MECHATRONICS

2021-22

BostonDynamics

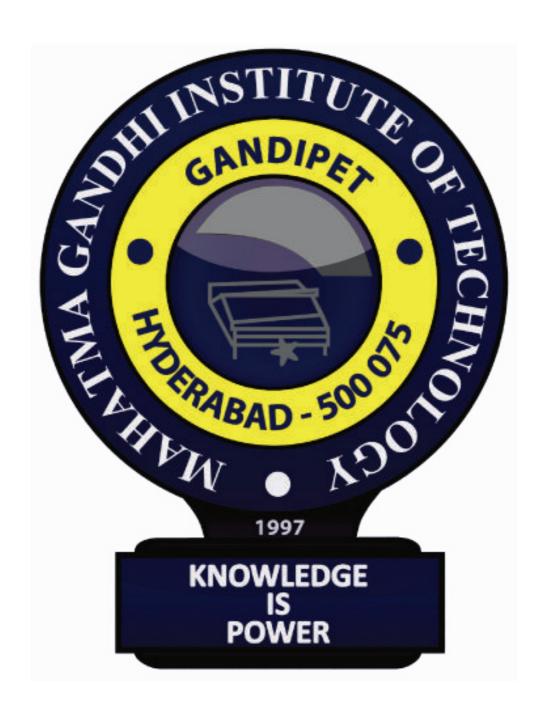
INDUSTRY 4.0
GUEST LECTURE ON

ROBOTHON 2022

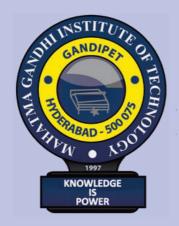
DEVELOPMENT OF SKILLSET: TOSHIBA

ARTICLE ON SPINTRONICS

MAHATMA GANDHI INSTITUTE OF TECHNOLOGY
DEPARTMENT OF MECHANICAL ENGINEERING (MECHATRONICS)



MOTIVATE INNOVATE SEMPOWER YEARS



Department Vision

The Department inspires and motivates the students to acquire knowledge to develop and serve the industry and society with great zeal. It aims to transform the students into disciplined, talented citizens of impeccable character, fused with hands on training to make them good entrepreneurs with an emphasis to develop social, cultural and environmental consciousness and lifelong learning.

Department Mission

The Mission of the Department is to strive towards the development and dissemination of knowledge in the areas of Mechatronics Engineering. It aims at reaching the pinnacle of technical excellence with continuous quality improvement. It is destined to train the students with a capacity to take-up policy formulation and decision making responsibilities.



Program Educational Objectives (PEOs)

- To prepare the students for fundamental technical knowledge and skills in Mathematics,
 Science and Engineering to recognize, analyse and solve problems in industry which meet
 the needs of Indian and Multinational companies, in the area of Mechatronics Engineering
- To develop the ability among the students to acquire the knowledge of allied courses with the knowledge of core courses so as to understand the integration of multi-disciplinary nature of technological problems.
- To promote the students awareness of life-long learning, and to introduce them to professional ethics and codes of professional practice.
- To develop the students to become effective collaborators and innovators leading/ participating in efforts to address social, technical and business challenges.

Program Specific Outcomes (PSOs)

- An ability to identity, formulate and solve engineering problems of advanced Mechanical Engineering in the area of Robotics and Automation.
- An ability to apply the concepts of Mechatronics for the development of engineering applications in the area of Pneumatics, Hydraulics and Electronic Control Systems.

MESSAGE FROM THE HOD



Mechatronics, a very unique and emergent discipline, was started with the inception of the Mahatma Gandhi Institute of Technology (MGIT) in the year 1997. MGIT is the only Institute in the State and in the country to have started for the first time this innovative discipline of engineering, which is an integrated technology involving synergetic consideration and fusion of concepts of mechanical engineering, electronics, electrical, computer science and control engineering, the key element being the integration of these areas through the design process.

The Department of Mechanical Engineering (Mechatronics) offers UG and PG courses in Mechatronics and also a UG course in Mechanical engineering. The Department has forty, well qualified faculty members viz. four Professors, three Associate Professors and thirty three Assistant Professors, and is supported by qualified and experienced non-teaching staff. At present, the department has 11 Ph.D holders and 20 faculty members pursuing their Ph.D with reputed Institutions.

The Department has well-established independent laboratories like SCADA-based Instrumentation & Control systems, Computer Aided Motion Control Design, CNC & Robotics, Advanced CAD/CAM Lab with licensed software, Machine tools Lab with CNC-EDM, advanced Thermal Engineering and Heat Transfer Lab with computer-based multi-cylinder petrol engine test rig, Advanced Material testing lab with computer-based tensile and torsion testing machine. The department is also having advanced Measurement equipment like FARO gage portable CMM and 3D printing Lab, the AICTE has sanctioned a MODROBS project to the department for the modernization of the CNC & Robotics lab and also sanctioned a grant in aid for organizing a two-week FDP and one-week STTP programs.

UGC and JNTUH (TEQIP-III) have also sanctioned Research Projects to the Department. The students work with various clubs/ professional chapters like ASME, SAE, Robotics, ISTE, and Innovation Club. They showcase their potential knowledge in the form of product development and organize various workshops /seminars/conferences. Indian National Academy of Engineers (INAE), New Delhi has awarded Mechatronics students for Best Innovative Undergraduate Projects at the National Level in the area of Agricultural Robots during the Academic Years 2016-17 & 2018-19.

EDITORIAL BOARD

EDITOR - IN CHIEF

DR. K. SUDHAKAR REDDY HOD, MED, MGIT

EDITOR

DR K. ANKAMMA RAO Professor, MED, MGIT

ASSOCIATE EDITOR

D. KAMESWARA RAOAsst. Professor, MED, MGIT

FACULTY ADVISOR

- Dr. P.V. Ramana
 Professor, MED, MGIT
- 2. **Dr. S. Madav Reddy**Professor, MED, MGIT
- 3. Mrs. K.C.Sabitha
 Sr. Assistant Professor, MED, MGIT
- 4. **Mrs. K. Sirisha**Assistant Professor, MED, MGIT
- Mrs. P Anusha Assistant professor, MED, MGIT

2

EDITORIAL BOARD



STUDENT EDITORS

- 1. Mahati Kuram
- 2. Abhishek Indupally
- 3. Atharva Patil
- 4. Lakshmi Deepak
- 5. Rahul Ramasagaram
- 6. Arjun Gudipalli

- 7. Vedarsh Reddy
- 8. Abhiram Koka
- 9. G. Abhinay
- 10. Arav Godishala
- 11. Aaryan Addagatla
- 12. Sai Nikith

- Development of Optimum Heat Parameters in Manufacturing of C-80 Spring Steel Circlips, published in Vol.17, Issue. 12, December 2021, Pp.1-11, Journal of Shanghai Jiaotong University, by K. Sudhakar Reddy.
- Experimental and Numerical Study of Photo Voltaic Thermal Phase Change Material Heat Transfer Augmentation with Encapsulation of Embedded Material/Fins, in Volume 23, Issue 4, 2022, Ecological Engineering & Environmental Technology 2022, 23(4), 149–161, Journal of Ecological Engineering & Environmental Technology (EEET), by Dr. K. Sudhakar Reddy
- Design and Development of a Prototype Agribot in Lecture Notes in Mechanical Engineering, by Dr. P. Venkata Ramana.
- Design of a coil gun with tracking system, published in Volume 17, Issue 12, November - 2021 Journal of Shanghai Jiaotong University, by Dr. K. Ankamma
- Design of FLC with Mamdani Approach for the Estimation of weld ductility of MIG welded Al- 65032 Alloy, published in Volume, 7 No. 5, June, 2022, International Journal of Mechanical Engineering, by Dr. K. Ankamma.
- Linear Regression analysis with one parameter for the Estimation of Ultimate Tensile Strength for the TIG welded Al-65032, published in Volume 7, No. 5, May, 2022, International Journal of Mechanical Engineering, by Dr. K. Ankamma

- 5 in 1 Multipurpose Agricultural Robot, in Volume: 08 Issue: 09, , Sep 2021, Pp.1157-1161, International Research Journal of Engineering and Technology, by Dr. S. Madhava Reddy
- Power Generation using Vertical Axis Wind Turbine, published in Volume 9, ISSUE 3, March 2022, Pp.1114-1121, GIS Science Journal by Dr. S. Madhav Reddy
- Welding and Machining in Additive Manufacturing, published in Volume XIV, Issue III, March/2022, Pp. 1549-1555, The International journal of analytical and experimental modal analysis by Dr. S. Madhava Reddy.
- Effect of Machining Parameters on Silicon Nitride Ceramics with Thermal Softening of Specimen, published in Vol.9, Issue 6, June 2022, Pp.125-128, Strad Research Journal, by Dr. S. Madhava Reddy
- Calculating the value of using weight by interfacing with Arduino, published in Vol.9, Issue 6, June 2022, Pp. 19466- 19472, International Journal of Advanced Research in Science, by Dr. S. Madhava Reddy
- Effect of Curvilinear Weld Profile Shapes on Weld Line Movement in the Stamping of Tailor Welded Blanks, published in Lecture Notes in Mechanical Engineering. Springer, 2022, pp 157-164, by Dr. V.V.N. Satya Suresh.
- Real Time Detection of Edge Defect on a Rolled Steel Sheets Using Transfer Learning Technique, published in Volume XIV, Issue III, March/2022
- ISSN NO: 0886-9367, The International journal of analytical and experimental modal analysis, by Dr. V.V.N. Satya Suresh

