

**ACTIVITIES OF SAEINDIA TKM COLLEGIATE CLUB**

**ANNUAL REPORT**

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## CONSTITUTION OF SAEINDIA TKM COLLEGIATE CLUB

- **Chairman:** Head of Department, Mechanical Engineering.
- **Senior Faculty Advisor:** A faculty nominated by the Head of Department, Mechanical Engineering.
- **Additional Faculty Advisor:** A faculty nominated by the Head of Department, Mechanical Engineering
- **Student Chairperson:** A Student Nominated by the Head of Department, Mechanical Engineering.
- **Student Vice-Chairperson:** A Student Nominated by the Head of Department, Mechanical Engineering.
- **Student Secretary:** A Student Nominated by Student Members of SAEINDIA TKM Collegiate Club.
- **Student Treasurer:** A Student Nominated by Student Members of SAEINDIA TKM Collegiate Club.
- **Student Reception Chair:** A Student Nominated by Student Members of SAEINDIA TKM Collegiate Club.
- **Student Programme Chair:** A Student Nominated by Student Members of SAEINDIA TKM Collegiate Club.
- **Student Publicity Chair:** A Student Nominated by Student Members of SAEINDIA TKM Collegiate Club.
- **Student Membership Chair:** A Student Nominated by Student Members of SAEINDIA TKM Collegiate Club

## 1. LIST OF OFFICE BEARERS

Office Bearers of SAEINDIA TKM COLLEGIATE CLUB of TKM COLLEGE OF ENGINEERING of the year 2023-2024

SI No	POSITION	NAME
1.	Faculty Advisor	
2.	Faculty Advisor	
3.	Faculty Advisor	
4.	Student Chairperson	Ananthakrishnan K S
5.	Student Vice-Chairperson	Paul Sodi
6.	Student Secretary	Manu V Nair
7.	Student Treasurer	Ahad J
8.	Student Program Chair	Darwin Devasia

<b>9.</b>	<b>Student Reception chair</b>	<b>Abhijith B</b>
<b>10.</b>	<b>Student Membership Chair</b>	<b>James George</b>
<b>11.</b>	<b>Student Technical Head</b>	<b>Aravind Ramesh</b>
<b>12.</b>	<b>SEC Member</b>	<b>Neeraj Babu</b>
<b>13.</b>	<b>Student Documentation Head</b>	<b>Thasnim N S</b>
<b>14.</b>	<b>Student Media Head</b>	<b>Salman B</b>

## **2.EXCOME FORMATION**

The call for the Excome for the academic year 2023-24 was initiated by the previous year's chairman. Following a selection process, students were chosen to serve on the committee. The official formation of the Executive Committee occurred on August 12, 2023, subsequent to a meeting with the faculty advisor of SAE TKMCE, Mr. Ajikumar, and the Head of Department (HOD).



### 3. DOCUMENTATION & MEDIA TEAM

A documentation and media teams were formed in the month of November 2023.. The documentation team was recruited in order to prepare creative content for our social media handles, create appropriate content for the club magazine and for maintaining up-to-date records of all events conducted by the club.

The media team consists of content creators and designers who develop posters, other advertising assets and handle our social media platforms. The media & documentation team was the backbone of the club this year .



## 4.. PROGRAM & TECHNICAL TEAM

The program and technical team play vital roles in a collegiate club like SAE TKMCE:

**Program Team:** Responsible for organizing events, workshops, seminars, and competitions. They plan, coordinate, and execute activities that enhance members' skills, knowledge, and networking opportunities within the field of engineering and automotive technology.

**Technical Team:** Focuses on hands-on projects, research, and development. They work on building vehicles, prototypes, and implementing technical solutions. This team is essential for applying theoretical knowledge in practical scenarios, fostering innovation, and promoting experiential learning.

Together, these teams contribute to the overall growth and success of the club by providing members with a comprehensive learning experience, fostering teamwork and leadership skills, and creating a platform for showcasing talents and achievements within the automotive and engineering domain



## 5. SAE TKMCE ORIENTATION REPORT

Date: November 6th

Time: 4:15 pm

Venue: Jubilee Hall

The much-anticipated orientation of the SAE TKMCE collegiate club was successfully conducted on November 6th at 4:15 pm in the Jubilee Hall. The event aimed to welcome the First Years and introduce them to the vibrant community of engineers, innovators, and automotive enthusiasts within the club.

