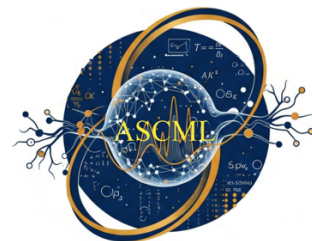




BITS Pilani
K K Birla Goa Campus



International Conference on
ADVANCED SCIENTIFIC COMPUTING &
MACHINE LEARNING

ASCML2026

Program Schedule

Organized by
Department of Mathematics

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National
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Foundation



Program Schedule for Talks
International Conference on Advanced Scientific Computing & Machine Learning
(ASCML2026)
February 10-12, 2026
India Standard Time

Day-1: 10th February 2026, Venue: DLT-9	
Registration	09:00 AM — 10:00 AM
Keynote Talk 1 Chairperson: Prof. Mukesh Kumar Nagar	10:00 AM— 10:50 AM
Speaker Name: Prof. Sanjib Basu, University of Illinois Chicago, USA Title: Biostatistical Data Science in Health: Some Approaches and Applications	
Tea Break	10:50 AM — 11:10 AM
Keynote Talk 2 Chairperson: Prof. Safique S Ahmad	11:10 AM—12:00 PM
Speaker Name: Prof. Natesan Srinivasan, IIT Guwahati Title: Physics-Informed Neural Networks: A New Frontier in Option Pricing and Financial Decision-Making	
Invited Talk 1 Chairperson: Prof. Ratikanta Behera	12:00 PM —12:40 PM
Speaker Name: Dr. Bhupendra Singh, CAIR, DRDO, Bangalore Title: Quantum Computing and Their Impact on Cyber Security	
Invited Talk 2 Chairperson: Prof. Pravati Swain	12:40 PM —1:20 PM
Speaker Name: Prof. Ratikanta Behera, IISc Bangalore Title: Advanced Tensor Computation Techniques for Scientific Computing & Data Science	
Lunch Break	1:20 PM —2:30 PM
Invited Talk 3 Chairperson: Prof. Devika S	2:40 PM — 3:20 PM
Speaker Name: Prof. Aditya Konduri, IISc Bangalore Title: Scalable methods for massively parallel flow solvers: application to combustion	
Tea Break	3:20 PM — 3:40 PM
Invited Talk 4 Chairperson: Prof. Ratikanta Behera	3.40 PM —4:20 PM
Speaker Name: Prof. Tapan K. Gandhi, IIT Delhi Title: Learning from the Brain: Neuroscience-Driven AI for Human-Centric Computing	
Keynote Talk 3 Chairperson: Prof. Safique S Ahmad	4:20 PM —5:10 PM
Speaker Name: Prof. Predrag S. Stanimirovic Title: Modification of Continuous-time Recurrent Neural Network	

Day-2: 11th February 2026, Venue: DLT-9		
Online Keynote Talk 4	Chairperson: Prof. J.K. Sahoo	09:00 AM— 9:40 AM
Speaker Name: Prof. Ariel Neufeld, NTU Singapore Title: Random Neural Network Algorithm for Solving Nonlinear PDEs in High-Dimensional Option Pricing		
Keynote Talk 5	Chairperson: Prof. Safique S. Ahmad	09:40 AM— 10:30 AM
Speaker Name: Prof. Rafikul Alam, IIT Guwahati Title: Understand Structure-preserving deflation of critical eigenvalues in quadratic eigenvalue problems associated with damped mass-spring systems		
Tea Break		10:30 AM —10:50 AM
Keynote Talk 6	Chairperson: Prof. Safique S. Ahmad	10:50 AM —11:40 AM
Speaker Name: Prof. M. Tanveer, IIT Indore Title: To be announced		
Keynote Talk 7	Chairperson: Prof. Devika S.	11:40 AM —12:30 PM
Speaker Name: Prof. Santwana Mukhopadhyay, IIT(BHU) Varanasi Title: On advanced notions of stability: An analysis of perturbed impulsive systems		
Invited Talk 5	Chairperson: Prof. Vaibhav Mehandiratta	12:30 PM —1:10 PM
Speaker Name: Prof. Vineet Kumar Singh, IIT (BHU) Varanasi Title: Approximation of Generalized Time Fractional Derivatives: Error Analysis via Scale and Weight Functions		
Lunch Break		1:10 PM —2:20 PM
Invited Talk 6	Chairperson: Prof. Mukesh K. Nagar	2:20 PM —3:00 PM
Speaker Name: Prof. Rajendra Kr. Ray, IIT Mandi Title: Efficient Physics-Informed Neural Networks (PINNs) to study Unsteady Complex Fluid Flow Problems		
Invited Talk 6	Chairperson: Prof. Ratikanta Behera	3:00 PM —3:40 PM
Speaker Name: Prof. Rahul J Pandya, IIT Dharwad Title: To be announced		
Tea Break		3:40 PM —4:00 PM
Invited Talk-7	Chairperson: Prof. Ratikanta Behera	4:00 PM —4:30 PM
Speaker Name: Prof. Pravati Swain, NIT Goa Title: To be announced		