- Development of AI Based Automated Surface Inspection of Steel Sheets, published in Volume XIV, Issue III, March/2022 ISSN NO: 0886-9367, The International journal of analytical and experimental modal analysis, by Dr. V.V.N. Satya Suresh.
- Design and development of forklift in manufacturing, published in Vol 8, Issue 10, October 2021, pp.18349-18353, International Journal of advanced research in science, engineering and technology, by Dr. R. Uday Kumar.
- Advancements in Robotic Drilling Machine, published in Vol 10, Issue 11, November 2021, pp.14550-14553, International Journal of Innovative Research in Science, Engineering and Technology, by Dr. R. Uday Kumar
- Determination of tensile properties of aluminum alloy 6061, published in Vol 4, Issue 1, January 2022, pp.232-235, International Journal of Advances in Engineering and Management, by Dr. R. Uday Kumar.
- Convective Heat Transfer in Heat Exchangers
 Using Nanofluids: A Review, published in Vol
 23, Issue 3,March 2022,pp. 193–201, Ecological
 Engineering & Environmental Technology
 (International journal), by Dr. R. Uday Kumar.
- Determination of erichsen number for sheet metal welds in zero and forty five degrees sheet roll direction, published in Volume 12, Issue 4, April - 2022,pp.289-296, Journal of engineering, computing & architecture, by Dr. R. Uday Kumar

- Heat transfer enhancement through perforated fin made by MMC by reinforcing Aluminium with SiC & Graphite and optimization of design parameters using Taguchi method, published in Vol 64, April 2022,pp.11–19, Elsevier Materials Today: Proceedings, Elsevier Journal Publications and Volume 9, Issue 4, April 2022, pp. 18– 29,SSRG International Journal of Mechanical Engineering by Dr. R. Uday Kumar.
- Tribological behaviour of SiC and AL2O3 filled glass-epoxy composite, published in Proceedings of the Institution of Mechanical Engineers Part J Journal of Engineering Tribology, by K.V. Kasi Viswanadham
- Mechanical Properties Of Sic Al2o3 filled Glass Epoxy Composites, published in Volume 13, Issue 6, June 2022, pp. 11-17, International Journal of Mechanical Engineering and Technology (IJMET), by K V Viswanadham
- Machinability Of Sic And Al2o3 Particles Filled Short Glass Fiber Reinforced Epoxy Based Composites By Turning, published in Volume 13, Issue 1, January-December, 2022, pp. 32– 43,International Journal of Production Technology and Management (IJPTM), by K V Viswanadham
- Design and Analysis of Structural Folding Origami, published in Volume 6, Issue 1, June 2021, pp.46-48, International Journal of Advanced Research in Science, Communication and Technology (IJARSCT), by Dr. P. Srinivasa Rao

- Effect of forge force on mechanical properties of dissimilar metal friction welds and stainless steel and low carbon steel, published in Volume 13, Issue 6, June 2022, pp. 42-48, International Journal of Mechanical Engineering and Technology (IJMET) by M Pratyusha
- Electrcity Generation from thermoacoustic engine, published in Volume 17, Issue 9, September - 2021, Page No:39-46, Journal of Shanghai Jiaotong University, by D Kameshwara Rao
- Pneumatically Controlled Wheel for Angular Rotation of Vehicle, published in Volume 17, Issue 8, August – 2021, Page No:92-96, Journal of Shanghai Jiaotong University, by D Kameshwara Rao
- Experimental and Numerical Study of Photo Voltaic Thermal Phase Change Material Heat Transfer Augmentation with Encapsulation of Embedded Material/Fins, published in Volume 23, Issue 4, 2022, Ecological Engineering & Environmental Technology 2022, 23(4), 149–161, Journal of Ecological Engineering & Environmental Technology (EEET), by D Kameshwara Rao
- Effect of post weld heat treatment on microhardness of tailor welded blanks, published in Volume 8, Issue 7, July & 2021, 731-734, Journal of Emerging Technologies and Innovative Research (JETIR), by Kurapati Sarupaya Santhosh

- Synthesizing Fuel from Plastic Waste using Pyrolysis, published in Volume 10, Issue 6, June 2022, pp.d773-d775, International Journal of Creative Research Thoughts (IJCRT) by Dr. P. Srinivasa Rao
- Sustainable Development of Green-Hydrogen Ecosystem, published in Volume
 9, Issue 5, May 2022, pp.240-245, GIS SCIENCE JOURNAL, by Dr. P. Srinivasa Rao
- Determination of erichsen number for sheet metal welds in zero and forty five degrees sheet roll direction, published in Volume 12, Issue 4, April - 2022,pp.289-296, Journal of engineering, computing & architecture, by K.C. Sabitha
- Determination of Formability Index for Ninetydegrees Sheet Roll Direction Welded Joint, Volume 4, Issue 6 June 2022, pp: 2189-2192, International Journal of Advances in Engineering and Management, by K.C. Sabitha
- Effect of Machining Parameters on Silicon Nitride Ceramics with Thermal Softening of Specimen, published in Volume 9, issue 6, June-2022 page no.125 to 128, Strad Research, by P.V. Prasad Reddy
- Power Generation using Vertical Axis Wind Turbine, published in Volume 9, issue 3, March 2022 page no.1114 to 1121, GIS Seience Journal, by P.V. Prasad Reddy
- Development of Multi-purpose Agricultural Vehicle, published in Volume XI, Issue I, Jan 2022 page no.109 to 114, Science, Technology and Development Journal by P.V. Prasad Reddy

- Influence of injection timing on an insulated diesel engine fuelled with biogas, published in Volume 8, Issue, 2022, May 2022, Gradiva Review Journal by B Ramakrishna
- Effect of Injection Pressure on Exhaust Emissions of Diesel Engine Fuelled with Biogas and Biodiesel, Volume VIII, Issue IV, November 2021, Natural Volatiles and Essential Oils (NVEO), by B Ramakrishna
- Electricity Generation from the thermoacoustic engine, published in Volume 17, Issue 9, September - 2021, Page No:39-46, Journal of Shanghai Jiaotong University, by B Ramakrishna
- Pneumatically Controlled Wheel for Angular Rotation of Vehicle, published in Volume 17, Issue 8, August – 2021, Page No:92-96, Journal of Shanghai Jiaotong University, by B Ramakrishna
- Comparative investigations on performance parameters of insulated diesel engine and conventional diesel engine with biogas, published in Volume X Issue VIII August 2021, Page No:221-232, Science, Technology and Development, by B Ramakrishna
- Computer-aided design and analysis of heat sinks with square, circular and rectangular fins of different sizes using timescale, published in Volume: 08 Issue: 08 Aug 2021, International Research Journal Of Engineering And Technology (IRJET), by V Vijaya Bhaskar

- Influence of injection pressure on exhaust emissions of insulated diesel engine fuelled with biogas and biodiesel, published in Volume 12, Issue 7, July 2021, Page No: 23-32, International Journal of Mechanical Engineering and Technology (IJMET), by B Ramakrishna
- Experimental investigations on exhaust emissions of diesel engine fueled with biogas, published in Volume 12, Issue 7, July 2021, Page No:1-9,International Journal of Mechanical Engineering and Technology (IJMET), by B Ramakrishna
- An Experimental Study and Joining Parameters Optimization of Friction Stir Weld Butt Joint by Taguchi Approach to Maximize the Mechanical Properties, published on line: 11/26/2021, Arabian Journal for Science and Engineering, by M Yadi Reddy
- Development of Multi-purpose Agricultural Vehicle by using Solar Power, published in Volume XI Issue I JANUARY 2022 page no.109 to 114, Science, Technology and Development Journal, by M Yadi Reddy
- Tribological behaviour of SiC and AL2O3 filled glass-epoxy composite, In Press, Proceedings of the Institution of Mechanical Engineers Part J Journal of Engineering Tribology, by Dr. G Rakesh Kumar
- Improving the Toughness of Ceramic Matrix Composites: A Comprehensive Review, published in 44 (10),Oct 2021 80-85, Journal of Mechanical Engineering Research and Developments, by K Sirisha

FACULTY ACHIEVEMENTS

s. No.	DATE(S)	NAME OF THE FACULTY MEMBER	TITLE OF THE AWARD	NAME OF THE ORGANIZATION	VENUE
1	31-12-2021	Dr. V.V.N. Satya Suresh	Chhatra Viswakarma Awards 2020	wakarma Awards AICTE	
2	04 & 05-Dec- 2021	Dr. Pundru Srinivasa Rao	BEST RESEARCHER AWARD 2021	VDGOOD Professional Association (VDGOOD Technology Factory)	Visakhapatnam (International Scientist Awards on Engineering, Science and Medicine)
3	26/08/2021	Dr. Pundru Srinivasa Rao	Research Vibhushan Award 2021	ISSN Research Awards 2021	TAMIL NADU
4	28/10/2021	Dr. Pundru Srinivasa Rao	Fellow No: F-1284343	The Institution of Engineers (India)	Kolkata
5	30/11/2021	Dr.T.Niranjan	Received TOPPER certificate (Elite with Gold) in the NPTEL Course on "Advanced Machining Processes"	IIT Roorkee	Online
6	27th 28th Nov 2021	Dr. Patel Badari Narayana	Best Paper Award	Reva University, Solar Energy Society of India ICORE (International Congress on renewable Energy) 2021	Online
7	15th August 2021	Dr. Pundru Srinivasu Rao	International research Vibhushan Award	ISSN Awards	-
8	5th December 2021	Dr. Pundru Srinivasu Rao	Best Researcher Award	International Scientists Awards in Engineering	-
9	22nd April 2022	Dr. Pundru Srinivasu Rao	Best Research Paper Award	MISER	-
10	4th June 2021	Dr. Pundru Srinivasu Rao	Research Excellence Award	SPRINGER	-
11	4th June 2021	Dr. Pundru Srinivasu Rao	Best Ph.D Thesis Award	MISER	-

Industry 4.0

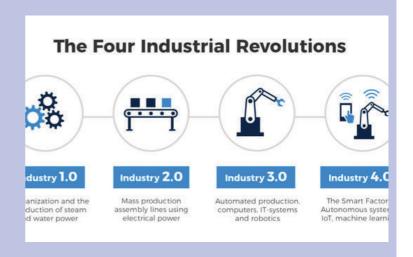
A guest lecture on industry 4.0 was given by Mr. Surya Narayana Tumuluri. Industry 4.0 is a vision that evolved from an initiative to make the German manufacturina industry more competitive ('Industrie 4.0') to a globally adopted term. Industry 4.0 is often used interchangeably with the notion of the fourth industrial revolution. characterized by, among others, even more automation than in the third industrial revolution, the bridging of the physical and digital world through cyber-physical systems, enabled by Industrial IoT, a shift from a central industrial control system to one where smart products define the production steps, closed-loop data models and control systems and personalization/customization of products.

