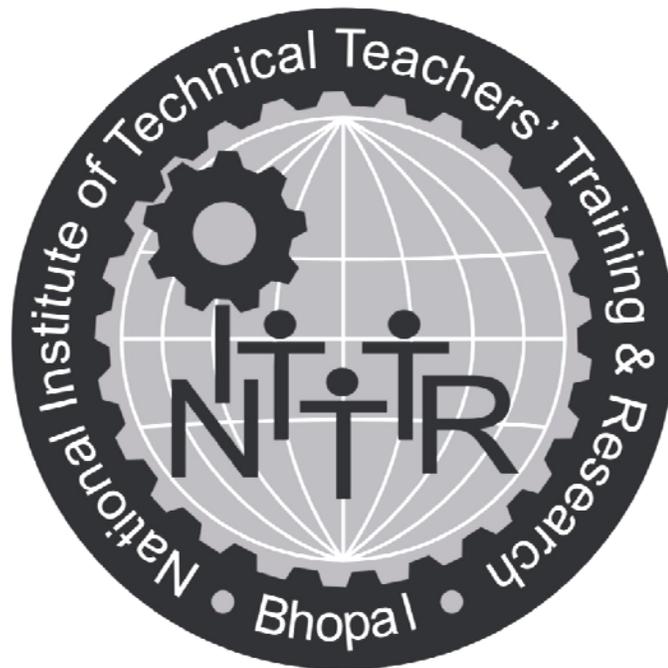# M.Tech./M.E./MBA PROGRAMMES

**National Institute of Technical Teachers' Training and Research,
Shanti Marg, Near Polytechnic Square, Shamla Hills,
Bhopal, Madhya Pradesh- 462002**
(Ministry of Human Resource Development, Under Govt. of India)

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Dr. C Thangaraj
Director

MESSAGE

The world we live in is increasingly interconnected and different local economies are globally interdependent. National economies are accelerating towards knowledge-based, technology-driven and globalized economies. Good quality, merit-based, equitable, efficient tertiary education and research are essential for the dynamic of the knowledge economy. The capacity for countries to adopt, disseminate, and maximize rapid technological advances is dependent on adequate systems of tertiary education.

The fourth industrial revolution, characterized by the fusion and amplification of emerging technological breakthroughs, multiplied by the far reaching connectivity between billions of people, is having profound effect on businesses, labour markets, and ultimately on education, in particular engineering education. The problems facing engineering education go beyond a need to simply educate more students or raise performance in the examinations. There is a need to link academic excellence with real-world capabilities. The engineering education need to be responsive to the needs of the fast changing world due to emerging technologies and industries. The demand on engineering education is likely to be higher than ever before in order to deliver sustainable engineering systems, low-carbon energy technologies and robust physical infrastructure. Meeting present day demands on engineering education needs is a challenge for any educational institution.

The NITTTR Bhopal is better placed in this regard. This centrally funded institution, established in 1965, is mandated to make the technical education a vibrant learning system for producing competent manpower to steer technological and economic development. It is also mandated to strengthen networking and synergic partnership with technical education institutions, industries and field agencies, to promote creativity, innovation, life-long learning and professional management practices.

Towards fulfilling stated objectives, the NITTTR Bhopal offers Master's Degree programs both in Engineering and Management disciplines. All the Engineering programs are affiliated to RGPV, Bhopal and the Management Program is affiliated to Barkatullah University, Bhopal. In NITTTR Bhopal, the post graduate students, in addition to learning their regular university curriculum, get unique opportunity to participate in many value added programmes offered in pedagogy and modern technologies. The experienced and dedicated teachers, state-of- art laboratory facilities, innovative teaching methods adopted and industrial networking gives every student an opportunity for a three dimensional growth. The activities of its Centre of Excellence in Teaching and Learning and Evidence Based Policy Making research programme gives ample opportunity for inquisitive young brains.

It is our pleasure to welcome you to take admission into the post graduate programmes offered by our institute and get an opportunity to join the army of scientists and technocrats who have dedicated themselves in the development of our great nation. Jai Hind!

