



# MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

(Deemed to be University)

(NAAC Accredited with A++ Grade)

## DEPARTMENT OF ENGINEERING MATHEMATICS & COMPUTING

e-Newsletter

OCT –DEC, 2025

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



Élie Joseph Cartan  
(1869-1951)

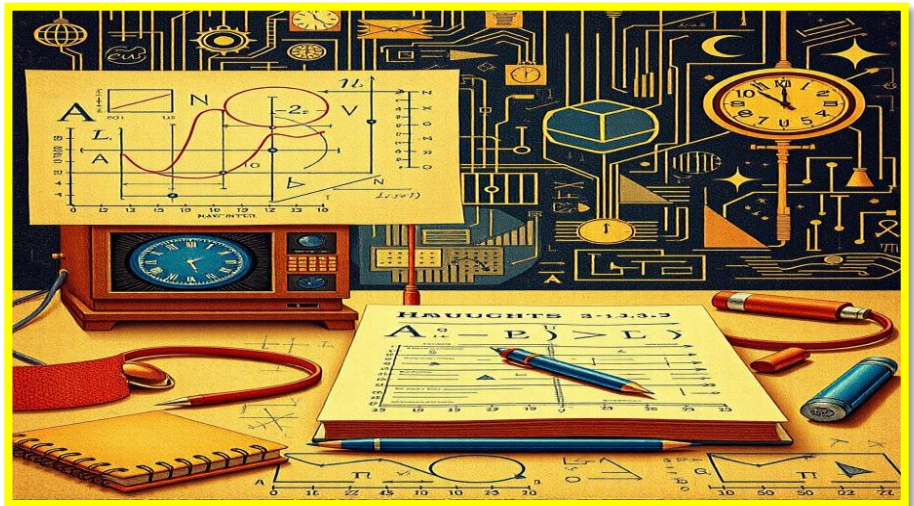
Cartan was an influential French mathematician who did fundamental work in the theory of Lie groups, differential systems (coordinate-free geometric formulation of PDEs), and differential geometry. He also made significant contributions to general relativity and indirectly to quantum mechanics.

### 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 is 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.

### PAPER PRESENTED IN CONFERENCE

#### PAPER PUBLICATIONS

- Uddin, Md Jasim, **Vijay Shankar Sharma**, and Sarker Md Sohel Rana. "Strong resonance bifurcations and intricate behavior on a discrete prey–predator model with complex network: Immigration on prey and harvesting on predator." **Modern Physics Letters B**, 40, no. 02 (2026): 2550258. <https://doi.org/10.1142/S0217984925502586> . (SCIE, Q1, I. F. - 3.2)
- **Anand Pawar** and Kamal Raj Pardasani, Three-dimensional modeling of neuronal calcium dynamics regulating ATP release and A $\beta$  production with nonhomogeneous buffering mechanisms, **Physica Scripta** 100 (12), 125006, DOI 10.1088/1402-4896/ae24bf, (SCIE, Q2, IF 2.6)



#### Ph. D. Supervision

- **Awarded Ph.D. Degree of Student Aarti Pathak on 16 October 2025** from Jiwaji University, Gwalior on topic 'A study of generalized hypergeometric functions in relationship to fractional integral operators' under the joint supervision of **Dr. D K Jain MITS-DU, Gwalior** and Dr. Rajshree Mishra, Science College, Gwalior.  
<https://drive.google.com/file/d/1SH6NXpb1m3qVjQ48Z8k-Nm18aqoIbKSA/view?usp=sharing> .

#### WORKSHOP/FDP ATTENDED

- **Dr. Jitendra Kumar**, Attended, One Week FDP on Emerging Trends in Mathematical Modelling and Computational Methods for Science and Technology” held on Nov. 24-29, 2025, organized by the Indus Institute of Information and Communication Technology, in association with Internal Quality Assurance Cell (IQAC), **Indus University, Ahmedabad - 382115, Gujarat, India.**

- **Dr. Jitendra Kumar**, Attended, One Week Workshop on Foundations of Computational Mathematics and Scientific Machine Learning” held on 5-9, December, 2025, organized by **Department of Engineering Sciences, ABV-IIITM Gwalior**

## EVENT/WEBINAR/WORKSHOP/FDP CONDUCTED

- ❖ **Dr. Kuldeep Kumar Tiwari** and **Dr. Vijay Shankar Sharma** organized a one-day outreach program titled “**Awareness on Cyber Scam**” on 1st November 2025 at **Badagaon Village**, Gwalior. The camp aimed to raise awareness among school students, teachers, and villagers about the rapidly growing cyber threats and the importance of online safety.
- ❖ **Dr. Vijay S. Sharma** and **Dr. V. P. Shinde**, **Department of Engineering Mathematics & Computing**, organized the **National Mathematics Day 2025** celebration on **22 December 2025**, commemorating the birth anniversary of **Srinivasa Ramanujan**. The one-day seminar entitled “**Modern Mathematics: Emerging Directions in Research**” was funded by the **Madhya Pradesh Council of Science and Technology (MPCST), Bhopal**, and aimed at promoting awareness of modern mathematics among students and faculty.
- ❖ ❖ **Dr. Vijay S. Sharma**, “**NUMBER NINJAS**” under the banner of **Mathematics Club**, 12<sup>th</sup> Oct – 2025 at 02:00 – 04:00 PM, at **MITS-DU, Gwalior**

