Mechanical Engineering Department

Cultural / Co-curricular/ Extra-curricular Activities

AY 2018-2019 (ODD Semester)

Departmental Activities Incharge: Mr. Dhiraj Bhandarkar

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SHRI VILE PARLE KELAVANI MANDAL
Pursuing excellence in education
SVKM
Institute of Technology, Dhule

MECHANICAL ENGINEERING DEPARTMENT

TEACHER'S DAY CELEBRATION -5th SEPTEMBER-2018

We celebrate Teachers' day every year throughout the country on 5th September.

Students express their gratitude and appreciation for their teachers on this day.

Fig: Teacher's Day Celebration

This day is dedicated to Dr. Sarvepalli Radhakrishnan – second President of India.

The great academic philosopher, and one of the most well-known diplomats, scholar,

President of India and above all a teacher.

As a tribute to this great teacher, his birthday has been observed as teachers' day

We celebrated the teacher's day on 5th Sep-2018. All the events were planned, organized and executed by the 3rd SEM, Mechanical Engineering Students only. All the faculties of the mechanical engineering department were present. The introductory speech was delivered by Mr. Mohammed. Juneduddin (I/C Mechanical Engineering Department) and then other faculties also shared their experiences, knowledge and views related to the holistic developments of the students.

Fig2: Teachers Days Celebration

Students presented a token of love and appreciation to all the teaching and non-teaching staffs in the form of Table Watch-Pen set, flowers. Many students shared their views through power point presentation on various topics related to an Engineers & Engineering. Some students also shared their views about the qualities of a teacher and the student so as to have the best possible teaching learning bidirectional process.

Prof. MOHAMMED. JUNEDUDDIN

(I/C Mechanical Engineering Dept)

SHRI VILE PARLE KELAVANI MANDAL
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MECHANICAL ENGINEERING DEPARTMENT

POWER POINT PRESENTATION COMPETITION (PPT-Competition)

(Date: 14/09/2018, Time: 1.00.pm - 5.00.pm, Venue: C.R-109)

We at mechanical engineering department have a culture to conduct atleast one intra departmental or inter departmental PPT competition in every semester. During this competition, students are encouraged to give power point presentation on some predefined selected technical topics. A panel of judges is set to evaluate the comparative performances of the students. On the basis of predefined criterion, winners are rewarded with certificates, cash prized and trophies. All the participants are also appreciated with certificates.

Following this trend, we had organized a Power Point Presentation Competition within the 3rd Sem Mechanical Engineering Students on 14/09/2018, one day prior to the celebration of Engineer's Day. The plan was that prized to be distributed on the Engineer's day. Few more points related to this are as follows.

TOPIC: RECENT TRENDS IN MECHANICAL ENGINEERING
(Any topic related to the mechanical engineering)

- Rules for the competition:
    a. Each teams was consist of 3 students maximum.
    b. Maximum 10 minutes per presentation and 2 minutes for Q &A was allowed.
- Evaluation Criteria: (100 points)
    - 30 points for subject/topic (depth of knowledge and its interpretation).
    - 25 points for presentation structure and contents
    - 25 points for communication and presentation skills.
    - 10 points for questions answers.
    - 10 points for effective time management and team coordination.

- **Judges:**

Judge name	College/Company
Dr. MANOJ SONAWANE	FIRST YEAR, SVKM'S IOT, Dhule
Mr. NAMRA JOSHI	ELECTRICAL ENGG DEPT, SVKMS'S IOT, Dhule
MR.MOHAMMED.JUNEDUDDIN	MECHANICAL ENGG DEPT, SVKM'S IOT, Dhule
MR.SATISH R. PATIL	MECHANICAL ENGG DEPT, SVKM'S IOT, Dhule
MR.DHIRAJ BHANDARKAR	MECHANICAL ENGG DEPT, SVKM'S IOT, Dhule
MR.YOGESH SONAWANE	MECHANICAL ENGG DEPT, SVKM'S IOT, Dhule
MR.MAHESH DALWANI	MECHANICAL ENGG DEPT, SVKM'S IOT, Dhule

- Winners:
  - 1ST PRIZE: TROPHY, CASH & CERTIFICATE.
  - 2ND PRIZE: TROPHY, CASH & CERTIFICATE
- Other Participants:
  - Certificate were issued to all the participants.