VISION

To be the world class leader for integrated development of technical education and training systems catering to the changing needs while achieving highest level of client satisfaction, quality, professional values and contributing to technological, economic and social development of the country.

MISSION

NITTTR Bhopal will act as a centre of excellence to:

- **I**ntensify teacher education for improving quality and performance of technical institutions.
- **M**ake the technical education a vibrant learning system for producing competent manpower to steer technological and economic development.
- **P**rovide a wide spectrum of client driven services and products through various modes.
- **S**trengthen networking and synergic partnership with technical institutions industries, field agencies, and premier national and international organizations.
- **P**romote creativity, innovations, research and development, professional management practices, concept of learning organization, benchmarking and economics of education amongst client systems.
- **E**nthuse the spirit of professionalism, values and work ethics, networking and partnership with industry and other organizations and technical

(1) NITTTR, BHOPAL AT A GLANCE

NITTTR Bhopal, (formerly known as TTTI Bhopal) was established by the Government of India in 1965, primarily for the development of the technician education system in the country. Over the years it has developed as a centre of excellence in the area of technical education. The institute is now offering its expertise to different technical education systems, industries and other organizations in the country and to several other countries as well. Over the years, the institute has developed capability to offer wide range of services for technical education system and for industries. This has become possible by highly qualified, experienced and dedicated faculty, technical assistance, support from staff and well-developed Infrastructure and other facilities.

NITTTR, Bhopal provide its services for human resource development to polytechnics, engineering colleges to other market segments like professional institutions, industries, public service organizations, vocational education and community at large and other field agencies. NITTTR, Bhopal has, in the past, demonstrated its potential by catering to the wide ranging needs of client systems through innovations in technical education system as well as to the job market needs of the developing countries. The institute, with its enhanced mandate, has now become a major resource institution and a centre of excellence for the overall growth and expansion of technical education system of the country and has larger responsibility to contribute to a wide ranging diverse labour market.

The Institute holds expertise through continuous R & D in the areas of human resource development, curriculum development, design and development of learning resources, educational management, policy formulation, continuing education, students' assessment, multi-media development, community networking, industrial liaison, technical education research, entrepreneurship development. The engineering and management department offer ME/M.Tech/MBA programme.

(2)   LOCATION, CLIMATE & FACILITIES

LOCATION

NITTTR, Bhopal is situated, in the capital city of Bhopal, in state of Madhya Pradesh. Bhopal is a historic city with hills, lakes gardens with beautiful landscapes and monuments. The geographical, GPS location, of the institute lies within Northern Latitude 23°15'35.7588" and Eastern Longitude 77°24'45.4068'', which is almost in the central most region of the country. Due to the central location, Bhopal is easily reachable from all parts of the country. NITTTR is located about 12.8 km from Raja Bhoj Airport, 5.5 km from Bhopal Railway station and 6.5 km from the Habibganj Railway station.

CLIMATE

Bhopal has a humid sub-tropical climate with cool, dry winters, hot summers and humid monsoon seasons. Summers start in late March and extend up to mid of June, with an average temperature around 30°C (86° F). Peak temperatures occurring in May seldom exceed 40°C (104°F). The monsoon starts in late June till late September with average precipitation of 40 inches (1020 mm). Winter starts in late October and extends till early March. Winters are cool, with average daily temperature around 16°C (61° F). The lowest temperatures occur in January almost close to freezing point is observed on some nights.

The city offers a climatic advantage for conducting training programs for a large part of the academic year.

FACILITIES

The Institute has residential campus with faculty and staff quarters, boys and girls hostel, mess, canteen, library, gymnasium, yoga facility, dispensary, residential doctor and nurse, auditorium with 110 persons seating capacity, games facilities. Canara Bank with ATM facilities also located inside the campus.