The orientation began with a warm welcome extended to all attendees, emphasizing the inclusive and passionate nature of SAE TKMCE. Students were encouraged to join the club to gain hands-on experience in building and designing vehicles, fostering a culture of practical learning and innovation.

Throughout the event, the importance of community and collaboration within SAE TKMCE was highlighted, emphasizing the opportunities for personal and professional growth within the club. Attendees were encouraged to actively participate in club activities to make memories and forge lifelong friendships.

Key details of the orientation:

Date: November 6th

Time: 4:15 pm

Venue: Jubilee Hall

The event concluded with an invitation for attendees to reach out for any queries or further information, providing contact details of club representatives Ananthkrishnan and Manu. Overall, the SAE TKMCE orientation was a resounding success, setting the stage for an exciting and dynamic journey for all participants. The club looks forward to welcoming new members and embarking on memorable adventures together.



## 6. RECRUITMENT DRIVES

### 6.1. MEMBERSHIP DRIVE

SAE TKMCE, the most prestigious club, had begun its membership campaign for the academic year 2023-24, for all ardent automobile fans, on 26 December 2023, and would run until January 10, 2024. We, the members of SAE STUDENT CONVENTION, wanted to shape students who were constrained by the confines of a classroom into engineers who apply what they've learned to improve practical skills, explore, and become a part of a legacy that has brought home accolades as a result of unwavering drive and passion over many long hours, enormous hard work, and, most importantly, teamwork. The

membership drive was co-ordinated by James George (Membership Chair).



## 6.2 AEREX RECRUITMENT

In line with our commitment to fostering innovation and practical application, SAE TKMCE conducted the recruitment drive for the Drone Development Challenge 2024. The challenge aimed to provide a platform for students to showcase their skills and creativity in drone development.

Recruitment efforts were initiated with the dissemination of information regarding the challenge. Utilizing various communication channels, including social media platforms and campus announcements, we reached out to students across the TKM College of Engineering community.

The registration period concluded on August 24, 2023, at 5 pm.

Throughout the recruitment phase, our team, led by Afin Muhammed and Harishankar R, diligently addressed inquiries and provided assistance to potential participants. Their efforts contributed significantly to the success of the recruitment drive.



### 6.3: Electric Two Wheeler Design Competition

SAE TKMCE provided students with the opportunity to participate in the Electric Two Wheeler Design Competition organized by SAE India Southern Section. The competition

aimed to challenge students to think critically, analyze, create, build, test, and present their innovations in the field of electric two-wheeler design.

The Electric Two Wheeler Design Competition (ETWDC) served as a platform for students to enhance their skills, expertise, and technical know-how in the electrification of two-wheelers. This unique competition, the first of its kind in India, provided students with a realistic 360-degree workplace experience, preparing them to become effective professional engineers. The registration deadline was September 7, 2023, before 12:00 PM.

Participation in the Vegha team offered students the opportunity to gain hands-on experience, collaborate with peers, and showcase their talents on a national platform. By joining the Vegha team, students embarked on a journey of innovation and learning, contributing to the advancement of electric vehicle technology.

