

BITS Pilani K K Birla Goa Campus gets BMW engines for internal combustion engine related studies

BY A REPORTER

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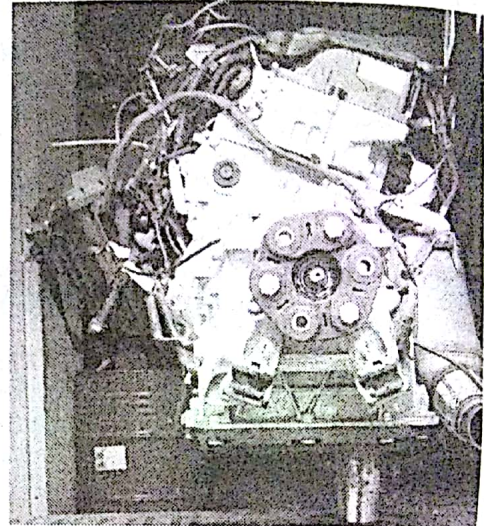
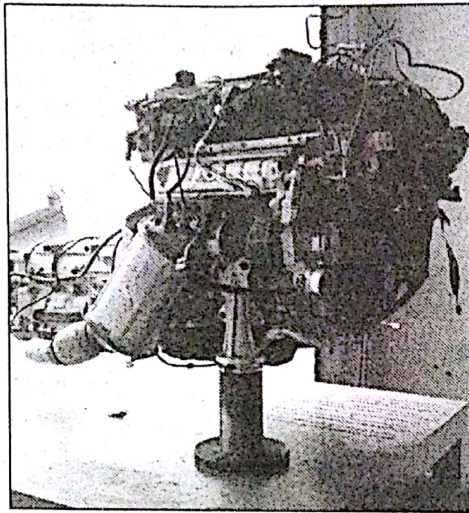
Vasco: BMW awarded the twinpower turbo in-line 4-cylinder diesel engine and eight-speed steptronic automatic transmission worth around Rs 25 lakh to BITS Pilani, K K Birla Goa Campus for Internal Combustion (IC) engine related studies recently.

Dr Ranjit S Patil, faculty in Dept of Mechanical Engineering had submitted a proposal to BMW Skill Next Competition to this effect in January 2018. This engine will further enhance the capabilities and strengths of BITS in IC Engine sciences.

BITS Pilani, K K Birla Goa campus is known for its research in the areas of internal combustion engines. Due to consistent efforts of highly qualified faculty members and very bright students, this campus has been publishing research papers in reputed international conferences and international journals such as ASME, Elsevier, and IMechE etc.

BITS has developed dedicated academic and research lab by investing around Rs 2 crores. Currently, Internal Combustion Engines Lab is equipped with petrol as well as diesel engines which are used for academic purposes and producer gas engine set-up is used for research purpose.

The lab is also equipped with Valve-timing diagram set-up and skeleton of car for academic purposes. BITS received a grant of around



Rs 10 lakh from Department of Science and Technology, Govt of India to develop the producer gas engine set-up for research purpose.

BITS has also invested about Rs 45 lakh in research engine set-up which will be procured in March 2019.

This laboratory has different kinds of simulation softwares such as Ansys, Star CD, and other measuring devices such viscometer, bomb calorimeter, gas analyzer, smoke meter, etc.

This lab is used by its undergraduate, postgraduate, and PhD students for various projects related to automobile engineering.

Presently over 100 students are doing research in various aspects of automobile engineering, including fabrication of SAE cars and to fulfill the academic degree requirements of students.

Recently one PhD student was

awarded a doctoral degree and two are in progress - working on engine related research to improve the performance of engine at acceptable level of emissions.

Around 6 years ago BITS formed students' club named Society of Automotive Engineer (SAE). Two teams of SAE undertake research and manufactures formula type car and an off road vehicle to participate in national level competitions such as SAEINDIA SUPRA & Formula Bharat and SAEINDIA BAJA.

So far 8 cars have been manufactured in-house by spending about Rs 40 lakh to participate in these competitions.

Performance of SAE club is consistently improving and was remarkable during design phase (ranked in top 7% colleges participating) during such national level competitions.