(3) DEANS & ASSOCIATE DEANS

S.No.	Deans	Associate Deans
1.	Dr. A.K. Jain, Administration	Dr. A.K. Sarathe, Administration
2.	Dr. B.L. Gupta, Academics & Research	Prof. Susan S. Mathew, Academics & Research
3.	Dr. Subrat Roy, Estate & Infrastructure Management	Dr. Sharad K. Pradhan, Estate & Infrastructure Management
4.	Dr. Anju Rawlley, Students' Affairs	Dr. Vandana Somkuwar, Students' Affairs
5.	Dr. Joshua Earnest, Planning & Monitoring	Dr. K. James Mathai, Planning & Monitoring
6.	Dr. Parag Dubey, Corporate & International Relations	Dr. S.S. Kedar, Corporate & International Relations

(4) PG Programmes

S.No.	PG Programmes	Respective Department
1.	M. Tech. in Construction Technology and Management (CTM)	Civil Engg. & Environment Engineering (DCE)
2.	M.E. in Structural Engineering (SE)	
3.	M.E. in Advanced Production Systems (APS)	Mechanical Engineering(DME)
4.	M. Tech. in Digital Communication (DC)	Electrical & Electronics Engineering (DEE)
5.	M. Tech. in Computer Technology & Application, (CTA)	Computer Engineering & Application (DCA)
6.	MBA	Department of Management (DM)

- The programmes mentioned under sr.no. (1) to (5) are affiliated to Rajiv Gandhi Proudyogiki Vishwavidhyalaya (RGPV) Bhopal, M.P. MBA programme mentioned under sr. no. (6) is affiliated to Barkatullah University (BU), Bhopal (M.P.)

- Admission to ME/MTech is based on valid Gate Score, while admission to MBA is based on valid CAT/CMAT/MAT Score.

- Admission rules and procedures are given in Institute website www.nitttrbpl.ac.in

(5) DEPARTMENTS

(A) DEPARTMENT OF CIVIL & ENVIRONMENTAL ENGINEERING (DCE)

The department provides academic leadership in the area of education and training, research and development for improvement and innovations in technical education and specifically in civil and environmental engineering. It also actively collaborates with construction industry, service sector organizations and community for education, training and development of their manpower including in selected HRD areas. The department also integrates "Environmental Education and Management System" with Technical Education, Industry and Community for Sustainable Development.

LABORATORIES
- Geotechnical Laboratory
- Material Testing Laboratory
- Computer Software Laboratory
- Surveying Laboratory

SOFTWARES AVAILABLE
- Abaqus
- ANSYS
- ArcGIS
- ZWCAD
- Opticon
- MapInfo Professional
- SEPL-ESRGSR
- Primavera
- QE Pro
- SESAM
- STAAD Pro
- STRUDS
- Terrasol

FACULTY

S.No.	Name & Designation	Email
1.	Dr. A.K. Jain, **Professer & Head**	akjain@nitttrbpl.ac.in
2.	Dr. R.K. Dixit, Professor	rkdixit@nitttrbpl.ac.in
3.	Dr. J.P. Tegar, Professor	jptegar@nitttrbpl.ac.in
4.	Dr. Subrat Roy, Professor	sroy@nitttrbpl.ac.in
5.	Shri. M.C. Paliwal, Associate Professor	mcpaliwal@nitttrbpl.ac.in

(B) DEPARTMENT OF MECHANICAL ENGINEERING (DME)

The department provides academic leadership in content updating courses in existing and emerging technology areas through long and short-term programmes. The department provides required support to various projects and activities including those related to curriculum development, teacher training and preparation of instructional materials, laboratory innovations and student evaluation in the area of mechanical engineering and allied disciplines. In addition the department assists the client institutions in modernization and removal of obsolescence of physical resources. The department has a set of dynamic and qualified faculty members to promote innovations, research and development in mechanical engineering discipline as to provide competent manpower in both technology as well as instructional technology areas.

LABORATORIES
- Computer Aided Design and Simulation Laboratory
- CNC and Advance manufacturing Laboratory
- Mechatronics Laboratory
- Work-Centre equipped with all necessary machines and equipments.

