



# BIRLA VISHVAKARMA MAHAVIDYALAYA ENGINEERING COLLEGE

[An Autonomous Institution]

## CIVIL ENGINEERING DEPARTMENT

### M.Tech. Civil with specialization in Transportation Engineering



## The Campus and Institutes

Two of the chief social reformists Bhailalbhai an engineer and Shri Bhikhabhai an educationist volunteered for a stupendous task of establishing an educational township where the entire spectrum of education right from primary education to the highest of doctoral and post-doctoral studies would be available in the serene rural set up. Sardar Patel not only heartily approved it, but also managed to get blessing of Mahatma Gandhi under the Trust named as Charutar Vidya Mandal (CVM) which is the registered charitable education trust (Now CVM University) which manage more than 45 institutes from primary level to doctoral level. The BVM is the first degree engineering college of the Gujarat state, inaugurated on 14<sup>th</sup> June 1948, which is completing 72 years of its existence during this academic year. BVM is the first autonomous institute of Gujarat state and has produced more than 20,000 graduates.

The institutes are committed to train the mind of budding engineers for mastering the skill in the area of engineering and technology to produce competent, creative, imaginative engineers and techno managers towards profitable and productive processes of economic growth and social well-being in context of present scenario of world trade and globalization. The PG programmes offered in engineering and technology are recognized by AICTE.

Department of Civil Engineering is offering PG Programmes, Master of Technology in Transportation Engineering. The UG programme of Civil Engineering has got NBA accreditation till 30/06/2021.

### Address for Correspondence:

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### M.Tech. in Transportation Engineering

Transportation infrastructure planning, design, construction, operation, maintenance using state of art and advanced technology in the areas are need of present time. Programme covers areas of surface, subsurface, water, and air transportation with main focus on highways, pavement, urban transport and traffic engineering and management.

### Eligibility Criteria

B.E. /B.Tech. (Civil), All students have to appear in common entrance test conducted by PG CET through ACPC, Ahmedabad.

### Important Features of the Programme

This programme is approved by All India Council of Technical Education (AICTE).

**Present Intake: 22 students**

**Durations: 4 semesters (2 years)**

The courses offered in the programme cover a wide range of areas such as Transportation Planning, Traffic Engineering, Highway Materials and Construction, Pavement Design, Transportation System Planning and Management, EIA of Transportation Projects, Pavement Management, GIS-GPS application in Transportation Projects.

The students will get first hand experience of laboratory tests and field studies. They will also be trained on TransCAD/Cube, MX Road, Open Roads, Civil 3D, HDM-IV, Arc GIS, PTV Vissim, preparation of worksheets and related softwares.

All students have to carry out group projects, seminars, and research thesis for one year for their major project. The programme is of two years duration for full time.

### Laboratory and Computational Facilities

The transportation laboratory offers all major facilities to support the M.Tech.-TE Programme. The laboratory has facilities for highway materials aggregates, bitumen, bitumen and concrete mix design facilities. The equipment required for traffic related field studies- video based traffic data collection system, traffic speed radar, Noise meter, V-Box, D-GPS etc. are available. For pavement testing Bump integrator, Benkelman beam, Axle load and Core cutter etc. are available. The softwares like TranCAD, MX Road, HDM—IV, Civil 3D, Open Roads and Arc GIS are available.

### Course Curriculum

Detailed outcome based scheme and syllabi can be accessed on [www.bvmengineering.ac.in](http://www.bvmengineering.ac.in).

In addition to in-house facility, experts from the industry are also invited to give special lectures and training. Industrial visit are also arranged for field exposure.

### Glimpses of Activities



### Faculty Involved in Teaching

**Dr. L. B. Zala**, Professor & Head, Civil Engineering  
Transportation Planning, Airport Planning and Design, Traffic Engineering, Highway Construction, Pavement Design, Transportation Economics, GIS, Traffic Flow Theory

**Dr. F. S. Umrigar**, Visiting Professor, Civil Engineering  
Multimodal Transportation System Planning and Management, Airport System Planning and Design, Transportation System Planning and Management

**Prof. A. A. Amin**, Assistant Professor, Civil Engineering  
Pavement Analysis and Design, Highway Materials and Construction, Traffic Engineering, Transportation Planning, Highway Geometric Design, PMS

**Prof. N. F. Umrigar**, Assistant Professor, Civil Engineering  
Traffic Engineering, Highway Construction, Public Transportation Planning

**Prof. Pinakin N. Patel**, Assistant Professor, Civil Engineering  
Traffic Engineering and Simulation, PMS, Transportation Planning, Economic Evaluation of Transportation Projects, Highway Geometric Design, Highway Construction, Road Safety Audit and EIA.

**Dr. T. A. Desai**, Professor & Head, Mathematics  
Applied Mathematical Modelling, Data Analytics and Simulation

**Dr. H. V. Patel**, Associate Professor, Civil Engineering  
GIS and GPS in Transportation Engineering

**Dr. Mehul J. Shah**, Assistant Professor, Mathematics  
Data Analytics in Engineering, Statistics, Communication Skill and Personality Development