



MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

(Deemed to be University)

(NAAC Accredited with A++ Grade)

DEPARTMENT OF ENGINEERING MATHEMATICS & COMPUTING

e-Newsletter

OCT –DEC, 2024

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



Hadamard Jacques
(1865-1963)

Hadamard Jacques was famous for prime number theorem. He asserted that the existence of a mathematical entity is provable without explicitly defining the entity. He generalized the theory of characteristics for partial differential equations of any order. His major contribution is in field of Algebra and Number theory.

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. (2024). Heat transfer performance in a hybrid nanoliquid enclosure with a hot inner circular obstacle under Lorentz force effect. *Journal of Thermal Analysis and Calorimetry*, 1-18. (SCIE, I.F. - 3.0),
<https://doi.org/10.1007/s10973-024-13750-z>
- Jitendra Kumar, Vikas Shinde, S.K. Bharadwaj and D.K. Mishra (2024). Cost efficiency in server-less computing using Queueing models with cloud services. *Journal of Revista Electronica De Veterinaria*, 25(1), 1320 - 1329.
<https://doi.org/10.69980/redvet.v25i1.894>



Ph. D. Supervision

- Awarded Ph.D. Degree of Student Kalpana Rajput on 22 November 2024 from Jiwaji University, Gwalior on topic 'Study of fractional integral inequalities and generalizations of hypergeometric functions' under the joint supervision of Dr. D K Jain MITS-DU and Dr. Rajshree Mishra, Science College, Gwalior.

PAPER PRESENTED IN CONFERENCE

- Shweta Shrivastava, Vikas Shinde and M. R. Dhakad: Chaotic Zebra optimization algorithm using tent map for global optimum solution on 6th international conference on communication and intelligent systems (ICCIS 2024) organized by Maulana Azad National Institute of Technology (MANIT) Bhopal, held during November 08–09, 2024.
- Vikas Shinde, Rahul Jha and D.K. Mishra: An improved Chaotic Coati optimization algorithm (ICCOA) for global optimum solution on 5th International Conference on Frontiers in Computing and Systems (COMSYS 2024), organized by BITS Pilani, Goa Campus, India, held during December 13–15, 2024.

WORKSHOP/FDP ATTENDED

- ❖ **Dr. Vijay Shankar Sharma, FDP** “ Faculty Development Program (FDP) on Algebra Analysis and Number Theory” from 16th December - 20th December, 2024, organized by Department of Mathematics, SRM University-AP, Andhra Pradesh, India.https://drive.google.com/file/d/1wC xvKdivHBp4_AzXpG3zlRDUvbOUUnqnx/view?usp=sharing
- ❖ **Dr. Vikas Shinde, FDP** “Faculty Development Program (FDP) on “OUTCOME BASED EDUCATION and NBA ACCREDITATION PROCESS” from 17.12.2024 to 23.12.2024, organized by A.C.T Academy, Kerala.
- ❖ **Dr. Atul Kumar Ray, Dr. Minakshi, Dr. Divya Chaturvedi,** One Week International Faculty Development Program on “Innovative Applications of Mathematics” organized by the Department of Mathematics, held from 18-11-2024 to 23-11-2024 through virtual mode.
- ❖ **Dr. Jitendra Kumar,** Two Weeks REFRESHER COURSE IN Interdisciplinary on Research Writing and Analysis, held from 11-22 November 2024 organized by Malaviya Misson Teacher Centre, Indian Institute of Technology, (ISM) Dhanbad, Jharkhand, INDIA

EVENT/WEBINAR/WORKSHOP/FDP CONDUCTED

S.No.	Mentor/Coordinator	Name of Activity	Date	Link of the Events
1	Dr. Atul Kumar Ray	Interaction with Alumni	07.11.2024	https://web.mitsgwalior.in/images/Departments/engineering_mathematics/Events%20%20Activities/MAC%20Report%20Alumni%20Interaction.pdf
2.	Dr. Atul Kumar Ray	Quiz topeia	14.10.2024	https://web.mitsgwalior.in/images/Departments/engineering_mathematics/Events%20%20Activities/MAC%20Report%20Quiztopia%20SCIENCE%20SHOWDOWN.pdf