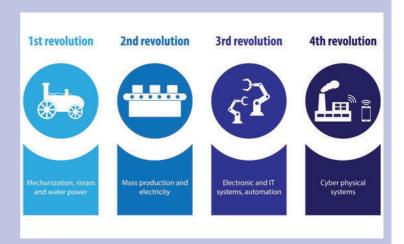
What technologies are driving Industry 4.0?
Internet of things(IoT)
Cloud computing
AI and Machine learning
Edge computing
Cyber security
Digital twin

Industry 4.0 has improved manufacturing capabilities, using mere workforce adopting automation and machine learning, but it has led to a rise in poverty and unemployment as dependence on manual labor was reduced.

Augmented Reality INDUSTRY 4.0 Simulation Additive Manufacturing Internet of Things

Guest Lectures





CAREER OPPURTUNITIES IN E – COMMERCE

Mr. Akhil Nilekar gave a guest lecture on the various career opportunities in the E-commerce field. An education in e-commerce prepares students for the future of business transactions. Firms use e-commerce for all types of sales through company websites. E-commerce jobs are divided into three interdependent fields:

- 1. Market research analysis
- 2. Web development
- 3. Web administration

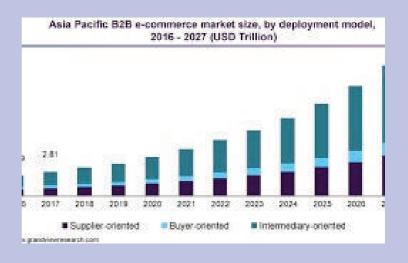
These fields are important parts of the future of commerce.

- 1. Market research analysis Research and analysis of needs from
 both the user and business
 perspectives, along with conveying
 this information to the site's designer.
- 2. Web development They create business websites using programming, multimedia, graphics, and design skills.
- 3. Web administration –
 They have their bachelor's degrees in computer science. Developing, fixing servers, and testing backup and data recovery processes.

Guest Lectures





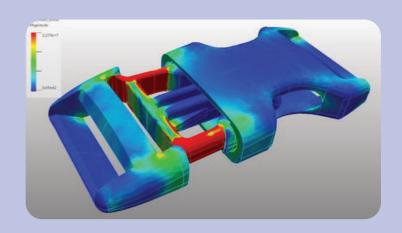


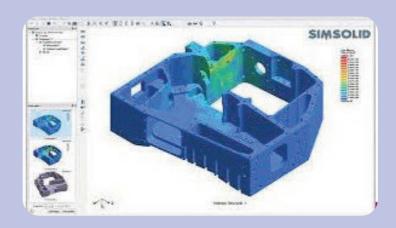
MECHANICAL NEWSLETTER

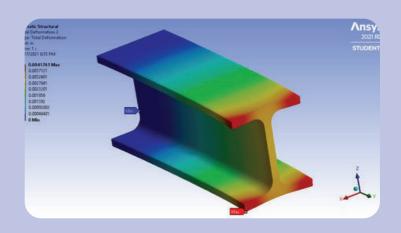
Guest Lectures

Advances in FEA and CAD

A guest lecture on the new advances in FEA and CAD was delivered by Ms Praveena. **Nowadays** faster product development is expected by customers but at the same time the costs of production and development have to be minimized. The ICROS method describes the whole proceeding of development and production of a new product, including the material selection, the design of the construction unit, the finite analysis, element production simulation manufacturing of the prototypes. The constantly growing impact of such simulation programs led to integration of tools covering functions of finite element analysis into all larger three-dimensional computer aided design programs. This shows the study general differences between the **FEA** which application tools, are implemented in the CAD systems Pro/ENGINEER Wildfire, CatiaV5 and NX4, and investigates if these tools are generally suitable for the ICROS method. These tools consist of the import interface of geometry units, the pre-processor independent generation of a finite element mesh and the actual solver.





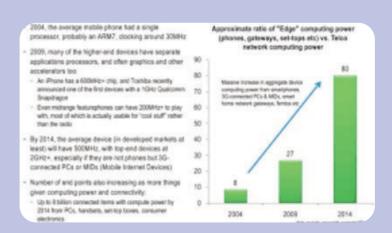


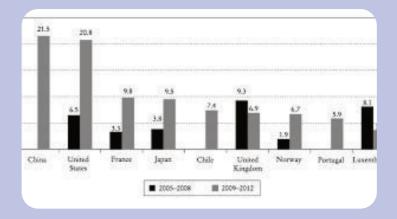
DEVELOPMENT OF SKILL SET W.R.T TOSHIBA TRANSMISSION COMPANY

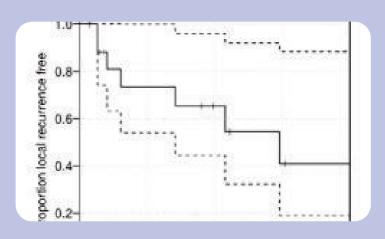
To boost skill development, TTDI is steadfast in improving skill levels of manpower in T&D sector through its JAPAN-INDIA-Manufacturing skill development programme. The programme aims to develop Japanese standard shop leaders and engineers, focusing on areas such as kaizen and the 5S (sort, set in order, shine, standardize and sustain). The programme also imparts safety & environmental training to raise the levels in line with global standards.

quest towards continuous product improvement, TTDI deploying new advanced manufacturing technologies continuously improve the Quality, Efficiency, Reliability, and Speed-tomarket of the product. To achieve this, TTDI relies on process automation for productivity improvement digitalization of data to improve the capability process and constant improvement of supply chain.

Guest Lectures







ADVANCEMENTS IN SEMICONDUCTORS AND MANUFACTURING

In recent decades, scientists have made great strides in progressing semiconductor innovation. Researchers have consistently kept pace with Moore's Law, which states that the number of circuits on a microchip doubles every two years. They have accomplished this by experimenting with variations of semiconductor materials.

For example, scientists have seen potential in revisiting germanium for use in transistor technology. Electrons move four times faster in germanium than in silicon, providing a great opportunity to improve speed.

Additionally, manufacturers have experimented with the following semiconductor material:

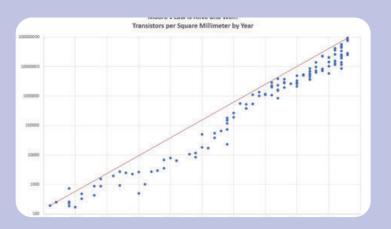
Tin Oxide High-power gallium nitride Antimonide-based and bismuthidebased materials Graphene, Pyrite.

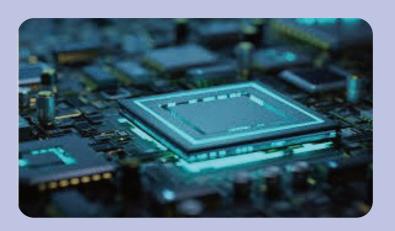
RECENT ADVANCES IN ADVANCED MANUFACTURING

Artificial intelligence (AI), the internet of things (IoT), 3D printing and virtual reality (VR) are just a few grains of sand on the beach of new manufacturing technology examples, but they are steadily becoming more common in manufacturing practices.

Technologies such as robotics, additive manufacturing, and nanotechnology are revolutionizing the way the manufacturing industry works.

Guest Lectures







FACULTY DEVELOPMENT PROGRAMS

s.no.	NAME OF THE FACULTY, DESIGNATION	PROGRAM NAME	ORGANIZED BY	DATE	RELEVANT AREA	DURATION
		Manufacturing Technology Research and Management	Aliah University, Kolkata	02-08 to 14-08- 2021	Manufacturing Technology Research and Management	13 days
1	Dr. P.Venkata Ramana Professor	Additive Manufacturing Processes & its Applications	Sri Manakula Vinayagar Engineering College, Puducherry	23-08 to 28-08- 2021	Additive Manufacturing Processes & its Applications	6 days
		AICTE ISTE Refresher Program "Industry 4.0: Preparedness of Academia to meet the challenges"	Walchand College of Engineering, Sangli	28-02 to 05-03- 2022	Industry 4.0: Preparedness of Academia to meet the challenges	6 days
		Joining Technologies for Metals	NPTEL-AICTE	01-08 to 25-09- 2021	Joining Technologies for Metals	8 weeks
2	Dr. K. Ankamma	Learning through Virtual labs for Technical Institutions	LENDI Institute of Engineering and Technology	18-10 to 22-10-2022	Learning through Virtual labs for Technical Institutions	7 days
	Professor	ATAL FDP " 3D Printing and Design"	University College of Engineering, Osmania University and AICTE Training and Learning (ATAL) Academy	25-10 to 29-10-2021	3D Printing and Design	7 days
		ATAL Academy, AICTE Sponsored "FDP MEMS Technology & Microsensors"	Dept. of ECE, National Institute of Technology (NIT) Shillong, Meghalaya	26-07 to 30-07- 2021	MEMS Technology & Microsensors	7 days
3	Dr. S.Madhava Reddy	NPTEL-AICTE FDP " Introduction to Mechanical Micro Machining"	NPTEL-AICTE Faculty Development Programme, IIT Kharagpur	Jan-Apr 2022(12 weeks)	Introduction to Mechanical Micro Machining	one and half week(1 1/2 FDP)
	Professor	Envisioning Pathways in Thermal Sciences	Dept. of Mechanical Engineering, SRM Institute of Science and Technology, Ramapuram, Chennai association with FEAST-ENGG ONLINE, Mumbai	23-05 to 28-05- 2022	Envisioning Pathways in Thermal Sciences	7 days

