

# 5-Day Faculty Development Program on "Mathematics in Engineering and Science - Importance and Applications"

#### **Chairperson:**

Prof S Srinivas, Dean, SAS

# **Organizing Secretaries:**

Dr V Ramakrishna Reddy Dr Venkatrajam Marka Dr Faizan Danish Dr K Mahipal Reddy Organized by: Department of Mathematics
School of Advanced Sciences,
VIT-AP University, Andhra Pradesh, India
(Virtual Mode)
(02 - 06 January 2024)

#### Convener:

Dr Satyanarayana Badeti

# **Joint Organizing Secretaries:**

Dr N Rajashekar Dr K Durga Prasad Dr V Raja Dr Prashant Patel

# **About VIT-AP University, Amaravati**

VIT-AP University, established under the eminent guidance of Founder and Chancellor Dr. G Viswanathan, has become one of the most promising and prominent academic institutes in the country. The institute's aspiration to become a global leader is reflected in the excellent and unique quality of its teaching-learning experience, research, and innovations, even though it is a young institute. VIT-AP University has been ranked No.1 in the emerging private universities in India by the Outlook University Ranking 2022 and 2023. VIT-AP attracts students from almost all states of India because of its academic excellence. The University comprises of 7 prominent schools viz., School of Computer Science and Engineering (SCOPE), School of Electronics Engineering (SENSE), School of Mechanical Engineering (SMEC), School of Advanced Sciences (SAS), School of Social Sciences and Humanities (VISH), School of Business (VSB) and School of Law (VSL) with around 450 faculty members dedicated to fulfill the needs of various engineering and science departments.

### **About the Department of Mathematics**

The Department of Mathematics at VIT-AP, has 70 dedicated faculty members with two exclusive programmes in Data Science at the undergraduate and postgraduate level besides fulfilling the needs of the various schools of Engineering, Business and Law. All faculty members are doctorates and are actively involved in research activities in addition to their regular teaching activities. The department is instrumental in setting scholastic standards and contributes holistically in developing young engineers and scientists. The department offers several research opportunities in a wide spectrum of areas of Mathematics such as Fluid Dynamics, Computational Fluid Dynamics, Solid Mechanics, Functional Theory, Network and Graph Theory, Fractal Theory, Lie Algebras, Stochastic Processes, Coding Theory, Theory of Computation, Fuzzy Logics, Optimal Control Problems, Numerical Methods, Perturbation Methods, Cosmology etc.

# **About the Faculty Development Program - MES 2023**

The Faculty Development Program focuses on developing various strategies used in teaching Mathematics in Engineering and Science effectively. The program will help improve the teaching-learning process systematically by deliberating on major concepts and practices. Also, this FDP will provide necessary hands-on sessions using modern software tools like MATLAB, MATHEMATICA, Python and R. The FDP will not only strengthen the understanding of mathematical concepts but also offer an ideal opportunity for participants to understand recent research trends in mathematics and enhance their knowledge in their respective research areas. As part of this FDP, expert lectures will be delivered by eminent experts from various reputed organisations.

The FDP will empower all participants to learn mathematics with the right perspective. It will help in the physical understanding of problems with intuition to independently model and analyze using possible analytical methods, the mathematical equations that arise in their respective fields of study. They will be able to interpret results, and also visualize graphically.

Topics covered: Vector Calculus, Differential Equations - IVP and BVP, Linear Algebra, Integral Transforms, Complex Variables, Partial Differential Equations Numerical Methods, Statistics, Discrete Mathematics & Graph Theory, Optimization Techniques, MATLAB, MATHMATICA, Python & R

# **List of Invited Speakers:**

Dr Shalabh, Professor, IIT Kanpur,

Dr K C Sivakumar, Professor, IIT Madras,

Dr Y V S S Sanyasi Raju, Professor, IIT Madras

Dr Pradeep G Siddeswar, Professor, CHRIST University, Bangalore

Dr B. Cheluva Raju, Professor, Bangalore University

Dr A S V Ravi Kanth, Associate Professor, NIT Kurukshetra

Dr Vikas S. Krishnamurthy, Assistant Professor, IIT Hyderbad

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Dr Girish Kumar Rajan, Assistant Professor, IIT Tirupati

Dr B S R V Prasad, Associate Professor, VIT Vellore

Dr Raja Das, Associate Professor, VIT Vellore

**Registration Fee:** For Indian Participants: 400/-

For Foreign Participants: 10\$

Registration & Payment Link:https://vtop1.vitap.ac.in/FDPM/Conferenceinitial

- ✓ Last date for registration and payment: 31-12-2023.
- √ The FDP will be conducted on Virtual mode. FDP online link will be provided to all registered participants.
- √ For more details, please visit: www.mes2024.in

Contact us:

Dr Satyanarayana Badeti Mobile No : 9789353450 Dr V Ramakrishna Reddy Mobile No : 9133073225





