



One Week Faculty Development Program

On

Applied Mathematics in Interdisciplinary Research: Theory and Computation

08th - 12th April 2025 (Hybrid Mode)



Organized by:

Association of Indian Universities - Gautam Buddha University Academic & Administrative Development Centre (AIU-GBU AADC)

at USoVSAS, GBU, Yamuna Expressway, Greater Noida, Gautam Budh Nagar, Uttar Pradesh

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Hon'ble Vice Chancellor, GBU

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Dr. Sushil Kumar, SoVSAS, GBU

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Dr. Amit Ujlayan, SoVSAS, GBU
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Dr. Raju Pal, USICT, GBU
Dr. Barkha Singhal, SoB, GBU
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FACULTY ORGANIZING TEAM USoVSAS

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Dr. Amit Awasthi, Member-IQAC, GBU

IT SUPPORT

Dr. Sandeep Rana, System Manager, CCC, GBU
Mr. Rajkumar, Technical Superintendent, CCC, GBU

TOPICS TO BE COVERED

- Computational Complexity
- Remote sensing techniques for atmospheric monitoring
- Functional differential equation/Complex analysis
- Extreme weather event and predictions
- Optimization and soft computing
- Numerical weather prediction and data assimilation
- Indian summer monsoon and model simulation
- Seismic inversion: Theory and Applications

About the University

Gautam Buddha University was established under the Uttar Pradesh Gautam Buddha University Act, 2002 (U.P. Act No. (9) of 2002), and came into existence in the year 2008. The University is recognized by UGC under section 2(f) and 12(B) of UGC Act, 1956 and is accredited by NAAC. The University is a world class centre for excellence in the field to Research and Academics. Gautam Buddha University has 455 acres of lush green campus and the fully residential campus is modelled in line with the best institutions of higher learning across the globe. The University has a world class infrastructure in terms of its buildings of Eight Schools of learning with auditorium and conference facilities, Hostels, International Convention Centre and a well equipped Guest House. Excellent internal roads, gardens, illuminated campus, state-of-the-art IT enabled class-rooms, laboratories and other amenities, well maintained hostel buildings make the University an incredible place for study.

Visit us @ <http://www.gbu.ac.in>

About the Department

The Applied Mathematics is one of the departments out of the five departments of university school of vocational studies and applied sciences. Department shares the vision of the university of achieving excellence in teaching and research. Department offers core courses in mathematical sciences and courses of interdisciplinary nature like meteorology, weather forecasting, robotics, optimization, statistical analysis to undergraduate students of all branches of Engineering, Biotechnology and

Information & Communication Technology. The department has been successfully running doctoral/postgraduate (M.Sc)/graduate (B.Sc, Hons) programmes in Applied Mathematics since 2011-2012. These programmes of the department support specialized interdisciplinary fields of teaching, research and industry engagement in computational fluid dynamics, operations research, ordinary differential equations; cryptography, number theory and mathematical problems in extreme weather events.

About the FDP

The one-week online Faculty Development Program (FDP) on *Applied Mathematics in Interdisciplinary Research: Theory and Computation* is designed to equip faculty and administrators in higher education with the latest insights and skills essential for addressing today's technological and educational challenges. Organized by the Association of Indian Universities (AIU) and its Academic & Administrative Development Centre (AADC) in collaboration with Gautam Buddha University Greater Noida. The FDP will explore critical advancements in severe weather processes and predictions, Indian summer monsoon and model simulation, numerical weather prediction in extreme rainfall system, Functional differential equation, computational complexity and focusing on their application in research and administrative operations. Participants will gain knowledge on emerging technologies, innovative instructional methods, and interdisciplinary research, positioning them at the forefront of global educational trends.

For any query: fdpmathsgbu@gmail.com

S/ N	Topics	Important Dates	
		Date of Lectures	Time
1.	Inaugural Session	08.04.2025	10:30-11:30am
2.	Computational Complexity	08.04.2025	12:00-02:00pm & 03:00-05:00pm
3.	Functional differential equation/Complex analysis	09.04.2025	10:30-12:30pm & 02:30-04:30pm
4.	Optimization and soft computing	10.04.2025	10:30-12:30pm
5.	Remote sensing techniques for atmospheric monitoring	10.04.2025	02:30-04:30pm
6.	Extreme weather event and predictions	11.04.2025	10:30-12:30pm
7.	Indian summer monsoon and model simulation	11.04.2025	02:30-04:30pm
8.	Numerical weather prediction and data assimilation	12.04.2025	10:30-12:30pm
9.	Seismic inversion: Theory and Applications	12.04.2025	02:00-04:00pm
10	Valedictory function	12.04.2025	04:00- 05:00pm

Speakers

Reputed Scientists MoES,IITM,IIT's and Central Universities, Academicians, Defence & Industry professionals

Participants

All Faculty and Research Scholars (Working Professionals)

Session Timings

Session 1: 10:30 am - 12:30 pm

Session 2: 02:30 pm - 04:30 pm

E-Certificate will be provided to all participants

Last date of Registration 5th April 2025

Registration Link

<https://forms.gle/VMAhPPuRvagBS9Mv5>

Registration Fee

Registration Fees for GBU participant: Rs 250/-

Registration Fees for external participant : Rs 500/-

The account details for online payment are -

Name of Beneficiary: Gautam Buddha University

Account No. : 6660000100000025

IFSC Code : PUNB0666000

Branch: PNB, GBU, Greater Noida

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