2022-23

ANNUAL REPORT

ASME TKMCE

asetkmce.com

asme@tkmce.ac.in

ASME STUDENTS CHAPTER

TKM COLLEGE OF ENGINEERING

Karikode, Kollam, Kerala, India

SETTING THE STANDARD

TKMCE STUDENT SECTION

EXECOM 2022-23

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Chairperson

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Vice- Chairperson

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Secretary

Mubeen Rahman
Treasurer

Gautham Krishna
Technical team head

Yadu J Anand
Design team head

Nitha Angel
Documentation team head

Sarath S S
Programme team head

Noel Rebu Sam
Publicity team head

Aswani Vijay
Membership team head

Sreya G K
3rd Year representative

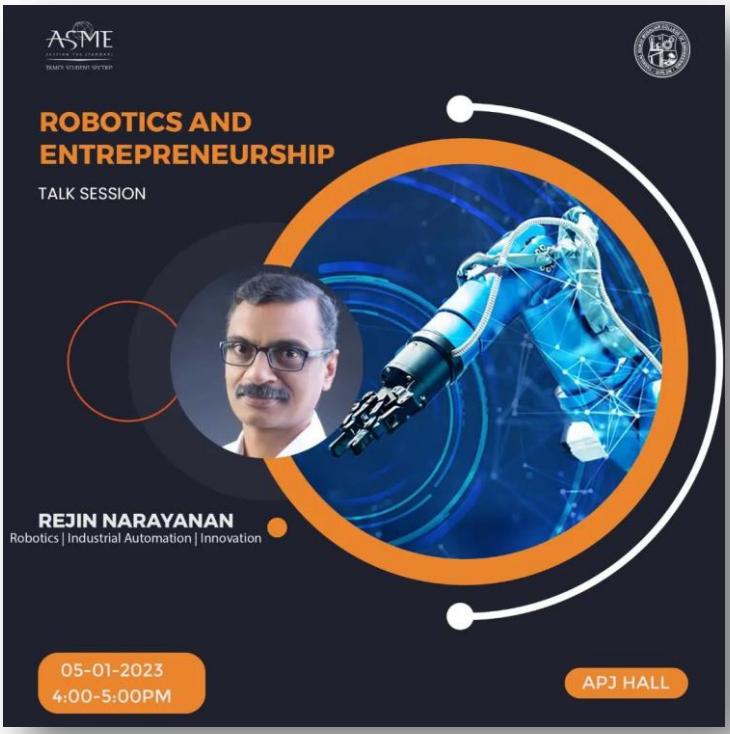
Adheena T
2nd Year representative

TABLE OF CONTENT

1. TALK SESSION

TALK SESSION: ROBOTICS AND ENTREPRENEURSHIP

Resource person: Rejin Narayanan
Venue: APJ hall
Date: 05/01/2023
Time: 4:00 -5:00 pm



The session about “Robotics and entrepreneurship” was an opportunity provided for budding entrepreneur students to develop their interest in the field. The session magnificently entangled the relation between robotics and entrepreneurship. The session initially began with the intro on robotics and smoothly shifting into entrepreneurship. The whole event was efficiently organised and well managed. In addition to being highly informative, the session was also proven to be motivational for the participants. The session was followed by a brief Q&A session. Some students raised their questions and concerns which were exceptionally addressed. The event concluded with a small thanks giving speech**.**

The talk session on "Robotics and Entrepreneurship" proved to be a transformative experience for the budding entrepreneur students who participated. Throughout the event, the participants had the opportunity to delve into the captivating world of robotics and witness how it intertwines with the realm of entrepreneurship. The session provided invaluable insights and inspiration, leaving a profound impact on the attendees.

For many students, the session served as a gateway to understanding the potential that robotics holds in the entrepreneurial landscape. The introduction to robotics allowed them to grasp the technological advancements and innovations taking place in this field, opening their minds to endless possibilities. As the session seamlessly transitioned into entrepreneurship, the students learned how to leverage their passion for robotics into creating innovative business ventures.

The efficient organization and management of the event further enhanced the learning experience. The students could fully immerse themselves in the discussion without any distractions, allowing them to absorb the information effectively. The engaging and informative nature of the session left the participants feeling well-informed and equipped with the knowledge they needed to explore their interests in robotics and entrepreneurship further.

