

MCT'S RGIT Student Chapter

ACTIVITY REPORT BOOK JULY 2022 - JULY 2023

	MACT
	MANJARA CHARITABLE TRUST
RAJ	IV GANDHI INSTITUTE OF TECHNOLOGY, MUMBAI
	(Permanently Affiliated to University of Mumbai)
	Program Outcomes (PO) Engineering Graduates will be able to:
PO1	Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
PO2	Problem analysis : Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
PO3	Design/development of solutions : Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
PO4	Conduct investigations of complex problems : Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
PO5	Modern tool usage : Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.
PO6	The engineer and society : Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
PO7	Environment and sustainability : Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
PO8	Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
PO9	Individual and team work : Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PO10	Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
PO11	Project management and finance : Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
PO12	Life-long learning : Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

MANJARA CHARITABLE TRUST

RAJIV GANDHI INSTITUTE OF TECHNOLOGY, MUMBAI

(Permanently Affiliated to University of Mumbai)

Department of Mechanical Engineering

Vision

To create competent technical professionals in Mechanical Engineering with ethical behaviour and environment consciousness.

Mission

- 1. To provide contemporary and cutting-edge technical education in Mechanical Engineering.
- 2. To provide an ambience which nurtures research ideas in futuristic domains of Mechanical Engineering.
- 3. To initiate project based learning and practical exposures in the area of Mechanical Engineering.
- 4. To direct faculties in research and consultancy / advisory roles.
- 5. To establish strong linkages with well-known national and international technical institutes.
- 6. To promote the culture of imbibing environmental care and eco-friendly designs.
- 7. To become a department of aspiration & choice.

Program Educational Objectives (PEOs)

PEO1: To prepare the stakeholder to exhibit leadership qualities with demonstrable attributes in lifelong learning to contribute to the societal needs.

PEO2: To make ready the stakeholder to pursue higher education for professional development.

PEO3: To help the stakeholder to acquire the analytical and technical skills, knowledge, analytical ability attitude and behavior through the program.

PEO4: To prepare the stakeholders with a sound foundation in the mathematical, scientific and engineering fundamentals.

PEO5: To motivate the learner in the art of self-learning and to use modern tools for solving real life problems and also inculcate a professional and ethical attitude and good leadership qualities.

PEO6: To prepare the stake holder to able to Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

Program Specific Outcomes (PSOs)

PSO1:Successful Career and Entrepreneurship: Graduates will be able to understand the social-awareness and environmental wisdom along with ethical responsibility to have a successful career and to sustain passion and zeal for real-world applications using optimal resources as an entrepreneur.

PSO2: Hobbies and Career: Graduates have nurtured their hobbies which are useful in their specific chosen career.



Dated: 20/05/2023

Report of Student Body ASME-RGIT for Academic Year 2022-2023

1. Name of Chairperson: Ms. Ishita Kale

2. Name of Coordinator: Prof. Amol Mangrulkar

- 3. Academic Year: 2022-23
- 4. Total no of Activities conducted: 12

As part of extracurricular and co-curricular activities to develop the students' all-round personalities, the ASME-RGIT committee members organize various events. In the academic year 2022-23, we organized various events which are given below.

SR. NO.	NAME	DATE	SPEAKER	EVENT	REMARK
1	Engineering Skills of the Decade	18/07/2022	Mr. Danish Sayyed	Quiz Competition	Academitia
2	Building LinkedIn Profiles	04/08/2022	Mr Yash Karanjavkar	Seminar	To build LinkedIn Profile
3	E-Cyclothon 22	13/08/2022 to 15/08/2022	_	Technical Competition	Achievements: 1st Runner Up & Best Design Award

4	Millennials in Stem	30/08/2022	Mr.Dinesh Vishwakarma	Webinar	Informative
5	5 Role of Multi- Disciplinary Engineering		Mr.Prathmesh Upadhyay	Webinar	Informative
6	6 ASME Standards in Industry Quiz 30 Competition		-	Quiz Competition	Academitia
7	Engineering Education	13/11/2022	Mr.Vacchani Raj Mahendra	Webinar	Academitia
8	Skill Development Workshop 22/12/202 to 24/12/202		Mr.Siddique Kazi	Workshop	Academitia
9	IoT Workshop	27/01/2023 to 29/01/2023	Mr.Mohmmad Rafi Jalgoankar	Workshop	Academitia
10	NX CAD 3D Printing Workshop	17/03/2023 to 21/03/2023	Mr. Hanzala Maknojia	Workshop	Academitia

11	HPVC	2022-23	_	National Level Technical Competition	Achivements: AIR 5
12	IAM3D	2022-23	_	National Level Technical Competition	Achivements: AIR 7

Thanking You.