SOFTWARES AVAILABLE
- Auto Cad ESS Architecture Software
- CATIA ED-2 Software
- Altair Hyper Work Software
- Delmia Software
- Technomatix CAPP Software
- NX Academic Partne Bundle(UGA) Software
- Master Cam Education X4 Software

FACULTY

S.No.	Name & Designation	Email
1.	Dr. Vandana Somkuwar, **Associate Professor & Head**	vsomkuwar@nitttrbpl.ac.in
2.	Dr. K. K. Jain, Professor	kkjain@nitttrbpl.ac.in
3.	Dr. S. K. Pradhan, Associate Professor	spradhan@nitttrbpl.ac.in
4.	Dr. A. K. Sarathe, Associate Professor	aksarathe@nitttrbpl.ac.in

(C) DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING (DEE)

The department of Electrical and Electronics Engineering provides quality need-based training in contemporary and emerging areas and development of demand driven and innovative instructional resources. The department designs and conducts online-cum-contact mode courses in technology areas and subject matter updating programmes related to various areas of electrical and electronics engineering. It also helps technical education institutions in developing curricula in new/emerging areas of electrical and electronics engineering for Under-Graduate and Diploma Programmes.

LABORATORIES
a. Digital Communication Laboratory
b. Digital Signal Processing Laboratory
c. VLSI Laboratory
d. Microcontroller Laboratory
e. Software Engineering Laboratory
f. Optical Communication Laboratory

SOFTWARES AVAILABLE
- Matlab, Simulink and other Toolboxes
- Lab VIEW
- Xilinx
- PSCAD
- Mi Power
- Multisim/Ultiboard
- CASPOC
- ETAP
- Electrical Expert (IGE+XAO)
- PSIM

FACULTY

S.No.	Name & Designation	Email
1.	Mrs. Susan S. Mathew, **Associate Professor & Head**	ssmathew@nitttrbpl.ac.in
2.	Dr. Joshua Earnest, Professor	jearnest@nitttrbpl.ac.in
3.	Dr. C. S. Rajeshwari, Professor	csrajeshwari@nitttrbpl.ac.in
4.	Dr. A. S. Walkey, Associate Professor	aswalkey@nitttrbpl.ac.in
5.	Dr. Anjali Potnis, Assistant Professor	apotnis@nitttrbpl.ac.in

(D) DEPARTMENT OF COMPUTER ENGINEERING & APPLICATIONS (DCA)

The department offers content updating courses in existing and emerging technology areas through long and short-term programmes for technical education personnel through innovative need based staff development programs and other related areas for effective curriculum implementation. The department also undertakes various activities such as developing curricula and assessment scheme, research activities in the area of Computer Engineering and Applications.

The department manages and administers the institution level network infrastructure comprising of layer-3 and layer-2 high performance switches, which is based on fiber optics backbone. The internet connectivity is available round the clock. Currently Internet facility is provided with 1Gbps speed through National Knowledge Network (NKN) project of Government of India. The Institute's network management system and data centre are housed in the department. In addition to this institute is also having A-View Server installed for offering ICT based teaching and learning.

In addition, four major labs dedicated to students, participants and researchers, operate and remain accessible beyond normal working hours. Each lab is well equipped with latest configured PCs and software.

LABORATORIES
- PC Laboratory
- Web Engineering Laboratory
- Research & Development Laboratory
- Image Processing Laboratory

SOFTWARES AVAILABLE
- MS windows 2008 server
- Linux- Red hat, Ubantu, Sent OS
- MS windows 7,8,10
- Print 2Flash
- Microsoft Office Professional Plus 2007
- Star UML
- Visual Studio Ent 6.0 Academic Edition
- MS Office 2010,2013
- Php, R, Python Programming Languages
- SPSS
- Window Server 2008
- Visual Studio.Net Professional 2003
- Antivirus Quick Heal
- MySql
- Joomla-Content Management System
- Moodle-Learning Management System
- Shrut-lekhan Rajbhasha Software
- SCI Lab
- MS Visual Studio Ultimate 2012 Software
- Adobe Media Server 5 Professional
- NS-2 and NS-3 Network Simulator