**SAE** TKMCE  
ENGINEERING. REDEFINED.

TEAM  
**VEGHA**

**WE ARE  
RECRUITING**

ELECTRIC SCOOTER DESIGN COMPETITION

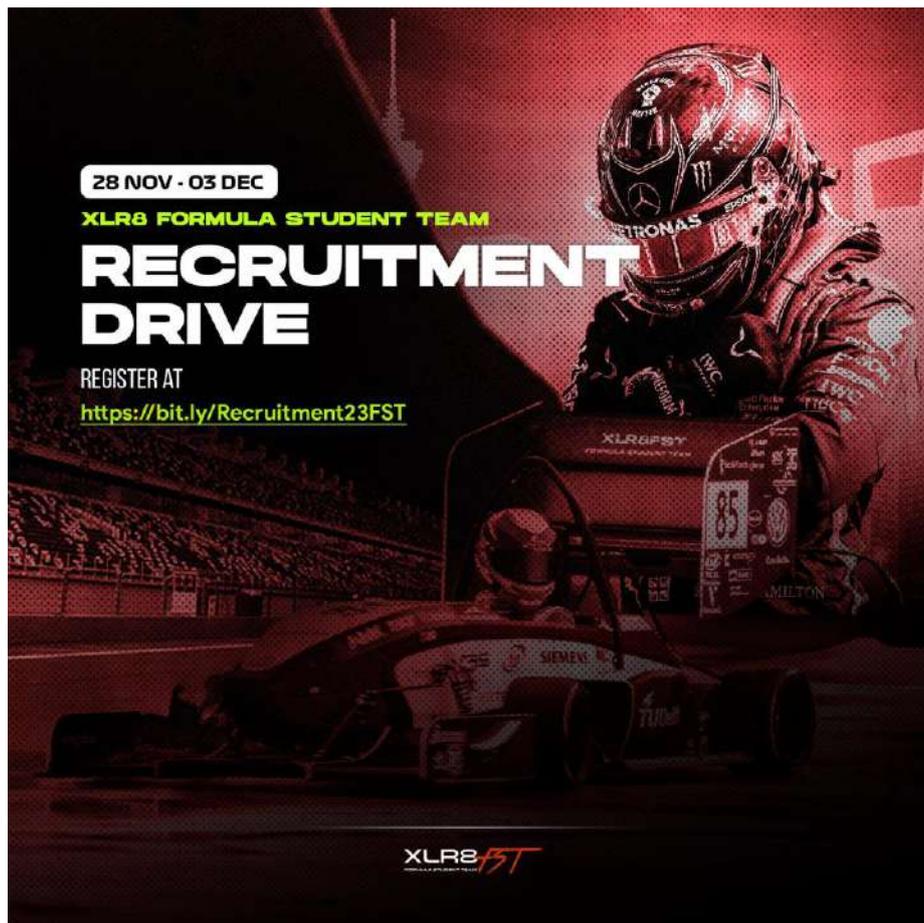
[http://bit.ly/Vegha\\_recruitment](http://bit.ly/Vegha_recruitment)

REGISTER BEFORE  
**8 MAR 24**

AQEEL -9633253508 AKMAL -7736998022

## 6.4 FORMULA DESIGN COMPETITION

We were excited to share that our formula student team was looking for new members. This was a contact and personal information drive that we were holding in order to gather as much information as possible about students who are interested in formula racing and thus in joining our team. Later, a detailed selection process was used to filter the best. From November 28 to December 3 ,by our very own vice-chair Paul Sodi led the drive.



## 7. TEAMS AND ACHIEVEMENTS

### 7.1 National Level Competition on Computational Fluid

## Dynamics (CFD) using ANSYS Fluent

NLCCFD, organized by SAEISS, is a nationwide Computational Fluid Dynamics event with the goal of tackling practical fluid flow issues for engineering students who come from various colleges across India, all with an SAE background. This competition attracted participation from approximately 12 colleges across the nation, and TKMCE proudly secured the 2nd position. The students were tasked with addressing a real-world ventilation problem in a computer lab equipped with multiple ventilators, air conditioners, and heat generators. In addition to this, they also successfully completed a chip cooling project as part of their competition .



SAE TKMCE NLCCFD TEAM



## 7.2 SPOX - Bicycle design competition

- TEAM DETAILS

Team Name – SPOX

College Name – TKM College Of Engineering, Kollam,  
Kerala. Team ID – BDC2024018

Faculty Advisor – Prof AjuKumar

Team Members –

1. Mohammed Sanin– Team Captain
2. James George – Vice Captain
3. Albin K Varkey
4. Ajay Narayanan A
5. Subin Suresh
6. Fadil Bin Firoz
7. Adithya. P. J.

- DESIGN TARGET

- To design a manually propelled Road Bike that is capable of carrying an average human being.
- To corroborate that the bicycle is ergonomically comfort, aesthetically appealing & mechanically strong.
- To follow Indian Standards, those are applicable for bicycle design.
- To keep the design & manufacturing cost as low as possible.
- To provide a price tag of Rs. 7,000/- for single speed and Rs . 10,000/ - for multi speed transmission on an annual sales of 50,000 units / year,

- **Achivement :**

All india 16 th rank

All Kerala 4 th rank



### 7.3.ELECTRIC TWO WHEELER DESIGN

TEAM ID : ETWDC2023014

TEAM NAME : VEGHA

COLLEGE NAME : TKM COLLEGE OF ENGINEERING

DESIGN REPORT : DESIGN REPORT 1

TEAM MEMBERS : ARAVIND REMESH

GAUDHAM BANARJI  
HEMANTH P M  
AMRITHA ARAVIND  
AISWARYA POOVATHANKANDY  
AKASH PRASAD  
AKMAL AMANI  
MOHAMMED AQUEEL C V  
HEMANTH H  
ADHITHYAN R

