



AMITY INSTITUTE
OF TECHNOLOGY

A JOINT INITIATIVE WITH

TATA TECHNOLOGIES

INDUSTRY PARTNER

BRINGING INDUSTRY TO THE CLASSROOM

*A unique initiative to nurture
future-ready engineers*



AMITY
UNIVERSITY

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 challenges as per the need of the hour. According to 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.

Pioneering Step by Amity University and TATA Technologies

Recognizing the need of the hour to train industry-ready engineers, Amity University and Tata Technologies have joined hands together to establish Amity Institute of Technology (AIT) to provide industry-oriented, innovation-led simulated competency centres; wherein the training is provided by leading experts from the industry to produce future-ready engineers. 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 to bridge this gap.



PROGRAMS OFFERED

- B.Tech. (Automobile Engineering)
- B.Tech. (Aeronautical Engineering)
- Integrated B.Tech. (Automobile Engineering) - M.Tech. (Electric Vehicle Technology)
- Specialization/ Minor degree in Electric Vehicles/ Drone Technology
- M.Tech. (Electric Vehicle Technology)
- M.Tech. (Electric Vehicle Technology) for working professionals
- Ph.D. (Automobile Engineering) Full/Part Time



HIGHLIGHTS OF THE PROGRAM

- Industry-Oriented Curriculum developed by TATA Technologies
- Expert Engineers from TATA Technologies as Program Directors
- State-of-the-art competency centers
- Internship opportunities with TATA Technologies and Top global OEMs like Tata Motors, Mahindra, Maruti Suzuki, HAL, AHODS Technologies, JLN Phenix etc.
- Placement opportunities in Tata Technologies, Tata Motors, Maruti Suzuki, Hyundai, Interglobe Aviation, Indigo Airlines, United Airlines, CNH Industrial, JLN Phenix, Renault Nissan, Honda Cars, OLA electric, Honda Motor Cycles, EDS Technologies, SpiceJet and many more top global companies



COMPETENCY CENTRES

- Technology Competency Centre
- Innovation Competency Centre
- Learning Competency Centre
- Visualization AND Virtual Reality Competency Centre
- Tear Down and Bench Marking (TDBM) Competency Centre
- Advanced Manufacturing Competency Centre

AIT has six Competency Centres for training and imparting skills for producing industry ready engineers and to enhance their employability.

TECHNOLOGY CENTRE

The Technology Competency Centre consists of 30 high end work stations, which are loaded with various software like Creo, Ansys, Abaqus, CATIA, etc. The Competency Centre has virtual tools of all the major OEMs which are used by industries across globe. Students use these high-end facilities and software for

- Computer Aided Design (CAD)
- Computer Aided Manufacturing (CAM)
- Computer Aided Engineering (CAE)
- Product Life-cycle Management
- Electric Vehicle Design and Analysis.

These technologies help students to understand the theory followed by industry domains and leading to creating of individual projects. In this unique set up of two display monitors per user and with TATA technologies e-learning platform "IGETIT" students are taught the entire "Concept to Production" life cycle of different components and assemblies used in manufacturing sector mainly in Automotive and Aeronautics. AIT students work on real-life-projects

INNOVATION CENTRE

The Innovation Competency Centre is a creativity incubator, focused on exploring how new and emerging technologies can fundamentally reshape the research, academic and service missions of the university. Working with our innovation-minded people, we have built a model program that will elevate and inspire students who are solving problems, big and small, through our ever-changing technological environment.

The Philosophy behind the innovation centre is to have a one stop shop for anyone, regardless of skill and experience, to come in and be able to make a product through an interactive design process known as digital modelling and fabrication. The centre has been equipped with different machinery like CNC Milling, Laser Cutting, 3D Printers etc. that would need to conceive of design and prototype of all kinds of products and designs.



LEARNING CENTRE

This Competency centre is equipped with different automotive components and assemblies, working cut section ranging from manual steering wheel up to a full vehicle (SUV and Passenger car) to hone and upgrade the skills of the students. This centre has steering wheel, transaxle, Diesel Engine, Petrol Engine, Front Axle, Rear Axle with differential, Engine mockup, Body without conventional Chassis and Body over frame chassis with almost 30 parts cut sections.

Training is provided on these machines. This training not only enables the resources to operate these machines but also the process for repairing the machines and their various parts.

Learning Centre is committed to helping students launch successful careers in the automotive industry. The students get involved in vehicle electronics or specialize in engines, axle, gear assembly, wheels etc.

