# MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

**(Deemed to be University)**

**(NAAC Accredited with A++ Grade)**

## DEPARTMENT OF ENGINEERING MATHEMATICS & COMPUTING

**visit us at:** https://web.mitsgwalior.in/academics/departments/engineering-mathematics-computing

**Peter Gustav Lejeune Dirichlet (1805-1859)**

Dirichlet first used the pigeonhole principle, a basic counting argument, in the proof of a theorem in diophantine approximation, later named after him Dirichlet's approximation theorem. He published important contributions to Fermat's Last Theorem, for which he proved the cases $n = 5$ and $n = 14$, and to the biquadratic reciprocity law.

## Vision

The Department of Engineering Mathematics & Computing was setup in 2020 to import knowledge of mathematics and computer science that serve the groom the academic potential of student and abreast with recent technological developments.

## Mission

- ❖ To develop an ability towards critical questioning.
- ❖ To enhance logical attitude and aptitude ability.
- ❖ To nurture the computational aptitude on a global platform.

B. Tech. programme in Engineering Mathematics and Computing offers the opportunity to combine an appreciation mathematical thinking with knowledge of computing. Mathematics is a fundamental intellectual tool in computing, but computing in increasingly used as a key component in mathematical problem solving. The course concentrates on areas where mathematics and computing are most relevant to each other, emphasizing the bridges between theory and practice. It offers opportunities for budding scientist in the field of Mathematics & Computing.

# FACULTY OUTREACHED

## PUBLICATIONS

### PAPER PUBLICATIONS

➢ Priyabrata Sethy, Amit Kumar, **Atul Kumar Ray,** V.K. Chaurasiya, A. N. Dev, M.A. Sheremet, Magneto-thermogravitational convective flow of hybrid nanomaterial within an enclosure subject to partially active side walls. ZAMM-Journal of Applied Mathematics and Mechanics/Zeitschrift für Angewandte Mathematik und Mechanik, 105(5), e70055 (2025). (SCI), https://doi.org/10.1002/zamm.70055 I.F. – 3.2 (ISSN: 1521-4001).

➢ P. Deolia, **Vijay Shankar Sharma** & A. Singh, Exploring Discrete-Time Epidemic Behavior Based on Saturated Incidence Rate and Multiple Transmission Pathways. Qual. Theory Dyn. Syst. 24, 136 (2025). (SCI-Q1) https://doi.org/10.1007/s12346-025-01290-2 I.F - 2.1.

## WORKSHOP/ WEBINAR/FDP ATTENDED

❖ **Dr. Vikas Shinde**, attended Two week FDP on Current Advancements in Artificial Intelligence, Machine Learning, and Data Science, during June 16-25, 2025 ,organized jointly by Department of Mathematics, Jaypee Institute of Information Technology (JIIT), Noida, Uttar Pradesh (INDIA) and Electronics & ICT Academy (Ministry of Electronics & Information Technology, GoI, New Delhi), National Institute of Technology Warangal.

❖ **Dr. Vijay Shankar Sharma**, attended a three days' online workshop on Theoretical and Computational Dynamics of biological systems. organized by the department of Engineering Mathematics, ABV- IIITM Gwalior, during 9-11 April. 2025.

❖ **Dr. Vijay Shankar Sharma**, attended a one-day online workshop on MATLAB Essentials: An Indispensable Tool for Students, Young Researchers, and Engineers, organized by MathTech Thinking Foundation(MTTF), on 25 May 2025.

## OTHER NOTABLE ACHIEVEMENTS OF THE FACULTIES

❖ **Dr. Atul Kumar Ray**, Reviewer, Engineering Applications of Artificial Intelligence, SCIE, Submitted report on 15/06/2025

❖ **Dr. Atul Kumar Ray**, Reviewer, Alexandria Engineering Journal, SCI, Submitted report on 13/06/2025

❖ **Dr. D K Jain**, has evaluated the PhD thesis of Mathematics discipline of a candidate **of JECRC University**, Jaipur on 27 June 2025.