3.	Dr. Atul Kumar Ray & Dr. Barkha Tiwari	Indian Constitution and Traditional Knowledge	23.11.2024 & 24.11.2024	https://web.mitsgwalior.in/images/Departments/engineering_mathematics/Events%20%20Activities/2024/Report%20ICT%20workshop.pdf
4.	Dr. Atul Kumar Ray	Mere Khyal Se – A Story Klling & Poetry Show (under Lafz-e-Bayan Club)	18.10.2024	https://web.mitsgwalior.in/images/Departments/engineering_mathematics/Events%20%20Activities/2024/Report%20of%20the%20Mere%20Khyal%20Se.pdf
5.	Dr. Atul Kumar Ray	Shyrana (under Lafz-e-Bayan Club)	16.11.2024	https://web.mitsgwalior.in/images/Departments/engineering_mathematics/Events%20%20Activities/2024/Report%20SHYrana%20Open%20Mic.pdf
6.	Dr. Vijay Shankar Sharma	(Outreach activity) One-Day Computer Literacy Camp at Kedarpur Village	01.12.2024	https://web.mitsgwalior.in/images/Departments/engineering_mathematics/Events%20%20Activities/2024/Report%20MAC%20Outreach%20Programme.pdf
7.	Dr. Minakshi	Ultimate Finance Quiz (under Finance Club)	17.11.2024	https://web.mitsgwalior.in/images/Departments/engineering_mathematics/Events%20%20Activities/2024/REPORT_Ultimate_finance_quiz.pdf
8.	Dr. Divya Chaturvedi	Workshop on Data Visualization & Tools	17.11.2024	https://web.mitsgwalior.in/images/Departments/engineering_mathematics/Events%20%20Activities/2024/Report%20Data%20Visualization%20and%20Tools.pdf
9.	Dr. Vijay Shankar Sharma	Mathemania (only Lid Quiz Competition)	28.10.2024	https://web.mitsgwalior.in/images/Departments/engineering_mathematics/Events%20%20Activities/2024/Report%20of%20Mathemania%20online%20quiz%20c%20mpetition.pdf
10.	Dr. Vijay Shankar Sharma and Dr. Lav Kumar Singh	Celebrating Ramanujan's Legacy	22.12.2024	https://web.mitsgwalior.in/images/Departments/engineering_mathematics/Events%20%20Activities/Report%20of%20Celebrating%20Ramanujans.pdf

OTHER NOTABLE ACHIEVEMENTS OF THE FACULTIES

- ❖ **Dr. Vijay Shankar Sharma**, reviewed two manuscripts for the reputed SCI-indexed journal "Nonlinear Sciences" by Springer Nature in November 2024.

https://drive.google.com/file/d/1UVwkdHi2a2cTD8GUsd8kYV2w_7-A4pDV/view?usp=sharing

- ❖ **Dr. Vikas Shinde** reviewed three research articles for the 4th international conference on Advanced Network Technologies communication and intelligent Computing (ANTIC-2024) organized by the Department of Computer Science, Banaras Hindu University, (BHU) Varanasi, held during December 19–21, 2024.

- ❖ **Dr. Atul Kumar Ray**, Reviewer of “Multiscale and Multidisciplinary Modeling, Experiments and Design”, SCI, Springer Nature Publisher, November, 2024 and December 2024.

<https://drive.google.com/file/d/1H-iPbcDi2MMv10CYns36uhaarLbuCVWB/view?usp=sharing>

