



AUTOMOBILE ENGINEERING DEPARTMENT

NEWSLETTER

Volume-4 Issue-1 of 2019-20

ABOUT DEPARTMENT

Established in the year 2010, our department offers three years diploma in AE with an intake of 60. Automobile Engineering needs a solid understanding of key concepts of Automobile engineering so that it can be best utilized in automobile sector. The program prepares them for technological careers and students can utilize this program as a launching pad for professional careers in industry, business or public services.

The aim of the department is to achieve excellence in the field of automobile and educate students in area of automobile engineering that will meet the need of industry. Department have Qualified, Sincere and Dedicated Teaching & Non Teaching faculty members. Faculties are trying to upgrade their knowledge and skills by attending various Workshops, Seminars, and STTP.

VISION AND MISSION

VISION

Vision of the Automobile Engineering is:

To impart quality education

MISSION

- ❖ **To excel in imparting extensive knowledge in Automobile Engineering prescribed by MSBTE Diploma curriculum.**
- ❖ **To prepare the student to be successful in higher education, employment, business and an asset to the nation.**
- ❖ **To inculcate integrity and honesty through curricular, co-curricular and extra-curricular activities.**

CHAIRMAN'S MESSAGE



Shri. Ravindra M. Mane
Chairman

Ex-Minister of Maharashtra

It is a matter of great pleasure and satisfaction that RMP has come up with the first issue of the Departmental Newsletter. I believe that the newsletter will serve as a window through which the complete profile of the academic and co-curricular activities, achievements and progress made during the stipulated period can be viewed.

We at RMP are committed to creating an ambience for nurturing innovation, creativity and excellence in our students. We aim to prepare the young engineers and managers to confidently and competently face the challenges of intensifying competition by imparting high quality technical and managerial education coupled with appropriate training and wide exposure to the state-of-art practices. Our educational programs lay emphasis on all round personality development and also in inculcating human values and professional ethics which help our students become more human and socially responsible to lead a meaningful life.

PRINCIPAL'S MESSAGE

I am very happy to note that the Department of Automobile Engineering of Rajendra Mane Polytechnic (Ambav- Devrukh) is releasing its first Newsletter enumerating the various activities and achievements of their faculty and students. Automobile Engineering is a versatile and evergreen branch of engineering. Automobile engineer can work in various fields like automotive system, aerospace engineering, design engineering, dynamic system and control, power plant engineering, etc. and most importantly in software field also. The students and faculties of department are always proactive in taking initiatives in technical, cultural and social events. I hope that this newsletter will serve the purpose of reflecting all activities of department and it will inspire others to do their best.

I congratulate all the students who have put their efforts in bringing this first newsletter issue and also appreciate HOD and all faculty members for motivating their students towards this fulfillment. I wish each one of them in the Department success in all their endeavors.



Prof.N.B.Bhopale
Principal

HOD'S MESSAGE

Congratulations to The Departmental Editorial Board for publishing the first Department Newsletter. My heartiest wishes to everyone associated with this extremely proud achievement.

I would like to advise all my students to first think 'inside the box' to be able to pursue their 'out of the box' goals. They should look for small improvements in their current setup and execute everything with perfection. Make full use of the educational facilities to ignite the spark within them that you can fulfill your dream of a desirable future.



Prof. P.L. Ambekar
Head of the Department

EDITOR'S MESSAGE



Prof. R.K. Ambekar
Lecturer in Automobile

Dear students,

Heartily welcome to the newly launched Automobile Dept's first issue of the news letter for the academic year 2018-19. The newsletter is launched with the objective of dissemination and compilation of information related to the Department. This reintroduction of the newsletter will give an opportunity to the faculty and the students to craft and showcase their knowledge and skills.

The objectives of the news letter is to mainly focus on the

- Achievements of the Students and Faculty members from the Automobiles dept. in Curricular, Co-curricular and Extra-curricular Activities.
- The Recent trends in the area of Automobile Engineering and related areas.
- I congratulate all my Faculty members and students for their constant efforts in launching this News Letter. We are Very Grateful to our Management, Principal and Head of Department for their Support and Encouragement.

