Machinist's Apprentice and is also the Manufacturing Lead for Georgia Tech Motorsports.

Mr. Brand graduated from Sandy Creek High School, located in Tyrone Ga., in 2011 as physics student of the year. Afterwards, he attended Clayton State University, participating in Regional Engineering Transfer Program in conjunction with the Georgia Institute of Technology. Fulfilling a lifelong dream, he began his student career at the Georgia Institute of Technology in the fall of 2014.

Following his automotive passion, Mr. Brand joined Georgia Tech Motorsports (GTMS), a Formula SAE student competition team that is tasked with building and testing a production ready, formula style race car. During the 2014-2015 year, Mr. Brand worked primarily with the powertrain team in order to design and develop a custom intake manifold for the FSAE race car. He has since been awarded the Manufacturing Lead and Shop Director positions.

In April of 2015, Mr. Brand began work at the GTMI Prototype Lab as a Machinist’s Apprentice. He and his co-workers are hired by engineers and inventors mainly to help in the prototype manufacturing of parts, which often includes helping to redesign components to meet the physical limitations of manufacturing techniques and/or for cost effectiveness. Mr. Brand currently takes on and manages projects individually, performing every aspect of the job, from quoting to machining the parts.
Dr. Scott Hollister is a Professor of Biomedical Engineering and Mechanical Engineering at the University of Michigan, where he directs the Scaffold Tissue Engineering Group (STEG). Dr. Hollister and his collaborators have designed and developed a variety of medical devices utilizing 3D printing, an area in which he has worked for 17 years, publishing his first paper in 1997.

He and his colleagues first developed an approach for laser sintering for polycaprolactone in 2004. His general research focuses on the design, fabrication and evaluation of biomaterial platform systems for tissue reconstruction. He is a fellow of the American Institute of Biological Engineering.

His work on a bioresorbable tracheal splint along with Dr. Glenn Green was published in the New England Journal of Medicine in 2013 and subsequently was given a Popular Mechanics 2013 Breakthrough Innovation Award. This implantation of this 3D printed device to save the lives of three children has also been featured on the Today Show, the New Yorker, USA Today, NPR, Time magazine, Nature, Science, and Popular Mechanics among other media.
Thank you to our Industry Partners!