S.NO.	NAME OF THE FACULTY, DESIGNATION	PROGRAM NAME	ORGANIZED BY	DATE	RELEVANT AREA	DURATIO N
		Manufacturing Technology research and management	Aliah University, Kolkata.	02-08 tol4-08-2021	Manufacturing Technology research and management	Two Weeks
4	Dr. R.Uday Kumar Associate Professor	Materials for photonic applications	MGIT, Hyderabad.	09-08to 13-08-2021	Materials for photonic applications	7 days
		Digital manufacturing evolutions for smart industries	Poornima college of Engineering Jaipur, Rajasthan.	16-08 to 20-08-2021	Digital manufacturing evolutions for smart industries	7 days
5	B.Govinda Reddy, Assistant Professor	Role of Basic sciences in emerging technology	National Institute of Technology- mizoram&GMRIT- Rajam	09-14 march 2022	Role of Basic sciences in emerging technology	7 days
	Assistant Folessor	Recent Advances in Material Technology	AICTE,ISTE&SVERI College of Engineering	18-01 to 24-1-2022	Recent Advances in Material Technology	7 days
6	Dr. V.V.N. Satya Suresh Associate	One week ATAL FDP on "Artificial Intelligence for Computer Vision (Advanced)	AICTE	26-30th July,2021	CAD/CAM and Artificial Intelligence	5 Days
6	Professor	One week FDP on the theme "Inculcating Universal Human Values in Technical Education	AICTE	15-19th Nov, 2021	Human values	5 Days
		Post Covid Green and Sustainable development practices in Manufacturing Industries	Organized by CVRCE - Ibrahimpatan	17-01 to 21-01-2022	Post Covid Green and Sustainable development practices in Manufacturing Industries	6 days
7	Dr. P.Srinivasa Rao Assistant Professor	AICTE-ISTE approved One Week Orientation/Refreshe r Program Innovative Approaches to Improve Startup and Entrepreneurship Development Skills of Young Faculty	REC, Visakhapatnam	18-12 to 24-12-2021	Innovative Approaches to Improve Startup and Entrepreneurship Development Skills of Young Faculty	7 Days
		AICTE & ISTE approved One Week FDP Advance Materials & Manufacturing	GZSCCET MRSPTU, Bathinda	16-12 to 22-12-2021	Advance Materials & Manufacturing	7 Days

S.NO.	NAME OF THE FACULTY, DESIGNATION	PROGRAM NAME	ORGANIZED BY	DATE	RELEVANT AREA	DURATION
		Fuel powered, Hybrid Electric and Modern Vehicles	VNR VJIET	19-07 to 24- 07-2021	Automobile Engg	6 days
8	Mr.K.V.Kasi 8 Viswanatham Sr.Asst.Professor	Additive Manufacturing processes and its applications	Sri Manakula Vinayagar Engineering College	23-08 to 28- 08-2021	Manufacturing	6 days
		Advancements in Automotive Industries	Satyabama Institute of Science and Technology	18-10 to 25- 10-2021	Automobile Engg	8 Days
		ISTE Sponsored one-week Online Faculty Development Programme (FDP) on "EMERGING TRENDS IN ADVANCED MATERIALS & MANUFACTURING PROCESSES"	Department of Mechanical Engineering, Kakatiya Institute of Technology & Science, Warangal,	12-07-2021 to 16-07-2021	"EMERGING TRENDS IN ADVANCED MATERIALS & MANUFACTURING PROCESSES"	5 Days
9	K.C.Sabitha Assistant Professor	"Fuel powered, Hybrid Electric and Modern Vehicles	Department of Automobile Engineering, VNRVJIET, Hyderabad	19-7 to 24-7- 2021	"Fuel powered, Hybrid Electric and Modern Vehicles	6 days
		"Innovations and Challenges in Industry 4.0 Automation and Smart Manufacturing"	Department of Mechanical Engineering, KALLAM HARANADHAREDDY INSTITUTE OF TECHNOLOGY, Guntur, Andhra Pradesh	26-07 to 31-7- 2021	"Innovations and Challenges in Industry 4.0 Automation and Smart Manufacturing"	6 days
		FDP on "Learning Through Virtual Labs for Technical Institutions"	Department of Mechanical Engg, LIEAT vizianagaram, A.P	18-10 to 22-10 2021	Virtual Labs	7 Days
10	P V Prasad Reddy Assistant Professor	FDP on "Research Tools & Methodologies"	Department of Mechanical Engg, LIEAT vizianagaram, A.P	27-09 to 1-10- 2021	Research	7 Days
		"Recent Trends in the Industrial Engineering and Management (RTIEM-2021)"	Department of Mechanical Engg, GMRIT Rajam, A.P	26-07 to 30- 07-2021	Industrial Engineering	7 Days

s.no.	NAME OF THE FACULTY, DESIGNATION	PROGRAM NAME	ORGANIZED BY	DATE	RELEVANT AREA	DURATION
	M. Pratyusha	FDP on "EMERGING TRENDS IN ADVANCED MATERIALS & MANUFACTURING PROCESSES"	By Department of Mechanical Engineering, Kakatiya Institute of Technology & Science, Warangal, Telangana	12-07 to 16-07- 2021	Manufacturing	6 days
11	Assistant Professor	AICTE Sponsored FDP on "Innovations and Challenges in Industry 4.0 Automation and Smart Manufacturing"	Department of Mechanical Engineering, KALLAM HARANADHAREDDY INSTITUTE OF TECHNOLOGY, Guntur	09-08 to 14-08- 2021	Industry 4.0	6Days
		"Additive Manufacturing Processes and its applications"	Sri Manakula Vinayagar Engineering College, Puducherry	23-8-2021 to 28-8-2021	Additive Manufacturing	7 Days
	Ms.B.Haritha	ATAL FDP on Data Sciences	Saintgits college of Engineering	18-1 to 22-1- 2022	Data Sciences	5 days
12	Reddy Assistant Professor	Application of AI, ML andDL in Smart Healthcare	Maulana Abdul kalam Azad University of Technology,WB	27-9 to 1-10- 2022	AI, ML andDL	5 days
13	Mr. Srinivasa Reddy	Fuel powered, Hybrid Electric and Modern Vehicles	VNR VJIET	19-7 to 24-7- 2021	Hybrid Electric and Modern Vehicles	6 days
		AICTE-STTP on "Innovations and Challenges in Industry 4.0 Automation and Smart Manufacturing",	Organized by KHR INSTITUTE OF TECHNOLOGY, Guntur	9-8 to 14-8-2021	Dr S.H Somoshekhar, Dept.of ME, Asso. professor, IIT Madras. Dr. M Ravi Shankar, Dept.of ME, IIT, Tirupati	6 days
14	D.Kameshwara Rao , Assistant Professor	Attended a FDP on "Recent research and advances materials water & waste water treatment	Organized by Bharat Institutions , Hyderabad	2-8 to 8-8-2021	Advances materials	7days
		Vehicle Competition	FMAE-BAJA hyderabad	1-10 to 5-10-2021	Automobile Engineering	5 days

S.NO.	NAME OF THE FACULTY, DESIGNATION	PROGRAM NAME	ORGANIZED BY	DATE	RELEVANT AREA	DURATION
		AICTE Sponsored STTP "Innovations and Challenges in Industry 4.0 Automation and Smart Manufacturing"	Kallam Haranadha Reddy Institute of Technology , Guntur , AP	26-07 to 31-7-2021	Automation and Smart Manufacturing	7 days
15	Mr.B RamaKrishna Assistant Professor	ATAL FDP on "Applications of Artificial Intelligence in Mechanical Engineering "	K. Ramakrishnan College Of Engineering, Tamilnadu	2-8 to 6-8-2021	Applications of Artificial Intelligence in Mechanical Engineering	7 days
		ATAL FDP on "Renewable Energy – A future alternative"	Organized by Government Polytechnic College ,Thane. Maharastra	17/01/2022 to 21/01/2022.	"Renewable Energy – A future alternative"	7 days
		AICTE Sponsored STTP "Innovations and Challenges in Industry 4.0 Automation and Smart Manufacturing"	Organized by Kallam Haranadha Reddy Institute of Technology, Chowdavaram, Guntur,A.P	09-8 to 14-8-2021	"Innovations and Challenges in Industry 4.0 Automation and Smart Manufacturing"	Six Days
16	K. Prudhvi Raj Assistant Professor	AICTE ATAL FDP Outcome Based Curriculum and Examination Reforms	Organized by B.V.V.S. Polytechnic (Autonomous), Bagalkot, KN	25-10 to 29-10-21	Outcome Based Curriculum and Examination Reforms	Five Days
		Additive Manufacturing: Present & Future Trends	Organized by VNR VJIET,Hyd.	01-11 to 6-11-21	Additive Manufacturing: Present & Future Trends	Six Days
17	Dr. G Rakesh Kumar Asst.Professor	Plastic Waste management through waste to Wealth Concept	Organnised by CIPET, Guwahati	21-3 to 26-03- 2022	Waste management	7 Days
		STTP organised by MCT on "Recent Trends in Renewable Energy Sources and Applications"	Rajiv Gandhi Institute of Technology	5-7 to 10-7-2021	Renewable Energy	6 Days
18	Mrs. K.Sirisha Asst.Professor	FDP on "Recent Innovative D evelopments in Thermal Engineering (RIDTE - 2021)"	Dept of ME, Malla Reddy Engineering College	28-6 to 3-7-21	Thermal Engineering	6 Days
		30 day online, Faculty Induction Programme – (FIP-6)	JNTUH , UGC HRDC,	30-8-2021 to 8- 10-2021	Faculty Induction Program	30 Days

