

7th Indian Conference on Applied Mechanics (INCAM 2026)
Indian Institute of Technology Kanpur
9-11 July 2026

PROGRAM SCHEDULE

Time	DAY 1, Thursday (9 July 2026)	
09:00 - 9:30	Inaugural Ceremony (Venue: L18, Lecture Hall Complex)	
09:30 - 10:15	Plenary Lecture 1: Alwar Memorial Lecture – Prof. R. Narasimhan (Venue: L18, Lecture Hall Complex) Title: Mechanics of fracture of basal-textured magnesium alloys: Experiments and finite element modelling	
10:15 - 10:45	Photo Session and Tea Break (L18 Foyer)	
10:45 – 13:15	Parallel sessions	
	Mini-symposium – Advances in Computational Solid Mechanics Venue: L18, Lecture Hall Complex	Invited Lecture by Prof. Srikanth Vedantam, IIT Madras Title: Constitutively informed particle dynamics: A novel discrete particle modelling approach
		Paper IDs: 13, 15, 17, 23, 27, 30, 36, 66
	Mini-symposium - AI and HPC for Applied Mechanics Venue: L8, Lecture Hall Complex	Invited Lecture by Prof. Rishita Das, IISc Bangalore Title: Machine learning for turbulent flows: From super-resolution to extreme events prediction
		Paper IDs: 11, 41, 59, 109, 117, 126, 139, 152
	Mini-symposium - Fatigue and Fracture Venue: L9, Lecture Hall Complex	Invited Lecture by Prof. Gaurav Singh, IIT Delhi Title: State of stress in the crack-tip region: Theory, experiments and simulations Paper IDs: 4, 22, 63, 65, 69, 74, 77, 78

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	Mini-symposium – Mechanics in Bio-applications and Sports Venue: L12, Lecture Hall Complex	Invited Lecture by Prof. Jaywant Arakeri, IISc Bengaluru Title: Fluid mechanics of fish-like locomotion
		Paper IDs: 33, 35, 43, 49, 50, 52, 53, 61
	Mini-symposium – Design of Engineering Structures Venue: L13, Lecture Hall Complex	Invited Lecture by Prof. Devesh Punera, IIT Bhubaneswar Title: Manufacturing defect-dependent modelling of variable angle tow composites using refined structural models
		Paper IDs: 294 (S01), 25, 93, 122, 142, 197, 234 S01: Sponsors talk from Pyrodynamics
	Mini-symposium – Mechanics of Soft and Biological Matter Venue: TB 110, Tutorial Block	Invited Lecture by Prof. Sumit Basu, IIT Kanpur Title: Surface stresses in ultra-soft solids
		Invited Lecture by Prof. Krishna Kannan, IIT Madras Title: A first-principles chemo-mechanical framework for smooth muscle contraction: From cellular kinetics to organ-level response
		Paper IDs: 44, 57, 133, 158, 169, 172
	Mini-symposium – Mechanics of Composite Materials Venue: TB 111, Tutorial Block	Invited Lecture by Prof. C. S. Upadhyay, IIT Kanpur Title: The dawning age of plant-based composites: From waste to structure
	Paper IDs: 7, 14, 76, 79, 98, 102, 134, 150	
13:15 - 14:30	Lunch Break (Main Auditorium Lawn)	
	Parallel sessions	
14:30 - 16:15	Mini-symposium – Advances in Computational Solid Mechanics Venue: L18, Lecture Hall Complex	Invited Lecture by Prof. Venkatraman Pandurangan, IIT Tirupati Title: From data to physics: Machine learning in computational solid mechanics
		Paper IDs: 81, 146, 175, 178, 180, 196

