



SNS COLLEGE OF TECHNOLOGY

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Sathy Main Road , Vazhiampalayam Pirivu,
Coimbatore-35 , Tamilnadu , India.



Department of Civil Engineering

UNIT- I

23CET204-

HIGHWAY

AND

RAILWAY

ENGINEERING



INSTITUTIONS FOR HIGHWAY PLANNING AND IMPLEMENTATION AT
DIFFERENT LEVELS

Indian Roads Congress, Highway Research Board, National Highway Authority of
India



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Indian Road Congress (IRC) in 1934

About road construction and development. This paved the way for the establishment of a semi-official technical body called Indian Road Congress (IRC) in 1934

The committee suggested imposition of additional taxation on motor transport which includes duty on motor spirit, vehicle taxation, and license fees for vehicles plying for hire.

NATIONAL HIGHWAYS AUTHORITY OF INDIA:

The National Highways Authority of India (NHAI) is an autonomous agency of the Government of India, responsible for management of a network of over 70,000 km of National Highways in India. It is a nodal agency of the Ministry of Road Transport and Highways. The chairman of the NHAI is Rajinder Pal Singh in 2012.

Establishment:

- The NHAI was created through the promulgation of the National Highways Authority of India Act, 1988. In February 1995, the Authority was formally made an autonomous body.
- It is responsible for the development, maintenance, management and operation of National Highways, totaling over 71,772 km (44,597 m) in length.



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National Highways in Length and Indian Road Network:

CLASS	LENGTH (KM)
National Highways (Already 4/6 lane)	16,000 km (9,900 mi)
National Highways which are being 4 or 6 lane	25,000 km (16,000 mi)
State Highways	154,522 km (96,016 mi)
Major and other district roads	2,577,396 km (1,601,520 mi)
Rural & other roads	1,433,577 km (890,783 mi)
Total (approx)	4,245,429 km

Projects:

The NHAI has the mandate to implement the National Highway Development Project (NHDP). The NHDP is under implementation in Phases

- Phase I: Approved in December 2000, at an estimated cost of INR 300 Billion, included the Golden Quadrilateral (GQ), portions of the NS-EW Corridors, and connectivity of major ports to National Highways.
- Phase II: Approved in December 2003, at an estimated cost of INR 343 Billion, it included the completion of the NS-EW corridors and another 486 km of highways.
- Phase IIIA: This phase was approved in March 2005, at an estimated cost of INR 222 Billion; it includes an upgrade to 4-lanes of 4,035 km of National Highways.



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- Phase IIIB: This was approved in April 2006, at an estimated cost of INR 543 Billion; it includes an upgrade to 4-lanes of 8,074 km of National Highways.
- Phase V: Approved in October 2006, it includes upgrades to 6-lanes for 6,500 km (4,000 mi), of which 5,700 km is on the GQ. This phase is entirely on a DBFO basis.
- Phase VI: This phase, approved in November 2006, will develop 1,000 km of expressways at an estimated cost of INR 167 Billion.
- Phase VII: This phase, approved in December 2007, will develop ring-roads, bypasses and flyovers to avoid traffic bottlenecks on selected stretches at a cost of INR 167 Billion.
- The progress of the NHDP can be tracked from the NHAI official website, which updates maps on regular basis. NHAI helps in implementing Special Accelerated Road Development Programme for North Eastern Region (SARDP-NE); a project to upgrade National Highways connecting state capitals to 2 lane or 4 lane in north eastern region

HIGHWAY RESEARCH BOARD:

Objectives:

To ascertain the nature and extent of research required.

- To correlate research information from various organizations in India and abroad with a view to exchanging publications and information on roads.
- To co-ordinate and conduct correlation services.
- To sponsor basic research through universities and research



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organizations.

- To collect and disseminate results of research.
- Any other matter related to road research.

Functions:

- Learn field problems and to pass on information based on research or experiences of other States, industry or educational institutions.
- Learn fully research activity underway or contemplated and take steps to avoid duplication.
- The work of these Committees will be co-ordinate by the Board. The Indian Roads Congress Secretariat will give necessary assistance to these Committees in their work. Act as an Advisory Organization to suggest to the Central and State Governments and Research Organizations programmes of research and also assist various agencies in selection of research projects. Process and transmit to the Central and State Governments for the consideration such requests as may be received by it from various organizations seeking funds for Highway Research.
- Select outstanding Papers on Research for awards and medals to be instituted by the Board.
- Hold Periodical Research Sessions/Seminars where research problems and research Papers are discussed in detail.
- Give advice on technical enquiries regarding roads and road transport problems.



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Method of works:

- The Research problems posed to the Indian Roads Congress at the Committees and during the annual meetings or otherwise by the Central and State Governments will be processed by respective research Committees and thereafter entrusted to different laboratories as may be considered necessary.