Beyond knowledge, the talk session also sparked motivation among the students. Hearing success stories and understanding the impact of robotics-based ventures instilled a sense of ambition and determination in them. Many participants left the event feeling empowered to pursue their entrepreneurial dreams, armed with newfound enthusiasm to make a difference in the world through robotics and technology.

2. SHORT COURSE ON ARDUINO

Resource person: Prof. Shifin A S

Venue: CFD Lab

ASME TKMCE conducted a short course on Arduino starting from the first week of January. The workshop was conducted by Prof. Shifin from the department of Mechanical Engineering. The workshop covered the basic and related topics of Arduino programming to empower multidisciplinary knowledge for students. The 40 hour workshop sessions included the theory of automation, Arduino programming and hands-on project activities. Almost 35 hours of the session was hands-on practice for the students. An Arduino kit was provided for the same. The event was conducted in the CFD lab with attendance from various branches and various years of students.

In conclusion, the short course on Arduino has been a valuable and enriching experience for the students, equipping them with essential knowledge and skills in automation, Arduino programming, and hands-on project development. This newfound expertise will undoubtedly prove advantageous as they progress in their academic and professional journeys, opening doors to a wide range of exciting opportunities in the world of technology and engineering.


GPS Map Camera
Karicode, Kerala, India
WJ7H+7VV, Muslim Association, Karicode, Peroor,
Karicode, Kerala 691005, India
Lat 8.913389°
Long 76.629874°
02/03/23 05:59 PM GMT +05:30
Google

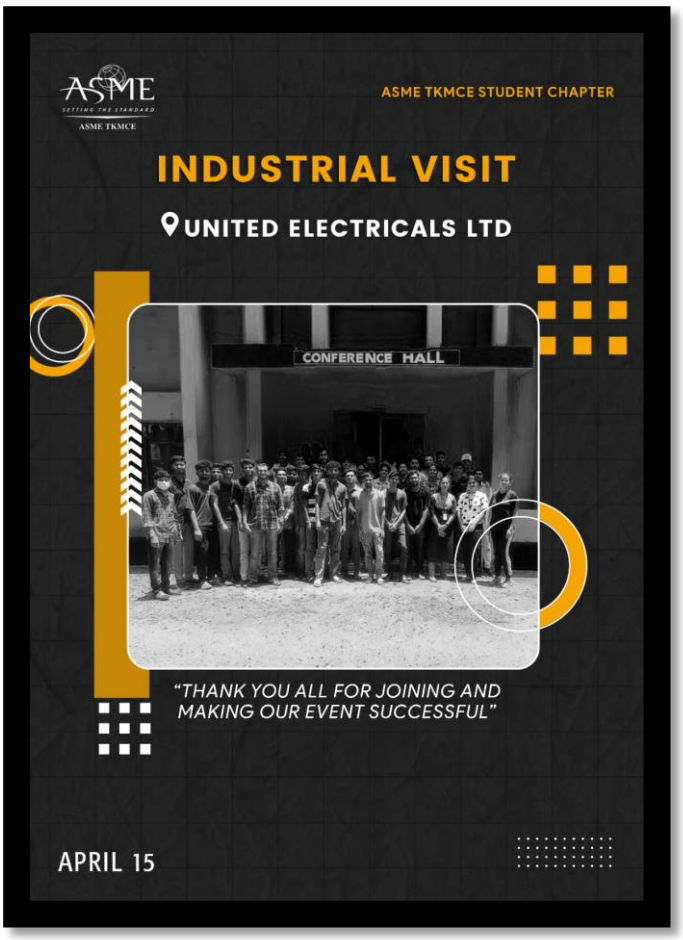

GPS Map Camera
Kollam, Kerala, India
WJ7H+6Q8, Karicode, Peroor, Kerala 691005, India
Lat 8.913363°
Long 76.629177°
02/03/23 06:15 PM GMT +05:30
Google

