BRINGING INDUSTRY TO THE CLASSROOM
A Unique Initiative to Nurture Future-ready Engineers
Why Academia and Industry Need to Join Hands?

The world of technology and engineering innovations is growing at an unprecedented rate and the industry today is unforgiving to those who lag in terms of skills, knowledge or the aptitude to apply science at their workplace. Today, more than ever, the industry requires employable candidates who are ready to take on the needs and challenges of the hour from the word-go. Per a survey jointly carried out by the World Bank and Federation of Indian Chambers of Commerce and Industry (FICCI), 64% of surveyed employers are “somewhat”, “not very”, or “not at all” satisfied with the quality of engineering graduates and their job skills and only 36% are satisfied with the employability of graduates. These numbers indicate the need for academia to be enabled with state-of-the-art technological insights and industry oriented syllabus.
Amity Institute of Technology
Bringing Tata Technologies and Amity University Together for a Pioneering Step

Recognizing the need of the hour to train future-ready engineers, Amity University and Tata Technologies have come together to provide industry oriented, innovation led simulated competency centers wherein the training is provided by leading experts from the industry. In this approach, we have recognized the industry-academia gap and restructured our curriculum by adopting the next generation of technologies and tools to train our students.
Key Differentiators

- Advanced Laboratories and Competency Centers
- Visualization and Virtual Reality Center
- Advanced Manufacturing Center
- Teardown Benchmarking Center
- Learning Center
- Innovation Center
- Technology Center
Competency Centers

ADVANCED LABORATORIES AND COMPETENCY CENTERS

The university has advanced laboratories for different domains such as Aerodynamics, Strength of Materials, Fluid Mechanics, Heat Transfer, Electronics, Embedded Systems, etc.

TECHNOLOGY CENTER

Centre of Excellence where students can advance with their education in pace with the latest industry trends. Students will get access to state-of-the-art technology tools for design, development and analysis used by major global OEMs. The center is well equipped with high-end workstations, which are loaded with Computer Aided Design, Computer Aided Manufacturing, Computer Aided Engineering, Product Lifecycle Management, and Virtual Reality tools through which students will be taught design & development techniques. This kind of industry set-up will help the students to gain practical knowledge by working on real-time projects.

INNOVATION CENTER

The innovation competency center is a creativity incubator, focused on exploring how new and emerging technologies can fundamentally reshape the academic and service missions of the university. With the expertise of our practitioners, we have built a model that will enable and inspire students to solve programs of any scale, in our ever-evolving technological environment. The philosophy behind the innovation center is to have one-stop solution, where products can be made through an interactive design process known as digital modeling and fabrication. The center has been equipped with different machinery like CNC Milling, Laser Cutting, 3D printers etc. for designing and prototyping.
LEARNING CENTER

The competency center is equipped with different automotive components and assemblies along with cut working and cut section models ranging from manual steering wheel up to a full vehicle (SUV and Passenger car). All this is to hone and upgrade the skills of the students and make them job ready. This center has steering wheels, transaxle, diesel engine, petrol engine, front axle, rear axle with differential, engine mockup, body-over monocoque chassis and body-over frame chassis with almost 30 parts cut sections. These trainings will help resources to operate these machines and understand the repair process as well. Domain learning centers are committed towards enabling the students to acquire appropriate skills needed for the automotive industry.

TEARDOWN BENCHMARKING FACILITY

The teardown and benchmarking center is a facility for conducting benchmark studies, understanding cost effectiveness of the designs, and instilling the principles of value engineering and frugal designs. This facility can cater a batch of 30 students. The lab consists of different machinery that enables teardown and benchmarking like- car lift, air compressor, display trolleys, computers, engineering toolbox, measuring tools & equipment, special teardown equipment, weighing scale, portable crane, camera, recorders, projectors etc.
ADVANCED MANUFACTURING CENTER:

Our pedagogical model is built on the principles of experiential learning. Learning in context is well established as a highly effective method for students of all disciplines, but it is especially effective for the physical sciences. Our project teams mirror the work place. The staff is well adept in not only meeting the technical needs of the local industry, but also in teaching to diverse team members. Few components of the learning centers are FANUC/Kuka robot, robot programming, fixtures for 2D, 3D path, hardware needed for installations, etc.

VISUALIZATION AND VIRTUAL REALITY CENTER:

Tata Technologies will establish a “Visualization Lab for Industrial Processes” leveraging the expertise in visualization technologies and manufacturing domain. The company will develop self-paced interactive e-learning modules which will be delivered through this center.

The advantages of these learning modules to students will be:
- Designed with technological expertise
- Self-paced
- Interactive sessions making learning fun and easy

The learning center will have 15 workstations, industrial visualization software by Siemens and Dassault Systems as well as a flight simulator.
Amity Institute of Technology in collaboration with Tata Technologies aims to become a globally recognized institute for imparting outstanding education leading to well qualified and industry-ready engineers, who are innovative, entrepreneurial and successful in advanced fields of Automobile Engineering, Aeronautical Engineering and Manufacturing Engineering, to cater the ever changing industrial and social needs.

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**MISSION**

- To provide the students with academic excellence, leadership, ethical values and lifelong learning needed for a long and sustainable career path.
- To educate students about professional & ethical responsibilities and to inculcate leadership qualities for their career growth.
- To create opportunities and to guide students in acquiring appropriate skills for their ever-ready acceptance by the industry.
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ABOUT AMITY UNIVERSITY

Amity University, is India's no. 1 ranked not-for-profit private University with a strong focus on research and innovation. The University has been ranked amongst the top Universities globally by QS (the world's leading university rankings organization), besides being recognized as 'India's Best Research University'.

Amity’s relentless pursuit of excellence is reflected in its steadfast commitment and continuing investment towards cutting-edge research and innovation. For instance, Amity in the last four years has filed over 700 patents, which as per the Annual Report of the Controller General of Patents, Government of India, is by far the highest number of patents filed by any Indian University. It is also engaged in conducting over 300 hi-end Government funded as well as international research projects including those funded by Bill & Melinda Gates Foundation, USAID, and Leverhulme Trust, UK. Amity's unwavering focus on excellence in research, globally benchmarked infrastructure and teaching pedagogy has resulted in the coveted 'A' grade accreditation by NAAC - a distinction awarded to only 10% of Indian Universities.

ABOUT TATA TECHNOLOGIES

Tata Technologies, founded in 1989, enables ambitious manufacturing companies to design and build better products through engineering services outsourcing and the application of information technology to product development and manufacturing enterprise processes. With more than 8,500 professionals, representing 28 nationalities, Tata Technologies focuses on the manufacturing industry - covering every aspect of the value chain from conceptualization, manufacturing, aftermarket and maintenance repair to overhaul support. Tata Technologies supports clients through engineering and research services outsourcing, product development, product lifecycle management, connected enterprise IT services, and technical workforce staffing, PLM software and training solutions. Tata Technologies serves clients in 27 countries, with a delivery model specifically designed for engineering and IT engagements, offering a unique blend of deep, local expertise integrated with 16 global delivery centers across Europe, North America and Asia Pacific. For more information, visit tatatechnologies.com today.