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POLYTECHNIC



AY 2022-23 Issue II

Staff Editors: Mr. G.M.
Nagane, and Mr. M. S.
Bhave

Student Editor: Soham
Hole, (TY AE student)

Published by:
Automobile
Engineering

**Our
Polytechnic
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of Academic
Excellence!**

Vision, Mission and Objectives of Automobile
Engineering Department

VISION:

“To achieve excellence in technological and social aspects of automobile engineering.”

MISSION:

- Comprehensive development of student by using state of art infrastructural facilities.
- Development of engineering mind-set within the students.
- Continuous enhancement of skill sets of student and faculty through industry-institute interaction.
- Imparting social and ethical values among the students.

PEO:

- Provide socially responsible, environment friendly solutions to Automobile engineering related broad-based problems adapting professional ethics.
- Adapt state-of-the-art Automobile engineering broad-based technologies to work multi-disciplinary work environments.
- Solve broad-based problems individually and as a team member communicating effectively in the world of work.



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AUTOMOBILE ENGINEERING DEPARTMENT

ISSUE II IN AY 2022-23

01/03/2023

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IS TITLE OF OUR NEWSLETTER OF

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AUTOMOBILE

INDUSTRY IN

YEAR 2023

COVER STORY

- There is a growth potential for Automobile Industry in Year 2023
- There are few visible trends in auto industry in this year
- Inside Pages:

Activities of Department such as Industrial Visit, cultural programmes, etc.

Automobile Industry in Year 2023



Great growth potential for automobile industry

India's automotive industry has been experiencing remarkable growth, making it one of the largest and most competitive sectors in the country. The rise in disposable income, rapid urbanization, and the government's focus on infrastructural development have contributed to the escalating demand for automobiles. Consequently, automobile manufacturers are investing heavily in research and development, leading to the need for skilled automobile engineers. Following trends are likely to be there in Automobile Industry.

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Automobile Industry Trends in 2023



Thriving Automotive Industry

India's automotive industry has been experiencing remarkable growth, making it one of the largest and most competitive sectors in the country. The rise in disposable income, rapid urbanization, and the government's focus on infrastructural development have contributed to the escalating demand for automobiles. Consequently, automobile manufacturers are investing heavily in research and development, leading to the need for skilled automobile engineers.

Electric Vehicle Revolution

The worldwide shift towards sustainable transportation has created a remarkable opportunity for automobile engineers to contribute to the development and implementation of electric vehicles (EVs). India, with its ambitious plan to achieve 30% electric mobility by 2030, is at the forefront of this revolution. The demand for EV technology experts,

battery specialists, and charging infrastructure engineers is on the rise, providing a vast scope for automobile engineers to contribute to a greener future.

Autonomous Vehicles and Advanced Driver Assistance Systems (ADAS)

Autonomous vehicles are no longer a futuristic concept; they are gradually becoming a reality. Leading automobile companies and tech giants are investing in autonomous vehicle research and development, aiming to revolutionize transportation. As an automobile engineer, you can play a pivotal role in the design, development, and testing of autonomous vehicles. Furthermore, Advanced Driver Assistance Systems (ADAS), such as collision avoidance systems and lane-keeping assist, are gaining prominence, creating a demand for engineers proficient in sensor technology and software integration.

The integration of vehicles with the internet and smart

devices has given rise to the concept of connected vehicles. These vehicles can communicate with each other and with infrastructure, enhancing safety, efficiency, and convenience on the roads. The growing emphasis on connected vehicles and the Internet of Things (IoT) has opened up new avenues for automobile engineers. Skills in data analytics, cybersecurity, and communication protocols will be in high demand, enabling engineers to contribute to the development of smart and connected transportation systems.

Skill Development Initiatives

Recognizing the importance of skilled manpower in the automotive industry, the Indian government, in collaboration with educational institutions and industry stakeholders, has initiated several skill development programs. These programs aim to bridge the gap between industry requirements and the skills possessed

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Auto Industry Trends in 2023

by fresh graduates. Aspiring automobile engineers can leverage these skill development initiatives to enhance their knowledge, stay updated with the latest advancements, and develop industry-relevant skills, thereby increasing their employability.

India's growing stature in the global automotive industry has led to an increase in colleges offering automobile engineering. Numerous automotive research institutes, in both

sectors public and private, are actively engaged in developing innovative technologies and solutions.

