# Dr. Rafael L. Bras

## Provost and Executive Vice President for Academic Affairs
## Georgia Institute of Technology

Rafael L. Bras is the provost and executive vice president for Academic Affairs at the Georgia Institute of Technology. Bras is a professor in the School of Civil and Environmental Engineering and the School of Earth and Atmospheric Sciences. He is the first Tech faculty member to hold the new K. Harrison Brown Family Chair.

Prior to becoming provost, Bras was distinguished professor and dean of the Henry Samueli School of Engineering at the University of California, Irvine. For 32 years prior to joining UCI, he was a professor in the departments of Civil and Environmental Engineering and Earth, Atmospheric and Planetary Sciences at the Massachusetts Institute of Technology. He is past chair of the MIT faculty, former head of the Civil and Environmental Engineering department and director of the Ralph M. Parsons Laboratory at MIT. He has served as advisor to many government and private institutions, including:

- Advisory Board, Engineering Directorate, National Science Foundation
- Board of Atmospheric Sciences and Climate, National Research Council
- Chairman, Earth Systems Sciences and Applications Committee of NASA and the NASA Advisory Committee
- National Academy of Sciences Committee on New Orleans Regional Hurricane Protection Projects
- Advisor to departments at Cornell University, Princeton University, Johns Hopkins University, Technion, Rensselaer Polytechnic Institute, University of Puerto Rico, University of California-Irvine, Fundación Chile, Istituto Veneto, and the Stockholm Water Foundation and Prize
- Director, American Geophysical Union (AGU)

An active participant in several professional organizations, Bras is past president of the Hydrology Section of AGU and is presently a member of its Board of Directors. His many honors and awards include: an honorary degree from the University of Perugia in Italy, Hispanic Engineer National Achievement Award Hall of Fame member, NASA Public Service Medal, the Macelwane Medal of AGU, John Simon Guggenheim Fellowship, Athalie Richardson Irvine Clarke Prize, Simon W. Freese Environmental Engineering Award, HonoraryDiplomate of Water Resources Engineering of the American Academy of Water Resources Engineers, Horton Medal of AGU, AGU Hydrology Days Award, and Drexel University's 2010 Anthony J. Drexel Exceptional Achievement Award. He is an elected member of the U.S. National Academy of Engineering and the Academy of Arts and Sciences of Puerto Rico, and a corresponding member of the Mexican National Academy of Engineering. He is also an elected Fellow of AGU, ASCE, AMS and AAAS.

Bras maintains an active international consulting practice, currently chairing a panel of experts that supervises the design and construction of a multibillion-dollar project to protect the city of Venice from floods. He has published two textbooks, more than 180 refereed journal publications, and several hundred other publications and presentations.

## Dr. Suman Das

### Professor & Woodruff Faculty Fellow
### Woodruff School of Mechanical Engineering
### Georgia Institute of Technology

Suman Das is a Professor and Woodruff Faculty Fellow in the Woodruff School of Mechanical Engineering at Georgia Tech, and Director of the Direct Digital Manufacturing Laboratory. He holds a joint appointment in the School of Materials Science and Engineering, and is a program faculty in the Parker H. Petit Insitute of Bioengineering and Bioscience and the Interdisciplinary Bioengineering Graduate Program at Georgia Tech.

Das joined the Woodruff School of Mechanical Engineering as an Associate Professor with tenure in Fall 2007 and was promoted to Full Professor in March 2011. Prior to joining Georgia Tech, he was a tenured Associate Professor (2006-2007) and an Assistant Professor (2000-2006) in the Mechanical Engineering Department of the University of Michigan at Ann Arbor.

He received his B.Tech. (1990) in Mechanical Engineering from the Indian Institute of Technology, Madras. He obtained his M.S. (1993) and Ph.D. (1998) in Mechanical Engineering from The University of Texas at Austin. Subsequently, he completed a post-doctoral fellowship there during 1999-2000.

Das received the 1999 University of Texas Outstanding Dissertation award for his doctoral dissertation titled “Direct Selective Laser Sintering of Metals”. He was awarded the 1998 TMS Michael Koczak best paper award from the Minerals, Metals and Materials Society (TMS), and the 1997 Los Alamos National Laboratory director’s post-doctoral fellowship. He has received the 2005 and 2004 Literati Club Highly Commended Award for Excellence, the 2004 Society of Manufacturing Engineers M. Eugene Merchant Outstanding Young Manufacturing Engineer Award, and the 2003 National Science Foundation Faculty Early Career Development Award.

His current research interests cover a broad variety of interdisciplinary topics under the overall framework of computational design, manufacturing and materials processing, and materials science. In all his research endeavors and collaborations, he strives to integrate these three elements together to achieve new fundamental scientific insights, to produce groundbreaking, high-impact results, and to create innovative and disruptive manufacturing technologies. Overall, these research efforts are directed towards applications in the Aerospace, Healthcare, Energy, and Nanotechnology sectors.