An Introductory course on Automation

Course plan

Theory on automation		
1	Purpose of Automation	0.5 hr
2	Real Life examples of Automation	1.5 hr
3	Different systems for automation	0.5 hr
Arduino programming		
4	Different types of Sensors (Self learning)	1 hr
5	Different types of Actuators (Self learning)	1 hr
6	Microcontrollers – Arduino At Mega	1 hr
7	How to integrate Arduino Micro controller to Sensors & Actuators	1 hr
8	Arduino Programming	4 hr
Hands on with Arduino / sensors / actuators (practical sessions)		
9	Operating an LED with Arduino	0.5 hr
10	Reading Data from a sensor and processing it	1 hr
11	Operating an actuator using Arduino	1 hr
12	Integrating sensors and actuators together with Arduino	2 hr
13	System Design with different types of sensors and actuators Sensors to be used : IR Sensor/ Ultrasonic sensor / Smoke sensor/ Humidity sensor / PIR sensor / Strain gauges Actuators to be used : DC motor / Servo motors/BLDC motors / Buzzers / Solenoid valves • Fire safety system • Automatic Door opening/closing system with counters • Automatic plant watering system	14 hr
	• Intruder Detection system • Line tracer robot design	
Industry interaction – Expert talk		
14	IoT Devices and applications	1.5 hr
15	Automation systems	1.5 hr
Project		
16	A mini project/ prototype should be designed with integration of sensors and actuators for a specific application	6 hrs
Assessment		
17	Quiz Project prototype evaluation	2 hr
	Total	**40 hrs**
	Future works • Integrating Arduino with wifi modules/ mobile phones/ PLC controllers • Integrating Arduino with softwares like Matlab for instrumentation purposes • Design of drones/quadcopters	

3. INDUSTRIAL VISIT

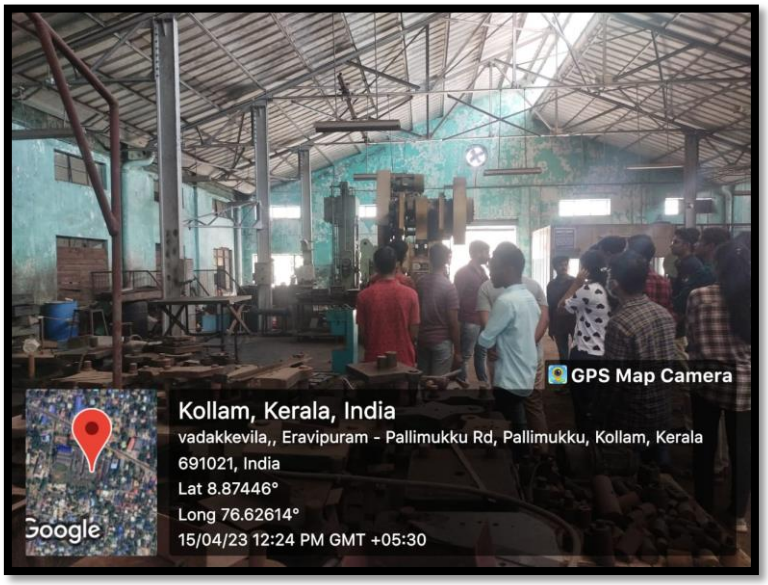


ASME TKMCE conducted an industrial visit to the united electricals limited to provide a real world experience of industries for the students. The event invited all the students from TKMCE regardless of their branch and year of study. The industrial visit was conducted on the 155 th of April 2023. The United electricals Limited is the first industry in India to manufacture electricity house service energy meters. The company being established in the 1950s, indeed has its own strong legacy and technical knowledge which the students can rely on. The participants were almost 60 student engineers from various branches and years. The event lasted for one day to go through the technology of the industry

VIDEO OF THE IV VISIT - https://shorturl.at/exIQ9

Practical Exposure: Visiting an actual industry like United Electricals Limited provided students with a hands-on understanding of how theoretical knowledge is applied in real-world scenarios. Witnessing the industrial processes, machinery, and operations allows students to bridge the gap between theory and practice.

Industry Insights: United Electricals Limited being the first industry in India to manufacture electricity house service energy meters, the students had the opportunity to learn from pioneers in the field. They gained insights into the company's strong legacy and technical expertise, which can be inspiring and motivating for their own careers.



UNITED ELECTRICAL INDUSTRIES LTD.
(A Kerala Government Company)
CIN No. U31200KL-1960SGC 001281
GSTIN 32 AAACU2833N1ZB

Regd. Office : Pallimukku, Kollam-691010, Kerala
Phone : 0474-2729241, 2729015, 2729242, 2729473
Fax : 0474-2727583
Email : ueikollam@gmail.com
: ueikollam@bsnl.in
Website : www.unilec.co.in

PO/ 47 /2023-24
15th April 2023

CERTIFICATE

This is to certify that the following Engineering Students of TKM College of Engineering , Kollam has successfully completed the Industrial Visit programme in our Company on 15/04/2023.