Prepared By,

Ms. Ishita Kale

(ASME Chairperson)

Prof. Amol Mangrulkar

(ASME Coordinator)

Dr. Rajesh V. Kale (HOD)

SENIOR CORE 2022-23

POSITION	NAME
Chairperson	Ishita Kale
Vice Chairperson	Harshal Yeole
General Secretary	Sanaullah Ansari
Treasurer	Omkar Parab
Event Management Secretary (1)	Vatsal Shanbag
Event Management Secretary (2)	Jay Savale
Public Relations Secretary	Anushka Dhamankar
Technical Secretary (1)	Mohammad Rafi Jalgaonkar
Technical Secretary (2)	Kaushal Bharambe
Documentation Secretary	Bhavana Kolkandi
Logistics Secretary	Aamir Maktabay
Marketing Secretary (1)	Anukool Sasi
Marketing Secretary (2)	Joyson Nadar
Digital Creative Secretary	Onkar Sudrik

JUNIOR CORE 2022-23

POSITION	NAME
Jt. General Secretary	Rohan Nalawade
Jt. General Secretary	Sayli Chowdhary
Jt. Treasurer	Rituja Kotangale
Jt. Event Management Secretary (1)	Pranay Katke
Jt. Event Management Secretary (2)	Dishant Patil
Jt. Event Management Secretary (3)	Shamsh Mallick
Jt. Public Relations Secretary	Arya Pawar
Jt. Technical Secretary (1)	Harsh Vaidya
Jt. Technical Secretary (2)	Shreya Avjekar
Jt. Documentation Secretary (1)	Prity Nath
Jt. Documentation Secretary (2)	Saher Shaikh
Jt. Logistics Secretary (1)	Mrunmesh Rikame
Jt. Logistics Secretary (2)	Rohit Yeole
Jt. Marketing Secretary (1)	Ayush Etam
Jt. Marketing Secretary (2)	Keval Ved
Jt. Digital Creative Secretary	Abhishek Singh

EVENT SUMMARY

SEMINAR ON BUILDING LINKEDIN PROFILE

Date: 4th August 2022

Time: 4:00 pm to 5:00 pm

The session started by Chairperson Ms. Ishita Kale. She introduced students to the speaker of the Seminar Mr. Yash Karanjavkar. The session was carried out by speaker Mr. Yash Karanjavkar. First, he showed the students his LinkedIn profile as an example and discussed key points about the profile.

Topic covered:

- Selection of profile photo
- Things should not be mentioned
- ➢ How to present your skills
- How to connect with industries using LinkedIn
- Job hunting

He showed some profiles of Industry experts so that students will get an idea about their profiles. He pointed out the common mistakes people make and taught students how to correct them. At the end of the session, a Q & A session was carried out where students cleared their doubts about their LinkedIn profile.



E-CYCLOTHON 22 COMPETITION

Date: 13th to 15th August 2022

Time: 10:00 am to 5:00 pm

This E-Cyclothon competition on 13th, 14th and 15th August 2022 was conducted by AP Shah Institute of Technology, Thane, on their premises to challenge students on their knowledge of electric vehicles and conduct a race between them. An apprenticeship program on e-vehicles was also arranged by the students of the Modified Auto Club of ASPIT.

10 students participated in the competition from ASME RGIT's TEAM NOVA. Among those, 5 students did the apprenticeship program.

Day 1:

The competition began with all students congregating at AP Shah College. The first day's agenda included a presentation on the Design Report and Analysis Report, which was accompanied by a display of the cycles in the individual pits of the teams. First, the crew met in the AP Shah's Seminar Hall for the inauguration ceremony. Following that, the crew was given pits where bikes were placed and guests could come and see them as well as ask their particular questions. Following the Q&A, teams were asked to submit their Design & Analysis PPTs to the judges. The Design Report presentation was given by Mr. Omkar Parab, Mr. Jay Savale and Mr. Dishant Gawane. The analysis report presentation was explained by Ms. Ishita Kale. Meanwhile, other members of the team were engaged in the EV apprenticeship offered by MAC.