## Ms. Tina Guldberg

### Industry Business Development Manager
### Georgia Tech Manufacturing Institute

Tina Guldberg is the industry business development manager for the Georgia Tech Manufacturing Institute. In this capacity she directs the Industry Partners Program by building relationships with strategic corporate clients to engage industry investment in areas that are aligned with the Institute’s research initiatives. She is responsible for new program development in manufacturing and strategizes with Corporate Relations and Development to increase industry interactions on campus. The Georgia Tech Manufacturing Institute is building a community of interdisciplinary experts, who are passionate about driving innovations into the big M Manufacturing, in order to solve grand challenges for the enhancement of our nation’s wealth, competitiveness and security. She brings experience from Ford Motor Company as a product development engineer and as a research engineer in the Sustainable Design and Manufacturing program at GT. She is a graduate from the University of Michigan’s College of Engineering.

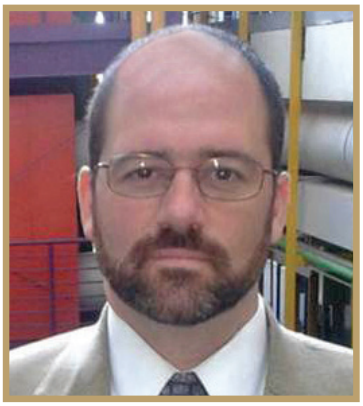
## Dr. Bill Kessler

### Director of Executive Programs, Tennenbaum Institute
### Professor-of-Practice, H. Milton Stewart School of Industrial and Systems Engineering
### Georgia Institute of Technology

Dr. Bill Kessler is the Director of Executive Programs in the Tennenbaum Institute and a Professor-of-Practice in the School of Industrial and Systems Engineering. His focus is on large scale enterprise transformation and specifically on aligning multi-disciplinary research with real world transformation needs such as capabilities for network centric manufacturing and logistics.

Previously, he was Lockheed Martin Aeronautics Vice President for Enterprise Initiatives. Among his accomplishments was leadership roles in deploying six sigma quality and lean principles across the company and, beginning in early 2000, being the executive architect for the leadership team that accomplished the successful restructure and transformation of Lockheed Martin's three aeronautics companies into one company, LM Aeronautics.

Kessler has served as a senior executive with the United States Air Force. In the position of Director of Manufacturing Technology and Industrial Base Analysis, he led many pioneering initiatives, including the creation of the Lean Aerospace Initiative (LAI) a partnership among government, industry, academia, labor to address the affordability of military aerospace systems. Dr. Kessler holds a B.S. and M.S. in Aeronautical and Engineering Sciences from Purdue University and a Doctorate in Chemical Engineering from Washington University in St. Louis, Mo. He spent a year studying fluid mechanics at the von Karman Institute in Brussels, Belgium and has attended the Harvard School of Government, the Federal Executive Institute and the Lockheed Martin Executive Learning Institute.



## Dr. Frank Mess

### Director of Program Development and Strategic Outreach
### Georgia Tech Manufacturing Institute

As Director of Program Development and Strategic Outreach for the Georgia Tech Manufacturing Institute, Frank engages industry, academic, and government partners to establish and maintain strategic links, and to facilitate collaborative partnerships in the area of manufacturing research. In this role, Frank meets with manufacturers to understand key manufacturing challenges, and identifies Georgia Tech and partner resources to address these challenges. Typical outcomes of industry partnerships include industry and government funded research at Georgia Tech, enhanced manufacturing capabilities and economic development in the State of Georgia, and academic and employment opportunities for Georgia Tech students. Frank earned doctorate from Georgia Tech, and is an expert in commercialization of technology. He has taken numerous products to market from concept through production. Frank began his career at Lucent Technologies Bell Labs developing and manufacturing cutting-edge optical components for high-speed fiber optic networks, and over the next 15 years held various executive roles in technology-based start-up companies. He brings to GTMI his experience and enthusiasm to entrepreneurialism and small to medium sized enterprises.

## Mr. Ken Stewart

### Senior Advisor for Industry Strategy
### Georgia Institute of Technology

Mr. Stewart was named the Senior Advisor of Industry Strategy at Georgia Tech in July, 2010. Previously, he was appointed the Commissioner, Georgia Department of Economic Development, by Governor Sonny Perdue in January 2007. As chief marketing officer for the state of Georgia, he led Georgia's efforts to recruit new businesses and expand existing ones; grow the state's tourism, international trade and entertainment industries; and support the growth of small businesses and entrepreneurs. He joined state government in September 2004, when he was appointed director of the Georgia Forestry Commission (GFC).

Mr. Stewart spent the majority of his career in private industry. He served as vice president of Unisource Worldwide, Inc., where he led the company's south-central sales and distribution division in addition to its retail stores and specialty manufacturing businesses. He also held several management positions at Georgia-Pacific, including director of enterprise development, senior director of strategic planning and analysis of G-P's distribution division, and director of state and local taxes. Mr. Stewart also worked for Weyerhaeuser Company and Mississippi Power & Light.

Mr. Stewart is a member of the State Bar of Georgia, holding a Juris Doctorate from the Woodrow Wilson College of Law in Atlanta. He earned a B.S. in Business and a B.S. in Forestry from Mississippi State University. Mr. Stewart also served as a company commander in the Army National Guard.