Fig: Winners of PPT- Competitions are receiving prizes on Engineers day celebration

Prof. MOHAMMED. JUNEDUDDIN

(I/C Mechanical Engineering Dept)

Shri Vile Parle Kelavani Mandal's Institute of Technology, Dhule

(Mechanical Engineering Department)

Eco-Kart 2K19

- It is a National level event for Engineering students
- The competition is to design and fabricate a single passenger kart which is operated via battery as per given standards.
- The competition will not only help students to build interest toward automobiles, but also help them incorporate team work, technical skills and management skills within themselves.
- Event is divided into 3 main rounds
    1. **The virtual round**- It is a qualifier round for the main event, during this students are judged on how they have planned to proceed for the event. This will be held in our campus using video conferencing. Marks will be awarded and cut off will be released according to selection parameters. (Virtual round held on 24th Nov and result is awaited)

Photo 1: Team S-Falcons member

2. **Technical Inspection**- It is another eliminator stage, faculty advisor or mentors are required to conduct inspection in the college itself and video of the same is to be shared with Eco Kart officials.

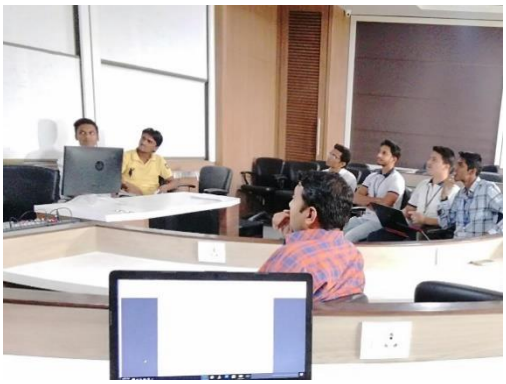
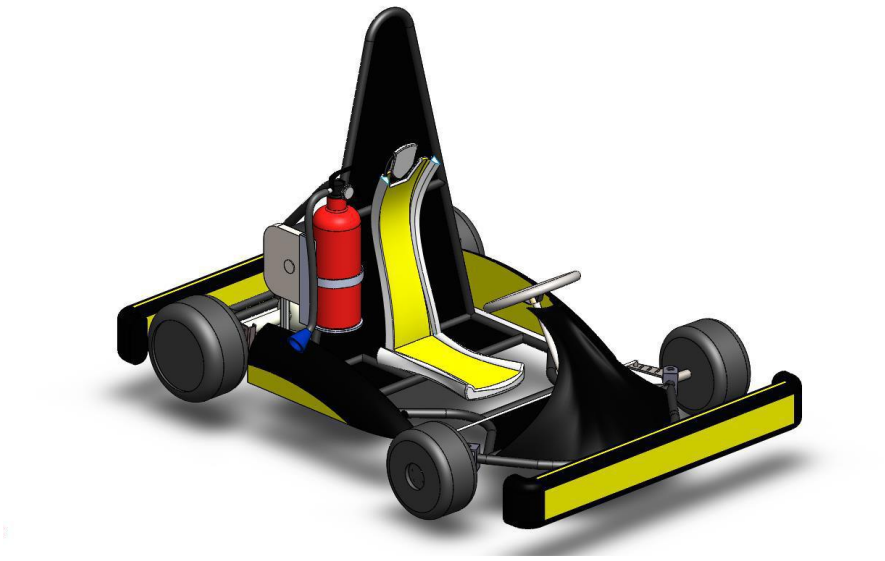


Photo 2: Virtual Round
(Via online conferencing)

