

One Week Workshop

# "Fundamentals of Differential Equations with **Applications to Real World Problems**"

Date: 8<sup>th</sup> to 13<sup>th</sup> July 2024 **Department of Mathematics** 



Venue: Jaypee University of Information Technology, Waknaghat (Shimla Hills), Himachal Pradesh, INDIA







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### **Important Dates**

Workshop Registration Begins: 05/04/2024 Workshop Registration Closes: 20/05/2024 Registration Payment Closes: 20/05/2024 **Registration Fee \* Details** 

Category	Reg. Fee. (in INR) Till 10th May 2024	Reg. Fee. (in INR) Till 20th May 2024
Research Scholar / PG Student	3000/-	3500/-
Faculty/Others	4000/-	4500/-
Industry Participant	4500/-	5000/-

\* Reg Fee includes accommodation, Food & Welcome Kit

Registration Link

https://forms.gle/75eFis6ThnxcWM127

**QR** Code for Registration



Payment & Account Details
NAME OF BENEFICIARY :JAYPEE UNIVERSITY OF
INFORMATION TECHNOLOGY

NAME OF THE BANK BRANCH NAME

: PUNJAB NATIONAL BANK : SHIMLA : 0427002100682105

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RTGS/IFSC CODE **Coordinators:** 

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# **About the University**

The Jaypee University of Information Technology (JUIT), Waknaghat (Shimla Hills), was conceived by a joint vision of the Govt. of Himachal Pradesh and the Founder Chairman of Jaypee Group Shri Jai Prakash Gaur in 2000. The University campus is spread over 25 acres of lush green picturesque slopes of Waknaghat hills in the Solan District of Himachal Pradesh. The smart campus is pollution free and enjoys lovely weather throughout the year. JUIT offers a challenging academic environment to its students. It aims to instill the habit of life-long learning and therefore, provides a learnercentric rather than a teacher-centric educational process. The system has been designed to provide students the freedom to learn what they want to learn at a desired pace.

# **About the Department**

The Department of Mathematics is committed to impart high quality education in Mathematics at Undergraduate and Doctoral levels. The young and dynamic faculty members of the department have versatile experience both in teaching and research in various fields of Mathematics. In addition, the department runs its own Bachelor's degree B.Sc. (Hons.) in Mathematics and Computing & Ph.D. in Mathematical Sciences.

## **About the Workshop**

This workshop is intended for Ph.D. students/PG Students/faculty in the universities and research institutions, participants from industry and others with the aim to enlighten the valuable insights into the fundamentals and latest advancements in differential equations. This workshop will be indeed immensely helpful to the researchers who are already familiar with the basics of DEs. Some of the highlights of the workshop are:

- Existence, uniqueness and continuation of solutions of Ordinary Differential Equations
- Stability theory with applications to Mathematical Modeling
- Introduction to Differential Inclusion and its application to Mathematical Modeling and Electrical/Mechanical Engineering
- Introduction to Multi-scale Analysis, Asymptotic expansion method with applications
- Advection equation, Burgers' equation, weak solutions, Riemann problem with applications

# **Resource Persons**



Dr. Sved Abbas Professor. **School of Mathematical** and Statistical Sciences, IIT Mandi



Dr. D. N. Pandey Associate Professor, Department of Mathematics, **IIT Roorkee** 



Dr. Bidhan C Sardar Assistant Professor, Department of Mathematics, **IIT Ropar** 



Dr. Tanmay Sarkar Assistant Professor, Department of Mathematics, IIT Jammu