

**CONFERENCE ON  
RECENT DEVELOPMENTS IN APPLIED & COMPUTATIONAL MATHEMATICS  
(RDACM 2026)**

**Indian Institute of Space Science and Technology  
Thiruvananthapuram - 695 547**

**15th - 17th January, 2026**

| Sl No | Name                    | Institute               | Participant/<br>Speaker | Designation | Title(If presenting)  |
|-------|-------------------------|-------------------------|-------------------------|-------------|---|
| 1     | Prof. M C Joshi         | IIT Gandhinagar         | Keynote Speaker         | Professor   | AI - With Mathematical Perspective  |
| 2     | Prof. S Sundar          | IIT Madras              | Keynote Speaker         | Professor   | A meshless shock-capturing method for solving the shallow water equations                                 |
| 3     | Prof. A K Pani          | BITS Pilani, Goa Campus | Keynote Speaker         | Professor   | Through Eyes of Feedback Control:<br>How does External Stimulus Influence Research in Applied Mathematics |
| 4     | Prof. Mythily Ramaswamy | ICTS-TIFR, Bangalore    | Keynote Speaker         | Professor   | Stabilization of certain coupled systems  |
| 5     | Prof. Vijay D. Pathak   | MS University, Baroda   | Keynote Speaker         | Professor   | Matrix Multiplication Algorithms as a Tensor game   |
| 6     | Prof. M Thamban Nair    | IIT Madras              | Keynote Speaker         | Professor   | A finite data based reconstruction and regularization in normed linear space setting                      |
| 7     | Prof. M K Kadalbajoo    | IIT Kanpur              | Keynote Speaker         | Professor   | Machine Learning: A New Paradigm for Scientific Modelling   |

## SPEAKERS

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|-------|--------------------------|-------------------------------------|-------------------------|-------------|---|
| 8     | Prof. Natesan Srinivasan | IIT Guwahati                        | Keynote Speaker         | Professor   | A Novel Operator-Splitting NIPG FEM for 2D Time-Fractional Diffusion Problem                        |
| 9     | Prof. Daniele Boffi      | KAUST Saudi Arabia                  | Keynote Speaker         | Professor   | Finite element approximation of parameter dependent eigenvalue problems                             |
| 10    | Prof. Lucia Gastaldi     | University of Brescia               | Keynote Speaker         | Professor   | Finite element approximation of fsi problems: a Fictitious domain formulation                       |
| 11    | Prof. N Sukavanam        | VIT Vellore                         | Keynote Speaker         | Professor   | Controllability and computation of control  |
| 12    | Prof. A K Nandakumaran   | IISc Bangalore                      | Keynote Speaker         | Professor   | Exact Controllability for a Problem with Imperfect Interface via Hilbert Uniqueness Method          |
| 13    | Prof. Rajen Kumar Sinha  | IIT Guwahati                        | Keynote Speaker         | Professor   | A Posteriori Error Estimates for Parabolic Optimal Control Problems with Lower-Dimensional Controls |
| 14    | Prof. P. Balasubramaniam | The Gandhigram Rural Institute      | Keynote Speaker         | Professor   | RSA vs Quantum Computing: The Mathematical Breakdown  |
| 15    | Prof. K Balachandran     | Bharathiar University, Coimbatore   | Keynote Speaker         | Professor   | Stability and Stabilizability of Fractional Dynamical Systems                                       |
| 16    | Prof. T R Ramamohan      | M S Ramaiah Institute of Technology | Keynote Speaker         | Professor   | Introduction to Nonlinear Time Series Analysis  |

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|-------|--------------------------|--|-------------------------|-------------|--|
| 17    | Prof. M P Rajan          | IISER, Trivandrum                            | Keynote Speaker         | Professor   | Inverse Problems and Its Applications  |
| 18    | Dr Satyananda Panda      | NIT Calicut                                  | Keynote Speaker         | Professor   | Fiber Spinning Using Rolie-Poly Fluid  |
| 19    | Prof. Kapil Kumar Sharma | South Asian University,<br>Delhi             | Keynote Speaker         | Professor   | Singularly Perturbed Models:<br>Challenges, Mitigations & Recent<br>Developments                     |
| 20    | Prof. V O Thomas         | MS University, Baroda                        | Keynote Speaker         | Professor   | Restricted Three Body Problem  |
| 21    | Prof. B V Ratish Kumar   | IIT Kanpur                                   | Keynote Speaker         | Professor   | Stabilized Methods for PDEs: Theory,<br>Computation and Application                                  |
| 22    | Prof. A K Anilkumar      | ISTRAC, Bangalore                            | Invited Speaker         | Professor   | Sustainable Outer Space for a Safer<br>Future  |
| 23    | Dr. Ajit Patel           | LNMIIT, Jaipur                               | Invited Speaker         | Professor   | Primal hybrid method for weakly<br>damped Klein-Gordon equations                                     |
| 24    | Dr. Jugal Mohapatra      | National Institute of<br>Technology Rourkela | Invited Speaker         | Professor   | On numerical approximations of<br>nonlocal conservation laws   |
| 25    | Dr. Aekta Aggarwal       | IIM Indore                                   | Invited Speaker         | Professor   | Stability Estimates for Non-Local<br>Conservation Laws   |
| 26    | Dr. Sheetal Dharmatti    | IISER, Trivandrum                            | Invited Speaker         | Professor   | Boundary Control for Cahn-Hilliard-<br>Navier-Stokes equations                                       |
| 27    | Dr. K Satheesh Kumar     | Digital University, Kerala                   | Invited Speaker         | Professor   | Time SeriesnA-Induced Network<br>Forecasting: A Structural Alternative to<br>Machine Learning Models |