3. **The dynamic round**- It is final round, which will be held at Gautam Buddha University, Delhi during 24th march to 30th March 2018, where best teams from the country compete with each other. There are various dynamic knock-out rounds where team can score more and win cash prizes.
    - Acceleration cum brake test
    - Park it up
    - Face-off
    - Turn Table
    - Podium Finish

3D- Model :



Team Details:

Institute Name: SVKM's IOT, Dhule

Team Name: S-Falcons

Kart Name: E-Torc 1.0

Team official Email-Id: s.falconsMH18@gmail.com

Faculty Advisor: Mr. Yogesh D. Sonawane (Mob No. 9975708447)

Reference: http://www.ecokart.in

SVKM INSTITUTE OF TECHNOLOGY, DHULE

REPORT ON GUEST LECTURE

BY

Mr. Sudesh Powar

NAME OF INSTITUTE	:	MIT Academy of Engineering
TOPIC	:	CFD (Computational Fluid Dynamics)
DATE	:	15th Oct. 2018

DETAILS OF THE GUEST LECTURE

The bullet points of the guest lecture are :
1) Introduction to the CFD
2) Revision of Prerequisite of CFD
3) What is CFD and its application
4) Mathematical equations and descretization methods
5) Case Studies – Pipe flow

The guest lecture gives overview of computational fluid dynamics which helps to students understands the importance of subjects. In order to solve various equations of fluid mechanics like Nevier Stoke equations Reynolds transport theorem etc. computational method helps a lot to compare the experimental results to review any problems. The snap of session attaches below.

In Charge Coordinator
Mech. Dept.

SVKM's Institute of Technology

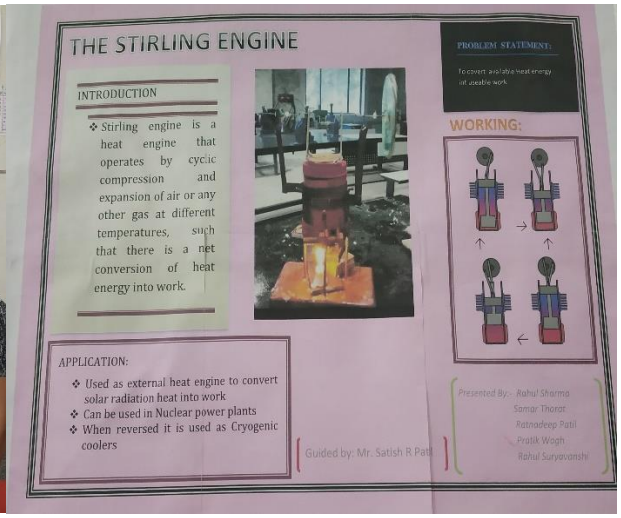
Department of Mechanical Engineering

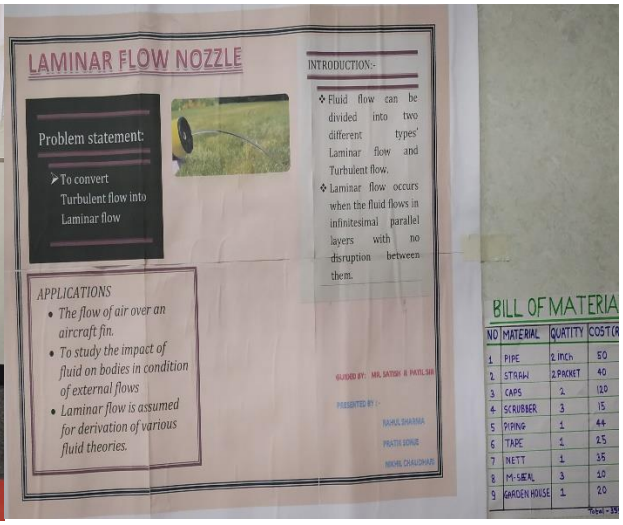
Project based LEARNING activity for students

The Project-Based Learning approach creates a constructive learning environment in which students construct their own Projects. In order to improve learning environment, SVKM IOT organised a Project Based Learning activity for students.