s.no.	NAME OF THE FACULTY, DESIGNATION	PROGRAM NAME	ORGANIZED BY	DATE	RELEVANT AREA	DURATION
		Advanced Manufacturing Technology	SRM Institute of Science ans Technology	13/09 to 18/09/2021	Manufacturing	6 days
19	Mrs. Y.V.N. Chandana Assistant Professor	Advanced Materials and Manufacturing Technology	EASWARI ENGINEERING COLLEGE, Chennai	27/09 to 08/10/2021	Materials Science	12 Days
		Additive Manufacturing: Present & Future Trends	VNR VJIT	01/11 to 6/11/2021	Rapid Prototyping	6 days
	Dr. T Niranjan Assistant Professor	Two week Online FDP on Advanced Optimization Techniques and hands-on with MATLAB/SCILAB	Jointly organised by Electronics & ICT Academies MNIT Jaipur, NIT Patna, IIITDM Jabalpur & IIT Guwahati	06 .09.2021 to 17.09.2021	Advanced Optimization Techniques	12 Days
20		12 weeks Online NPTEL course on Optimization methods for Civil engineering	IIT Guwahati	During July- October 2021	Optimization	10 Days
		ISTE-AICTE Approved Two Week Short Term Training Program STTP (Online mode) on "Advances & Applications of Artificial Intelligence & Machine Learning (AIML)"	Sinhgad College of Engineering, Pune	22-11 to 2-12-21	Artificial Intelligence & Machine Learning (AIML)	12 Days
		Recent advancements in Sustainable energy Storage and conversion	ATAL - MIT Manipal	25.10.2021 to 29.10.2021	Energy	7 days
21	Dr. P. Badari Narayana Associate Professor	Program on Introduction to the Mathematical Modelling of Smart Materials and their Applications to Sensors & Actuators	ATAL IIT Jammu	12.07.2021 to 16.07.2021	Mechatronics	7 days

s.no.	NAME OF THE FACULTY, DESIGNATION	PROGRAM NAME	ORGANIZED BY	DATE	RELEVANT AREA	DURATION
		FDP	Sri Manakula Vinayagar Engineering College,Puducherry	23-28 August 2021	Additive Manufacturing processes and its Appliations	7 days
22	Ms. C. Sucharitha Assistant Professor	30 Days Master Class	Pantech e Learning pvt. Ltd.	17 Oct - 18 Nov 2021	Renewable Energy Sources	30 Days
		30 Days Master Class	Pantech e Learning pvt. Ltd.	23 Aug - 21 Sep 2021	Master Class on EV Design using MATLAB	30 Days
		One Week Online FDP on Post Covid Green and Sustainable Development Particles in Manufacturing Industries	CVR College of Engineering, Hyderabad	17th to 21st Jan 2022	Manufacturing	7 days
23	Mr. Ajay Kumar S Assistant Professor	Two Week Online FDP on "Manufacturing Technology Research and Management"	Aliah University, Kolkatta.	2nd - 14th Aug 2021	Manufacturing	14days
		AICTE Sponsored Five Days Virtual Short Term Training Program on "Technology Enablers for Smart Manufacturing Using Industry 4.0"	NMIT, Bangalore	12th - 16th July 2021	Smart Manufacturing	5days
		One Week Online FDP on "Recent Innovative Developments in Thermal Engineering (RIDTE - 2021)"	Malla Reddy Engineering College (Autonomous), Hyderabad	28th June – 3rd July 2021	Thermal	6 days
24	Mr. P Shashidar Assistant Professor	AICTE Sponsored Five Days Virtual Short Term Training Program on "Technology Enablers for Smart Manufacturing Using Industry 4.0"	NMIT, Bangalore	12th - 16th July 2021	Smart Manufacturing	5 days
		ISTE- Sponsored One Week Online FDP on "Emerging Trends in Advanced Materials & Manufacturing Processes"	KITS, Warangal	12th - 16th July 2021	Manufacturing	5 days

s.no.	NAME OF THE FACULTY, DESIGNATION	PROGRAM NAME	ORGANIZED BY	DATE	RELEVANT AREA	DURATION
		One Week Online FDP on "Post-Covid Green and Sustainable Development Practices in Manufacturing Industries"	CVR College, HYD	17th -21st Jan 2022	Manufacturing	6 days
25	Mr. K Santosh Kumar Assistant Professor	7 Days Virtual Workshop on "Advancements in Automotive Industries"	Sathyabhama Inst. of Sci & Tech	18th - 25th Oct 2021	Automotive	7 days
		Two Week Online FDP on "Manufacturing Technology Research and Management"	Aliah University, Kolkatta.	2nd - 14th Aug 2021	Manufacturing	14 days
		FDP Oon additive manufacturing present &future trends	VNRVJIT-HYD	1-11 to 6-11-2021	3D printing	6 days
26	G Ashok Assistant Professor	ATAL FDP on 3D printing & design	OU-HYD	25-10 to 29-10- 2021	3D printing	5 Days
	Assistant Folessor	FDP on post covid green & sustainable development practices in manufacturing industries	CVR-HYD	17-01 to 21-01-2022	Manufacturing	5 Days
		FDP on "Finite Element Method (with applications to solid mechanics, heat transfer and fluid mechanics)"	M.B.M Engineering College, Faculty of Engineering and Architecture, Jai Narain Vyas University, Jodhpur.	17/08/2021 to 21/08/2021	Analysis	5 Days
27	Dr. Asheesh Kumar Assistant Professor	FDP on "Recent Advances in Mechanical Engineering Design"	Bharati Vidyapeeth (Deemed to be University) College of Engineering	20/07/2021 to 24/07/2021	Design	5 Days
		FDP on "Recent Trends in Upstream Petroleum Technology	Dibrugarh University	07/03/2022 to 11/03/2022	Petrolium Technology	5 Days
28	Mr. V Vijaya Bhaskar Assistant Professor	Computational and Experimental methods in Manufacturing (CEMM-2022)	MANIT, BHOPAL	7-03 to 11-03-2022	Manufacturing	5 Days

STUDENT PUBLICATIONS

- Calculating the Value of Coins Using Weight by Interfacing with Arduino by Ashish Balda in Volume 9, Issue 6, June 2022 of the International Journal Of Advanced Research In Science, Engineering And Technology,
- Design And Fabrication Of Multi Axis Welding With Auto Indexing by Kokkonda Lokesh, B Pavan Kalyan and Dappu Pratap in the Conference Proceedings for SUDHEE 2022, March 23-24 by Chaitanya Bharathi Institute of Technology (A), Hyderabad

CO-CURRICULAR ACHIEVEMENTS OF THE STUDENTS Academic Year: AY: 2021-22

S.No.	Name of the Student	Roll No.	Event	Organaized by	Date	Participation/ Award
1	M.Uttej Reddy	18261A1429	Webinar On "Developing tomorrow's Skills- Tips to crack the Job Interviews"	At ESCI, Gachibowli	25th Oct 2021	Participation
2	V. SRIKANTH	18261A1450	Webinar On "Developing tomorrow's Skills- Tips to crack the Job Interviews"	At ESCI, Gachibowli	25th Oct 2021	Participation
3	VISHWA TEJA DUSA	18261A1451	Webinar On "Developing tomorrow's Skills- Tips to crack the Job Interviews"	At ESCI, Gachibowli	25th Oct 2021	Participation
4	GOGINENI ANISH BABU	18261A1418	Webinar On "Developing tomorrow's Skills- Tips to crack the Job Interviews"	At ESCI, Gachibowli	25th Oct 2021	Participation
5	M.Kiran kumar	19261A1426	Webinar On "Developing tomorrow's Skills- Tips to crack the Job Interviews"	At ESCI, Gachibowli	25th Oct 2021	Participation

S.No.	Name of the Student	Roll No.	Event	Organaized by	Date	Participation/ Award
6	K.Amarnath	19261A1420	Webinar On "Developing tomorrow's Skills- Tips to crack the Job Interviews"	At ESCI, Gachibowli	25th Oct 2021	Participation
7	YELURI PURNA SATYANARAYA NA	19261A1453	Webinar On "Developing tomorrow's Skills- Tips to crack the Job Interviews"	At ESCI, Gachibowli	25th Oct 2021	Participation
8	S.Nehal	19261A1442	Webinar On "Developing tomorrow's Skills- Tips to crack the Job Interviews"	At ESCI, Gachibowli	25th Oct 2021	Participation
9	Vedarsh Reddy Muniratnam	20261A1428	Presented a paper titled" AI Based Prediction model for solar power Generation" in Technovation 22	MGIT, Hyderabad	30th June 2022	Winner
10	ASHISH BALDA	19265A1401	Presented a paper titled "Calculating the Value of Coins Using Weight by Interfacing with Arduino" in Technovation 22	MGIT, Hyderabad	30th June 2022	Runner

S.No.	Name of the Student	Roll No.	Event	Organaized by	Date	Participation/ Award
11	K.Bharati Kumar	18261A1427	Presented a paper titled "Design and fabrication of solar panel efficiency enhancement with Sun Tracking and cooling" in Technovation 22	MGIT, Hyderabad	30th June 2022	Participation
12	MAMIDI JYOTHI LOHITH KUMAR	18261A1428	Presented a paper titled "Design and fabrication of solar panel efficiency enhancement with Sun Tracking and cooling" in Technovation 22	MGIT, Hyderabad	30th June 2022	Participation
13	BALDA RAJAT	19265A1402	Presented a paper titled "Design and fabrication of solar panel efficiency enhancement with Sun Tracking and cooling" in Technovation 22	MGIT, Hyderabad	30th June 2022	Participation
14	K.Lokesh	19265A1405	Presented a paper titled "Design and Fabrication of Domestic Water Quality Monitoring Device" in Technovation 22	MGIT, Hyderabad	30th June 2022	Participation

S.No.	Name of the Student	Roll No.	Event	Organaized by	Date	Participation/ Award
15	D Pratap	19265A140 3	Presented a paper titled "Design and Fabrication of Domestic Water Quality Monitoring Device" in Technovation 22	MGIT, Hyderabad	30th June 2022	Participation
16	GALLENNAGA RI NIDHI SRI	18261A1416	Presented a paper titled "Hubless Bicycle" in Technovation 22	MGIT, Hyderabad	30th June 2022	Participation
17	NADAKUDHIT I SAI RAVI VARMA	18261A1436	Presented a paper titled "Hubless Bicycle" in Technovation 22	MGIT, Hyderabad	30th June 2022	Participation
18	B. BADRINATH	21261A1409	Workshop on Robotics conducted Robotics club	Dept of MCT, MGIT	30th June 2022	Participation
19	CH. ARAVIND	21261A1410	Workshop on Robotics conducted Robotics club	Dept of MCT, MGIT	30th June 2022	Participation
20	A. SATWIK CHANDRA	20261A140 2	Workshop on Robotics conducted Robotics club	Dept of MCT, MGIT	30th June 2022	Participation

