

**A Report On,  
A 2-DAYS WORKSHOP ON  
“DESIGN & FABRICATION OF  
E-KART”**

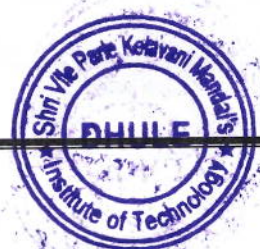


**S-Falcons Motorsports Club,  
SVKM IOT, DHULE  
In Association with,  
MESA, SVKM Institute of Technology**



**Organized by,  
Department of Mechanical Engineering  
SVKM's Institute of Technology, Dhule**

**28<sup>th</sup> October 2022 – 29<sup>th</sup> October 2022**



## INTRODUCTION

### **Program Details:**

**Venue:** SVKM's Institute of Technology, Dhule

**Date:** 28<sup>th</sup> October 2022 – 29<sup>th</sup> October 2022 **Time:** 11:00 am

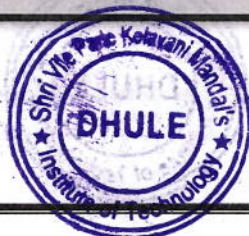
**Faculty Coordinator:** Prof. Yogesh Sonawane

S-Falcons Motor sports Club, SVKM Institute of Technology, Dhule in association with MESA organized a 2-days hands-on workshop on the topic of "Design and Fabrication of E- Kart" for the students of second, third and final year BTech, Mechanical Engineering students. The workshop was conducted in two-phases, where the first phase consisted of making the student aware about the concept of E-Kart, its component and the process involved in fabrication of the E-Kart. The workshop took place between 28<sup>th</sup> October 2022 to 29<sup>th</sup> October 2022. Students during the first day of workshop were introduced with the different concepts like Introduction to a Go-Kart/E-Kart, team building, role of CAD & CAE Software's, role of different departments within the team, cost analysis, etc. While, on the 2<sup>nd</sup> day students went through the hands-on experience and worked on the E-kart assembly and disassembly.

**SVKM's Institute Of Technology**  
Dept. of Mechanical Engineering

**S-Falcons Presents**  
A Workshop session on,  
**Design & Assembly of E-Kart**

**Venue : Room No. 309, SVKM's Institute Of Technology, Dhule**

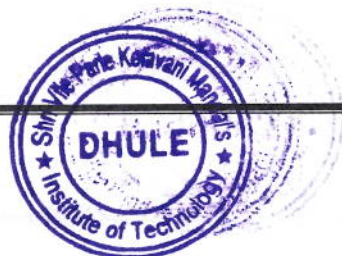


## Day 1 – Introduction to E-Kart

The workshop commenced with a short introduction about the E-Kart, the difference between the Go-Kart and E-Kart. The process of team building and the assigning of respective roles to the members as per their skills were discussed with the students.

The students were introduced to the basic steps of design and development of the product, including the discussion on the analytical, numerical & experimental method. In order to simplify the theoretical concepts to understood with an ease, the presentation was delivered by department wise, that included chassis, braking, steering, transmission (e-transmission & m-transmission).

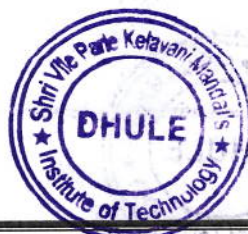
Also, the students were presented with CAD & CAE processes that is involved in the design and fabrication. As a part of CAD processes, actual modelling of the chassis design and brake disc using the SolidWorks software were introduced, along with that actual simulation of the component like structural analysis of chassis and the thermal analysis of the brake disc were included in the day-1 workshop.



## Day 2 – Hands-On



On day-2 students were introduced to the actual working of the E-Kart. Previously on day-1 students learned about the departments involved in the E-Kart team, working on design and development of respective systems in the E-Kart, while the students on the day-2 of workshop learned about few more concepts practically, which weren't discussed on day-1. The students worked on the assembly and disassembly of the E-Kart. While, before assembly and disassembly a short overview of the working of all the components including the transmission, braking, steering, electrical system etc. were introduced to the students. The process of assembly and disassembly made the students understand how, all the systems were assembled to make the vehicle to bring it in running condition.



## STUDENT PARTICIPATION

In E-Kart workshop 26 students from Second Year, Third Year and Last Year of Mechanical Engineering Department had participated in 2 days Workshop. List of participated students is as follows:

Sr. No	Participants Name
1	AkshayRajendraMahale
2	Nikhil Pandit Mali
3	Vinay PadurangBhadane
4	RupeshPradipShinde
5	NileshMaganPatil
6	VivekPravinVispute
7	Prajwal Sunil Ghatole
8	Vivek S. Pawar
9	Rupesh N. Girase
10	AkshayJitendraSalunke
11	Divy Rajesh Wagh
12	Gaurav P. Salunkhe
13	Neha DileepPatil
14	Jitendra R. Sonawane
15	Pratik GovindPatil
16	RupeshPradipShinde
17	PrathameshDasharathDeore
18	Rushikesh Hemant Pawar
19	Vishal Ashok Mali
20	Kiran Sonar
21	CharudattaYogeshVibhandik
22	Chinmay Satish Chitte
23	Siddesh N. Dalal
24	Aditya V. Gharde
25	Vedant Rajesh Tandale
26	Sai PravinMangavkar



## CERTIFICATION

Students who participated in the E-kart workshop and attended the Day 1 session "Introduction to E-kart" and the day 2 session "Hands-on assembly and Dis-Assembly of E-Kart" those students were awarded the certificate and 27 certificates were distributed among



## FELICITATION

After the hands-on practice session, all resource persons of the 2 Days workshop were felicitated by Dr. Nilesh Salunkhe, Principal of SVKM's IOT, Dhule, and Dr. Hitesh Thakare Head of Department of Mechanical Engineering Department. In the presence of all faculties of the mechanical engineering department and student participants of the workshop. For conducting this workshop, resource persons have received letter of appreciation, from mechanical engineering department.



## SUMMARY

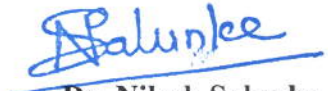
- Overall, the workshop was a successful one, and was conducted within the set time duration.
- The practical approach involved in the introduction of CAD and CAE software's helped the students to learn about the actual use of these software's in the product design and development.
- The hands-on experience helped the students to brush up their theoretical concepts with a good practical approach. Whereas the students while performing the hands-on assembly and disassembly of E-Kart understood the actual working of the electric vehicle.



**Mr. Yogesh Sonawane**  
Event Coordinator



**Dr. Hitesh Thakare**  
Head, Mech. Engg. Department  
**H.O.D. Mechanical Dept.**  
SVKM's Institute of Technology, Dhule



**Dr. Nilesh Salunke**  
Principal & Patron  
**Principal**  
SVKM's Institute of Technology, Dhule