ACTIVITIES AND ACHIEVEMENTS BY STUDENTS OF THE DEPARTMENT

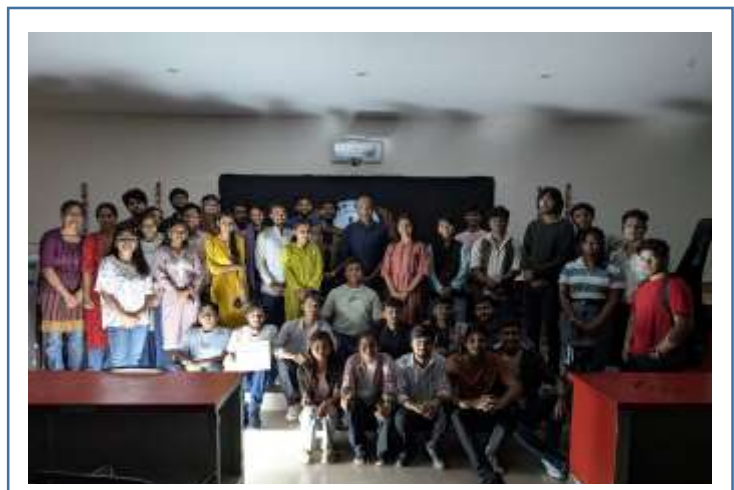
Name	Enrollment No.	Name of the Event	Certificates
Vedant Chhalotre	BTMC24O1146	Mathemania	https://drive.google.com/open?id=1N34vcGKs9YfiXHQnb0iIgtAHcVSZyIB
Mani Verma	0901MC221047	NPTEL(Descriptive Statistics With R Software)	https://drive.google.com/open?id=1eV163EowQJBpdjt5Zv3jWmN3wcYcHxZx
Arpit Yadav	0901MC221020	SWAYAM NPTEL	https://drive.google.com/open?id=1dxQs4SKhovl32gwnVPn2qgwbxZaR1tNH
Ayush Jain	0901MC221026	Gender Segregation in Occupation	https://drive.google.com/open?id=15WrxYKXc4pJfmcg9Tq6vOsQv1qnhvXrh
Ayush Jain	0901MC221026	Quiztopia	https://drive.google.com/open?id=12GTLXuxNUyPw8GY2HVFxpW-BiVkoE2dg
Saloni Kushwah	0901MC221061	Build IQ state level quiz competition	https://drive.google.com/open?id=1AaWs7nGt_FuMpOTYUn2eoUmobn8wukxo
NEERAJ SINGH KUSHWAH	0901MC221050	Quiztopia	https://drive.google.com/open?id=1FKVXGg41SwqrPDK9p5f3m1s3T4VMZMeN
Saloni Kushwah	0901MC221061	Interaction with alumni	https://drive.google.com/open?id=13KcCYqK8uOgo55-6_BTbMpzKs-KGJUWX
Utkarsh Sanodiya	BTMC24O1140	Quiztopia The Science Showdown	https://drive.google.com/open?id=1bp0sYb8KFHncM8g1xwK06gFajKwGLf4s
Adarsh Soni	BTMC24O1010	ZENITH Festival 2024(electronic club) , Quiz certificate of mathematics by department of MAC , QUIZ certificate by Mathematics Club	https://drive.google.com/open?id=1aph0vwsIPxcB5gOodnZ7-eW3oWT3eOYk
Adarsh Soni	BTMC24O1010	ZENITH Festival 2024(electronic club) , Quiz certificate of mathematics by	https://drive.google.com/open?id=1QSrFDgCOa3yuuqoE6PK_2zoeQkB7iyo