S.No.	Name of the Student	Roll No.	Event	Organaized by	Date	Participation/ Award
21	D. MANOJKUMA R	20261A1407	Workshop on Robotics conducted Robotics club	Dept of MCT, MGIT	30th June 2022	Participation
22	A. VEERANDER	20261A1413	Workshop on Robotics conducted Robotics club	Dept of MCT, MGIT	30th June 2022	Participation
23	K. MANISHA	20261A1417	Workshop on Robotics conducted Robotics club	Dept of MCT, MGIT	30th June 2022	Participation
24	P. VINAY REDDY	20261A1431	Workshop on Robotics conducted Robotics club	Dept of MCT, MGIT	30th June 2022	Participation
25	S. RAVI SRI SAI KIRAN	20261A1443	Workshop on Robotics conducted Robotics club	Dept of MCT, MGIT	30th June 2022	Participation

S.No.	Name of the Student	Roll No.	Event	Organaized by	Date	Participation/ Award
26	K. SAI VARUN	21265A1403	Workshop on Robotics conducted Robotics club	Dept of MCT, MGIT	30th June 2022	Participation
27	B.ABHINAV	19261A1402	Workshop on Robotics conducted Robotics club	Dept of MCT, MGIT	30th June 2022	Participation
28	CH. PAVANKUMAR	19261A1405	Workshop on Robotics conducted Robotics club	Dept of MCT, MGIT	30th June 2022	Participation
29	G. KUMUDA	19261A1412	Workshop on Robotics conducted Robotics club	Dept of MCT, MGIT	30th June 2022	Participation
30	J. NTHYANANDA NA	19261A1417	Workshop on Robotics conducted Robotics club	Dept of MCT, MGIT	30th June 2022	Participation
31	K. AMARANATH REDDY	19261A1420	Workshop on Robotics conducted Robotics club	Dept of MCT, MGIT	30th June 2022	Participation
32	K. DEBORAH	19261A1422	Workshop on Robotics conducted Robotics club	Dept of MCT, MGIT	30th June 2022	Participation

S.No.	Name of the Student	Roll No.	Event	Organaized by	Date	Participation/ Award
33	K. ROHITH RAJ	19261A1423	Workshop on Robotics conducted Robotics club	Dept of MCT, MGIT	30th June 2022	Participation
34	M. KIRANKUMAR	19261A1426	Workshop on Robotics conducted Robotics club	Dept of MCT, MGIT	30th June 2022	Participation
35	M. SHREYAS	19261A1432	Workshop on Robotics conducted Robotics club	Dept of MCT, MGIT	30th June 2022	Participation
36	MANOJ PRABHAKAR	19261A1433	Workshop on Robotics conducted Robotics club	Dept of MCT, MGIT	30th June 2022	Participation
37	R. SANTHOSH CHANDRA	19261A1440	Workshop on Robotics conducted Robotics club	Dept of MCT, MGIT	30th June 2022	Participation
38	S. NEHAL	19261A1442	Workshop on Robotics conducted Robotics club	Dept of MCT, MGIT	30th June 2022	Participation
39	V. VIGNESH	19261A1451	Workshop on Robotics conducted Robotics club	Dept of MCT, MGIT	30th June 2022	Participation

S.No.	Name of the Student	Roll No.	Event	Organaized by	Date	Participation/ Award
40	Y. PURNA	19261A1453	Workshop on Robotics conducted Robotics club	Dept of MCT, MGIT	30th June 2022	Participation
41	A. VIGNESH NAYAK	20265A1401	Workshop on Robotics conducted Robotics club	Dept of MCT, MGIT	30th June 2022	Participation
42	S. SAGAR	20265A140 5	Workshop on Robotics conducted Robotics club	Dept of MCT, MGIT	30th June 2022	Participation
43	T.Namratha Reddy	18261A1446	FMEA BAJA Season 4	FMEA, at FMEA moto Park, Hyderabad	1st Octobet 2021 to 5th October 2021	Participation
44	G Rakesh Reddy	18261A1415	Workshop on 'Build an Al Object Detection Engine'	Open weaver, Hyderabad	18-Dec-21	Participation
45	Anumala Sharath	18261A1403	workshop on Electric Two wheeler design	SAEISS India	from 21st to 25th June 2021	Participation
46	Lokesh Kokkonda	19265A140 5	Legacy Application Modernization of Course	TCS Master Craft Academy	01st March 2022	Appreciation

S.No.	Name of the Student	Roll No.	Event	Organaized by	Date	Participation/ Award
47	Voore Deepthi	18261A1453	Certification course on Mechanical CAD	CAD DESK India	23rd April 2022	Excellent
48	Aziz Ahmed	18261A1432	Certification course on Applied Machine Learning Course	Applied Al Course	June 14th 2022	Participation
49	KOMMULA THARUN	18261A1426	Certification course on Free Premium CSS Module - Part 2	Bit Degree	15th May 2022	Participation
50	KOMMULA THARUN	18261A1426	Certification course on Free Premium JavaScript Module	Bit Degree	21st May 2022	Participation
51	KOMMULA THARUN	18261A1426	Certification course on HTML Module	Bit Degree	18th May 2022	Participation
52	K Likhith	18261A1420	Certification course on Adobe Illustratror	Coursera	25th Mar 2022	Participation

S.No.	Name of the Student	Roll No.	Event	Organaized by	Date	Participation/ Award
53	K Likhith	18261A1420	Certification course on 'How to Transform Artwork in Adobe Illustrator'	Coursera	25th Mar 2022	Participation
54	K Likhith	18261A1420	Certification course on 'Design a Product Package on Mockup using Adobe Photoshop'	Coursera	29th Mar 2022	Participation
55	K Likhith	18261A1420	Certification course on 'How to Slice Webpages in Adobe Photoshop'	Coursera	29th Mar 2022	Participation

EXTRA-CURRICULAR ACHIEVEMENTS OF THE STUDENTS Academic Year: AY: 2021-22

S.No	Roll.No.	Name of the Student	Event	Organized by With Address	Date/Month /Year	Participatio n /Award
1	19261A1426	MALOTHU KIRANKUMAR	Technovation 22	Dept of MCT, MGIT	30.06.2022	Organizer
2	19261A1453	Y.PURNA SATYANARAYANA	Technovation 22	Dept of MCT, MGIT	30.06.2022	Organizer
3	20261A1417	K Manisha	Technovation 22	Dept of MCT, MGIT	30.06.2022	Co- ordinator
4	19261A1422	Deborah	Technovation 22	Dept of MCT, MGIT	30.06.2022	Volunteer
5	19261A1433	M. Manoj Prabhakar	Technovation 22	Dept of MCT, MGIT	30.06.2022	Volunteer
6	19261A1442	SHALI NEHAL	Technovation 22	Dept of MCT, MGIT	30.06.2022	Organizer

S.No	Roll.No.	Name of the Student	Event	Organized by With Address	Date/Month/ Year	Participation /Award
7	19261A1417	J.Nithya	Technovation 22	Dept of MCT, MGIT	30.06.2022	Organizer
8	19261A1420	KATHA AMARANATH REDDY	Technovation 22	Dept of MCT, MGIT	30.06.2022	Organizer
9	20261A1413	JALADHI VEERENDER	Technovation 22	Dept of MCT, MGIT	30.06.2022	Co-ordinator
10	19261A1451	VADLA VIGNESH	Technovation 22	Dept of MCT, MGIT	30.06.2022	Volunteer
11	19261A1432	MULA SHREYAS	Technovation 22	Dept of MCT, MGIT	30.06.2022	Volunteer
12	19261A1412	GANDI KUMUDA	Technovation 22	Dept of MCT, MGIT	30.06.2022	Volunteer
13	19261A1423	KOTA ROHITH RAJ	Technovation 22	Dept of MCT, MGIT	30.06.2022	Organizer
14	20265A140 5	SINGU SAGAR	Technovation 22	Dept of MCT, MGIT	30.06.2022	Organizer

S.No	Roll.No.	Name of the Student	Event	Organized by With Address	Date/Month/ Year	Participation /Award
15	20261A1402	ALETI SATHWIK CHANDRA	Technovation 22	Dept of MCT, MGIT	30.06.2022	Co-ordinator
16	21261A1422	KANKATALA BINDU	Technovation 22	Dept of MCT, MGIT	30.06.2022	Volunteer
17	19261A01440	SANTHOSH CHANDRA	Technovation 22	Dept of MCT, MGIT	30.06.2022	Organizer
18	20265A1401	AZMEERA VIGNESH NAYAK	Technovation 22	Dept of MCT, MGIT	30.06.2022	Co-ordinator
19	18261A1446	T Namratha Reddy	Ekalavya Sports Meet 2022	MGIT, Hyderabad	8th and 9th April 22	Merit Certificate
20	20261A1437	R Rahul Chary	Technovation 22	Dept of MCT, MGIT	30.06.2022	Co-ordinator

TECHNOVATION

Technovation is the technical fest conducted by Department of Mechatronics every year during NIRVANA. This edition was conducted on June 30th 2022 on the college campus. Many technical and non-technical events were held such as CAD competition, Ani-nation, Paper Presentation, Quiz, Drone Race and Robotics Workshop.

