



Madhav Institute of Technology & Science, Gwalior (M.P.)

(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)

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ABOUT NPTEL LOCAL CHAPTER

The National Programme on Technology Enhanced Learning (NPTEL), a project funded by the Ministry of Human Resource Development (MHRD), provides e-learning through online Web and Video courses in Engineering, Sciences, Technology, Management and Humanities. This is a joint initiative by seven IITs and IISc Bangalore. Other selected premier institutions also act as Associate Partner Institutions.

Local Chapter is an initiative taken by the project NPTEL to encourage students across the country and ensure that online education reaches everybody. Local Chapter is a simple process a faculty of the college would be our single point of contact (SPOC). NPTEL team keeps the SPOC updated about all the latest NPTEL initiatives and information which he can disseminate among the students.

MITS-NPTEL LOCAL CHAPTER

When it comes to the overall development of students, **Madhav Institute of Technology & Science** leaves no stone unturned. We are happy to announce that now we are LOCAL CHAPTER of NPTEL in association with IIT BOMBAY. The Institute has started NPTEL local Chapter on **30th Oct 2017** to provide e-learning through on line Web and Video courses in Engineering, Sciences, and Technology among students.



MITS-SPOC (Single Point of Contact) : Prof. Praveen Bansal, Assistant Professor , EED

MAIN OBJECTIVE OF NPTEL

The main objective of NPTEL is to make learning material available to students of engineering Institutions through easier means. The broad aim of the project is to facilitate the competitiveness of Indian industry in the global markets through improving the quality and reach of engineering.

IMPACT OF NPTEL

NPTEL contents are being used by various educational institutions as part of their teaching learning process. While faculty members are using these contents as part of their lesson plan to teach university curriculum, students are using NPTEL not only to prepare for technical jobs and competitive exams, but also as a platform for constant learning and updating knowledge for the ever-changing environment and market realities. NPTEL contents are designed such that they enhance and complement students' residential learning experience at their given institutions.

GATE PREPERATION THROUGH NPTEL

GATE is IIT's competitive entrance exam for Master's and Doctoral programs across India. NPTEL provides GATE question papers and mock tests on its official website nptel.ac.in. Previous 3 year question papers with reference to NPTEL content are available. Practice tests (without solution) are also available for students that mimic the actual online exam pattern.

INNOVATIVE TEACHING -LEARNING MODEL DEVELOPED BY MITS USING SWAYAM-NPTEL

- To inculcate the culture of self-learning (which is the most important quality required in students for survival in the highly competitive and fast changing global technological environment) among the students it was decided by the academic council of MITS in its meeting on 23rd September 2017 that “from the academic session beginning January, 2018 the SWAYAM courses should be made compulsory (against the self learning courses) for II & III year students, on a trial basis.”
- For increasing the effectiveness of the on-line learning platforms, the institute appointed one faculty as SWAYAM coordinator from each department. To monitor the progress at institute level, one faculty was appointed as SWAYAM manager.
- Two credits each are allotted to self-study courses at IV and VI semester.
- The following evaluation guidelines are used for the self-study courses:
 - Continuous evaluation by the teacher(s) of the course through (Seminar/Presentation/Group discussions) weekly (Example: if there are 12 working

weeks then 12 student groups were formed for evaluation through presentation)
(Weightage of Marks: 40%)

- Evaluation through one Midterm Exam (Weightage of Marks: 20%)
- One Quiz through Institute MOODLE (Weightage of Marks: 20%)
- Monitoring and record of attendance (Weightage of Marks: 20%)

PERFORMANCE REPORT OF THE JAN-JUNE 2018 NPTEL COURSES CONDUCTED AT “MITS”

- **Total 25 courses were run by 11 different departments**
- Total number of **students enrolled/registered** in MITS : 2019
- Number of students filled **NPTEL exam registration** form : 138
- Total number of **departments participated** in NPTEL : 11
- Total number of **NPTEL courses** run by various departments : 25
- Total number of faculty/SME's registered for NPTEL courses : 60
- Total number of students filled NPTEL exam registration form : 138
- Number of students appeared in Exam : 130
- **Number of students qualified** : 119 (92%)
 - **Elite + Gold Medal (score of 90% and above)** : 03
 - **Elite (score between 60% -89%)** : 80
 - **Successfully completed the course(score between 40% -59%)** : 36

(The formula shown below has been applied by NPTEL for ranking the institutes on the basis of students' performance in the April 2018 exams.

Number of successfully completed + (2 x Number of Elite) + (10 x Number of Gold) + (20 x Number of Toppers) + Number present for exam x 0.1 (capped at 10)

(It is capped at 10 because NPTEL does not want to base the ratings on sheer volume of people writing the exam. NPTEL wants to emphasize on the performance of the students and so more weightage is given to these categories.)