TEAR DOWN AND BENCH MARKING CENTRE

The Tear Down and Bench Marking Centre has facility for conducting benchmarking studies, studying cost effective designs, instilling the principles of Value Engineering, and frugal design in students. This also helps instill the philosophy of exploring ideas for innovative products, keeping product value in sight. This facility caters for batches of 30 students. The lab consists of different machinery that enables teardown and benchmarking-car lift, air compressor, display trolleys, Computers, engineering toolbox, measuring tools & equipment, special teardown equipment, weighing scale, portable crane, camera, recorders, projectors, and cars for tear down.

ADVANCED MANUFACTURING CENTRE

The pedagogy of this Advanced Manufacturing Centre 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 workplace. The staff is immersed in not only meeting the technical needs of local industry but in learning to teach to the different learning styles of

diverse team members. Teams learn firsthand, in real time, the importance of maximizing the team's talent. This centre is well equipped with of FANUC/Kuka Robot, Robot programming, fixtures for 2D, 3D path, hardware needed for installations etc.

VISUALIZATION AND VIRTUAL REALITY CENTRE

The Virtual Reality Centre has 15 workstations, Industrial Visualization software by Siemens and Dassault Systems, a Flight Simulator, and Aircraft Landing Gear. Following software packages are installed with adequate licenses and extra seatings.

- Lockheed Martin Prepar3d
- AerX propriety software for simulation

The following MSC package is installed with 14 licenses each.

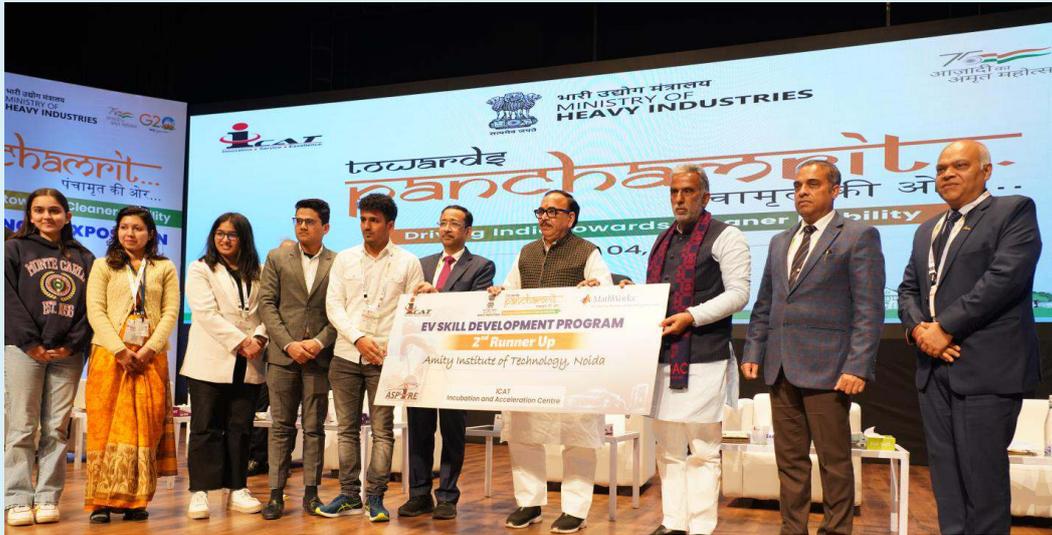
Adams, MSC Apex, Dytran, Easy5, Marc Mentat, MSC Nastran, Patran, MSC FEA, AFEA & TFE

- Virtual Learning Centre has been established as "Visualization lab for industrial process" using the expertise in Visualization technologies and manufacturing domain. The self-paced interactive e-learning modules are delivered through this competency centre.
- The advantages of these learning modules to students are designing with no assumption of domain knowledge or technology expertise, self-paced, interactive sessions making learning easier and enjoyable.



