



**BHARTIYA VIDYA BHAVAN'S
SARDAR PATEL
COLLEGE OF ENGINEERING**

autoSTROKE

3 Days Workshop
(23-25 January 2015)

NEWSLETTER



AUTOSTROKE 2015 WORKSHOP

Organised by Mechanical Engineering Student Association (MESA SPCE)

JANUARY 23 24 and 25

भारतीय विद्या भवनचे

सरदार पटेल अभियांत्रिकी महाविद्यालय



BHARATIYA VIDYA BHAVAN'S

SARDAR PATEL COLLEGE OF ENGINEERING



AUTOSTROKE WORKSHOP

ARRANGED BY SPCE-MESA AND CODEX DESIGNS IN COLLABORATION WITH IIT DELHI

INTRODUCTION

Autostroke workshop was organized by MESA and Codex design in association with IIT Delhi, on 23 to 25 January 2015, at BCCA hall, SPCE.



The workshop received a footfall of over 123 students from different colleges.



The commencement of the workshop.



The inaugural function with all the chief guest.



Mr. P.N. Jumle, Director, Board of Apprenticeship and Training, Western Railways, speaking in the inaugural function.

Bhartiya Vidya Bhavan's SARDAR PATEL COLLEGE OF ENGINEERING
MESA Mechanical Engineering Students' Association
CODEX DESIGN
RENDEZVOUS
autoSTROKE 2015
IIT DELHI
National Design Awareness Program

Automotive Design & analysis
Autostroke 2015, a National level design awareness program is a 3 Days design challenge series on Automotive Design & Analysis being conducted nationwide in different engineering colleges by Codex Design services in association with Rendezvous, IIT Delhi.

DAY - 1 Vehicle dynamics & working principle
• Illustration of different systems in an automobile.
• Automotive system's working in unison.
• Vehicle dynamics & design considerations.
• Assemblies & sub-assemblies mechanism.
• Vehicle layouts.
• Recent technological advancements.
• Awareness of SAE events like BAJA, SUPRA etc.

DAY - 2 Design & Analysis using SolidWorks
• Concerns and terms while designing.
• Designing methodology and techniques.
• Designing softwares and their global usage.
• Modelling parts and assembly, generating drawings.
• FEA simulations of simple designs of piston and cylinder assembly for structural and thermal analysis.
• Design optimization.

DAY - 3 Live dis assembling of car engine
• Illustration of different systems of a car.
• Their relative positioning and functioning.
• Dis assembling of the available car engine.
• Tools used for the same.
• Discussion on exploded components of the assembly.
• Assembling of components back into the assembly.

autoSTROKE Participation details
• Automotive design & analysis workshop will be held at the college below.
• A competition will be held just after the workshop.
• Winners of the competition will go to IIT Delhi to represent their college at Grand Finale in March 2015

Become a Campus Ambassador...!!
• Free internship opportunities.
• Work while you learn.
• Enhance your communication, marketing & management skills.
• Letter of recommendation for planning & executing events.
• Appreciation certificate from Codex Design, co certified by IIT Delhi.
• Free trip to technical summits every year.

Seats will be filled on first come first serve basis. For registrations, Contact
Rush your entries now...!!
Event Date : 23-25 January 2015
Venue : Sardar Patel College of Engineering
BCCA Hall, Bhavans Campus, Munshi Nagar
Andheri(W), Mumbai, 400058
Coordinators : Prof. Megha Janbandhu
Ms. Mittal Mevada (TE-Mech) +91-9769264446
Mr. Pradeep (TE-Mech) +91-9757487726
Mr. Vedant (SE-Mech) +91-7387488811
PRIZES WORTH Rs 1 LAKH *
Registration Fees : Rs 1200/- per participant
www.codexdesign.in | www.facebook/codexindia
info@codexdesign.in | codexdesignservices@gmail.com

The 3 days informative workshop covered various aspects of IC engine and parts of IC engine.

ABOUT SPCE

Sardar Patel College of Engineering (SPCE) under the management of the Bhartiya Vidya Bhavan, was founded by Kulapati Dr.K.M.Munshi. It was established to meet the growing demand for engineering talent.

The foundation stone of the college was laid on 17th September 1961 by Shri.Y.B.Chavan (the then Chief Minister of Maharashtra who later became the Defence Minister of India. The college was inaugurated by the first Prime Minister of Independent India, Pandit Jawaharlal Nehru in 1962.The college is dedicated to Sardar Vallabhbhai Patel, an eminent nation builder of independent India.

