



Mercedes-Benz

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Advanced Diploma in Automotive Mechatronics

(A course developed in collaboration with Mercedes-Benz India Pvt. Ltd.)

Government Polytechnic, Pune is the largest and leading Polytechnic of Technical Education Department, Government of Maharashtra. This institute is accredited by NBA for Excellent Grades and is also elected under World Bank TEQIP project. It is surrounded by Industrial Zone of the State. Majority of these industries are related to Automobile, Information Technology and Electronics & Telecommunication sectors. Academic Autonomy has been conferred on this Institute since 1994. The institute had been awarded Best Polytechnic award for the year 1998-99, by Government of Maharashtra for consistent excellent performance in Technical Education.

About Mercedes-Benz:

Daimler AG, Germany, a pioneer in the Automotive Industry, own brands such as Mercedes-Benz, Smart, Maybach, Freightliner and others. These brands represent a formidable force in the automotive industry and reflect not just pioneering technology but technology that is path breaking. Today its brands stand for Technology, Safety, Reliability, Comfort and Environment. In alliance with several other component manufacturers of repute, they are developing new and advanced systems that are taking automotive technology to new heights.

Mercedes-Benz India Pvt Ltd is a 100% subsidiary of Daimler AG group and since its establishment in 1994, has been one of the first auto joint ventures set up in India. The company has a long-term commitment to the Indian market.

Government Polytechnic, Pune and Mercedes-Benz India Pvt Ltd had jointly introduced the **Advanced Diploma in Automotive Mechatronics** course. The collaborative course will enable students to be trained as per the highest standards of modern automotive technology and thereby will bring

added synergies between technological innovations and market demands for skilled personnel.

Why Automotive Mechatronics course?

Automobile Industry in India is growing rapidly and is also maturing at a faster pace not only in terms of size and model variants available but also in terms of technological advancements in new cars. Across all vehicle segments, the automotive technology is becoming more and more sophisticated with stringent regulations and increased customer awareness. To cater effectively to after-sales service requirements of these technologically advanced vehicles, good qualified and well versed technical manpower will be required by all brands at dealerships as well as in the automobile industry all over the country. **Automotive Mechatronics course** intends to address this requirement through this course

Course Content:

The course content and methodology is derived in collaboration with Mercedes-Benz India to suit the needs of the state of art automobiles. The course consists of following four modules.

1. Mechanical Module:

Engine - various modern engines and its functions, Transmissions, Chassis systems, Maintenance & Servicing of Modern Vehicle, Introduction to Workshop Information System (WIS), PDI & servicing - Preparation of work plan using maintenance checklist, Quality services, etc.

2. Electronics Module:

Basic Electrics, Wiring Diagram - symbols & designation of electrical components, sockets & pin diagrams, Reading of wiring diagram. Basic Electronics, Principle & applications of sensors, Digital Electronics, CAN BUS- Basics of CAN bus, Networking of control units using CAN bus, Location of CAN voltage distributor, Interior & Exterior CAN.

3. Advanced Automotive Systems:

Vehicle Component Study; Different Vehicle Management System: Functions of Engine management & Emission control management - i.e. Advanced GDI, MESFI, Catalytic converter etc, ESP, ABS, BAS, ASR, DISTRONIC, Parktronic, SRS, Auto transmission electronic control, Telematics (Basic), MOST, D2B, Auto air-conditioning etc

4. Soft Skill development:

Communication skill- Verbal Communication, Body language, Presentation skill using modern aids, Written communication - Business letter writing, Technical Report writing, etc.

Faculty:

Faculties / trainers from Government Polytechnic are Post Graduates in Engineering and have vast teaching experience. They have also been trained on advanced automotive systems by Mercedes-Benz India.

Course Duration:

1 year (4 modules)

Course fees:

Rs 80,000 only

Course Intake:

40 students for academic year 2010 -11 (10 seats are reserved for Mercedes dealer sponsored candidates).

Hostel facility:

Rs 15,000 per annum (Lodging only). *Limited hostel facility Available.*

Admission process:

Admission to the course is through Entrance Test only.

Eligibility criteria:

Diploma / Degree in Mechanical Engineering / Automobile Engineering / Electronics Engineering / Instrumentation Engineering.

Certification: After successful completion of the course, students will be given Certificate of **Advanced Diploma in Automotive Mechatronics**.