The electric scooter is a two-wheeled plug-in electric vehicle that relies on a rechargeable Li-ion battery to power a DC motor. The design of the vehicle is centered around the concept of blending performance with aesthetics. Its transmission system is intricately tied to the efficiency of the DC motor, and it incorporates a dependable braking system. The entire design and documentation of the scooter adhere to the guidelines laid out in the 2023 Electric Two Wheeler Design Competition Rulebook, ensuring compliance with competition standards.

Team Vegha participated in the SAE ETWDC Competition held at Rajalekshmi Engineering College in Chennai. This report highlights their remarkable achievement and the factors contributing to their success.

Team Vegha, embarked on their journey to participate in the SAE ETWDC Competition for the first time. Despite their lack of prior experience, they exhibited a strong commitment to innovation and excellence.

**Achievement:**

Team Vegha secured the Third Place in the competition for their innovative approaches to both innovation and 3D modeling. Their performance surpassed expectations, especially considering their debut participation.



2023-24  
**VEGHA**

SAE THAMCE

CAPTAIN VICE CAPTAIN

Aravind Gaudham

Hemanth H Akmal Aqeel Hemanth P

Aiswarya Akash Adhithyan R Amritha

RESERVE TEAM

Afzal Jasil Alfina Ashwin Jaseem



## 7.4 XLR8 STUDENT FORMULA TEAM

A collection of gifted and passionate students who have a similar love for motorsports and automotive engineering make up the XLR8 Formula Student Team. They create and construct their race car to participate in Formula Student events, showcasing their collaborative, engineering, and design abilities. The team is committed to raising the bar for performance and innovation in the racing industry. This student team competes in races such as ISIE Formula Bharat, ISIE Formula Imperial, or SAE Supra by designing, manufacturing, and operating Formula-style race cars. To compete against teams from other colleges, students are required to use their engineering talents to design and build a single-seater race car.

The team's moniker, which includes the word "XLR8" for acceleration, highlights the designs' emphasis on performance and speed. The group's ultimate objective is to equip students with practical engineering experience and get them ready for jobs in the automotive sector. Team members get invaluable practical experience and build critical abilities in problem-solving, collaboration, and project management by competing in these events. In addition to engineering, teams study finance, marketing, and sponsorship acquisition, reflecting real-world difficulties in the automobile sector. Formula student competitions encourage young people in India to be passionate about engineering innovation and motorsports in addition to fostering technical competence.



## 8. EVENTS

### 8.1 EUREKA IDEATION PROGRAM

On March 6th, 2024, the EUREKA Ideation Club, under SAE TKMCE, hosted a dynamic brainstorming event aimed at fostering innovation and catalyzing change. The event unfolded at the PTA Hall, commencing at 4:30 pm.

Participants from various branches converged to explore the realms of creativity, guided by the inspirational words of Alex Osborn, "It is easier to tone down a wild idea than to think up a new one."

Throughout the evening, attendees engaged in spirited discussions, exchanging bold ideas and perspectives. The atmosphere was charged with enthusiasm as individuals shared their visions for shaping the future through innovative thinking.

The event provided a platform for participants to challenge conventional wisdom, push boundaries, and unlock the potential for groundbreaking solutions. Facilitators encouraged collaboration and encouraged attendees to embrace the spirit of experimentation.

Registrations for the event were conducted through an online portal, with a diverse range of participants expressing keen interest in contributing to the ideation process.

Farhan (9747801371) and Alfiya (7736795928), the event coordinators, ensured smooth proceedings and offered support to participants throughout the event.



