



MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

(Deemed to be University)

(NAAC Accredited with A++ Grade)

DEPARTMENT OF ENGINEERING MATHEMATICS & COMPUTING

e-Newsletter

JAN –MAR, 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.

PUBLICATIONS

PAPER PUBLICATIONS

- Sethy, P., Kumar, A., **Ray, A. K.**, Chaurasiya, V. K., Kumari, A., & Sheremet, M. A.. Heat transfer performance in a hybrid nanoliquid enclosure with a hot inner circular obstacle under Lorentz force effect. **Journal of Thermal Analysis and Calorimetry**, 150(1), 395-412, (2025). (SCIE, I. F. - 3.0)
- Kumar, R., Tanwar, D. V., Singh, S. J., & **Ray, A. K.**, Lie symmetry reductions and exact solutions of $(2+1)$ -dimensional Boiti–Leon–Manna–Pempinelli equation in shallow water. **Canadian Journal of Physics**: 1–9,(2025). <https://doi.org/10.1139/cjp-2024-0257> (SCI, I.F. -1.1)
- Altaf A Bhat, **D.K. Jain**, Faiza B Suleiman, Danish A Sunny, Said Salim Al-Kathiri: On (p, q) -Natural Transform of the Basic Analogue of Aleph-Function, **J. Appl. Math. & Informatics Vol. 43(2025), No. 2, pp. 381 - 396**
<https://www.kci.go.kr/kciportal/ci/sereArticleSearch/ciSereArtiOrteView.kci?sereArticleSearchBean.artiId=ART003184927> (ESCI/SCOPUS)
- Javid A Ganie, Haider Abbas Rizvi, Altaf A Bhat, Faiza A Sulaiman and **D. K. Jain**: Solution of Generalized Partial Differential Equations by Using Double q -Integral Transform; **Nonlinear Functional Analysis and Applications Vol. 30, No. 1 (2025), pp. 277-297** ISSN: 1229-1595(print), 2466-0973(online) <https://doi.org/10.22771/nfaa.2025.30.01.17> (SCOPUS)
<http://nfaa.kyungnam.ac.kr/journal-nfaa>



Ph. D. Supervision

- Submitted a **Ph.D. thesis of Student Aarti Pathak** on 17 March 2025 to 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, Govt. Science College, Gwalior

PAPER PRESENTED IN CONFERENCE

- **Dr. Jitendra Kumar (2025): A Comparative Study of MobileNetV2, Simple CNN, and VGG19 Architectures for Image Classification using Convolutional Neural Networks, 7th International Conference on Emerging Trends on Sustainable Approaches in Science & Technology (ICETSAST-2025), 4-5 Jan., 2025, organized by Maa Shakumbai Trust, Greater Noida, UP India.**

WORKSHOP/FDP ATTENDED

- ❖ **Dr. Jitendra Kumar, Attended One Week FDP on Fuzzy Optimization Techniques: New Trends held on 17 Feb. 2025 to 21 Feb. 2025, Organized by Applied Science Department, NITTTR, Chandigarh, Ministry of Education, Govt. of India.**

EVENT/WEBINAR/WORKSHOP/FDP CONDUCTED

- ❖ **Dr. Atul Kumar Ray, “THE NAZM CANVAS” under the banner of Lafz-e-Bayan Club, 08–March – 2025 at 04:00 – 06:00 PM, at MITS-DU, Gwalior**

OTHER NOTABLE ACHIEVEMENTS OF THE FACULTIES

- ❖ **Dr. Atul Kumar Ray, Session Chair in IEEE International Conference on Interdisciplinary Approaches in Technology and Management for Social Innovation (IATMSI-2025), organized by IEEE MP Section and ABV-IIITM Gwalior, India on 6-8 March 2025.**
- ❖ **Dr. Atul Kumar Ray, Session Chair in 3rd International Student Conference on Multidisciplinary and Current Technical Research (ISCMCTR - 2025), March 29-30, 2025.**
- ❖ **Dr. Atul Kumar Ray, Reviewer, Engineering Applications of Artificial Intelligence, SCIE, 22/01/2025**
- ❖ **Dr. Atul Kumar Ray, Reviewer, Results in Engineering, 22/03/2025**