❖ **Dr. Vijay Shankar Sharma**, Reviewer, The **International Journal of Mathematical, Engineering and Management Sciences (IJMEMS)**, ESCI, Submitted report on 22/04/2025

❖ **Dr. Vijay Shankar Sharma**, Reviewer, **The Qualitative Theory Of Dynamical Systems (QTDS), SCI,** Submitted report on 15/05/2025

❖ **Dr. Anand Pawar,** Reviewer, **Physics of Fluids (SCIE, Q1)**, submitted a report on 11/04/2025.

❖ **Details of Karmyogi**

| S/No. | Name of Faculty | Name of the Course (s) - Date |
|---|---|---|
| 1 | **Dr. Atul Kumar Ray** | 1. Training Module on Swachata Hi Seva - 2024- -13/06/2025<br>2. AI Using Google Bard and ChatGPT for Beginners -13/06/2025 |
| 2 | **Dr. Divya Chaturvedi** | 1. Training Module on Swachata Hi Seva - 2024- -19/06/2025<br>2. AI Using Google Bard and ChatGPT for Beginners -23/06/2025 |
| 3 | **Dr. D K Jain** | 1. Civil Defence Services -11 June 2025<br>2. Artificial Intelligence AI for Good Innovate Empower and Transform-12 June 2025<br>3. Model Artificial Intelligence Law-13 June 2025<br>4. Yoga Pranayama-14 June 2025<br>5. Training Module on Swachata Hi Seva-2024 -12 June 2025 |
| 4. | **Dr. Vijay Shankar Sharma** | 1. Overview of Vikshit Bharat 2047, 11 June 2025<br>2. YogaBreak at Worksplace, 13 June 2025 |
| 5 | **Dr. Anand Pawar** | 1. Yoga Break at Workplace, 12/06/2025<br>2. Code of Conduct for Government Employees, 12/06/2025<br>3. Training Module on Swachta Hi Seva-2024, 12/06/2025<br>4. AI Using Google Bard and ChatGPT for Beginners, 12/06/2025 |

# ACTIVITIES AND ACHIEVEMENTS BY STUDENTS OF THE DEPARTMENT

| Enrollment No. | NAME | SEMESTER | NAME OF EVENT | LINK OF CERTIFICATE |
|---|---|---|---|---|
| BTMC24O1153 | Yash Tomar | 3rd | Codemap 2.0 | https://drive.google.com/open?id=19_kiGX0AovYU2O99y8-KujBqiTYPsc58 |
| BTMC24O1153 | Yash Tomar | 3rd | Quiztopia:The Science Showdown | https://drive.google.com/open?id=1yjSPGYCbk7ikLYawWhK-7z4wi_pRJLSM |
| BTMC24O1153 | Yash Tomar | 3rd | Dataviz | https://drive.google.com/open?id=1fVuYnOQUP1i7Zbsrx2-HmlaYlcz8vrbn |
| BTMC24O1093 | Pari Gupta | 3rd | Virtual internship | https://drive.google.com/open?id=1PTgBLIJuyF6ogggH1fd4EwbJq6-z_qba |
| 0901MC221009 | Aniket Dandotiya | 7th | Data Science and Analysis Intern | https://drive.google.com/open?id=14N792HcIykJenzve56r45DrtYPHZCfga |
| BTMC24O1084 | Naman Jain | 3rd | Outrix Internship Data Science | https://drive.google.com/open?id=1ou7r4YEtGozpJZDMkMUra9YYWvSPOoct |
| 0901MC221022 | Aryan Ujjainiya | 7th | AWS Summit India Online | https://drive.google.com/open?id=1rKlqGFXMCF1Q6txEADuz6RbfKYCmtiSF |
| BTMC24O1144 | Vanshika Bhalla | 3rd | GenAI for Data Analytics - WsCube Tech (Participation in June) | https://drive.google.com/open?id=1K8LnJCwuyDEWP_e2WWUSv5F09POwFtnl |
| 0901MC221025 | Avinash Gour | 7th | Virtual internship on Artificial intelligence and data analytics | https://drive.google.com/open?id=1kR9UyOXQDzg3AXUiM68m-U1vTnZ2FO4v |
| BTMC24O1025 | Aneeka Dwivedi | 3rd | MACHINE LEARNING COURSE FROM STANDFORD UNIVERSITY(COURSERA) | https://drive.google.com/open?id=1YBcdXUco7Y3XvSMJH__ccFB9PTeqm_cT |
| btmc24O1072 | kiran tomar | 3rd | hachkorbit hackathon | https://drive.google.com/open?id=19amM_V5FeLPsVOM4M964I5WwV14CxHe8 |
| 0901MC221018 | Aradhy Singh Raghav | 7th | KRONOS'25 Tech Blitz Hackathon | https://drive.google.com/open?id=1JDJkVZkDL3dg_66rd71ngpMXBW8lLRG6 |
| 0901MC231061 | SARTHAK SINGHAL | 5th | Code coalescence Hackathon 2025 | https://drive.google.com/open?id=1-CGzHyqhfPOHrmQPefz7F3e__DJ3jv3V |
| BTMC24O1100 | PRAVEEN SOLANKI | 3rd | GSSoC(Girl Script summer of code) Contributor, participated in open source connect india | https://drive.google.com/open?id=1FQpCbiDFzlbuDqmRyFW6m2q5viyYgYb2 |
| BTMC24O1014 | Aditya Singh Tomar | 3rd | NEXUS quiz | https://drive.google.com/open?id=1qKieLLx2xpnGawcSLmZDMm11JTqezy7z |
| BTMC24O1010 | Adarsh Soni | 3rd | HackOrbit 2025 – National Hackathon, Gridtech: Where energy meets code, Training and Placement cell Students Coordinator, GirlScript Summer of Code 2025, Cognifyz Internship, IBM Python Certificate | https://drive.google.com/open?id=1cGKIUL5ASZ5040Jg-uIjQngisoUXHtM2 |
| BTMC24O1037 | Ayush Gupta | 3rd | Machine learning BootCamp | https://drive.google.com/open?id=1fRfINdoVlfUlFW18BjbFrD9XArMBfrGg |
| BTMC24O1009 | Adarsh Mishra | 3rd | Nexus quiz | https://drive.google.com/open?id=1coFR_pQxtxOvH4MLnZS2U48PjbJgd37J |
| BTMC24O1009 | Adarsh Mishra | 3rd | Shaam-e-ulfat | https://drive.google.com/open?id=1punUaiutXxYBofSRMv01OLRGiu9qPrro |