Day 2:

Day 2 consisted of the business plan presentation and dynamic events. The business plan of our team was presented by Mr. Sanaullah Ansari and Mr. Harshal Yeole. The judges were impressed by our plan and asked their queries inquisitively. This was followed by dynamic events. The dynamic events included acceleration and brake test, cross-pad test, and lap round. Mr. Shamsh Mallick, the driver of our e-cycle, raced with other competitors and did exceptionally well. With this, day 2 events were concluded.



Day 3:

This was the day of Prize distribution. After the Independence Day celebration in APSIT's Seminar Hall, the winners of the E-cyclothon were announced. Team Nova secured the awards for 1st runner-up and best design. Every participant and the faculty advisor were awarded a certificate and trophy as well. The team secured 2 certificates, 2 trophies, and a cash prize of Rs 15000/-.



WEBINAR ON MILLENNIALS IN STEM

Date: 30th August 2022

Time: 5:00 pm to 6:00 pm

The session was started by General Secretary Mr. Sanaullah Ansari on the Google Meet Online Platform. He introduced students to the speaker of the Seminar Mr. Dinesh Vishwakarma. The session was carried out by speaker Mr. Dinesh Vishwakarma. First, he educated the students on what exactly is STEM. Then he covered the major points like the latest technologies in STEM etc. The session was very informative and insightful. The students got to know about the Topic from Scratch. Mr. Vishwakarma covered all the topics in this session. A Q&A session was carried out where students cleared their doubts about STEM Education. The session ended with a Vote of Thanks.





QUIZ COMPETITION ON ASME STANDARDS USED IN INDUSTRY

Date: 30th October 2022

Time: 2:00 pm to 3:00 pm

The session was started by Event Heads Mr. Anvit Devadiga and Mr. Harsh Vaidya. The quiz competition link was shared in the WhatsApp group created after the registration of the students. The link was shared at sharp 2:00 pm in the group. The participant started taking the quiz. The link was closed after 3:00 pm.

The top 3 winners of the competition were selected on the criteria of the one scoring the maximum marks. The winners of the competition are as follows -

1st. Mr. Neel Mevada – TE

2nd. Mr. Sushant Ghurup - TE

3rd. Mr. Devendra Jagtap - BE

The certificates were disbursed to the winners after the declaration of the winners.

PARTICIPANTS RECORD

Sr. No.	Full Name
1	Aakash Maruti Gonde
2	Aamir Shaikh
3	Abdul Maarij Arif Momin
4	Aditya Gupta
5	Aiyaz Hussain Sayyad
6	Ankush Yadav
7	Anuj Palande
8	Anvit Devadiga
9	Chaitanya Rajendra Galande
10	Devendra Jagtap
11	Gurudev Kare
12	Haresh Galve
13	Harsh Vaidya
14	Harsh Vaidya
15	Harshit Vinod Patil
16	Ishita Abhijit Kale
17	Ishwari Vaze
18	Kadam Prasad Dadasaheb
19	Kazi Zaid Javed
20	Umar
21	Mehul Barkul
22	Miten Krishna Bawkar
23	Mitesh Bhangare
24	Mohak Save
25	Mohammad Asib Abdulrahman Idrisi
26	Mohammed Faraz Zakir Shaikh
27	Mohmmadrafi Jalgaonkar
28	Mrunmesh Naresh Rikame
29	Muhammad Saquib Sura
30	Neel Mevada

Sr. No.	Full Name
31	Omkar Parab
32	Prasad Dadasaheb Kadam
33	Rishab Maurya
34	Rituja Dhananjay Kotangale
35	Rohan Shivaji Nalawade
36	Rohan Shivaji Nalawade
37	Rohi Pailkar
38	Saher Shaikh
39	Sanaullah Ziyaullah Ansari
40	Saurabh Nandkumar Keluskar
41	Sonali Shantaram Khamkar
42	Sushant Amar Ghurup
43	Talha Shaikh
44	Tanmay Shivaji Bhoir
45	Tejas Amod Keni
46	Varad Bandiwadekar
47	Venkatesh Maroti Kanole

WEBINAR ON ENGINEERING EDUCATION

Date: 13th November 2022

Time: 9:00 am to 10:00 am

The session was started by Event Heads Mr. Saurabh Keluskar and Mr. Anuj Palande. He introduced students to the speaker of the webinar Mr. Vacchani Raj Mahendra -Design Engineer at Jalvel Aerospace Pvt. ltd. Then the session was carried by the speaker itself.