SL NO	NAME	SL NO	NAME	SL NO	NAME
1.	Aswani Vijay	16	Jafar Khan. J	30	Akshay Anil
2.	Akhil. M	17	Sreehari. A	31	Gautham Sen
3.	Subin Suresh	18	Sahadh. S	32	Devi Chandana. S
4.	Karthik. RS	19	Muhammed Sahad. P	33	Tony V. Morris
5.	Nismal Nizarudeen	20	Jishnu. G	34	V. Mahalekshni
6.	Sidharth. SP	21	Abhijithu. S	35	Nishad. S
7.	Vishal . VS	22	Mohammed Shafi. N	36	Anugrah James
8.	V.I.Anand Jacob	23	Ramu. B	37	Akshaya Gopan. J
9.	Akhil Raj	24	Faris Sidhikku	38	Royce Mathai Rojimon
10.	Vijith Kumar. V	25	Muhammed Nazim. N	39	Abhiram Mohan
11.	Amal Surabh. SS	26	Farhan Dileep	40	Amal Krishnan. U
12	Sreyas. A	27	Arjun Thampi	41	Sreehari. P
13	Muhammed Awad. TP	28	Stervin. X	42	Thejas Das
14	Adarsh. R	29	S.Govind	43	Megha. N
15	David Johnson				

UNITED ELECTRICAL INDUSTRIES LTD. QUILON

For UNITED ELECTRICAL INDUSTRIES LTD;

PERSONNEL OFFICER

The industrial visit to United Electricals Limited offered the students of TKM College of Engineering an excellent opportunity to gain practical exposure, learn from industry experts, and understand the application of their knowledge in real-world settings.

4. APPLICATION FOR EFX

SUBMITTED AN APPLICATION FOR CONDUCTNG ASME EFX IN TKM COLLEGE 2023 - 24 INCLUING APROXIMATED FINANCIAL REPORT AND VENUE DETAILS.

SCHOOL
Venue/Location

Day, Date, Year

10:00 am – 10:30	**Breakfast, Registration and Networking** **Breakfast at Auditorium, Registration at Central Portico**	
10:30 am – 11:00 am	**Welcome, Announcements & Keynote** Student Chapter President, ME Dept. Head, Keynote Speaker Silver Jubilee Hall	
11:00 am –	Workshop on Computational Fluid Dynamics CFD LAB Introductory workshop on CFD The workshop is an introductory session to Computational Fluid Dynamics using ANSYS Workbench and ANSYS	**Technical Talk** APJ Hall **Speaker name, title/company** This session will provide students with valuable tips on interviewing and networking. Topics will include: purpose of the interview, interview preparation, researching employers and key traits desired by employers.
12:00 pm – 1:00 pm	**Networking Lunch** **Auditorium/Canteen** Take a break and enjoy lunch with your peers. Compare notes about the morning sessions and strategize over the afternoon competitions and activities.	
1:00 pm – 2:30 pm	**CAD war-** Showcase your CAD skills through an exciting CAD quest. Host: Asme Tkmce Programme Head A duration of 90 minutes is provided to create a CAD drawing. It will be validated according to creativity and mastery of skills.	**Idea Pitching Competition** **APJ Hall** **A real life scenario is given for which the teams are expected to come up with a creative and feasible solution.**
2:30 pm – 3:30 pm	<Insert Room Name/Number> **Speaker name, title/company** Get inspired and learn how to put your innovation and entrepreneurial skills to work!	
3:45 pm – 5:00 pm	**Closing Ceremony, Awards Presentation, Networking Reception.** **Auditorium** Student Chapter President, ME Dept. Head Congratulate the organizers and winners for a job well done.	

ASME EFx® SCHOOL Budget Year

Item		Price per Item/Hour	Quantity		Total
VENUE					
Venue/Room Rental	₹	2,225.00	2	₹	4,450.00
Large Banners - Campus Branding	₹	1,400.00	7	₹	9,800.00
Posters - Campus Branding	₹	245.00	20	₹	4,900.00
Table Cloths	₹	2,000.00	1	₹	2,000.00
			Total Venue	₹	**21,150.00**
GIVEAWAYS					
Swag	₹	1,000.00	200	₹	2,00,000.00
Impromptu Competition 1st Place	₹	2,000.00	2	₹	4,000.00
Impromptu Competition 2nd Place	₹	1,500.00	2	₹	3,000.00
Impromptu Competition 3rd Place	₹	1,000.00	2	₹	2,000.00
			Total Cost of Giveaways	₹	**2,09,000.00**
FOOD					
Breakfast	₹	180.00	250	₹	45,000.00
Lunch	₹	200.00	250	₹	50,000.00
Beverages	₹	65.00	250	₹	16,250.00
			Total Cost of Food	₹	**1,11,250.00**
Design Competition					
Tools	₹	18,000.00	1	₹	18,000.00
Materials	₹	25,000.00	1	₹	25,000.00
			Total Design Competition	₹	**43,000.00**
Other/Miscellaneous					
Remuneration	₹	5,000.00	2	₹	10,000.00
TransportaTion etc.	₹	2,100.00	2	₹	4,200.00
			TOTAL EVENT EXPENDITURE	₹	**3,98,600.00**