AUTOMOBILE ENGINEERING DEPARTMENT

TEACHING STAFF

Prof. P. L. AMBEKAR

H.O.D, B.E (Mechanical), Experience; 10 years

Prof. N. D. BHATKAR

B.E (Mechanical), Experience; 8 years

Prof. K. M. SHINDE

B.E (Mechanical) , Experience; 8 years

Prof. R. K. AMBEKAR

B.E (Mechanical) M.E (Machine Design),
Experience; 8 years

Prof. H. P. DONGARE

B.E, (Automobile) ME Appeared,
Experience; 7 years

Prof. S. A. KHARDE

B.E, (Automobile), Experience; 7 years

NON-TEACHING STAFF

Mr. P. S. JADHAV

ITI (Motor Mechanic), Lab Assistant,
Experience; 5 years

AESA

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✚ SHIVPRASAD DARVAJKAR

✚ SUYASH PANVALKAR

✚ AKSHAY DESAI

FACULTY ATTENDED TRAINING

Prof. H.P. Dongare has successfully completed 1 week training in “**Emerging Trends in Automotive Technology**” from **13/01/2020 to 17/01/2020** conducted by Mechanical Engineering Department, Veermata Jijabai Technological Institute, Mumbai

Prof. P.L. Ambekar has successfully completed 1 week training in “**Emerging Trends in Automotive Technology**” from **13/01/2020 to 17/01/2020** conducted by Mechanical Engineering Department, Veermata Jijabai Technological Institute, Mumbai

STUDENT ACHIEVEMENT



Best Outgoing Student of AY 2019-20

Siddhant Panchal

T.Y. Automobile

LABS OF OUR DEPARTMENT

SYSTEM LAB-

Our system lab consists of various automobile components and parts such as steering wheel mechanism and automatic transmission with more chassis components like differential and front axels, various braking system etc.



ENGINE LAB-

Our lab consists of many advance equipment such as two test rigs of Morse test for four cylinder petrol and diesel engine and have cut section of various automobile components like pistons, connecting rods, crank shaft and cylinder block etc ., and single cylinder two stroke engine.

MAINTENANCE LAB-

Regular maintenance is critical to ensure the safety, reliability, drivability, comfort and longevity of a car. During preventive maintenance, a number of parts are replaced to avoid major damage or for safety reasons. Inside maintenance Lab We dismantle and assemble of Four Cylinder Petrol Engine, Gear box, Hydraulic Brake System, Differential etc.



CAD/CAM LAB

The CAD lab saw the installment of two new systems. Software like AUTOCAD and CATIA were installed in order to develop further skills of students.

The CNC lab includes CNC Lathe trainer machine and CNC milling trainer machine, which imparts hands on training on programming and operation of CNC Lathe.

CURRICULAR AND EXTRA-CURRICULAR ACTIVITIES



SY & TY Automobile Students visited to Modak Enterprises, Ratnagiri in January 2020



Industrial Visit at Trimurti Car Services, Ratnagiri



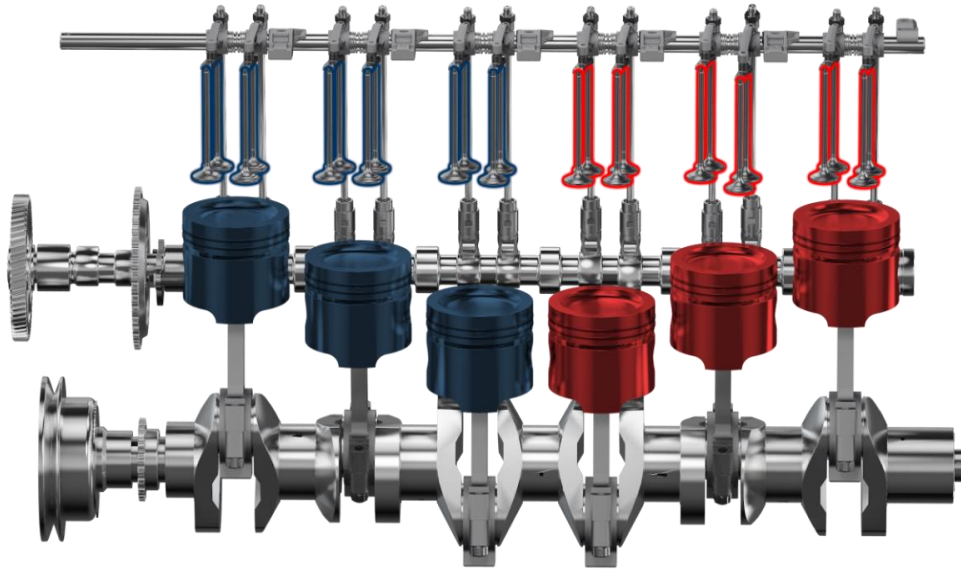
Industrial Visit at Bafana Motors, Ratnagiri in January 2020