## OTHER NOTABLE ACHIEVEMENTS OF THE FACULTIES

- ❖ **Dr. Vijay Shankar Sharma, Reviewer**, The Qualitative Theory Of Dynamical Systems (QTDS), SCI, Submitted report on 15/10/2025.
- ❖ **Dr. Vijay Shankar Sharma, Reviewer**, The European Physical Journal Plus, SCI, Q1, Submitted report on 27/10/2025.
- ❖ **Dr. Vijay Shankar Sharma, Reviewer**, The European Physical Journal Plus, SCI, Q1, Submitted report on 27/11/2025.
- ❖ **Dr. Vijay Shankar Sharma, Reviewer**, The European Physical Journal Plus, SCI, Q1, Submitted report on 23/12/2025.
- ❖ **Dr. Vijay Shankar Sharma, Reviewer**, Boletim da Sociedade Paranaense de Matemática journal, scopus, Q3, Submitted report on 25/12/2025

❖ **Dr. Anand Pawar**, Reviewer, Communications in Theoretical Physics (SCIE, Q2, 2.9), Submitted Report on 15/12/2025.

❖ **Dr. Anand Pawar**, Reviewer, The Royal Society, Proceedings A (SCIE, Q1, 3.0), Submitted Report on 04/12/2025.

❖ **Dr. Anand Pawar**, Reviewer, Mathematical Methods in Applied Sciences (SCIE, Q1, 1.8), Submitted Report on 20/11/2025.

❖ **Dr. D. K. Jain** received the **Teacher's Day Award** on 5th October 2025 by the **Association of Gwalior Youth Society**, in recognition of outstanding dedication to teaching, academic excellence, and continuous commitment to student development. The award acknowledges significant contributions to curriculum delivery, mentoring, and fostering a positive learning environment. This honour reflects sustained efforts in shaping students' academic growth and professional values.

## ACTIVITIES AND ACHIEVEMENTS BY STUDENTS OF THE DEPARTMENT

### Congratulation to all Students of MAC

1	Adarsh Soni	BTMC240 1010	2nd	Volunteer in IEEE PES CONFERENCE Dec. 2025 at MITS-DU.	<a href="https://drive.google.com/open?id=1cN0zGKLDGW9c7phubEMQhZY2e6LCBcbc">https://drive.google.com/open?id=1cN0zGKLDGW9c7phubEMQhZY2e6LCBcbc</a>
2	Shubhi Jaiswal	BTMC240 1130	2nd	Participated in National service scheme Unit I and Unit II Cultural Competition September 2025	<a href="https://drive.google.com/open?id=1R-RBKuK0d3NBz8zBt8p54pk3ZnQL_s3a">https://drive.google.com/open?id=1R-RBKuK0d3NBz8zBt8p54pk3ZnQL_s3a</a>
3	Taparna Tripathi	BTMC250 1143	1st year	Event Name: "No Code Knockout" Event Type: Website Design Competition (No-Code Based) Organized By: IETE Students' Forum, MITS-Deemed University, Gwalior	<a href="https://drive.google.com/open?id=1YYmqwjMeC1SxLHVZNnzQzjvzrY8eIBCE">https://drive.google.com/open?id=1YYmqwjMeC1SxLHVZNnzQzjvzrY8eIBCE</a>
4	ASHISH SINGH RAJPUT	BTMC250 1026	1st year	1. "Mind Odyssey" organized on 9th and 10th October 2025. Skillssphere club and I am winner of this club hard copy certificate. 2.mathematics club organisation Ninza number 3. Treasure hunt organized by Analytics club on	<a href="https://drive.google.com/open?id=1LYSYcDrCy2ZdDZ72fcjUruAA070vZea5">https://drive.google.com/open?id=1LYSYcDrCy2ZdDZ72fcjUruAA070vZea5</a>
5	MADHAV GUPTA	BTMC240 1074	2nd	NPTEL ONLINE CERTIFICATION EXAM COURSE Passed - The Joy of Computing using Python	<a href="https://drive.google.com/open?id=1K-AMq_h53GY0uZn74flw_FZT9_iqU_Xx">https://drive.google.com/open?id=1K-AMq_h53GY0uZn74flw_FZT9_iqU_Xx</a>
6	MADHAV GUPTA	BTMC240 1074	2nd	TechXposure , a event organised by the Innovation and DIY club in collaboration with the IEI student chapter and IEEE student chapter this event will given the details of different Tech fields	<a href="https://drive.google.com/open?id=1ROXKRqZo62XkA1tcPHc3pb04t7y4IbJq">https://drive.google.com/open?id=1ROXKRqZo62XkA1tcPHc3pb04t7y4IbJq</a>
7	MADHAV GUPTA	BTMC240 1074	2nd	Participated in SLIDES AND STRIDE	<a href="https://drive.google.com/open?id=1m50v9p_zel5D3i2ZzPg-50AhcLm-NCVU">https://drive.google.com/open?id=1m50v9p_zel5D3i2ZzPg-50AhcLm-NCVU</a>
8	ADITI JAIN	BTMC240 1012	2nd	Participated in International dance and music festival Uddhav Utsav -2025	<a href="https://drive.google.com/open?id=1s7pFhAtwV5E0ZYr7mxl6A2AaJdkPtI_A">https://drive.google.com/open?id=1s7pFhAtwV5E0ZYr7mxl6A2AaJdkPtI_A</a>