**EUREKA**



# FUTURISTIC LEARNING

CREATIVE THOUGHTS COMPETITION



REG FEES :  
SAE MEMBER -25  
NON SAE MEMBER -50

BEST IDEA WINS  
**₹2000**

ROYCE : 7012891932  
SHAREEF 8089594787

REGISTER BEFORE  
**28 SEP**



[bit.ly/eurekatknce](https://bit.ly/eurekatknce)

## **EUREKA**

Creative Thoughts Competition

Contact for further information :

Royce : 7012891932

Muhammed Shareef : 8089594787

Procedure to participate:

- 1) Payment and Gform Registration (no idea submission in this step)
- 2) Online Idea submission - 2 Oct (Simple sketches and short description )
- 3) Offline presentation - 6 Oct

Registration Fees :

SAE Members – Rs. 25

Non SAE Members – Rs. 50

Best idea wins **Rs 2000**



Event Finalists presenting their idea before judges

## 8.2 TIER EVENTS

SAE TKMCE organized an exhilarating series of Tier Events aimed at testing participants' technical prowess and fostering overall development. These events encompassed a diverse range of disciplines, ensuring inclusivity and engagement across various fields of interest.



## 8.2.1 Auto Quiz:

The quiz is based on automobile and its industry, checking the general knowledge of the participants related to the automotive and related subjects like History, Places, Personalities, Technologies, Companies, etc.

### STUDENT CONVENTION 2024

Tier I event report Format			
Event Name	AUTOQUIZ		
Collegiate Club Name	SAE TKMCE		
SAEISS Division	Cochin Division		
Date Of Event	11/11/2023	Venue	Online
Total number of club members		Number of participants in the event	13
Photos (Minimum 2)			

Prize	SAE Membership Number	Name	Mobile	E-mail Id
First	7220420742	SHADIL SHAMSUDHEEN	7012067926	shadilknr03@gmail.com
	7220420740	MOHAMED AQEEL CHERU VEEDU	9633253508	Mohammed.aqeel1974@gmail.com
		REDWAN A R	9207466380	redwanraheem@gmail.com
Second	7220420684	ASWIN SASIDHARAN	9544590426	aswinsasidharan288@gmail.com
		THASNIM N S	8281508214	thasnimthazni@gmail.com

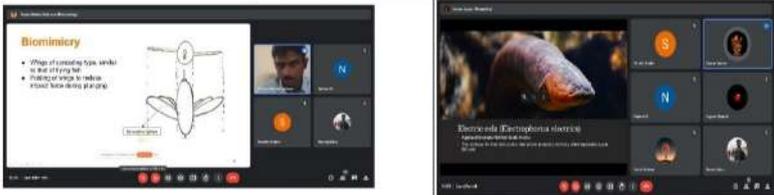
Data entered by: GOURI KRISHNA

Mob No:9526562279

## 8.2.2. Biomimicry:

It was a competition that asked the participants in a team of maximum 3, to design bio-inspired ideas that can provide solutions to critical real-world problems. Any natural organism can be chosen by participants, who can then use its properties to modify an existing technology or introduce a new one. Presentations, of maximum duration 10 minutes, followed by a Q&A session and if necessary and the creation of auxiliary models were included in the overall task

### STUDENT CONVENTION 2024

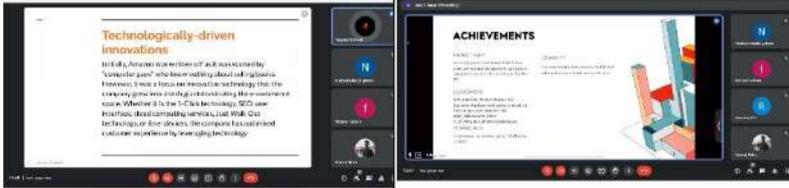
Tier I event report Format			
Event Name	Biomimicry Competition		
Collegiate Club Name	SAE TKMCE		
SAEISS Division	COCHIN DIVISION		
Date Of Event	12/11/23	Venue	ONLINE
Total number of club members	151	Number of participants in the event	4
Photos (Minimum 2)			

Prize	SAE Membership Number	Name	Mobile	E-mail Id
First	7230423674	ROYCE MATHAI ROJIMON	7012891932	roycerojimon@gmail.com
Second	7220424755	SAYYAN SHEREEF	9061804825	m4madama@gmail.com
		SOURAV	8129970582	souravsajeev777@gmail.com
	7220422345	GOURI KRISHNA	9526562279	gourimefi@gmail.com
Data entered by: (Name) NAHEE L KT	Mob No: 7306033946			

### 8.2.3 Business Plan:

The event focussed on creating a scenario where young entrepreneurs develop a business plan to establish a new organization to generate job. Participants were to study about a company and its operational model, understand the basic concepts of doing a business, and generate new ideas. Team size suggested was 3 members per team.