SY & TY Automobile Students and Staff



Industrial Visit at Lavgan Dockyard Pvt Ltd., Ratnagiri in 2019

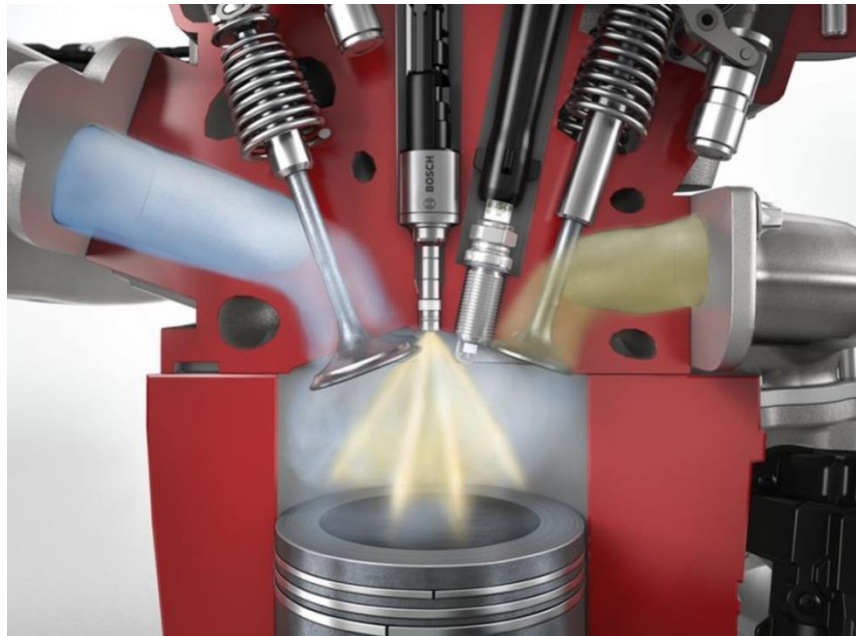
CYLINDER DEACTIVATION



This technology is mainly applied to larger engines such as V6 and V8s. When you're cruising along the freeway your car only needs a small amount of power to keep it going at a steady speed. If you're driving a V8 vehicle, for example, you don't require all that much power to keep the car going. Cylinder deactivation effectively switches off two or four cylinders, automatically, when there are low demands from the driver. The end result is the economy of a four-cylinder engine when driving on the highway. It's quite smart.

VIJAY AMBRE
SY AUTOMOBILE

Gasoline Direct Injection (GDI)



An automotive gasoline direct injection system (GDI) injects fuel (diesel or gasoline) into the combustion chamber of automobile engines. Gasoline direct injection systems offer better efficiency, higher performance, and lower emissions. The first GDI engine to reach production was introduced in 1925 for a low-compression truck engine. Several German cars used a Bosch mechanical GDI system in the 1950s, however usage of the technology remained rare until an electronic GDI system was introduced in 1996 by Mitsubishi for mass-produced cars. GDI has seen rapid adoption by the automotive industry in recent years, increasing in the United States from 2.3% of production for model year 2008 vehicles to approximately 50% for model year 2016. While this technology is credited with boosting fuel efficiency and reducing CO₂ emissions, GDI engines produce more black carbon aerosols than traditional port fuel injection engines. A strong absorber of solar radiation, black carbon possesses significant climate-warming properties.

Shivprasad Darvajkar

SY Automobile