The college is autonomous and affiliated to the University of Mumbai for the full-time degree and post graduate degree courses. The institute has set high standards for aspiring engineering students and also meets the need of quality education in the challenging world of business. Over the last 50 years the college has gained an excellent reputation in the field of Technical Education.

SPCE is one of the few colleges that have received Grade 'A+' rating for its aided courses from the Govt. of Maharashtra which certifies the spirit of excellence that the institute has symbolized and always practiced.



VISION

“TO BUILD A RENOWNED INSTITUTION WHICH WILL PRODUCE SKILLED GRADUATE ENGINEERS WITH GOODWILL FOR HUMANITY”

MISSION

To impart quality education through need based curriculum in academic programmes.

To enhance career opportunities for students through industry institute interaction & value added courses.

To promote excellence by encouraging a wide range of views, lateral thinking & a sense of discipline.

OBJECTIVES

To inculcate responsibility towards society.

To achieve & maintain excellence in education & research.

To develop & enhance industry institute interaction both at student & faculty level.

To modernize laboratories to keep abreast with the needs of the changing curriculum & research activities.

To build up the institution through interaction with alumni & interdepartmental activities.

To encourage continuous upgradation of skills at all levels through training programmes.

Dr. P. H. Sawant

Professor & Principal - Sardar Patel College of Engineering

Area of Interest - Construction Management, Water resources for surveying.

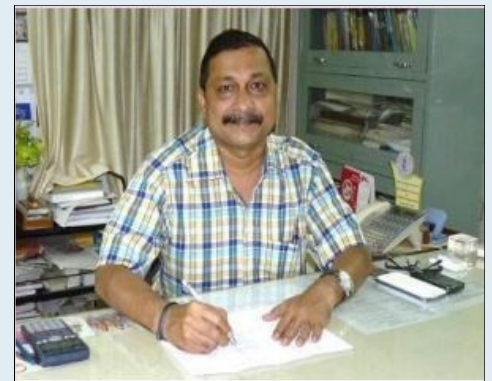
“It gives me immense pleasure to announce that Department of Mechanical Engineering is conducting different workshops like AUTOSTROKE. I congratulate the coordinator & Head MED for organizing this type of workshop which will enrich the knowledge of participants in the area of automobiles with the help of valuable practical knowledge. This will empower the students of SPCE to conduct more such activities”.

**Dr. M. M. Murudi**

Professor & Vice-Principal - Sardar Patel College of Engineering | TEQIP Coordinator

Area of Interest- Earthquake Engineering.

“As a Vice-principal and TEQIP coordinator I am very happy that Mechanical Engineering Department is taking a leading role by arranging this type of workshop which boosts industry-academia interaction. I congratulate head MED and his team for conducting such important and practical oriented workshop for the benefit of academic fraternity . ”

**Dr. R. B. Buktar**

Professor & Head of Department (Mechanical Engineering)- Sardar Patel college of Engineering.

As the Head of Mechanical Engineering Department I am very proud of the students of MESA that they are conducting various workshops and industrial visits in the field of automobiles. I congratulate MESA committee for imparting practical knowledge to the students through workshops.





Prof. Megha Janbandhu

Assistant Professor, MESA(Mechanical Engineer Student's Association)
Incharge

MESA, the Mechanical Engineering Students' Association, aims to play a pivotal role in the development of students as engineers by various out-of-curriculum and extra curricular activities. MESA aims to inculcate among its members an awareness and appreciation of the various disciplines of not just Mechanical Engineering but also other relevant fields. By way of its activities MESA aims to be a platform particularly the students of FE SE TE and BE . MESA seeks to be an active organization of the Mechanical Engineering department which promotes exposure to their area interests.

Being the MESA incharge I have tried to give the exposure to the various fields and tried to bring the different opportunities in the form of Visits, Workshops, Expert Lectures, Technical Events, Internships, Projects etc. for the students for all the four years. As compared to the activities to the previous academic years, this year MESA has played a vibrant role in the overall development of the students.

MESA has provided a platform for exhibiting their talent in Co-curricular activities and extra – curricular activities for the students and Being a incharge of this association it gives me a immense pleasure to appreciate the efforts of the MESA committee for the year 2014-2015. In the past five years they are the most active committee members for this association and I hope that for the forthcoming years similar students I will be getting which will genuinely work hard for the department in the form of MESA.

DAY 1:

The 1st day of Autostroke commenced with lamp lighting by Dr. M.M.Murdi, vice-principal, Dr.R.B.Buktar, Head of Mechanical Department, Mr.P.N.Jumle, director of BOAT, Prof. Megha Janbandhu, Mesa Incharge. He gave speech disclosing the importance of the workshop followed by introduction of Mr. Ripudaman Singh Chauhan and Mr. Ashish Chandra.