ACIEVEMENTS UNDER NPTEL LOCAL CHAPTER

“The MITS Chapter ranked among the top 100 Active NPTEL local Chapters of the country for Academic year 2017-18. (87th in 1242 NPTEL Local Chapters)”



FACULTY ACHIEVEMENTS

- Following **eleven faculty members** from various departments were awarded as the best/top mentors by NPTEL for their conduction of online Courses for academic session Jan-June 2018

S.No.	Name	Subject	Performance/Achievement
1.	Prof. Praveen Bansal	Basic Electronics	Mentor
2.	Prof. Rajni Ranjan Singh Makwana	Programming, Data Structures and Algorithms using C	Top Performing Mentor
3.	Prof. Sharad Agrawal	Basics of Finite Element Analysis - I	Mentor
4.	Prof. Madhav Singh	Basic Electronics	Top Performing Mentor
5.	Prof. Pooja Mishra	Programming, Data Structures and Algorithms using C	Mentor
6.	Prof. Deepa Sharma	Microprocessors and Microcontrollers	Mentor
7.	Prof. Rahul Anand	Human Molecular Genetics	Mentor
8.	Prof. Shyamveer Singh Chauhan	Electronic Waste Management - Issues and Challenges	Top Performing Mentor
9.	Prof. Sunita Sharma	Introduction to Proteomics	Mentor
10.	Prof. Utkarsh Shrivastava	Steam and Gas Power Systems	Mentor
11.	Prof. Wajid Hussain	Earth Sciences for Civil Engineering Part I & II	Mentor

Performing Mentor

The NPTEL criterion for recognizing a Mentor is as follows:

Number of mentees in category ($40 \leq \text{Final score} \leq 59$) + 5 x Number of elite + 20 x Number of gold + Number of mentees present for exam (capped at 10)

Those who had a score of ≥ 10 will get certificates for mentoring

Top Performing Mentor

Top performing mentors from the certified mentor list. The NPTEL criterion for recognizing a Mentor as 'Top Performing Mentor' is as follows:

- Mentors with either topper or Gold medalist mentees or Mentors with Total number of mentees registered for online exam >100

- Certificate of appreciation is awarded to **Prof.Praveen Bansal** for his Instrumental role as **top 100 active SPOC** for the SWAYAM-NPTEL local chapter and in MITS rated “A” based on performance in NPTEL online courses Jan-June 2018



STUDENT ACHIEVEMENTS

- Project funded by MHRD, Govt of India. NPTEL online course on -"Electronic Waste Management –Issues and Challenges", Mrs.Ashma Parween, completed certification for being in top 1% of students in this course(Gold Medal).
- Project funded by MHRD , Govt of India. NPTEL online course on -"Electronic Waste Management –Issues and Challenges", Mrs. Monika Khare, completed certification for being in top 1% of students in this course(Gold Medal).

- Project funded by MHRD , Govt of India. NPTEL online course on-"**Basic Electronic**", **Mr.Mohammad Faizaan Qureshi** , completed certification for being in top 2% of students in this course(Gold Medal).
- Project funded by MHRD , Govt of India. NPTEL online course on -"**Electronic Waste Management –Issues and Challenges**", **Mr.Anoop Rathore** , completed certification for being in top 5% of students in this course.
- Project funded by MHRD , Govt of India. NPTEL online course on -"**Electronic Waste Management –Issues and Challenges**", **Mr.Mayank Shakya** , completed certification for being in top 5% of students in this course
- Project funded by MHRD, Govt of India. NPTEL online course on -"**Programming,Data Structures using Algorithm in C**", **Mr.Sarthak Somani** , completed certification for being in top 2% of students in this course.
- Project funded by MHRD, Govt of India. NPTEL online courses -"**Matlab Programming for Numerical Computation**", **Mr.Ashutosh** , completed certification for being in top 5% of students in this course.

SWAYAM-NPTEL TEAM

S.No.	Name of Faculty	Department
1.	Prof.Praveen Bansal	SPOC, Electrical Engineering
2.	Prof.A.K. Saxena	Civil Engineering
3.	Dr.Bimal Garg	Electronics Engineering
4.	Dr.Shishir Dixit	Electrical Engineering
5.	Dr.Sunita Sharma	Biotech
6.	Dr.Anjali S Patil	Architecture
7.	Prof.Rajni Ranjan Singh Makwana	Computer Science Engineering
8.	Dr.Anshu Chaturvedi	MCA
9.	Prof.Bhupendra Pandey	Mechanical Engineering
10.	Dr.Uday Pratap Singh	Applied Science
11.	Prof.Swati Gupta	Chemical Engineering