Please update the budget with your local currency
You may include other/misc expenses to the template

Attendance	
170	# of Students
15	# Early Careers
5	# Industry
60	# Volunteers
250	**Total People**

Estimated Income

Quantity		Amount	Source		Total
170	₹	850.00	Ticket Fee (less if possible)	₹	1,44,500.00
1	₹	-	ASME Event Stipend (TBD)	₹	-
1	₹	-	ASME Regional (if applicable)	₹	-
1	₹	-	School MECE Department (if applicable)	₹	-
1	₹	-	Approved Sponsor Companies (if applicable)	₹	-
1	₹	25,000.00	ASME School Student Section (if applicable)	₹	25,000.00
			TOTAL EVENT REVENUE	₹	**1,69,500.00**

5. PARTICIPATION IN CAREER E-FEST

PARTICIPATED IN CAREER E – FEST PROGAME OF ASME INDIA, also won the award **400$** in the category of highest students participated.

6 ASME SCHOLARSHIP

SARATH S S of Mechanical- C 5th semester was selected for ASME FOUNDATION VARIABLE SCHOLARSHIP - $200

ASME FOUNDATION

CAMPAIGN FOR NEXT GENERATION ENGINEERS
WHO TRANSFORM THE WORLD

ASME Foundation
2 Park Avenue, 7th Floor
New York, NY 10016-5990

ASME Foundation Washington Center
1828 L St. N.W., Suite 510
Washington, DC 20036-5104

June 8, 2023

SARATH S S
SALEENAM
Elempa PO, Attingal
Thiruvananthapuram, Kerala 695103
INDIA

Dear SARATH:

Congratulations on your selection as the recipient of the following scholarship award(s):

ASME Foundation Variable Scholarship $200

The ASME Scholarship Selection Committee considered many outstanding applicants and selected you on the basis of your excellent academic record and potential contribution to the field of engineering.

Your scholarship payment will be made directly to your university and sent to the university office that handles receipt and allocation of scholarships. ASME developed this policy in compliance with scholarship best practices and IRS regulations. For the scholarship to be tax free it must be used for education expenses and nothing else, specifically:

- Tuition and fees required to enroll at or attend an eligible institution, and
- Course-related expenses, such as fees, books, supplies and equipment that are required for the courses at the eligible educational institution. These items must be required of all students in your course of instruction.

To complete the scholarship process, please access and complete your acceptance form available on your **application home page** by **Thursday, June 22nd** by providing the following items:

- A letter of acceptance of the scholarship
- Payment information per the website of your college/university's financial aid office (and/or your tuition bill)
- Proof of enrollment for the upcoming academic year (beginning no earlier than August 1, 2023)
- Two photos of yourself (refer to the acceptance form for more information)
- A brief award impact essay

Please be advised that in accepting this scholarship you agree that your photo and/or quotes from your submissions may be used to help raise more scholarship funds and promote ASME or ASME Auxiliary Scholarships.

Engineers build the future.
The ASME Foundation *builds engineers.*

Scholarship Award Timeline

- Thursday, June 22 – Deadline to upload and submit all scholarship info and documents
- July – All scholarship requests for payment submitted to ASME Finance
- August – Payments made to colleges and universities
- September – Public announcement of scholarships awarded and list goes up on the **ASME website**

If you find that you have any issues with the timeline or meeting the deadline, please email ASME.University@applyists.com as soon as possible.

Be sure to participate in ASME EFx and EFests and take advantage of ASME student member benefits.

The ASME Foundation Variable Scholarship was made possible by a fund established by the ASME Foundation in order to help meet the needs of students who would not be able to complete their degrees without financial assistance.

We wish you continued success in your studies, and again, congratulations.

Sincerely,

Mahesh Aggarwal
ASME Scholarship Committee Chair

THANK YOU