



MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

(Deemed to be University)

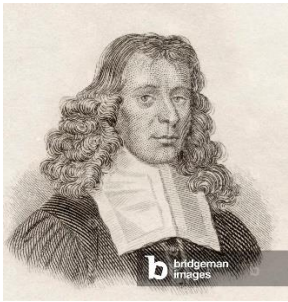
(NAAC Accredited with A++ Grade)

DEPARTMENT OF ENGINEERING MATHEMATICS & COMPUTING

e-Newsletter

APRIL – JUNE, 2024

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



**James Gregory
(1638-75)**

James Gregory is well known for his series for *arc tan* viz. $\arctan x = x - \frac{x^3}{3} + \frac{x^5}{5} - \frac{x^7}{7} + \dots, -1 \leq x \leq 1$. He also found infinite series for *tan x* and *arc sec x*. He was the first to distinguish between convergent and divergent series. He also designed a reflection telescope known after his name.

Vision

The Department of Engineering Mathematics & Computing was setup in 2020 to impart 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, Atul Kumar**, Kumari, A., & Tlau, L. (2024). Synergistic Impacts of Radiative Flow of Maxwell Fluid Past a Rotating Disk with Reactive Conditions: An Arrhenius Model Analysis. *Chinese Journal of Physics*, 89, 761-792. (Elsevier, SCI, I.F. - 5.0).
- Anil Kumar, Hambeer Singh **Jitendra Kumar**, Deepankar Sharma, Sanjay Sharma and Sushil Shukla (2024) Supply Chain Inventory System Modeling using Fuzzy Systems, *African Journal of Biological Sciences*, Vol. 6 (7), pp. 2951-2968. <https://doi.org/10.48047/AFJBS.6.7.2024.2951-2967>.
- S. K. Bharadwaj, V.K. Jadon, Amit Sharma, **Jitendra Kumar**, D. K. Mishra and **Ashish Shukla** (2024): Potato Leaf Disease Detection using Convolution Neural Network Model, *International Journal of Intelligent Systems and Applications in Engineering*, Vol. 12(21s), pp. 3259-3267, <https://ijisae.org/index.php/IJISAE/article/view/6015>.
- Shahjad Ali, Manish Baboo Agarwal, Sitaram Verma, Raisul Islam, Rajesh Kumar Deolia, **Jitendra Kumar**, Shailendra Singh, Ali Akbar Mohammadi, Manoj Kumar Gupta, Mehdi Fattahi P. U. Nguyen (2024): Groundwater quality assessment using water quality index and principal component analysis in the Achnera block, Agra district, Uttar Pradesh, Northern India, *Scientific Reports*, Nature Article number: 5381, Vol. 14, pp. 1-13, <https://doi.org/10.1038/s41598-024-56056-8>.

**WORKSHOP/FDP ORGANISED**

- **Manhar**, Lafz-e-Bayan Club (**Dr. Atul Kumar Ray, Coordinator**) in collaboration with the Department of Mathematics and Computing, 05/04/2024, MITS Gwalior

WORKSHOP/FDP ATTENDED

- i) **Dr. Jitendra Kumar**, One Week FDP on “ Scientific Computing Essentials with MATLAB” held on June 24-28, 2024, organized by Anand International College of Engineering, Jaipur, India and MathTech Thinking Foundation, India.
- ii) **Dr. Vikas Shinde & Dr, Jitendra Kumar**, One Week FDP on “Unlocking Innovation: Exploring Intellectual Property Rights” held on 16-21 May 2024, organized by PVP Siddhartha Institute of Technology & PB Siddhartha College of Arts & Science, Vijayawada, Andhra Pradesh, India.
- iii) One-day Webinar on Mastering LaTeX for Scientific Documentation with ChatGpt organized by MathTech Thinking Foundation (MTTF) Fazilka, India, 17 June 2024.

ACHIEVEMENTS OF DEPARTMENT FACULTIES

- **Jitendra Kumar**, “OPTIMIZATION COST OF SOLAR POWER PLANT FOR EV CHANGING STATION BY USING ML” (Application No. 202411028871 A, Registration date:09 April, 2024, Publication date: 10 May 2024 by Govt. of INDIA).
- Ph.D. Thesis of “Kalpana Rajput” Submitted on 30 April 2024 in Mathematics under the Joint Supervision of Dr. Rajshree Mishra (Professor Govt. Science College) and **Dr. D K Jain** (Professor, MITS, Gwalior) to Jiwaji University.
- **Dr. Atul Kumar Ray**, Reviewed an Article in “International Journal of Numerical Methods in Heat and Fluid Flow”, Emeralds, ISSN: 0961-5539 (SCI, Impact Factor - 4.2).
- **Dr. Atul Kumar Ray**, Reviewed an Article in “HELIYON”, Elsevier, ISSN: 2505-8440 (SCI, Impact Factor - 4)
- **Dr. D K Jain** as an external expert for the selection committee of faculty positions in Mathematics at ITM University, Gwalior, on 7th June 2024.
- **Dr. Atul Kumar Ray**, Session Chair, 2nd International Student Conference on Multidisciplinary and Current Technical Research (ISCMCTR - 2024), Organized by Madhav Institute of Technology & Science, Gwalior (M.P.), India, 20 - 21 April, 2024.

DEPARTMENTAL/INSTITUTIONAL SOCIAL MEDIA ACCOUNTS



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

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



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Departmental Editorial Board
E-Newsletter Coordinator

Dr. Atul Kumar Ray and Dr. J. K. Muthele