Automobile engineers with a passion for research can explore opportunities in these institutes, working on cutting-edge projects related to alternative fuels, lightweight materials, aerodynamics, and more. Automobile engineers should study these trends well and use for their future

Conclusion

As we step into 2023, the scope of automobile engineering in India has never been more promising. The booming automotive industry, the electric vehicle revolution, the advent of autonomous and connected vehicles, and the focus on skill development initiatives provide a plethora of opportunities for automobile engineers to thrive. By embracing these emerging trends, aspiring engineers can play a significant role in shaping the future of transportation, contributing to a sustainable, efficient, and technologically advanced automotive landscape in India.

(An article by G.M. Nagare
I/c head of department,
Automobile Engineering)



Automobiles and the Society

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The automobile has had a significant impact on society since its inception. It has revolutionized transportation and mobility, making it easier for people to travel long distances and access remote places. However, the effects of the car on everyday life are significant and controversial.

The development of the car has introduced sweeping changes in employment patterns, social interactions, infrastructure, and the distribution of goods. The automobile has also played an important role in personal mobility and is often seen as a symbol of independence, individualism, and freedom in society.

Despite the positive effects of the automobile, the negative effects are also significant. The high motorization rates have brought severe consequences to society and the environment, including the use of non-renewable fuels, a dramatic increase in the rate of accidental death, the disconnection of local community, the decrease of local economy, the rise in cardiovascular diseases, the emission of air and noise pollution, the

emission of greenhouse gases, generation of urban sprawl and traffic, segregation of pedestrians and other active mobility means of

transport, decrease in the railway network, urban decay, and the high cost per unit-

distance on which the car paradigm is based. In summary, the automobile has had a profound impact on society, both positive and negative. It has transformed the way people live, work, and interact with each other. However, it has also brought about significant challenges that need to be addressed to ensure a sustainable future for all.

(An article by Yash Jadhav SYAE student)



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Self-driving cars are coming!



This is photograph of Waymo Car undergoing tests in San Francisco, U.S.A. This car is self-driving. It has no need of any human driver.

A self-driving car, also known as an autonomous car (AC), driverless car, or robotic car (robot-car is a car that is capable of traveling without human input. Self-driving cars are responsible for perceiving the environment, monitoring important systems, and control, including navigation. Perception accepts visual and audio data from outside and inside the car and interpret the input to abstractly render the vehicle and its surroundings. The control system then takes actions to move the vehicle, considering the route, road conditions, traffic controls, and obstacles. and other domains. Appropriate regulations are necessary for deployment.

They have the potential to impact the automotive industry, health, welfare, urban planning, traffic, insurance, labor market, and other domains. Appropriate regulations are necessary for deployment.

Experiments have been conducted on automated driver assistance systems (ADAS) since at least the 1920s. The trials began in the 1950s. The first semi-autonomous car was developed in 1977, by Japan's Tsukuba Mechanical Engineering Laboratory. In 2023 Waymo plans to offer taxi rides by autonomous cars Honda was the first manufacturer to sell a Level 3 car

A classification system with six levels – ranging from fully manual to fully automated systems – was published in 2014 by SAE International journal. These cars are not allowed in India

(An article by Mr. M.S. Bhawe, Senior Lecturer)

Activities of Department

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Expert Talks List

YEAR	ACTIVITY	Month and year
2022-23	Expert talk on Importance of PPE's and Workshop Safety	2/11/2022
	Expert talk on Braking System Elements For Different Types Of Vehicles	21/11/2022
	Expert talk on spiritual intelligence	2/02/2023
	Expert talk on Bio economy and Industry 5.0 enhanced version	21/2/2023

Industrial Visits List

YEAR	ACTIVITY	Month and year
2022-23	Visit to AISSMS Private Industrial Training Institute Boribhadak, Pune	20/8/2022
	Visit to Indradhanushya Enviroment And Citizenship Center,Pune	14/10/2022
	Visit to Shaikh Body Work ,Kondhawa, Pune	23/12/2022

Activities of Department



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Extra Curricular Activities List

EAR	ACTIVITY	Month and year
2022-23	Road Safety	15/10/2022
	Book Exhibition	15/10/2022
	Art Gallery	14/2/2022
	Open day	18/02/2023
	Shiv Jayanti	19/02/2023

Activities Photographs

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**Expert talk on Bio economy and Industry 5.0
enhanced version on 21/02/2023**



Activities Photographs



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Book Exhibition on 15/10/2022