		department of MAC , QUIZ certificate by Mathematics Club	
Adarsh Soni	BTMC24O1010	ZENITH Festival 2024(electronic club) , Quiz certificate of mathematics by department of MAC , QUIZ certificate by Mathematics Club	https://drive.google.com/open?id=1np1qzITFXNA5jxjmbHbXGs-TDF-1Wj4M
Asmita Pathak	0901MC211018	National Cadet Corps B certificate	https://drive.google.com/open?id=1Ozbb_v5HniGeofAIQF93sf7SgY887159
Asmita Pathak	0901MC211018	Minor in AI IIT ROPAR	https://drive.google.com/open?id=16E_Yz85PumKEiilzW_pXLlNkxG--YSMw
Sumit Tiwari	0901MC221070	Gender Segregation in Occupation	https://drive.google.com/open?id=1eYyFfjnzXdTjeTR2ymjaI0qFFKfKm3p
Danish Khan	BTMC24O1041	Quiztopia : The Science Showdown	https://drive.google.com/open?id=1pXQp6xfK7sRt0MIbVTcLPwXu4H_der-0
Shreya Deolia	BTMC24O1124	NEXT WAVE, QUIZOTOPIA, MATHEMANIA	https://drive.google.com/open?id=1xXUHRLVBET_Xj3opB_WCnCX33Brjhfp
SHUBHI AGRAHARI	BTMC24O1129	Build Your Own Gpt	https://drive.google.com/open?id=1tQrPxRd6l5SndsZz1LL4_ANPAaxqTrwP
Shruti Shukla	0901MC233D02	"Energy IQ Challenge"	https://drive.google.com/open?id=15h3uJtpM_CB_R_vWVu22byWWf6Lqd9Wdq
Shruti Shukla	0901MC233D02	Build-IQ State-Level Quiz Competition	https://drive.google.com/open?id=1KDWuMAKegyHfVOx5F0Ycf71X0bEeYGrL
Mayank Padhi	0901MC231043	UNESCO Supply Connect - Techfest IIT Bombay	https://drive.google.com/open?id=1ChApUTSzc3JyvxVQapvvbk7QSe0wso1h
Amit tomar	0901MC221008	National level E QUIZ	https://drive.google.com/open?id=1y23zekuYS4sMQZp5KFtT-Xk8U440Uwmc
kiran tomar	BTMC2410072	Quiztopia, appcraft, quizcompetition, zenith festival, mathemania	https://drive.google.com/open?id=1MacKKQNd16sUkSQyu0ogAnm2uAwStBD6
sonali patel	0901mc211061	National Level Quiz Competition Energy IQ Challenge	https://drive.google.com/open?id=1_qDcPvuT1XA tHxuN2TizGcmqxsxKdYlL
sonali patel	0901mc211061	Online Course On Overview of Geographical Information System	https://drive.google.com/open?id=11RnKgiPZ7JhDIBzQbilEHy4ECTiijuHo
sonali patel	0901mc211061	Unstop's Got Latent	https://drive.google.com/open?id=1HzAmXhxK4v8I3BN9ZweJBsB-1Trm0jNE
sonali patel	0901mc211061	Naukri Campus Young Turks	https://drive.google.com/open?id=1LxQlsmPJYAispeOUzD21uh8Neq97N9NN
sonali patel	0901MC211061	Quality Standards Quiz	https://drive.google.com/open?id=1B-bTf6-TSCixuclmj3Zo5-VpZfP_NK1U
Sonali Patel	0901MC211061	BYTEGRAM'24	https://drive.google.com/open?id=1shQYX06Yio3YeiluSqWktCLS8uBq64XY
Devansh Rai	BTMC24O1043	Tulsi mahotsav	https://drive.google.com/open?id=1cKZnqC7B0IU SM2T9oJbdQPY-hPZxPQ8W
Vritti Koshe	0901MC231076	Tulsi mohotsav 2024	https://drive.google.com/open?id=1ciulJuYC2Q2DUwkJ041IU42wigtSWqhb
Khyati Shrivastava	0901MC221042	Basics of AI/ML	https://drive.google.com/open?id=1kBJFZiQhVDo lh-np_zVItdeECCkNaJhx
Khyati Shrivastava	0901MC221042	Data visualization & tools	https://drive.google.com/open?id=1N85iYIr51EdseYuKx7tTH1LwBvi72R3R
Khyati Shrivastava	0901MC221042	The viral quiz(TVQ)	https://drive.google.com/open?id=1LNJInREKWrXByFhKG_GgpC1c1Yo9-a07
Pooja Manvi Rajput	BTMC24O1096	Workshop on ' GENDER SEGREGATION IN OCCUPATION '	https://drive.google.com/open?id=15yQbki7XcSjtj1R1bUL3eDipc_qAsrM5
Harsh kushwaha	0901mc211030	Inter Year Cricket Tournament 2024.	https://drive.google.com/open?id=1mJPpfWCKnCwAwPjUYvARa12Bb2kMy4dO
Harsh Kushwaha	0901mc211030	Webinar on Data Visualization & Tools.	https://drive.google.com/open?id=1rreK_hcoie-oKlepKtZl_10Hm5I2ovNX
Neeraj singh	0901MC221050	Gender segregation in	https://drive.google.com/open?id=1GDynLpO7d5b