#### STUDENT CONVENTION 2024

Tier I event report Format			
Event Name	Business Plan Competition		
Collegiate Club Name	SAE TKMCE		
SAEISS Division	Cochin Division		
Date Of Event	12/11/2023	Venue	Online
Total number of club members	151	Number of participants in the event	11
Photos (Minimum 2)			

Prize	SAE Membership Number	Name	Mobile	E-mail Id
First	7220424755	Sayyan Shareef	9061804825	m4madama@gmail.com
Second	7220420722	Azlan	9567289094	azlanshameer094@gmail.com
	7230426340	Aabid	9207590121	aabidasars@gmail.com
	6155446403	Revathy	9895839077	revathynd03@gmail.com
Data entered by: (Name) Fanzeer Naha K	Mob No: 7591993921			

### 8.2.4. Technical Paper Presentation:

In this the participant had to select a topic from given list and collect information about the same and present a synopsis or abstract. The competition was divided into 7 minute presentation and 3 minute Q&A session

#### STUDENT CONVENTION 2024

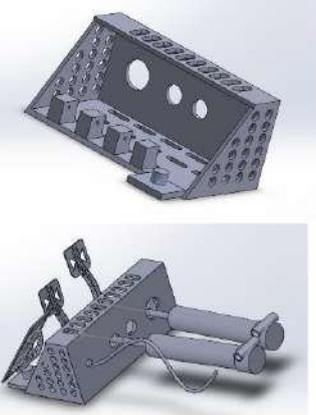
<u>Tier I event report Format</u>			
Event Name	Technical Presentation Competition		
Collegiate Club Name	SAE TKMCE		
SAEISS Division	Cochin Division		
Date Of Event	12/11/2023	Venue	Online
Total number of club members	151	Number of participants in the event	10
Photos (Minimum 2)			

Prize	SAE Membership Number	Name	Mobile	E-mail Id
First	7230423674	Royce Mathai Rojimon	7012891932	roycerojimon@gmail.com
Second	7220420722	Azlan Shameer	9567289094	azlanshameer094@gmail.com
	7230426340	Aabid	9207590121	aabidnasars@gmail.com
	6155446403	Revathy	9895839077	revathymd03@gmail.com
Data entered by: Neeraj Babu	Mob No: 9995164742			

## 8.2.5 Computer Aided Manufacturing Competition:

Purpose of the event is to students to pick up an automotive part and propose manufacturing sequence of operations and appropriate computer aided manufacturing programs as applicable.

### STUDENT CONVENTION 2024

<u>Tier I event report Format</u>			
Event Name	Computer Aided Manufacturing		
Collegiate Club Name	SAE TKMCE		
SAEISS Division	Cochin Division		
Date Of Event	12/11/2023	Venue	Online
Total number of club members		Number of participants in the event	3
Photos (Minimum 2)			
			

Prize	SAE Membership Number	Name	Mobile	E-mail Id
First	7220420722	Azlan	9567289094	azlanshameer094@gmail.com
	7230426340	Aabid	9207590121	aabidnasars@gmail.com
	6155446403	Revathy	9895839077	revathymd03@gmail.com
Second				
Data entered by: Neeraj Babu	Mob No: 9995164742			

### 8.2.6 Sheet Metal

The competition has been designed to reflect the skills of students ,who are interested in the field of sheet metal stamping. It is open to all streams of Engineering.

Objective:

A problem statement (Relating to Automotive Technology) would be put out by the organizing committee. The student team is expected to come with a possible solution which can be prototyped with the help of sheet metal.

#### STUDENT CONVENTION 2024

<u>Tier I event report Format</u>			
Event Name	Sheet Metal Competition		
Collegiate Club Name	SAE TKMCE		
SAEISS Division	Cochin Division		
Date Of Event	11/11/2023	Venue	SAE Room, TKMCE
Total number of club members	151	Number of participants in the event	2
Photos (Minimum 2)			

Prize	SAE Membership Number	Name	Mobile	E-mail Id
First	7220421202	Aravind Remesh	8129192045	aravindremesh40@gmail.com
	7220420740	Muhammed Aqueel CV	9633253508	mohammed.aqueel1974@gmail.com
	7220420750	Gaudham Banarji	9061836300	gaudhambanarji@gmail.com
Second				
Data entered by: Neeraj Babu	Mob No: 9995164742			

### 8.2.7 Welding

Purpose of the events Understanding the given concept and weld 2 components.