Past and present affiliations include the American Forest Foundation (Treasurer), Georgia Historical Society Board of Trustees, CDC Foundation's Atlanta Advisory Council, Georgia Council of International Visitors Board, Georgia Regional Transit Authority Board, Board of Directors of the Langdale Company, GT's CIBER Advisory Board, Board of Directors Chair for the Georgia Centers of Innovation, Chair of the Georgia Tourism Foundation, Chair of the Georgia Justice Project, Chair of Governor Perdue's Growing Georgia Cluster group of state agency heads, OneGeorgia Authority, Georgia Environmental Facilities Authority, Georgia Chamber of Commerce, Georgia Development Authority, Georgia Tech's Advisory Board, the Governor's Energy Policy Council, State Water Council, Land Conservation Council and the Employee Benefit Plan Council.

## Dr. Ben Wang

### Executive Director
### Georgia Tech Manufacturing Institute,
### Chief Manufacturing Officer Georgia Institute of Technology

Ben Wang is the Executive Director of the Georgia Tech Manufacturing Institute and Chief Manufacturing Officer of Georgia Tech. "Dr. Wang is an internationally renowned scholar and leader who will oversee Georgia Tech's interdisciplinary manufacturing programs and their impact on economic development," said Steve Cross, Executive Vice President for Research. "Through his leadership, we will see a renaissance in manufacturing in this state."

"Over the last 30 years, I have worked in various positions related to manufacturing — from operations and planning to strategy and policy," Wang said. "The approach we will take to reaching the center's goal of becoming the world's manufacturing thought leader and trendsetter is to create an innovation ecosystem. We will add substantial commercial, economic and societal values to Tech professors' inventions to license the technology to a company, create a joint venture or form a new spin-off company."

Dr. Wang was the Director of the High-Performance Materials Institute and Assistant Vice President for Research in Engineering at Florida State University. He holds three distinguished professorships: the Simon Ostrach Professor of Engineering, the FSU Distinguished Research Professor and the U.S. Department of Energy Samuel P. Massie Chair of Excellence in Engineering. He is a Fellow of the Institute of Industrial Engineers (IIE) and Society of Manufacturing Engineers (SME). He received his B.S.I.E. degree from Tunghai University (Taiwan) and M.S.I.E. and Ph.D. from the Pennsylvania State University.

# Keynote Speaker
# Dr. Charles W. Wessner
## *Innovation Imperative and the 21st Century University*
### Director, Technology, Innovation and Entrepreneurship
### U.S. National Academies

Dr. Charles Wessner is a distinguished scholar and a powerful advocate of effective innovation policies. He is the founder and Director of the National Academy of Sciences Technology, Innovation, and Entrepreneurship Program. He is recognized nationally and internationally for his expertise on innovation policy, including public-private partnerships, entrepreneurship, early-stage financing for new firms, and the special needs and benefits of high-technology industry. He works closely with the U.S. Congress, the White House, and major agencies and departments of the U.S. government. As an outgrowth of his work with the U.S. government, he advises technology agencies, government ministries, and the Prime Ministers of countries in Europe and Asia. In addition, he cooperates closely with international organizations and lectures at major universities in the U.S. and abroad.

Recent Policy Briefings
Reflecting the strong global interest in innovation and Dr. Wessner's policy expertise, he 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 U.N. 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. In Washington, he works closely with Congressional staff, the White House, and major departments and agencies in the Executive Branch on the formulation of effective innovation policy.

Advisory Roles
Dr. Wessner has served as an 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 an advisor to the National Technology agencies of Finland (TEKES) and of Sweden (VINNOVA), and as a member of the Norwegian Technology Forum. He was nominated by the U.S. Government as an Innovation Expert for UNCTAD and is an Expert Advisor for the UNECE. He has also participated in the Prime Minister of Taiwan's Science and Technology Advisory Group and as a member of the Lithuanian Prime Minister's International Innovation Advisory Committee, a member of the Board of the National Association of Seed and Venture Funds, and the Board of the Vilnius Sunrise Valley S&T Park. He has served as an Innovation Advisor to the Prime Minister and to the Minister of Research and Education of the Czech Republic. The National Academies' Technology, Innovation, and Entrepreneurship program has ongoing relationships with officials in countries as diverse as India, China, Taiwan, Vietnam, Mexico, France, Sweden, Finland, the Czech Republic, Slovakia, Hungary, and Saudi Arabia. Dr. Wessner provides policy advice on questions of innovation policy, including support for basic science, applied research, the role of the 21st Century University, and principles of cooperation between universities and industry.

University & Research Activities
The National Academies has recognized Dr. Wessner's research accomplishments in honoring him as a National Academies Scholar. Dr. Wessner is an Ameritech Research Fellow at the Indiana University School of Public and Environmental Affairs where he also served on the Visiting Committee. As an Adjunct Professor, he has taught innovation policy at George Washington University's Elliott School of International Affairs in Washington, D.C. and served as a Researcher at the Max Planck Institute in Jena, Germany. He also serves on the Board of Directors of the Technology Transfer Society.