First, he educated a student with a need for Engineering Education in our day-to-day life. Then he had a vast discussion about the development of the Education system. He covered points like the past & recent development in Engineering Education. Then he discussed the requirements needed in Engineering Education.

The session was very informative & insightful. As the students were able to understand the need for Engineering Education in our everyday life and as per the Employment perspectives. A Q&A session was carried out where students cleared their doubts about the need from a different perspective. The session ended with a vote of thanks.



SKILL DEVELOPMENT WORKSHOP

Date: 22nd to 24th December 2022

Time: 3:30 pm to 5:30 pm

ASME RGIT organized a workshop on 'Skill Development Workshop'- a new way of Designing and Creativity.

The objectives of the seminar were:

- To give the participants a primary understanding of Photoshop software, Canva, LinkedIn Profile & Resume Building.
- To educate students about applications of design & editing software.
- To give the participants in-depth knowledge on the designing, editing, and publishing of designs created by them.
- To introduce important software like Canva for designing, and Photoshop for editing.
- Teaching how to build a LinkedIn profile and an overview of resume building.

Day 1:

The workshop began with an introduction by Mr.Siddique Kazi, who gave a brief idea about Photo editing and Photo Designing. Later he gave an overview of Canva. It is a graphic designing software used to create new designs from templates or from scratch. Furthermore, start with how to create a LinkedIn profile and update your credentials in it for making more connections and reaching your target audience or company. The participants were then helped to install Canva software on their laptops. After the installation, they were introduced to the basics of the software. They were guided by the speaker and other volunteers in this process.



Day 2:

This day began with a revision of day 1 and an introduction to the photo editing software Photoshop. The basics of Photoshop software and how to do composing of an image were taught through a PPT which was prepared by the speaker Mr. Siddique Kazi. Later the layout and the different tools of Photoshop software were introduced to the participants. Throughout the process, queries of the participants and issues faced by them were rectified and solved by the speaker and volunteer team. Furthermore, the participants were assigned to make a poster from scratch on day 1, which was checked on day 2. The mistakes and doubts were cleared by the speaker at that time.



Day 3:

The participants were given an in-depth understanding of the Photoshop software. They were taught about every tool present in the interface of the Photoshop software. They were introduced to some rules of editing used by the creators to make their content more encouraged to their target audience so they'll be getting the reach for the content created by them. After that, some examples were taken of how to edit the photos in the Photoshop software.



IOT WORKSHOP

Date: 27th to 29th January 2023

Time: 3:30 pm to 5:30 pm

ASME RGIT in collaboration with Google Development Student Clubs RGIT (GDSC) organized a three-day Internet of Things (IoT) workshop. The Workshop was held from the 27th of January to the 29th of January at the Rajiv Gandhi Institute of Technology.

The facilitator of the Workshop was Mohammad Rafi Jalgaonkar, he is the IoT Lead of GDSC and also the Technical Secretary at ASME RGIT. He is a very multifaceted personality who helped the students to learn about IoT from Scratch. The topics covered in the three-day IoT Workshop are:

Day 1 (27th January 2023): Introduction to IoT

Day 2 (28th January 2023): Implementation

Day 3 (27th January 2023): Projects on IoT

Day 1:

The workshop began with an introduction by Mr. Adnan Qureshi, who felicitated our workshop facilitator Mr. Mohmmad Rafi Jalgaonkar. He gave an overview of what is IoT, its importance, and basic information regarding the components used in the working system. Later he explained what is IDE and Arduino/ESP, on which the participants were about to do the projects.



Day 2:

On the second day of the workshop, the facilitator introduced the participants to the Integrated Development Environment (IDE) software Arduino IDE, in which the code has to be written and uploaded to the microcontroller to get the desired output from the circuit. Later the participants were given the kit consisting of an 8266 ESP microcontroller, relay circuit, breadboard, resistors, buzzer, and other components which were required to make a Button Piano using the microcontroller.



Day 3:

The third day started with a revision of what happened in the last 2 sessions of the workshop. Furthermore, the facilitator explained what is relay circuit and how it can be used in your circuit to get the desired output. The circuit diagram for LED control using a relay circuit was shown and explained. After that participants were asked to perform the same on their kits. As the workshop came to an end, the event facilitator shared some important terms about the microcontroller which were useful for the proper functioning of the complete setup. At the end of the workshop, participants were given their certificates for the completion of their workshop on IoT.