Expected Skills

Each team should weld a Lap, Butt, and Corner T joint with the given rectangular plate. (Mild Steel)

STUDENT CONVENTION 2024

Tier I event report Format			
Event Name	Welding Competition		
Collegiate Club Name	SAE TKMCE		
SAEISS Division	Cochin Division		
Date Of Event	11/11/2023	Venue	SAE Room, TKMCE
Total number of club members	151	Number of participants in the event	2
Photos (Minimum 2)			
			

Prize	SAE Membership Number	Name	Mobile	E-mail Id
<i>First</i>	7220420722	Azlan	9567289094	azlanshameer094@gmail.com
	7230426340	Aabid	9207590121	aabidnasars@gmail.com
	6155446403	Revathy	9895839077	revathymd03@gmail.com
<i>Second</i>				
Data entered by: Neeraj Babu	Mob No: 9995164742			

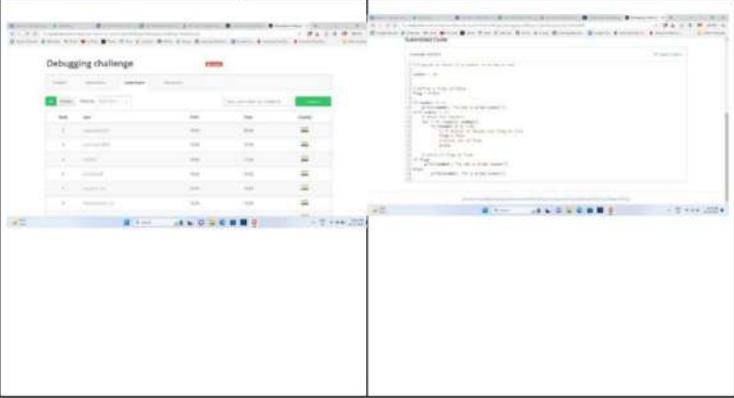
### 8.2.8 Python Programming

Alignment with curriculum

- Logical thinking
- Application of problem solving methodologies
- Coding knowledge

Expected Skills

- Must have knowledge in algorithms, drafting flowcharts, debugging and programming using python.

STUDENT CONVENTION 2024				
<u>Tier I event report Format</u>				
Event Name	Python Programming			
Collegiate Club Name	SAE TKMCE			
SAEISS Division	Cochin Division			
Date Of Event	11 November 2023	Venue	Online	
Total number of club members		Number of participants in the event	20	
Photos (Minimum 2)				
<b>Prize</b>	<b>SAE Membership Number</b>	<b>Name</b>	<b>Mobile</b>	<b>E-mail Id</b>
<b>First</b>		Megha Shaji	8590064898	meghashaji2021@gmail.com
		Rasha Ameena	8590064186	rashmeen18005@gmail.com
		Ajina A	9037774958	ajinamalul23@gmail.com
<b>Second</b>				
Data entered by: (Name) Sona F Shukoor		Mob No: 7356022318		

### **8.3 INSTA QUIZ**

'Automotive quiz' was conducted by SAE TKMCE for the enthusiastic quizzers from various colleges of Kerala. The quiz was usually held on Sundays and Mondays through the official Instagram page of SAE TKMCE. Backed up by the amazing support of our participants it went on as phenomenal as always. Comprising picture quizzes as well as multiple-choice, the quiz was conducted touching all fields of interest from the automotive domain. The questions were kept simple to moderate. The coordination of team members helped keep bars high.

### **8.4 ANSYS FLUENT FUNDAMENTALS**

The SAE TKMCE workshop on "Ansys Fluent Fundamentals: A Short Dive into Fluid Flow Analysis" was conducted successfully, providing participants with a comprehensive understanding of fluid dynamics principles and hands-on experience with Ansys Fluent software. The workshop spanned 40 hours and covered various aspects of fluid flow analysis, including problem-solving techniques, geometry generation using Design Modeler Meshing in both 2D and 3D, and an introduction to commercial CFD tools.

#### **Overview:**

Participants gained practical skills for analyzing and simulating fluid behavior across different industries. The workshop aimed to bridge the gap between theoretical knowledge and practical application in fluid dynamics, equipping attendees with the necessary tools to tackle real-world challenges.