AIT Team	Adjunct Faculty from TATA Technologies (In-house)	Industry Advisory Board
<p>Prof. Vivek Kumar, Head of Institute-AIT</p>	<p>Mr. V. K. Joshi Program Director-Aeronautical Engineering, TATA Technologies</p>	<p>Mr. Warren Harris Managing Director and Chief Executive Officer, TATA Technologies</p>
<p>Dr. Eswara Krishna M. Associate Professor-AIT</p>	<p>Mr. Anil Kelapure Program Director, Automobile Engineering, TATA Technologies</p>	<p>Mr. Anand Bhade President of Asia Pacific TATA Technologies</p>
<p>Dr. Bedatri Moulik AP – III, AIT</p>	<p>Dr. R S Tarnacha Sr. Consultant, TATA Technologies</p>	<p>Mr. Sushil Kumar VP and Head, Education Sales TATA Technologies</p>
<p>Dr. Shailendra Singh Chauhan, AP-III, AIT</p>	<p>Mr. Manish Kumar Sharma Team Lead, TATA Technologies</p>	<p>Mr. Pushkaraj Kaulgud Senior VP-Education Delivery, Tata Technologies</p>
<p>Dr. Anil Kumar AP-III, PL, AIT</p>	<p>Mr. Harish S. Technical Lead, TATA Technologies</p>	<p>Mr. Siddhartha Katti TAS, Manager, TATA Technologies</p>
<p>Dr. Gurpreet Singh Saini AP-III, AIT</p>	<p>Mr. Rahul Sharma, Team Lead, TATA Technologies</p>	<p>Mr. Anand Kadam Project Manager, TATA Technologies</p>
<p>Dr Gaurav Ninawe AP – II, AIT</p>	<p>Mr. Rohit Yadav Technical Lead, TATA Technologies</p>	<p>Mr. Pradeep Khire Sr. Consultant, TATA Technologies</p>
<p>Dr. Puran Singh AP – I, AIT</p>	<p>SMEs (Visiting Adjunct) Faculty from TATA Technologies</p> <p>Dr. Ishtiaq Ahmed Khan Program Director, TATA Technologies</p> <p>Mr. Muthukumaraswami A. Consultant, TATA Technologies</p> <p>Mr. Sudhanwa Puranik TATA Technologies</p>	<p>Dr. Rajarajan Shanmugam CEO, TATA Technologies</p>

STUDENTS ACHIVEMENTS



AIT students ranked Second Runner-Up in ICAT EV Skill Development Programme in 2022



AIT Students' Team won 1st Prize and Gifts worth 7500 in National Competition "Weaving Synergies - Spot the Innovation" at Auto Expo Components 2018 Organized by SIAM



AIT Students' Team Won Best Innovative Project Award in International Conference on Entrepreneurship, Innovation and Leadership, 2019

AIT RECRUITERS



CORPORATE TESTIMONIALS



**Mr. SAURABH
MOHAN SAXENA**
Founding Director & CEO,
AHODS Technologies India Pvt Ltd.

AIT is a jewel in the crown of Amity University UP, Noida as the Industry–Academia partnership. In Indian context, it's a new beginning with a global benchmark as per any international academic standards in Aero and Automotive sectors. It is strategic and very intelligent step by Tata Technologies by investing and balancing the skills and demography dividend issue of our country in both short and long term. In my view it's a unique combination, best synergies of both academic & industrial world for students. Wish we had it during our times! Starting from the Amity's world class infrastructure, industry aligned course curriculum to the lab set-ups, real time working cut models to industrial software trainings, industry expert interactions/mentorship to factory visits surpasses them from GET or MT directly to Engineer or Management staff, when they join industry. This is because most of skills needed and the training was already part of their study experience of 4 years. In my language they are not "raw resources" rather "industry ready" resources for companies. Over and above is the fresh prospective & the mind-set which they bring to industry is an asset!

Proud to be part of set-up journey as Member Board of Studies in touch with young turks as Mentor feeding food of thoughts with real case scenarios, projects, latest updates in technology & global industrial trends in their hungry minds.



Mr. RAJIV MALHOTRA
President,
Motherson Techno Tools

Amity University, its world class competency centers and industry led curriculum designed by Tata Technology, with a distinctive record of accomplishments in the field of teaching, training and research, has always been active in establishing collaborative linkage with reputed industries, international academic institutions and Research & Development organizations for reaching the zenith & achieving the excellence.

I am positive that Amity will lay significant emphasis & give insight into integrating sustained quality & excel in the manufacturing process. This in turn will help equip the students be Industry ready to face the techno-economic challenges of the millennium, resulting in a healthier economy. The World class & industry led curriculum & newly introduced Design Lab and Workshop with cross sectioned working models of Engines, Gearbox, Car & SUV etc. will prove to be a brilliant linkage to the textbooks for quick practical learning & another milestone in the achievements of scientific knowledge and trends innovations in the areas of Engineering.



Mr. SUNIL BHATNAGAR
CXO, Lithium Project,
IPL Tech Electric P Ltd,
Murugappa Group Company

Amity Institute of Technology is one of the finest institutions which adds industry orientation to the students' knowledge. Amity engineers are far clearer in their approach due to practically industrial environment in collaboration with Tata Technologies. Automobile engineers from Amity are in great demand as AIT imparts practical knowledge along with the degree. Amity faculty of intellectuals with industry academia exposure is the best combination for any Institute. Amity young engineers have the best placement opportunities as the institute produce future ready engineers for a nice take off.

My best wishes to AIT!!