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|---|---|---|---|---|
| 0901MC221029 | Deepak Rathore | 7th | algo aura | https://drive.google.com/open?id=1nempYHbaor9_llgXgnWsI5ySWR_POqiN |
| BTMC24O1133 | SONALI CHAUHAN | 3rd | Enigma 2k25 | https://drive.google.com/open?id=1oitZm-4gzPSyDfA3M35w4og0UeyGDtE6 |
| BTMC24O1133 | SONALI CHAUHAN | 3rd | Enigma 2k25 | https://drive.google.com/open?id=1JbCO_bSFz-Q70D-g-RRB7umrhdkwAUlP |
| BTMC24O1133 | SONALI CHAUHAN | 3rd | Enigma 2k25 | https://drive.google.com/open?id=11R6V255WAhMZJR1LIYEIVEWS78bIe2xK |
| BTMC24O1133 | SONALI CHAUHAN | 3rd | Enigma 2k25 | https://drive.google.com/open?id=1cBkjeWOfAy22ELU8oV80_C70du-lVhvz |
| BTMC24O1133 | SONALI CHAUHAN | 3rd | enigma 2k25 | https://drive.google.com/open?id=1HZQR01bIR1DLLgsXIH9pF68rvS-SOUNG |
| BTMC24O1133 | SONALI CHAUHAN | 3rd | enigma 2k25 | https://drive.google.com/open?id=1OtpH9VIb4BNHH6NRBz12AvHxph1vsMDM |

**Congratulation to all Students of MAC**

## SOME GLIMPSES

## DEPARTMENTAL/INSTITUTIONAL SOCIAL MEDIA ACCOUNTS

https://www.youtube.com/c/MITSLive

Link: https://www.youtube.com/@mits_mathematicscomputing2531

Link: https://www.instagram.com/invites/contact/?i=1wta8dhr95ncp&utm_content=p8ctdpe

Link: https://www.facebook. com/MitsMadhavIstituteOfTechnologyScienceGwalior



Departmental Editorial Board
E-Newsletter Coordinator

**Dr. Atul Kumar Ray and Dr. Vijay S. Sharma**