FACULTY

S.No.	Name & Designation	Email
1.	Dr. M.A. Rizvi, **Associate Professor & Head**	marizvi@nitttrbpl.ac.in
2.	Dr. D.Singh Karaulia, Professor	dskaraulia@nitttrbpl.ac.in
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4.	Dr. Shailendra Singh, Professor	ssingh@nitttrbpl.ac.in
5.	Dr. R.K. Kapoor, Associate Professor	rkkapoor@nitttrbpl.ac.in

(E) DEPARTMENT OF MANAGEMENT (DM)

The Department of Management is committed towards setting the standards of excellence in management education, training and research. It also offers masters' level educational programmes (MBA) and doctoral research (PhD). The commitment is management of quality of technical education through customized need based Management Development Programmes (MDP) designed for educational institutions, government/ field agencies and industry. MBA programme has been launched in order to reflect upon the needs of today's global businesses to enable the students to confront positively, the upcoming challenges of corporate world through constantly upgrading the competitive advantage. The department is also undertaking managerial skill development programmes for industries and various government departments. The department has advance computer laboratory to support training, research and development activities.

LABORATORY
   Computer Laboratory

FACULTY

S.No.	Name & Designation	E-mail
1.	Dr. Parag Dubey, **Professor & Head**	pdubey@nitttrbpl.ac.in
2.	Dr. Aashish Deshpande, Professor	adeshpande@nitttrbpl.ac.in
3.	Dr. B. L. Gupta, Professor	blgupta@nitttrbpl.ac.in
4.	Dr. R. B. Shivagunde, Professor	rbshivagunde@nitttrbpl.ac.in
5.	Dr. Roli Pradhan, Assistant Professor	rpradhan@nitttrbpl.ac.in

(F) DEPARTMENT OF VOCATIONAL EDUCATION & ENTREPRENEURSHIP DEVELOPMENT (DVE&ED)

The Department of Vocational Education & Entrepreneurship Development (VE & ED) is created after amalgamation of Curriculum Development Centre, Measurement and Evaluation Centre and Industrial liaison centre in view of thrust at National Level in the area of Vocational Education and Entrepreneurial Development.

The department is engaged in various activities such as organizing need based training programmes, developing curricula for different states, improving assessment system, creating infrastructure to promote teaching-learning, technical, vocational & entrepreneurship related innovations.

LABORATORY
> Computer Laboratory

FACULTY

S.No.	Name & Designation	E-mail
1.	Dr. Anju Rawlley,**Professor & Head**	arawlley@nitttrbpl.ac.in
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5.	Mrs. Chanchal Mehra, Associate Professor	cmehra@nitttrbpl.ac.in
6.	Dr. Atul Mishra, Associate Professor	amishra@nitttrbpl.ac.in

(G) DEPARTMENT OF ELECTRONIC MEDIA (DEM)

Department of Electronic Media develops various types of instructional resources for effective instruction. The department also regularly conducts training programs in instructional resource development related areas such as computer based LRs, 2D Animation and Video Production. The department has multi-camera studio facility and trained technical manpower in the areas of photography and video production. The facilities are under modernization as per latest trends in digital video. The department has produced a large number of broadcast grade video films and lecture series in collaboration with industries and technical institutions. The range of its products also includes video sequences for computer based multimedia. A large number of students, industry persons and community at large have been benefited by these programmes. The department also has linkages with major industries and other agencies. Under the World Bank aided project, the department supported establishment of centers for self learning in the technical institutions in various states. These Learning Resources Development Centres (LRDCs) and Learning Resources Utilisation Centers (LRUCs) are engaged in catering to the state level needs. The department also contributed for development of resources for satellite based education.