#### **Content:**

The workshop began with an introduction to fluid flow analysis, laying the groundwork for understanding the core principles. Through hands-on sessions, participants delved into problem-solving using Ansys Fluent, exploring its capabilities for simulating fluid flow phenomena. Geometry generation techniques were also covered, emphasizing the importance of creating accurate models for effective analysis. Additionally, participants were introduced to commercial CFD tools, broadening their understanding of available resources for fluid flow simulation.

#### **Logistics:**

The workshop took place in the CAD Lab, providing a conducive environment for learning and practical exercises. The duration of the course was 40 hours, accommodating both undergraduate and postgraduate students from all branches. The registration fee was ₹500 for SAE members and ₹600 for others, with limited seats available on a first-come-first-serve basis. Dr. Vishnu S.B served as the course coordinator, overseeing the organization and delivery of the workshop.

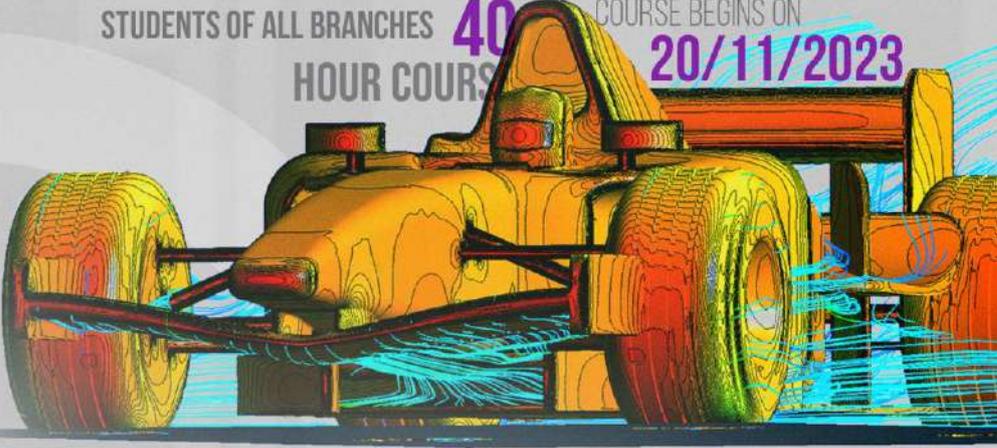
**ANSYS FLUENT FUNDAMENTALS:**  
A SHORT DIVE INTO FLUID FLOW ANALYSIS

REGISTERATION LINK:  
[https://bit.ly/Envision2\\_CFD](https://bit.ly/Envision2_CFD)

OPEN TO UG & PG  
STUDENTS OF ALL BRANCHES

40  
HOUR COURSE

COURSE BEGINS ON  
20/11/2023





<b>CONTENTS</b>		
Introduction to fluid flow analysis	2 hr	Lecture
Introduction to ANSYS Software & Problem-solving using ANSYS Fluent	3hr	Lecture + Demo
Geometry creation and meshing 2D and 3D	6hrs	Practical
Modelling Laminar and Turbulent flows	3hr	Lecture + Demo
Case study – Laminar and Turbulent flow through pipe	6hrs	Practical
Case study – Flow over flat plate with heat transfer	6hrs	Practical
Introduction to commercial CFD tools	6hrs	Self learning
Project	6hr	Project
Assessment & Evaluation	2hrs	Assessment
<b>TOTAL</b>	<b>40hrs</b>	

### **Event Description**

- Duration of the course: 40hours
- Venue: CAD Lab
- Course Fee: ₹500 for SAE members  
: ₹600 for others
  
- Open to all branches at both UG & PG levels.
- Faculty Coordinator: Dr.Vishnu S.B,  
Dept. of Mechanical Engineering, TKMCE
- Student Coordinators:
  - Manu :+91 90379 78721
  - Ananthakrishnan :+91 85473 07712



## 9. MAGAZINE

Tesseract II is a technical journal focused on innovations and breakthroughs in the automotive industry. The second issue aimed to continue the tradition of providing readers with insightful and engaging content related to the future of mobility.

The release of Tesseract II involved several key steps and collaborative efforts. These included:

**Content curation:** The editorial team worked tirelessly to curate articles, features, and analyses that would inform and inspire readers.

**Review process:** Each piece of content underwent a thorough review process to ensure accuracy, relevance, and quality.

**Design and layout:** The layout and design of the magazine were meticulously crafted to enhance readability and visual appeal.

**Digital publication:** The magazine was published digitally to reach a wider audience and facilitate easy access for readers.