Mr. Ripudaman, faculty from Codex design services, Delhi started with sharing bits of his BAJA and SUPRA experience. He had a very systematic presentation of topics in the order: chassis(skeleton of a vehicle), suspension, braking, steering, exhaust and tires.



Dr.R.B,Buktar felicitating Mr. Ripudaman,, faculty from Codesx design services, Delhi .

A brief but comprehensive explanation of each and every system was given. His experience with ATVs, cars, bike from day to day life, profusely explained the significance of all the knowledge he handed over. Although the session continued from 10 am to 5 pm, the knowledge which was being presented and the way it was being presented diminished any chances of boredom to appear.



Mr. Ripudaman , faculty from Codex design services, Delhi explaining the IC engine concepts



Mr. Ripudaman , faculty from Codex design services, Delhi , lightning the lamp.



Students attending the workshop.

DAY 2:

The 2nd day embarked with even more zeal and enthusiasm amongst the students. This day was chalked out for designing and simulation of IC engine on Solidworks.

The session was conducted by Mr. Ashish Chandra . Students attended the session alternatively in 2 batches.

Mr. Ashish Chandra gave gist of options and shortcuts available on Solidworks. He designed crank shaft and connecting rod and discussed various different methods to do the same.



Mr. Ashish Chandra, faculty of Codex Design, Delhi, explaining concepts of design

He also designed a piston and performed simulation on it by applying forces on it. He gave the idea about the working range of force for the piston depending on the factor of safety assumed.

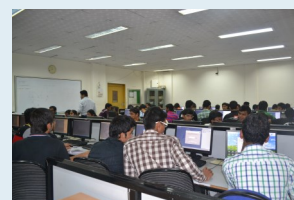
At the end he handed over the study material for Solidworks and all what was taught by Mr. Ripudaman.



Mr. Ashish Chandra, faculty of Codex Design, Delhi, solving doubts of the students.



Students having hands on experience of Solidworks.



Students having hands on experience of Solidworks.



Mr. Ashish Chandra, faculty of Codex Design, Delhi, solving doubts of the students.

DAY 3:

It was the day to witness all what was taught in last 2 days, in front of our eyes. A mechanic opened and showed the sequential way of disassembling and then assembling the IC engine. Many students actively participated in the process. Later on, with many of hands smeared in grease, they were taken by Prof. Phadke who showed components like cooling water tank to ECU in his Bolero. Mr. Ripudaman, Mr. Ashish Chandra and Prof. Phadke were always available throughout the 3 days to solve any doubt or query.



Prof. Praful Phadke, director L.V.Diesel explaining basics of IC engine

Afterwards, a quiz was held. Question with multiple options on whatever they taught were asked.

The 3rd day concluded with valedictory function. Dr. R.B.Buktar felicitated Mr. Ripudaman, Mr. Ashish Chandra.

The winners and runner ups of the quiz were felicitated as well, where the winning team comprised of top 4 students who qualified for nation level quiz to be held at IIT, Roorkee. The runner ups got a chance to do summer internship with Codex Designs.

The workshops concluded with certificate distribution, and feedbacks were taken from the students. The average feedback rating was 9 which very well is evident of the success of the workshop.



Prof. Praful Phadke, director L.V.Diesel explaining basics of IC engine



Prof. Praful Phadke, director L.V.Diesel explaining basics of IC engine



Valedictory function



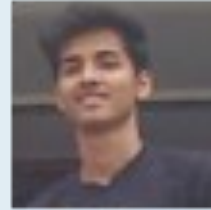
Certificate distribution

AUTOSTROKE WORKSHOP

MESA committee (2014-15)



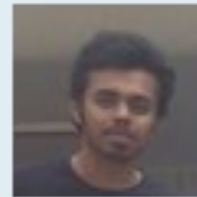
Atul Patil
(General Secretary)



Umang Patil
(Co-General Secretary)



Prachiti Ghag
(Head of Events)



Kiran Rajan
(Co-Head of Events)



Jay Mehta
(Treasurer)



Rishabh Shah
(Co-Treasurer)



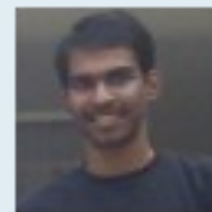
Bharat Pawar
(Sports Secretary)



Vrishtee Rane
(Female Sport Secretary)



Avinash Chauhan
(Magazine Secretary)



Prateek Tade
(Library Secretary)