

Transportation Engineering Laboratory

Transportation Engineering Laboratory at Mahindra University aims to develop innovative and sustainable solutions to meet safe mobility and accessibility needs. The laboratory is well equipped to train students to conduct various experiments to understand the properties of highway materials and traffic characteristics.

The services offered by the laboratory are:

- Academic: Train undergraduate students as a part of their curriculum, Undergraduate and Doctoral project works
- Research: on Innovative highway materials and pavements, traffic and transportation planning
- Consultancy: Highway material testing and pavement analysis, Traffic and transportation planning solutions, Road safety audit

On-going research projects:

- Porous concrete for pavement applications
- UHPC in transport and bridge infrastructure
- Transit-Oriented Development (TOD) evaluation

Research expertise available with the laboratory:

- Dr. Deepti Avirneni ([Dr. Avirneni Deepti | Mahindra University](#))
- Dr. Saladi S.V. Subbarao ([Saladi S.V. Subbarao | Mahindra University](#))

Some of the recent undergraduate project works performed in the laboratory:

- Environmental and economic analysis of Recycled materials
- Investigation of strength and durability of Porous concrete
- Emission modelling of passenger cars in India
- Performance evaluation of different types of intersections
- Analysis of travel mode choice decisions using Machine Learning (ML) techniques
- Impact of COVID-19 on shopping travel behavior

Equipment available in the laboratory:

The laboratory is well equipped with all the necessary instruments to test the basic highway material properties like impact, abrasion, penetration, viscosity, ductility, specific gravity and water absorption, flash and fire point, softening point, flakiness and elongation index, Marshall stability, etc. along with the simulation software VISSIM, and the software available with the Bentley package.

The laboratory is under upgradation for the coming academic year.

Surveying Laboratory

Surveying Laboratory at Mahindra University is equipped with all the required instruments and tools for performing various engineering measurements and providing practical knowledge to the students. It consists of various instruments for measuring distances, horizontal and vertical angles, and elevations.

In this laboratory, students get the opportunity to have a hands-on experience with modern instruments like Total station, Handheld GPS, electronic theodolite, auto level along with conventional surveying instruments. By working in this laboratory, students gain knowledge in collecting and analyzing data by using various conventional and advanced instruments.

Instruments available in the laboratory:

Total stations, Electronic theodolite, Auto level, Handheld GPS, Dumpy level, Plane table, transit theodolite, Optical square, Prismatic compass, Surveyors compass, Trough compass, Tapes, Chains, etc.

The services offered by the laboratory:

The laboratory is under upgradation for the coming academic year with Drones, Advanced GPS instruments, and more total stations which makes the laboratory open for research and consulting services.