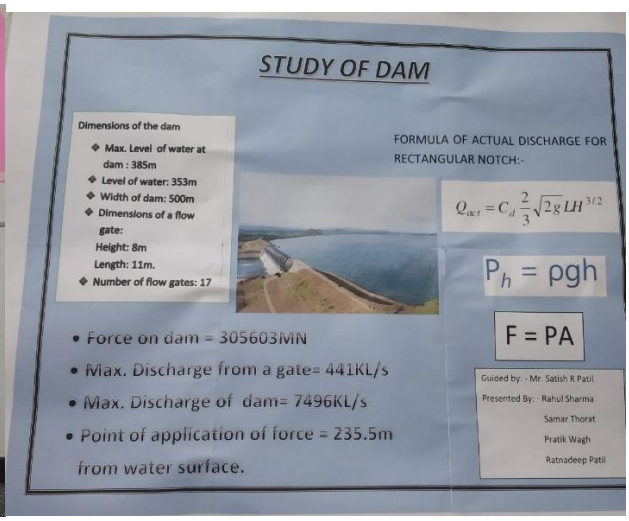
On Saturday 27 October 2018 a project exhibition was organised by SVKM Institute of Technology, Dhule with an aim to encourage and implement theoretical concepts of subjects in practical manner by doing projects. Students of Mechanical Engineering Department had presented and demonstrated their projects in presence of Principal and Departmental Faculties. The exhibition appreciated by authorities.

The snaps of few presentation are given below:


THE STIRLING ENGINE
INTRODUCTION
Stirling engine is a heat engine that operates by cyclic compression and expansion of air or any other gas at different temperatures, such that there is a net conversion of heat energy into work.
PROBLEM STATEMENT:
To convert available heat energy in usable work
WORKING:
APPLICATION:
Used as external heat engine to convert solar radiation heat into work
Can be used in Nuclear power plants
When reversed it is used as Cryogenic coolers
Guided by: Mr. Satish R Patil
Presented By:- Rahul Sharma
Samar Thorat
Ratnadeep Patil
Pratik Wagh
Rahul Suryavanshi


LAMINAR FLOW NOZZLE
Problem statement:
To convert Turbulent flow into Laminar flow
INTRODUCTION:-
Fluid flow can be divided into two different types' Laminar flow and Turbulent flow.
Laminar flow occurs when the fluid flows in infinitesimal parallel layers with no disruption between them.
APPLICATIONS
The flow of air over an aircraft fin.
To study the impact of fluid on bodies in condition of external flows
Laminar flow is assumed for derivation of various fluid theories.
BILL OF MATERIA
NO MATERIAL QUATITY COST
1 PIPE 2 INCH 50
2 STRAW 2 PACKET 40
3 CAPS 2 120
4 SCRUBBER 3 15
5 PIPING 1 44
6 TAPE 1 25
7 NETT 1 35
8 M-SEAL 3 10
9 GARDEN HOUSE 1 20


THE OSTWALD'S VISCOMETER


STUDY OF DAM
Dimensions of the dam
Max. Level of water at dam : 385m
Level of water: 353m
Width of dam: 500m
Dimensions of a flow gate:
Height: 8m
Length: 11m.
Number of flow gates: 17
FORMULA OF ACTUAL DISCHARGE FOR RECTANGULAR NOTCH:-
$Q_{act} = C_d \frac{2}{3}\sqrt{2g}LH^{3/2}$
$P_h = pgh$
F = PA
Force on dam = 305603MN
Max. Discharge from a gate= 441KL/s
Max. Discharge of dam= 7496KL/s
Point of application of force = 235.5m from water surface.
Guided by: - Mr. Satish R Patil
Presented By: - Rahul Sharma
Samar Thorat
Pratik Wagh
Ratnadeep Patil