ALUMNI SPEAK



I am very much thankful to my institute, A place where I gained knowledge, best needed for the survival in outer world and confidence. My Institute provided me with an opportunity to be a part of such a unique Industry academia partnership between Amity University & Tata Technologies. Right from day 1 energy and enthusiasm is what I experienced, be it faculty or students.

Pratyush Singh, B.Tech (Automobile), 2016-2020
Engineer, Hyundai Motor India Limited (HMIL)



Amity Institute of Technology is one the finest passage for all Automotive enthusiasts to turn their dreams into reality and entering the professional Automotive Industry with class-leading technologies and super-advanced labs for all the practical knowledge you can gain in the field. Collaboration with Tata Technologies has made the boat sail smoother than ever as the best possible instructors from the industry have been guiding us and providing us with all the real-world experience they have gained in their service to the field. Due to all this only, I have been able to join the industry I have always dreamt of serving.

Mayank Bhatia, B.Tech (Automobile), 2016-2020
Graduate Engineer Trainee, Tata Technologies Ltd.



I am extremely grateful to Amity Institute of Technology for creating a vibrant ambience for learning, exploring and for molding us from amateur individuals to young professionals, ready to take-on the challenges in our industry with confidence. Enriched with the golden experience and expertise of the faculty and subject matter experts from Tata technologies and Hindustan Aeronautics Limited, it is truly a beautiful amalgamation of the industry and academia. Glad to be a part of this wonderful synergy, imbued with optimism and passion for teaching, skilling and preparing industry-ready engineers.

Parush Bumrah, B.Tech (Aeronautical), 2017-2021
Master of Aerospace Engineering, Concordia University



The moment I stepped onto the campus; I knew I had made the right choice in pursuing my engineering education at Amity. The faculty at AIT is undoubtedly one of the greatest assets of the institution. The professors are not only highly knowledgeable in their respective fields but also genuinely passionate about teaching and guiding students. I am proud to be a part of the Amity family and would highly recommend AIT to any aspiring engineering student seeking a comprehensive and enriching educational experience.

Gyanvi Bhardwaj, B.Tech (Automobile), 2019-23
Executive Trainee, Honda Motorcycles & Scooter India Pvt Ltd.



I am grateful for the opportunities offered by Amity University, Noida (AIT) to enhance my knowledge. As I recently got Graduated with a degree in Aeronautical Engineering, the complete program structure, environment, and industry-relevant exposure make this institution a dream college for every student who aspires to be successful in their career.

Prince Kumar Chauhan , B.Tech (Aeronautical), 2019-2023
Associate Engineer(Component), United Airlines

AMITY INSTITUTE OF TECHNOLOGY

Vision

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, Drone Technology and Electric Vehicles to cater the ever changing industrial and social needs.

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



ABOUT AMITY UNIVERSITY

Amity University, a leading research & innovation driven university, has been ranked among the top 3% universities by QS and Times Higher Education, UK (the world's leading university rankings organisations).

The university is also Asia's only not-for-profit university to be awarded US Regional Accreditation by WASC, USA and QAA, UK - setting a new standard of academic excellence in India.

Amity has been ranked among the top universities globally for producing the most employable graduates in a survey conducted among 11,000 employers worldwide by Times Higher Education, UK.

Amity Education Group, India's leading not-for-profit education group with over 200,000 brilliant students across Pre-nursery to Ph.D. levels pursuing more than 400 Programmes in 80 diverse disciplines across 11 Universities, 28 schools and 16 international campuses.

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.

The company is a strategic partner for developing complete vehicles, engineering subsystems and components, managing the New Product Introduction (NPI) process through collaborative engineering tools, while implementing cutting-edge solutions encompassing light weighting, Internet of Things (IoT), physical and virtual system integration, connected vehicles, digitization and many more.

ABOUT AMITY INSTITUTE OF TECHNOLOGY (AIT)

Amity University has joined hands with Tata Technologies Ltd and established AIT to bridge the Gap between Academia and Industry and to create a talent pool of Industry Ready Engineers. Another important aspect of this engagement is to promote Innovation and Incubation by leveraging Industry Innovation ecosystem for Entrepreneurship and Start-ups; wherein the training is provided by leading experts from the industry to produce Industry ready engineers. 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 to bridge this gap.

The AIT was established in the year 2016 with a vision 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 Electric Vehicles to cater the ever changing industrial and social needs. The institution aims to nurture students in terms of modern techniques and to prepare them, to cope well with the technical advancements in future. The Amity Institute of Technology, a joint initiative with TATA Technologies being the flagship institution of the Amity University takes focus in scientific research, scientific programming, and technology development.



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For admission, please visit: <https://amity.edu/apply-now.aspx>