Contributed Talks	Venue	Time
Chairperson: Prof. Munish Kansal	D-101	4:00 PM —4:25 PM
Speaker Name: Prof. Vikas Sharma, TIET, Punjab Title: An algorithm to solve multi-objective integer quadratic programming problem		
Chairperson: Prof. Vikas Sharma		4:30 PM —4:55 PM
Speaker Name: Prof. Munish Kansal, TIET, Punjab Title: A globally convergent iterative method for approximating the matrix sign function		
Chairperson: Prof. Rohit Kumar Singla	D-102	4:00 PM —4:25 PM
Speaker Name: Prof. Kavita, TIET, Punjab Title: Hybrid probabilistic neural network based on generalized distributions for handling Non-Gaussian data		
Chairperson: Prof. Kavita,		4:30 PM —4:55 PM
Speaker Name: Prof. Rohit Kumar Singla, TIET, Punjab Title: An AI-Assisted Framework for Thermal Analysis of Spiral Porous Fins Using Physics-Informed Neural Networks over the Shooting Method		
Chairperson: Prof. Dhiraj Kumar Das	D-104	4:00 PM —4:25 PM
Speaker Name: Prof. Sudarshan Santra, BITS Pilani Title: A physics-informed machine learning approach for time fractional integro-partial differential equations with weak singularities		
Chairperson: Prof. Sudarshan Santra		4:30 PM —4:55 PM
Speaker Name: Prof. Dhiraj Kumar Das, BITS Pilani Title: Modelling and spatio-temporal analysis of nonlocal infection under a diffusive SIS framework		

Paper Presentation	5:00 PM — 7:00 PM
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Day-3: 12th February 2026, Venue: DLT-9	
Online Keynote Talk 8 Chairperson: Prof. J.K. Sahoo	09:00 AM— 9:50 AM
Speaker Name: Prof. Biswa Nath Dutta, Northern Illinois University, USA Title: The Almighty SVD and its Applications to Machine Learning	
Online Keynote Talk 9 Chairperson: Prof. Safique S. Ahmad	09:50 AM— 10:30 AM
Speaker Name: Prof. Ram N. Mohapatra, University of Central Florida, USA Title: Rothe Method for Evolutionary Quasi-Variational-Hemivariational Inequalities with application to Oseen Model for Generalized Newtonian Fluid	
Tea Break	10:30 AM —10:50 AM
Online Keynote Talk 10 Chairperson: Prof. Danumjaya P.	10:50 AM —11:40 AM
Speaker Name: Prof. S. Sundar, IIT Madras & NIT Mizoram Title: A High-Resolution Meshfree Method for Continuum Crowd Models with Applications to Evacuations During Flood Inundation and Smoke Propagation	
Online Keynote Talk 11 Chairperson: Prof. Devika S.	11:40 AM —12:30 PM
Speaker Name: Prof. S Somnath Bhattacharyya, IIT Kharagpur Title: Modelling and simulation of interfacial transport in microfluidics	
Invited Talk 8 Chairperson: Prof. Jugal Mohapatra	11:30 PM —1:000 PM
Speaker Name: Prof. Suvendu Ranjan Pattanaik, NIT Rourkela Title: Lyapunov-based Analysis on First Order Method for Composite Strong-Weak Convex functions	
Lunch Break	
Invited Talk 9 Chairperson: Prof. Jugal Mohapatra	2:30 PM —3:00 PM
Speaker Name: Prof. Ankur Kanujiya, NIT Rourkela Title: Three-time-step method for pricing the passport option	
Invited Talk 10 Chairperson: Prof. Suvendu Ranjan Pattanaik	1:00 PM —1:20 PM
Speaker Name: Prof. Jugal Mohapatra, NIT Rourkela Title: Computation Methods for Time-Delayed Parabolic Problems with Multiple Small Parameters	
END	