LABORATORIES
- Multimedia Laboratory
- Video Studio

SOFTWARES AVAILABLE
- Video Production
- Animation and Graphic Design Software

FACULTY

S.No.	Name & Designation	E-mail
1.	Mrs. A. Khajanchee, **Associate Professor & Head**	aakhajanchee@nitttrbpl.ac.in
2.	Dr. Prabhakar Singh, Professor	psingh@nitttr.ac.in
3.	Dr. S.S. Kedar, Associate Professor	sskedar@nitttrbpl.ac.in

(H) DEPARTMENT OF EDUCATION & RESEARCH (DER)

The Department of Education & Research (DE&R) has the prime focus of training technical education personnel through innovative need based staff development programs and other related areas for effective curriculum implementation. The department also shares the responsibility of promoting research culture to facilitate rational decision-making and solving work related problems.

LABORATORIES:
- Computer Laboratory
- Language Laboratory
- Education Laboratory

FACULTY

S.No.	Name & Designation	E-mail
1.	Dr. K.J. Mathai, **Professor & Head**	kjmathai@nitttrbpl.ac.in
2.	Dr. V.H. Radhakrishnan, Professor	vhradhakrishnan@nitttrbpl.ac.in
3.	Dr. Kiran Saksena, Professor	ksaksena@nitttrbpl.ac.in
4.	Dr. Ajit Dixit, Associate Professor	adixit@nitttrbpl.ac.in
5.	Dr. Anjana Tiwari, Assistant Professor	atiwari@nitttrbpl.ac.in

(I) DEPARTMENT OF APPLIED SCIENCES (DAS)

Applied science department was established to meet the demands of National Policy on Education; 1986. The basic purpose of science teaching is to develop concepts and principles to apply them in the context of engineering, technology & pharmacy disciplines

LABORATORY
Computer Laboratory

SOFTWARES AVAILABLE
- SYBYL- X
- Turbomole For Quantum Chemistry
- Statistica
- Lead-IT
- Discovery Studio

FACULTY

S.No.	Name & Designation	E-mail
1.	Dr. Deepak Singh, **Associate Professor & Head**	dsingh@nitttrbpl.ac.in
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3.	Dr. Bashirulla Shaik, Assistant Professor	bshaik@nitttrbpl.ac.in
4.	Dr. Hussain Jeevakhan, Assistant Professor	hjeevakhan@nitttrbpl.ac.in

(6) PROPOSED TRAINING PROGRAMMES FOR THE STUDENTS

Some of the value added training programmes may be organized for the students as per the requirement

- ANSYS
- STAAD Pro
- Primavera
- Arduino and IOT
- ANSYS
- MEMS
- CNC
- Enhancing Employability Skills/Soft Skills/Communication skills

- STAAD Pro
- STAAD Pro
- MATLAB
- CATIA
- UG
- Robotics
- Core Teaching Skills
- Entrepreneurship Development

(7) NITTTR, BHOPAL EXTENSION CENTRES

NITTTR, Bhopal Extension Centre at Maharashtra **Distance Learning** **Polytechnic Bldg.** **412/D, Bahirat Patil Chowk,** **Shivaji Nagar, Pune – 411016** **Tel. (020) 25655521, 25679151** **Fax: 25655521** **Email: extnpune@nitttrbpl.ac.in**	**NITTTR, Bhopal Extension Centre at Goa** **R. No. 12, DTE building** **Alto Porvorim Bardez Goa- 403521** **Tel. (0832) 2411326** **extngoa@nitttrbpl.ac.in**
NITTTR, Bhopal Extension Centre at Gujarat **Technology Bhavan,** **R. C. Technical Institute Campus** **Opposite New High Court, Sola,** **Ahmedabad – 380060** **Tel: (079) 27476931** **Fax: (079) 27476931** **Email: nitttrextabd@yahoo.co.in**	**NITTTR, Bhopal Extension Centre at Chhattisgarh** **In Campus of Govt. Girls Polytechnic,** **Byron Bazar,** **Raipur (Chhattisgarh)** **Tel Fax: 0771-2424778** **extnraipur@nitttrbpl.ac.in**

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