Convener - Dr. K. Sudhakar Reddy - HOD, Mechanical (Mechatronics) Engineering

Co-Convener - Dr. T. Niranjan Mr. G. Ashok

Student Convener - Koushik

Nidhi Sri Kumuda

Amarnath



https://mgit.ac.in/events/technovation-2022/

hodmct@mgit.ac.in

@technovation._2k22

TECHNOVATION







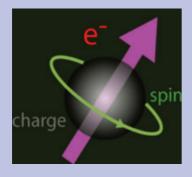
S.No	Roll.No.	Name of the Student	Event	Date	Position
1	19261A1426	MALOTHU KIRANKUMAR	Technovation 22	30.06.2022	Organizer
2	19261A1453	Y.PURNA SATYANARAYANA	Technovation 22	30.06.2022	Organizer
3	20261A1417	K Manisha	Technovation 22	30.06.2022	Co-ordinator
4	19261A1422	Deborah	Technovation 22	30.06.2022	Volunteer
5	19261A1433	M. Manoj Prabhakar	Technovation 22	30.06.2022	Volunteer
6	19261A1442	SHALI NEHAL	Technovation 22	30.06.2022	Organizer
7	19261A1417	J.Nithya	Technovation 22	30.06.2022	Organizer
8	19261A1420	KATHA AMARANATH REDDY	Technovation 22	30.06.2022	Organizer
9	20261A1413	JALADHI VEERENDER	Technovation 22	30.06.2022	Co-ordinator
10	19261A1451	VADLA VIGNESH	Technovation 22	30.06.2022	Volunteer
11	19261A1432	MULA SHREYAS	Technovation 22	30.06.2022	Volunteer
12	19261A1412	GANDI KUMUDA	Technovation 22	30.06.2022	Volunteer

S.No	Roll.No.	Name of the Student	Event	Date	Position
14	20265A1405	SINGU SAGAR	Technovation 22	30.06.2022	Organizer
15	20261A1402	ALETI SATHWIK CHANDRA	Technovation 22	30.06.2022	Co-ordinator
16	21261A1422	KANKATALA BINDU	Technovation 22	30.06.2022	Volunteer
17	19261A01440	SANTHOSH CHANDRA	Technovation 22	30.06.2022	Organizer
18	20265A1401	AZMEERA VIGNESH NAYAK	Technovation 22	30.06.2022	Co-ordinator
19	18261A1446	T Namratha Reddy	Ekalavya Sports Meet 2022	30.06.2022	Merit Certificate
20	20261A1437	R Rahul Chary	Technovation 22	30.06.2022	Co-ordinator

SPINTRONICS

The study of an electron's spin affects and other devices that take advantage of spin characteristics is known as spintronics or spin electronics. Spintronics, often referred to as spin Flextronics, is the study of fundamental electronic charge in solid-state devices as well as the inherent spin of the electrons and its related magnetic moment. A quantum-mechanical characteristic that can only take one of two states: spin-up or spin-down. identification Following the of the magnetoresistance (GMR) effect in the late 1980s. Solidstate physics problems like spin transport and spin relaxation in semiconductors and metals are







included in fundamental research together with new technology being used in electronic storage technology. The technology's possible future applications may be spin-based quantum computation, creation of spin polarization via optical or magnetic injection, Spin-based components like PN junctions and amplifiers Spintransport at semiconductor/superconductor contacts.At spintronics is used in storage media to store large amount of data in small space. Spintronics is also used in medical applications, such detection of cancer. The transition to quantum computing, where "qubits," or units of quantum information, can simultaneously be in spin-up and spin-down states, may also be made possible via spintronics. Nuclear spin or electron spin are employed as the building blocks of quantum computing. The quantum bit (qubit), which is equivalent to "0" or "1" in a classical computer, is provided by the spin-up and spin-down states of an electron or a nucleus. However, a spin that abides by the principles of quantum mechanics can contain arbitrary superpositions of these two states in addition to the up and down states. The proper understanding of spin effect will be an entirely new world of spin technology with new capabilities and opportunities.

Article Author: Dr. Asheesh Kumar, Assistant Professor, Department of Mechanical Engineering,



The booming club has been conducting events in the college and has continuously promoted the club and it's activities.



SAE:

SAEINDIA is an affiliate society of SAE International, registered as an Indian nonprofit engineering and scientific society dedicated to the advancement of the mobility community in India. As an individual member driven society mobility practitioners, SAEINDIA comprises members associated with transforming the transportation industry - which includes engineers, executives from the industry, government officials, academics students. Principal emphasis is placed on industries such as automotive, aerospace commercial vehicles. SAEINDIA promotes and undertakes initiatives for knowledge dissemination advancement in mobility technologies catering to land, sea, air and space. Out of many student centered events, BAJA SAEINDIA is one of the grandest events falling under the umbrella of SAEINDIA.





SAE: INDUCTION CEREMONY

The Department of Mechanical Engineering (Mechatronics) elected the board members for the academic year 2022-23. The club is being le by Mr. D. Kameswara Rao under the esteemed guidance of Dr. K. Sudhakar Reddy and Dr. G. Chandra Mohan Reddy.

The booming club has been conducting events in the college and has continuously promoted the club and it's activities. They've participated and organized several quizzes and competitions to engage with the students. They've also introduced the college to the racing teams and the roles and responsibilities within the team.

ROLES

Abhishek indupally Atharva Patil Vedarsh Reddy Lakshmi Deepak Ankush Kushal Rahul Chary Chairperson
Secretary
Treasurer
Event Chair
Publicity Chair
Membership Chair





QUADTEK RACING SHOWCASE

The BAJA vehicle was driven across the campus to raise awareness about SAE and the activities involved in the club. Interacted with the juniors and explained the working of the vehicle and the different teams.



FMAE BAJA 2021

Students of SAE MGIT have participated in BAJA 2021 conducted by FMAE, which is a national level ATV design competition, under the team name of Quadtek Racing in October 2021. The team of 25 members built an All-Terrain Vehicle (ATV) to participate in the contest. This was the first time for MGIT students to participate in such a prestigious contest and we believe this experience would bring laurels to the college in such future competitions. The club was led by Dr. K. Sudhakar Reddy, Head of Department, Department of Mechanical (Mechatronics) Engineering, MGIT and Dr. Kameshawara Rao, Assistant Professor, Department of Mechanical (Mechatronics) Engineering, MGIT. G. Anish Babu (Mechatronics, Final year) was the student Chairperson for the club.

TEAMS IN FMAE

A team in FMAE consists of different teams that help build the final vehicle.

The different teams in FMAE include: Design team, Suspension team, Braking team, Management team and Powertrain team.





THE DESIGN TEAM:

The Design and validation procedure carried out by Team BAJA MGIT Racing in developing a single- seater four-wheeled off-road 4-Wheel-Drive vehicle to participate in the annual BAJA FMAE event has been outlined in this report. The ATV adheres to all the BAJA FMAE rules. Performance, Ergonomics, Safety, Reliability, and Cost of manufacturing were the five main factors that drove all the decisions taken in the design of the ATV.

SUSPENSION TEAM:

The objective of the suspension team is to fabricate the suspension system to allow better absorption of shocks and improve handling and provide maneuverability in rough terrains. The suspension systems were designed for max travel of 150mm bump and 100mm rebound travel. The designing of the suspension components of the ATV are done with respect to parameters such as Vertical travel, camber change, toe change and motion ratio.

BRAKING TEAM:

The main objective of a Braking Team is to design a braking system which is capable of decreasing the speeds of the vehicle in a substantial and controlled manner by dynamically locking the wheels in accordance with the force applied at the brake pedal by the driver thereby increasing the maneuverability of the car.

STEERING SYSTEM:

The objective of the steering subsystem is to allow better handling and turning capabilities of the car during the endurance and other maneuvering challenges. The designed suspension is a front wheel Ackerman type steering geometry with a tilting steering column type.



POWERTRAIN:

The Powertrain Objective was to design a lightweight and durable 4WD system capable of providing a high top speed, high acceleration, and sufficient gradeability. The selection of final drive ratio and gearbox ratio was done by iteratively mathematically modeling the powertrain to chart the vehicle's position, velocity and acceleration as a function of time. The final transmission system was designed by finding the right balance between acceleration, top-speed and gradeability.





MANAGEMENT TEAM:

What does it mean to be a manager? What does it take to manage a team? management is always associated with being a leader or a role model to a certain set of people. But more than anything, it requires the skill of leading the team by being a team player first. An efficient team is the mirror image of its efficient leader. It is important for every individual to build skills management in them. This team is responsible for generating cost reports and business reports. They're also responsible for getting sponsors. This team also includes graphic designers, social media content creators, and animators. They maintain an active social media presence





AUTOMOTIVE QUIZ

The members of SAE club conducted an automotive quiz in regards with our college team. There were 23 rounds with increasing difficulty. The range of topics were form formula 1 to the basics of an automobile and its components and workings. All phases of automobile world were explored and questioned. the response was overwhelming with around 60 people participating.

Some of the interesting questions were -

What is the slogan of AUDI? Who launched the first EV in India? Expand NVH.

What is the fastest E-Bike made in India?









Metal Inert Gas (MIG) Welding Metal Inert Gas (MIG) welding is an arc welding process that uses a continuous solid wire electrode heated and fed into the weld pool from a welding gun. The two base materials are melted together forming a join. The gun feeds a shielding gas alongside the electrode helping protect the weld pool from airborne contaminants.

Tungsten Inert Gas (TIG) welding also known as Gas Tungsten Arc Welding (GTAW) is an arc welding process that produces the weld with a non-consumable tungsten electrode.

WELDING TECHNICAL TRAINING WORKSHOP

A technical workshop was conducted by the members of SAE club on different types of welding to teach the students about different types and also gave them a practical demonstration of how each and every type of welding happens. the students were also given a chance to try their hands at welding under the supervision of technical experts.

they were exposed to different techniques such as MIG, TIG, electric arc, etc. the response to the workshop was very good and well appreciated by faculty and management alike.



Arc welding is a type of welding process using an electric arc to create heat to melt and join metals. A power supply creates an electric arc between a consumable or nonconsumable electrode and the base material using either direct (DC) alternating (AC) currents. Arc welding is a fusion welding process used to join metals. An electric arc from an AC or DC power supply creates an intense heat of around 6500°F which melts the metal at the join between two work pieces

Robothon

Students of our department participated in a Robotics competition called Robothon. It was a hackathon based on robotics in association with Tamilasai and the students were able to give their best in this competition. one of our teams was also selected and won the second prize in the competition.

The team designed and developed a surveillance bot model and demonstrated the working of the model to the dignitaries present at the event and had a successful run of the model.

They also made a poster to depict the general information regarding the robot and the effectiveness of the model.