ACTIVITIES AND ACHIEVEMENTS BY STUDENTS OF THE DEPARTMENT

1	0901MC211045	Poornika Sharma	Fourth	Completion of internship on AI: Transformative Learning with TechSaksham	https://drive.google.com/open?id=1KZvXyi2ubI00OFNprY9AhBfMUpBhMmYY
2	0901MC231008	Aniya Jain	Second	General Championship 2025 cognizance IIT Roorkee	https://drive.google.com/open?id=12OLvbAu29xNsnsDH_UHpOwbVGbq5P-GN
3	0901MC231008	Aniya Jain	Second	Kharagpur Data Science Hackathon 2025	https://drive.google.com/open?id=1MelsEKk7bJGxjFIpjih9iU_WbwwthkpW
4	0901MC211061	Sonali Patel	Fourth	All India Internship Program	https://drive.google.com/open?id=1K60lBVBiyjVTNYYKiemEXtvdSBw52Pfk
5	0901MC211014	ANUSHKA TOMAR	Fourth	On completion of my role of Gender Champion in Girls Grievance Cell	https://drive.google.com/open?id=1Z3QmwolU-KaOa4OXbZ3pNtx2wHkAT6lh
6	0901MC211014	Anushka Tomar	Fourth	Fit Mits Marathon	https://drive.google.com/open?id=1hVprBT_aNGNfJ18nyxZSxu1RF6Iubadn
7	0901MC211014	Anushka Tomar	Fourth	Got(85%) Silver Elite in Edge computing in Nptel	https://drive.google.com/open?id=1CpftBDwIjMuFzTqBgDW0PjGxo5gP8gaX
8	0901MC231065	Shivansh Arora	Second	VIKSIT BHARAT YOUNG LEADERS DIALOGUE State Level Championship Bhopal	https://drive.google.com/open?id=1oo1aZF4KIk0h-KGXOpOY5iaqfTKzfIvi
9	0901MC231065	Shivansh Arora	Second	National Financial Literacy Quiz	https://drive.google.com/open?id=1iC28Y7LpzDbQ0qD8GFK1cpBm0YpqDib8
10	0901MC231065	Shivansh Arora	Second	Viksit Bharat Youth Parliament	https://drive.google.com/open?id=1I8A_VPW7rLrY7-p4j2ioc4cwB1PdF-
11	0901MC231065	Shivansh Arora	Second	Inter College Debate Competetion Madhav College Gwalior	https://drive.google.com/open?id=14ZEOVveRyqDbVoeVfViis44AU8Km6qmv
12	0901MC231065	Shivansh Arora	Second	World Wild Life Day Quiz 2025	https://drive.google.com/open?id=17ym9EXL8YL79fGxtadVZ8khKcvD4_m_r
13	0901MC231065	Shivansh Arora	Second	Aarunya MITS - Letter Writing Competetion (Top 5)	https://drive.google.com/open?id=14-Amc7pJtrRxpOxW5MJhF4M1_gWuskZ

14	0901mc231065	Shivansh Arora	Second	MyGov India - Campus Ambassador	https://drive.google.com/open?id=1op2KWrhoWpFb4qpnK_yQOmCVLSXH4NP3
15	BTMC24O1076	Mahatva Agarwal	First	Dash it up :power Bi dashboard creation contest	https://drive.google.com/open?id=1_4Lr5E1aEhZfHlbcgZzRCLICJqOJYsMd
16	0901MC211048	Rachit Bhargava	Fourth	NPTEL	https://drive.google.com/open?id=1AUa3-8ayovBIr6NrU_YhIoL8wT7p9yHk
17	0901MC211018	Asmita Pathak	Fourth	Minor in AI by IIT Ropar	https://drive.google.com/open?id=1FH98r4wWj8A8nSwAPSiZ_7YHsn1Dx0CI
18	0901MC211018	Asmita Pathak	Fourth	Nptel exam: Edge computing	https://drive.google.com/open?id=12FSh50l3ZvO6Zb56VSbtfQ_Pox1kfn8p
19	BTMC24O1069	Ketan Malviya	First	Volleyball Tournament and Basketball Tournament	https://drive.google.com/open?id=1L6tKfo8EM_6EpgH7Snc7SVHQLCxH7BGq
20	BTMC24O1055	Harshita Soni	First	SPIKEVERSE 1.0	https://drive.google.com/open?id=1hIU3zivmLON-bHKsP7ZWSPnpO8hx7yNE
21	0901MC211027	Divyanshi Nagpal	Fourth	Young turks	https://drive.google.com/open?id=1zkRusVXqk4F1TO8_R7R8Q8P4BEceVA2d
22	0901MC211027	Divyanshi nagpal	Fourth	Tata crucible quiz	https://drive.google.com/open?id=1EKqIEQXixGsy-GkPbQZjjNrr7eDt_Sn6

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/MitsMadhavInstituteOfTechnologyScienceGwalior>



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