9	Manjeet Rajput	BTMC240 1156	2ND	Participated in NUMBER NINJA (MATHEMATICS CLUB)- 2nd Rank	<a href="https://drive.google.com/open?id=1683Qc6hr6hQaW08VoZc1KbHWfUWz5kwq">https://drive.google.com/open?id=1683Qc6hr6hQaW08VoZc1KbHWfUWz5kwq</a>
10	Anku Solanki	BTMC250 1017	1	Participated in Bhagwat club "Swar Sangam"	<a href="https://drive.google.com/open?id=1NA_EYLIHidPJn16wM2PShTArQXleZBut">https://drive.google.com/open?id=1NA_EYLIHidPJn16wM2PShTArQXleZBut</a>
	Rachit Upadhyay	BTMC250 110		Participated in an event called Talash, a thrilling murder mystery challenge that tested our observation, teamwork, and problem-solving skills.	<a href="https://drive.google.com/open?id=1JsHdBOLJov7ktNw1JclR2VECHD44RQsb">https://drive.google.com/open?id=1JsHdBOLJov7ktNw1JclR2VECHD44RQsb</a>
	Kartik Sharma	BTMC250 1058		Participated in an event called Talash, a thrilling murder mystery challenge that tested our observation, teamwork, and problem-solving skills.	<a href="https://drive.google.com/open?id=1m39rZQ0f0aZfZIHda3gVo1vfKZGg-Eoc">https://drive.google.com/open?id=1m39rZQ0f0aZfZIHda3gVo1vfKZGg-Eoc</a>

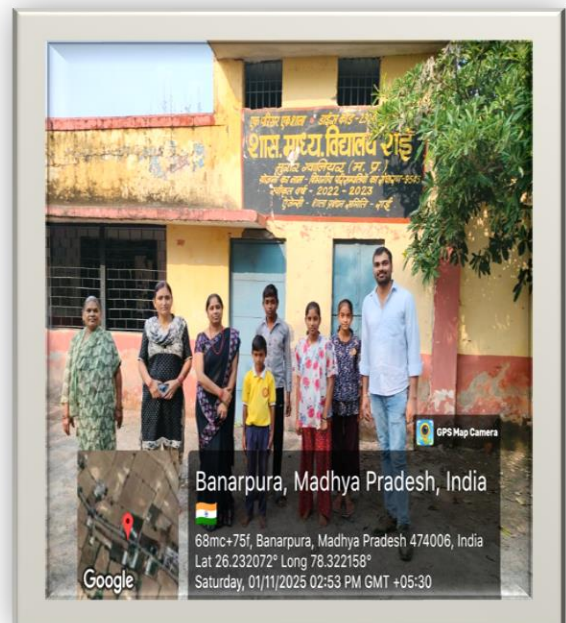
## SOME GLIMPSES





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Lat 26.232143° Long 78.322107°  
Saturday, 01/11/2025 02:30 PM GMT +05:30



Banarpura, Madhya Pradesh, India

68mc+75f, Banarpura, Madhya Pradesh 474006, India  
Lat 26.232072° Long 78.322158°  
Saturday, 01/11/2025 02:53 PM GMT +05:30



## DEPARTMENTAL/INSTITUTIONAL SOCIAL MEDIA ACCOUNTS



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

Link: [https://www.youtube.com/@mits\\_mathematicscomputing2531](https://www.youtube.com/@mits_mathematicscomputing2531)



Link: [https://www.instagram.com/invites/contact/?i=1wta8dhr95ncp&utm\\_content=p8ctdpe](https://www.instagram.com/invites/contact/?i=1wta8dhr95ncp&utm_content=p8ctdpe)



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



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**Dr. Vijay S. Sharma**