kushwah		occupation	iM0-8ftU1CSFFUdmD1KnI
Aniket Dandotiya	0901MC221009	[GDG On Campus] Gen AI Study Jams 2024	https://drive.google.com/open?id=13O5SgIAb7mVZgxmxS9DTv0fEMvTrOFP0
Pradyumn Raghuvanshi	BTMC24O1098	MITS:The Unseen Beauty	https://drive.google.com/open?id=11tDniNWvgXtlpUKwerGrrk8biytCicm2
Khushi Malviya	BTMC24O1071	NEXTWAVE:Smart Living , Quiztopia: The Science Showdown	https://drive.google.com/open?id=1ZrGD014NCSXa01Jkp4YCCbprfrw5LMQ
Anantika soni	BTMC24O1022	Quiztopia	https://drive.google.com/open?id=10eJUJz0biJ-on8xVYru8KObgCGC1LNGi
Harshita Soni	BTMC24O1055	gender segregation, bandish club workshop, Zenith festival, mathematics club, MAC quiz	https://drive.google.com/open?id=16QRq9BHMB7Lwak76SE2VngQ2LjMijCCK
Harshita soni	BTMC24O1055	Quiztopia, bandish workshop, mathematics club, zenith festival, ramanujan workshop	https://drive.google.com/open?id=1bRFp_tiOppbzAqO2YL6-ZbR7WyCrnNdq
Aniya Jain	0901MC231008	Tantra Fiesta'24 organised by the India Institute of Information Technology (IIT), Nagpur	https://drive.google.com/open?id=1fgyqT01LKNR5ThRjDM1koG3sfzltEXOs
Aniya Jain	0901MC231008	Tantra Fiesta'24 organised by the India Institute of Information Technology (IIT), Nagpur	https://drive.google.com/open?id=1e17wXOEyyiKzw5-dO_QzCuO04gVOhMkm
Aniya Jain	0901MC231008	Avenues 2024 organised by the Shailesh J. Mehta School of Management (SJMSOM), IIT Bombay	https://drive.google.com/open?id=1Bmq-W09ge3Pjx8rBHJKgb9LT90TDEITZ
Aniya Jain	0901MC231008	Quiztopia	https://drive.google.com/open?id=1TDZJ7a1qdwPjzfi7T-YNwa3Ks_8oN4PJ
Aniya Jain	0901MC231008	Gateway to Success	https://drive.google.com/open?id=1FoDV00gJWqkU6D0bH0tuh-f6jfMJpOGk
Sonali Patel	0901MC211061	Gateway to Success:Insights from Top Rankers	https://drive.google.com/open?id=1yjrjnzBpnJtSe8WPe1NXktHLvPHDw_58
sonali patel	0901MC211061	Interaction with alumni	https://drive.google.com/open?id=1ntCGz26-qs4uO1U9zeMAFYltgX2ECF1r
Prachi Gupta	0901MC221053	NPTEL (descriptive statistics with R software)	https://drive.google.com/open?id=1KiLl0FDiVgBHqD4AI25a3ZIoOOcIJg2
Prachi Gupta	0901MC221053	Volunteer in departmental event (Quiztopia : The Science Showdown)	https://drive.google.com/open?id=1gkH3-cdfHOnIq-L0L2XCCdri2RrGikfi
Yash Jain	0901MC221078	Quiztopia: The Science Showdown	https://drive.google.com/open?id=1Z8Q9Mjm7YbdeK0eAH9AjICxFmlmI5_6f
Yash Jain	0901MC221078	Workshop on Gender segregation in occupation	https://drive.google.com/open?id=16myo-a8B1SSOx1GFsBAF9z_NksMnXr_
Yash Jain	0901MC221078	Webinar on data visualization and tools	https://drive.google.com/open?id=17dT1r04oaHuti tmK03XGBV1ExpVAuYd4
Mayuri Sharma	0901MC231044	Quiztopia: The science showdown	https://drive.google.com/open?id=18-5n42MTYLIQDVBUmfspPICzF-AyGOAn
Mayuri Sharma	0901MC231044	Workshop on gender segregation in occupation	https://drive.google.com/open?id=1MFdjWiiHMgYEpx8AxwssWJo4GS_TMB6P
Yash Jain	0901MC221078	Self written poem	https://drive.google.com/open?id=1OgDphVRMb4RiZzpgj97IaYMylyWRIsBZ
Ketan Malviya	BTMC24O1069	Basketball Tournament	https://drive.google.com/open?id=1xjqXimdzHebXNX8H2oVOtAnXyr1FXwd9
SONALI CHAUHAN	BTMC24O1133	Quiztopia	https://drive.google.com/open?id=169-ixhU3UOwPI4bZJo5--5IeQcJ3kkl
SONALI CHAUHAN	BTMC24O1133	Ramanujan's Legacy	https://drive.google.com/open?id=1Otd-KPBsyCb8gx_2qmivzTL41zDEe7O-

Congratulation to all Students of MAC

SOME GLIMPSES



STUDENTS TALENT



PAINTING BY HARSHITA SONI



PAINTING BY HARSHITA SONI

A Heart.

A heart once vibrant, now shrouded in gray,
Years for solace, a sunless day
Trapped in a world, cruel and unkind,
A prisoner of sorrow, lost in mind,
The echoes of laughter, a distant chime
As the soul wanders, lost in time.
A longing for escape, a fictional flight,
To realms of wonder, bathed in light.
Where joy reigns supreme, and sorrows
subside,
A haven of peace, a tranquil tide.

POETRY BY YASH JAIN

A Video Created by Pradyumn Raghuvanshi

<https://drive.google.com/file/d/11GMAVCP1RGzQEMW8Dwj8rTCYkcqbgxzd/view?usp=sharing>

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