ADVANCED MAUFACTURING TECHNOLOGY

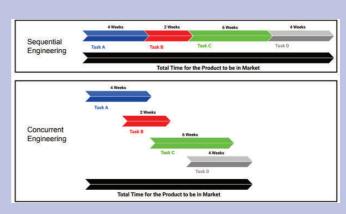
Traditional manufacturing is based on the use of dedicated plant and production lines with little or no flexibility. Advanced manufacturing involves versatile production methods that fully utilize capital plants and are more efficient, effective and responsive. Although there are circumstances where traditional, dedicated methods are still appropriate such as lona, production advanced predictable runs manufacturing has the capacity to accommodate the requirements production customisation commonly encountered by industry, without the need for excessive capital investment.



Dr. V.V.N. Satya Suresh

Advanced manufacturing encompasses all aspects of the value chain from concept to end-of-life considerations, and relies on information communication technology (ICT) to integrate the manufacturing and business activities into a seamless efficient operation. involves design, simulation, physical and computer modeling, advanced production technologies, and control techniques. The emphasis is on simultaneous rather than sequential engineering. Relevant production technologies include rapid prototyping, near net shape manufacture, and precision casting, machining and joining techniques.





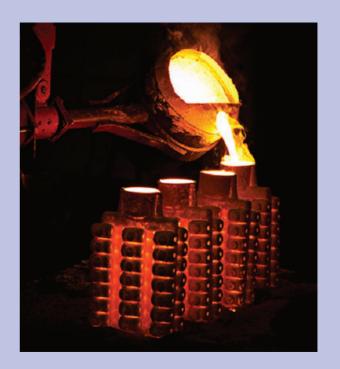
The technologies involved in advanced manufacturing can be divided into three main groupings: efficient production, intelligent production and effective organization.

Efficient production involves design, simulation, physical and computer modelling, advanced production technologies, and control techniques. The emphasis is on simultaneous rather than sequential engineering. Relevant production technologies include rapid prototyping, near net shape manufacture, and precision casting, machining and joining techniques.

Intelligent production involves the use of ICT in manufacturing and related logistics systems. As well as production orientated intelligent machines, cells and production lines, the philosophy involves implementing systems for the extended life and optimal use of production facilities through efficient monitoring, maintenance and repair strategies.

Effective organization involves the efficient co-ordination and exploitation manufacturing resources. This encompasses both physical resources and knowledge. Relevant topics include virtual tendering and enterprises, shared facilities and resources, novel organizations, incubation units, knowledge management and trading, and electronic commerce. Emphasis in this area is on the use of technology to enhance the involvement and capability of SMEs as well as organizations.

involves design, simulation, physical and computer modelling, advanced production technologies, and control techniques. The emphasis is on simultaneous rather than sequential engineering. Relevant production technologies include rapid prototyping, near net shape manufacture, and precision casting, machining and joining techniques.



Article by Dr. V.V.N. Satya Suresh
Professor- Department of Mechanical Engineering (Mechatronics)

INDUSTRIAL VISITS

S.NO	NAME OF THE COMPANY	VISIT DATE	NO. OF STUDENTSVISITED
1	M/s Sai Deepa Rock Drilling Tools , Hyderabad	07/09/21	58
2	M/s Fluroshield Equipments, Hyderabad	07/09/21	56
3	M/s G.I. Automations Hyderabad	07/09/21	56
4	M/s Fluroshield Equipments, Hyderabad	03/12/21	74
5	M/s G.I. Automations Hyderabad	03/12/21	72
6	M/s Fluroshield Equipments, Hyderabad	11/12/21	62
7	M/s Sai Deepa Rock Drilling Tools , Hyderabad	11/12/21	62
8	Guest Lectures on 'Automobile and off roading Vehicle by Mr. Keshav Rao Under the Aegis of SAE-MGIT	02/4/21	98
9	Guest Lectures on "Networking to Build Your Career" by Smrithy Sasidharan - Director Strategy & Operations, Vatson group Under the Aegis of SAE-MGIT	26/4/21	84
10	M/s Bharat Dynamics Limited	13/12/21	06



INDUSTRIAL VISIT - SAI DEEPA ROCK DRLLING TOOLS, HYDERABAD

Department of Mechanical engineering (Mechatronics), Mahatma Gandhi institute of Technology arranged one day Industrial Visit for III year Mechanical/ Mechatronics students to "M/s SAI DEEPA ROCK DRILLING TOOLS", HYDERABAD dated 12th December 2021 for better technical knowledge enhancement of students.

The students observed various machinery like CNC lathe, milling, slotting machines, assembly lines, heat treatment processes, their working and the ongoing production processes. They were able to see the industrial furnaces used for heat treatment process, shot blasting, blackening process after heat treatment. At the end students were allowed to interact with the Technical personnel and doubts express their and clarifications. The industrial visit ended with a query session and students were motivated to become entrepreneurs.



Sai M/s **Students** observed Deepa's high-tech manufacturina facilities of advanced manufacturing machinery, techniques and most advanced rock drilling tools to meet the growing needs of the international Indian and customers. Industry experts explained about working of the Closed / Open die Forging plants, cutting machines, CNC milling, turning, drilling centers, High end seal quench treatment, Shot Blasting Painting and packing facility to produce world-class rock drilling tools.

STUDENT PLACEMENTS

S.No.	Name	Roll No.	Name of the Employer
1	AITA NIKHIL	18261A1401	M/s JSW / Wipro
2	CHAVA NITISH		M/s Wipro Ltd. Hyderabad
2	CHAVA NITION	18261A1411	M/s JSW
3	CHIKKA PRAVEEN DAS	18261A1412	M/s Wipro Ltd. Hyderabad
		SALLENNAGARI NIDHI SRI 18261A1416	M/s Innominds Software SEZ India Pvt. Ltd., Hyderabad
4	GALLENNAGARI NIDHI SRI		M/s Oorja Energy Engineering Services Hyd Pvt. Ltd.
			M/s Edge Force Solutions Pvt. Ltd, Hyderabad
5	Anish Babu Gogineni	18261A1418	M/s Cognizant Technology Solutions India Pvt. Ltd., Hyderabad
6	SRI HARIKA KALISETTI	18261A1421	M/s Wipro Ltd. Hyderabad

53

S.No.	Name	Roll No.	Name of the Employer
7	Yeshwanth Rao Kotakonda	18261A1423	M/s Cognizant Technology Solutions India Pvt. Ltd., Hyderabad
		18261A1423	M/s Edge Force Solutions Pvt. Ltd, Hyderabad
		18261A1423	M/s Wipro Ltd. Hyderabad
8	THARUN KOMMULA	18261A1426	M/s Wipro Ltd. Hyderabad
9	Mamidi Jyothi Lohith Kumar	18261A1428	M/s Wipro Ltd. Hyderabad
10	M SAICHARAN REDDY	18261A1431	M/s Blackridge Research & Consulting, Hyderabad
		18261A1434	M/s JSW steel
		18261A1434	M/s Cognizant Technology Solutions India Pvt. Ltd., Hyderabad
11	MOTAMARRI Om HARIK	18261A1434	M/s Tata Consultancy Services Ltd., Hyderabad
		18261A1434	M/s Laser Shaving Products Pvt. Ltd.

S.No.	Name	Roll No.	Name of the Employer
12	NANDINI VISHWANATH	18261A1437	M/s Brane Services Pvt. Ltd.
13	Tandra Namratha Reddy	18261A1446	M/s Cognizant Technology Solutions India Pvt. Ltd., Hyderabad
		18261A1447	M/s Thudersoft India Pvt. Ltd.
14	Tarun Raj	18261A1447	M/s Quest Global Engineering Services Pvt. Ltd. Bangalore
		18261A1447	M/s UNSCHOOL
15	Nishanth	18261A1448	M/s Viatech Labs
15	Thummanapally	18261A1448	M/s Wipro Ltd. Hyderabad
16	VISHWA TEJA DUSA	18261A1451	M/s Wipro Ltd. Hyderabad
10	TIONINA PERA DOCA	18261A1451	M/s Blackridge Research & Consulting, Hyderabad
17	VOORE DEEPTHI	18261A1453	M/s Satyam Venture Engineering Services Private Limited

S.No.	Name	Roll No.	Name of the Employer
18	SAVALI PANDU	17265A1411	M/s Olectra Greentech limted, Hyderabad
19	ASHISH BALDA	19265A1401	M/s Oorja Energy Engineering Services Hyd Pvt. Ltd.
20	BALDA RAJAT	19265A1402	M/s Oorja Energy Engineering Services Hyd Pvt. Ltd.
21	KOKKONDA LOKESH	19265A1405	M/s Blackridge Research & Consulting, Hyderabad

A big hearty congratulations to all the students who got placed during the campus placements. We wish you the best of luck in your future endeavours!

HIGHER EDUCATION

S.No.	Name of the student placed	Roll no,	Details of higher Educataion
1	ANKIT KUMAR JHA	14261A1403	M B A , IMT GHAZIABAD
2	B SRIDIVYA	14261A1407	M S , UK
3	D ANANTH NARAYANA	14261A1411	MBA , Delhi
4	G GUNA SHEKAR	14261A1413	M S (University of SouthAmpton) U K
5	GAHLOT RAHUL SINGH	14261A1414	M S (University of South Florida), U S A
6	GINJUPALLI AASHRITHA	14261A1415	M S (University of Hertfordshire), U K
7	INDUKURI PAVAN KUMAR RAJU	14261A1420	M Tech ,Amity University, Gurgaon
8	KARTHIK SANDINENI	14261A1422	M S (Wichita State University) U S A
9	KOYI SHIVA SHANKAR	14261A1424	M S , Canada

S.No.	Name of the student placed	Roll no,	Details of higher Educataion
10	MANDA VIVEK	14261A1428	M S (Deakin University)Australia
11	MOHAMMED INZAMAM ALI HAQQANI	14261A1430	M S , California St University, USA
12	N D SATYADEVA MADHUKAR	14261A1433	M B A , S P jain College, Mumbai
13	P SHIVA SAI MADHU	14261A1434	M S Canada
14	V KHUSHI	14261A1446	M S Australia
15	VALMIKAM VENKATA KRISHNA	14261A1447	M S, Uk
16	KOTHAPALLI KARTHEEK KUMAR	14M51A1401	M S , Germany





