Leading manufacturers to successful deployment

The Georgia Tech Manufacturing Institute will be the world’s premier institution anticipating needs and providing solutions on the frontiers of manufacturing research, development, and deployment. As a result, we will be leaders in making major technological, social, and policy decisions that address critical manufacturing challenges.

GTMI will:

Leverage
Utilize Georgia Tech’s renowned cross-campus manufacturing-related knowledge, basic research, and applied research capabilities.

Accelerate
Speed up the time it takes to commercialize new ideas and technology.

Engage
Create partnerships to foster and sustain manufacturing ecosystems and provide opportunities to address manufacturing challenges.
AT GTMI, WE

...bring industry, government, and researchers together to address the complete innovation value chain — starting with raw and recycled resources, and basic and applied research through prototyping and finished products. GTMI develops materials, systems, processes, education, and policies that impact the efficiency and quality of manufacturing in the marketplace. We help our partners stay competitive by addressing and anticipating challenges.

Our facility, collaborations across Georgia Tech, and available technology allows us to offer partners unprecedented expertise and value.

» Offers state-of-the-art laboratory facilities for manufacturing research, development and deployment.

» Brings together the power of Georgia Tech’s science and engineering communities — from experts in aerospace, engineering, bioengineering, public policy, supply chain and logistics, and advanced composites to nano technology, materials and robotics.

» Provides cutting-edge technology to help manufacturers: 1) scale-up to new manufacturing processes; and 2) improve materials, processes and systems by reducing cycle times, costs and risks, and conserving resources, enhancing quality and productivity, developing new products, optimizing supply chain logistics, and more.

» Has a service center that assists in the design and development of prototypes.

OUR PARTNERS

The Georgia Tech Manufacturing Institute works to address the needs of a range of industries, including:

AUTOMOTIVE  AEROSPACE AND DEFENSE  BIOTECH AND HEALTH CARE
OUR INNOVATIONS

Our partners can take advantage of innovations at GTMI.

» **Additive Manufacturing** – creating mechanical components, medical parts, and electronic sensors and devices with innovative 3-D printing technology to improve cost and delivery time.

» **Bio Manufacturing** – working on the grand challenges associated with bio-manufacturing cell therapies and possible solutions in order to move current research forward.

» **Extreme Tribology** – using the latest measurement technologies to study traction and friction that occurs in the manufacturing process and using this research to improve manufacturing.

» **Internet of Things for Manufacturing** – developing, testing, and launching innovative software and hardware solutions that boost manufacturing efficiency, and leading the effort on using the Manufacturing Internet of Things (IoT).

» **Model-Based Systems Engineering** – applying software and electronics innovations to create analytic models that predict system performance, optimize system parameters, and collect data.

» **Precision Machining** – researching and applying technologies for enhanced productivity, part quality, difficult-to-machine features, and precision finishing processes.

» **Ultra-Lightweight, Energy-Efficient Materials and Structures** – using rigorous experimental and modeling research and development to advance technology in aerospace, biomedical, defense, energy, and industrial equipment.

» **Manufacturing Education Programs** – We offer the following programs: Manufacturing Education Program (MEdP) consisting of the Manufacturing Certificate, International Option, and Manufacturing Scholarships; Language, Culture and Advanced Manufacturing Summer Immersion Program; REVAMP NSF REU; and Undergraduate Research Opportunities.

We also offer a Manufacturing Scholars Program designed to provide top Georgia Tech undergraduate students with a combination of project- and industry-based experiential learning opportunities in manufacturing.
The Georgia Tech Manufacturing Institute is working across disciplines, from nano to large scale, to investigate, collaborate, innovate, and help our partners compete successfully. GTMI is harnessing the thought leadership required to respond to a highly dynamic environment in which the very definitions and perceptions of manufacturing are rapidly changing.

Industry Partnerships
Strategic partnerships are key to our success. GTMI’s Partner Program is a perfect fit for industry organizations interested in recruiting students, sponsoring research, supporting high-impact national funding initiatives, speaking at seminars on campus, or supporting us philanthropically. Contact us for further information on partnering with GTMI.

Supply Chain and Logistics Support
We help industry apply scientific principles to optimize supply chain processes, infrastructure, technology, and strategy. We can develop new analysis, design, and management tools; transform complex supply chains and trade corridors; and optimize facility work flow.

Workforce Development and Education
GTMI is committed to cultivating the next generation of the U.S. manufacturing workforce and its leaders. Our education programs enhance the hands-on manufacturing and research knowledge of engineering graduate and undergraduate students. We offer opportunities such as a manufacturing certificate for graduate students, scholarships, a program to assist veterans by boosting their STEM experience, and graduate assistantships. We also work with community and technical colleges to grow a skilled workforce.

Policy
Our manufacturing policy experts understand industry needs and promote supportive public policy to ensure the strength and viability of U.S. manufacturing.

Economic and Environmental Sustainability
We can help implement enterprise-wide sustainability by improving technologies and facilities; create sustainable mobility options; identify recyclables; produce biologically inspired design; and more.

Thought Leadership
GTMI hosts numerous meetings and workshops that bring together thought leaders from government, industry and academia to work on solutions to challenges facing today’s manufacturers and build business cases for emerging technologies.

Find out how GTMI can help your business.
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