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|-------|-----------------------|---|-------------------------|-------------|---|
| 28    | Dr. Debasish Pradhan  | DIAT Pune                                 | Invited Speaker         | Professor   | Fictitious domain method with penalty to solve PDEs over curved-complex domains   |
| 29    | Dr. Ganesh Vaidya     | IISc Bangalore                            | Invited Speaker         | Professor   | On the uniqueness of entropy solutions for systems of conservations laws  |
| 30    | Dr. Anil Kumar        | BITS, Pilani - K.K. Birla Goa Campus, Goa | Invited Speaker         | Professor   | Physics-Informed Neural Networks Framework for Numerically Solving Differential Equation-Constrained Optimal Control Problems |
| 31    | Dr. T K Manoj Kumar   | Digital University, Kerala                | Invited Speaker         | Professor   | Large Language Models in Space Science: Opportunities, Adaptation, and Challenges   |
| 32    | Dr. Nagaiah Chamakuri | IISER Thiruvananthapuram                  | Invited Speaker         | Professor   | Challenges in Solving Large scale PDE-constrained Optimization  |
| 33    | Dr. K R Arun          | IISER TVM                                 | Invited Speaker         | Professor   | A structure-preserving scheme for dissipative solutions of the rotating shallow water system                                  |
| 34    | Dr. Muslim Malik      | IIT Mandi                                 | Invited Speaker         | Professor   | Solutions of Delay Differential Equations by using PINNs  |
| 35    | Dr. R K Sharma        | VSSC(Retd.)                               | Invited Speaker         | Professor   | Design of Interplanetary Trajectories   |
| 36    | Dr. Sudarshan Kumar K | IISER Trivandrum                          | Invited Speaker         | Professor   | On numerical approximations of nonlocal conservation laws   |

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|-------|-----------------------------|---------------------------------------|-------------------------|-------------|--|
| 37    | Dr. Gowrisankar S           | Naional Institute of Technology Patna | Invited Speaker         | Professor   | A parameter-uniform numerical methods for singularly perturbed problems on equidistributed grids                                   |
| 38    | Dr. Javid Ali               | Aligargh Muslim University            | Invited Speaker         | Professor   | Controllability of -Hilfer Fractional Dynamical Systems with Delay   |
| 39    | Dr. Pooja Dutt              | VSSC, Trivandrum                      | Invited Speaker         | Professor   | On Analytical Orbit Predictions in terms of KS Regular Elementsthomas  |
| 40    | Dr. Sangita Yadav           | BITS Pilani, Pilani Campus            | Invited Speaker         | Professor   | On two conservative HDG Schemes for Nonlinear Klein-Gordan Equation  |
| 41    | Dr. Asha Kisan Dond         | IISER, Trivandrum                     | Invited Speaker         | Professor   | Adaptive FEM for pointwise-tracking optimal control problems with a point source governed by biharmonic equation                   |
| 42    | Dr. Gujji Murali Mohan Redy | BITS Pilani Hyderabad Campus          | Invited Speaker         | Professor   | Elliptic reconstruction and a posteriori error estimates for parabolic partial differential equations with small random input data |
| 43    | Dr. Kunwer Singh Mathur     | Jawaharlal Nehru University New Delhi | Invited Speaker         | Professor   | Media-Driven Control of Food-Adulteration-Induced Diseases: Model and Analysis   |
| 44    | Dr. Sishu Shankar Muni      | Digital University Kerala             | Invited Speaker         | Professor   | Resonant torus doubling bifurcation in three-dimensional maps  |
| 45    | Prof. Trilochan Sahoo       | IIT Kharagpur                         | Invited Speaker         | Professor   | Fourier Analysis for Flexural-Gravity Wave Blocking across Arctic Ice and Marine Infrastructure                                    |
| 46    | Prof. Vikas Gupta           | LNMIIT, Jaipur                        | Invited Speaker         | Professor   | Second-order finite difference scheme for singularly perturbed interior turning point problem with interior layers                 |