NX CAD & 3D PRINTING WORKSHOP

Date: 17th to 21st March 2023

Time: 3:30 pm to 5:30 pm

ASME RGIT organized a four-day workshop on NX CAD & 3D Printing. The Workshop was held from the 17th of March to the 21st of March at the Rajiv Gandhi Institute of Technology.

The facilitator of the Workshop was Mr. Hanzala Maknojia, he is an expert in NX CAD and also in 3D Printing. He is a very multifaceted personality who helped the students to learn about NX CAD software and the 3D Printing process from Scratch. The topics covered in the four-day workshop are:

Day 1 (17th March 2023): 2D CAD modelling Day 2 (18th March 2023): 3D CAD modelling Day 3 (20th March 2023): Slicing and Cura Day 4 (21st March 2023): 3D Printing

Day 1:

The workshop began with an introduction by Mr. Sanaullah Ansari, who felicitated our workshop facilitator Mr. Hanzala Maknojia. He gave an overview of what are NX CAD & 3D Printing, their importance, and basic information regarding the concepts used in the software. Later he explained what is 2D, on which the participants were about to do the practice.



Day 2:

On the second day of the workshop, the facilitator introduced the participants to 3D CAD modeling. He gave an overview of the different concepts used in 3D CAD modeling, their importance, and basic information regarding the concepts used in the software.



Day 3:

On the third day of the workshop, the facilitator introduced the participants to Slicing and CURA software and what they mean in CAD. He gave an overview of the different concepts used in Slicing and CURA, their importance, and basic information regarding the concepts used in the software.



Day 4:

On the fourth day of the workshop, the facilitator introduced the participants to 3D Printing and their software. He gave an overview of the different concepts used in 3D Printing software, their importance, and basic information regarding the concepts used in the software. Also, printed the models on a 3D Printer.



E-HPVC 2023 COMPETITION

Date: 1st to 2nd April 2023

Time: 10:00 am to 5:00 pm

ASME RGIT participated in "ASME EFx 2023" which was held on 1st - 2nd April 2023, at PES University, Bengaluru, Karnataka, and was conducted by the American Society of Mechanical Engineers (ASME), India during the academic year 2022-2023. We participated in eHPVC competitions. At the EFx Event 2023, the ASME RGIT students secured AIR 5 in the eHPVC competition.

ASME's e-Human Powered Vehicle Challenge (e-HPVC), is an engineering design and innovation competition that gives students the opportunity to network and apply engineering principles through the design, fabrication, and racing of human-powered vehicles. Turbo 2.0, a semi-recumbent 2-wheel e-HPV, is designed to provide efficient, safe, and comfortable rides, outperforming its predecessor in every manner. The aesthetics of bicycles, as well as the effort required to drive them, are the primary reasons. Safety, comfort, and efficiency drive the design of our HPV. Structural and weight analysis is performed to select the right material for the frame in order to build a vehicle that is lightweight but strong enough to withstand high loads exerted by the driver during a ride. The vehicle was designed with feasibility and optimal usage in mind, with a 36V 250W Watt capacity motor and a 36V 10Ah Lithium-Ion battery.







IAM3D 2023 COMPETITION

Date: 1st to 2nd April 2023

Time: 10:00 am to 5:00 pm

ASME RGIT participated in "ASME EFx 2023" which was held on 1st - 2nd April 2023, at PES University, Bengaluru, Karnataka, and was conducted by the American Society of Mechanical Engineers (ASME), India during the academic year 2022-2023. We participated in IAM3D competitions. At the EFx Event 2023, the ASME RGIT students secured AIR 7 in the IAM3D competition.

The ASME Innovative Additive Manufacturing 3D (IAM3D®) Challenge is designed to give mechanical and multi-disciplinary undergraduate students around the world an opportunity to reengineer existing products or create new designs. The study starts out with several perspectives of the hovercraft, the 3D printing process, filament, and then the design segment. There have been assessments of both Design for Manufacturing and Assembly (DFMA) and Design for Additive Manufacturing (DFAM). After the design section, these procedures are described in more depth. The vehicle was equipped with a 2200KV DC Motor, 11.1 3S 5500mAH LiPo Battery, SG90 180□ Motor, FS-i6 6 Channels 2.4G 500KHz System Radio Transmitter, 30A supply Electronic Speed Controller, MG995 Metal Gear Servo Motor, etc.