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	Mini-symposium - AI and HPC for Applied Mechanics Venue: L8, Lecture Hall Complex	Invited Lecture by Prof. Vadlamani Nagabhushana Rao, IIT Madras Title: High-fidelity turbulence simulation towards exascale: Methods, case studies, and HPC strategies	
		Paper IDs: 164, 171, 289, 317, 334	
	Mini-symposium - Fatigue and Fracture Venue: L9, Lecture Hall Complex	Invited Lecture by Prof. Anirban Patra, IIT Bombay Title: Crystal plasticity modeling of cyclic deformation in polycrystalline Ni-based superalloys	
		Paper IDs: 83, 87, 103, 124, 127	
	Mini-symposium – Mechanics in Bio-applications and Sports Venue: L12, Lecture Hall Complex	Invited Lecture by Prof. Sanjay Mittal, IIT Kanpur Title: Sports aerodynamics: Cricket, badminton, frisbee	
		Paper IDs: 68, 71, 72, 107, 131	
	Mini-symposium – Design of Engineering Structures Venue: L13, Lecture Hall Complex	Invited Lecture by Prof. Kaustubh Dasgupta, IIT Guwahati Title: Seismic design philosophy of RC wall-frame buildings with the role of floor slabs	
		Paper IDs: 251, 257, 290, 323, 341	
	Mini-symposium – Mechanics of Soft and Biological Matter Venue: TB 110, Tutorial Block	Invited Lecture by Prof. Viswanath Chinthapenta, IIT Hyderabad Title: Investigation of sutures and sutureability in ophthalmology	
		Paper IDs: 371, 205, 221, 225, 242	
	Mini-symposium – Fluid-Structure Interaction Venue: TB 111, Tutorial Block	Invited Lecture by Prof. Sanjay Kumar, IIT Kanpur Title: Vortex shedding onset behind a circular cylinder in soap film flows	
		Paper IDs: 55, 151, 219, 220, 230	
	16:15 -16:30	Tea Break (L18 Foyer)	
	16:30 - 18:30	Parallel sessions	
Mini-symposium - Plasticity and Creep		Invited Lecture by Prof. Praveen Kumar, IISc Bangalore	

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	Venue: L18, Lecture Hall Complex	Title: Length scale effects on power law creep of materials: Cases of uniform and graded stress fields
		Paper IDs: 64, 105, 115, 143, 155, 176
	Mini-symposium – Advances in Computational Fluid Dynamics Venue: L8, Lecture Hall Complex	Invited Lecture by Prof. Harshal Akolekar, IIT Jodhpur Title: Scientific machine learning for turbulence and transition modelling applications to gas turbine flows
		Paper IDs: S02, 110, 170, 210, 217 S02: Sponsors talk from CADFEM
	Mini-symposium – Contact Adhesion & Friction Venue: L9, Lecture Hall Complex	Invited Lecture by Prof. Gopakumar Parameswaran, BP Mumbai Title: A transient friction rig for differentiating engine lubricant performance at the high-pressure fuel pump roller-follower
		Paper IDs: 119, 264, 362, 277, 160
	Mini-symposium – Mechanics of Composite Materials Venue: L12, Lecture Hall Complex	Paper IDs: 154, 162, 182, 183, 244, 255, 269, 274
	Mini-symposium – Mechanics for Sustainability Venue: L13, Lecture Hall Complex	Invited Lecture by Prof. C. Chandraprakash, IIT Kanpur Title: Biodegradable soft materials for sound absorption Paper IDs: 92, 184, 187
	Mini-symposium – Undergraduate Research Program (URP) Venue: TB 110, Tutorial Block	Paper IDs: 114, 179, 253, 318, 363, 367, 368
	Mini-symposium – Fluid-Structure Interaction Venue: TB 111, Tutorial Block	Invited Lecture by Prof. Prasad Patnaik, IIT Madras Title: Fluid-structure interaction: Cerebrovascular disease simulations for patient specific management

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		Paper IDs: 238, 286, 325, 349
18:30 - 19:30	AGM (L18, Lecture Hall Complex)	
19:30	Dinner (Main Auditorium Lawn)	

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Time	DAY 2, Friday (10 July 2026)	
09:00 - 09:45	Plenary Lecture 2: Prof L S Srinath Memorial Lecture - Prof. Jayant Sirohi (Venue: L18, Lecture Hall Complex) Title: Harvesting energy from aeroelastic instabilities	
09:45 - 10:15	Tea Break (L18 Foyer)	
10:15 - 12:45	Parallel sessions	
	Mini-symposium – Advances in Computational Solid Mechanics Venue: L18, Lecture Hall Complex	Paper IDs: 239, 268, 314, 315, 347, 352
	Mini-symposium – Advances in Computational Fluid Dynamics Venue: L8, Lecture Hall Complex	Invited Lecture by Prof. Ratnesh Shukla, IISc Bangalore Title: Adaptive-order unstructured methods for shock-driven flows
		Invited Lecture by Prof. Ashwani Assam, IIT Patna Title: Algorithmic advances in shock-resolving methods for compressible flow simulations
	Paper IDs: 226, 228, 232, 291, 324, 336	
	Mini-symposium - Fatigue and Fracture Venue: L9, Lecture Hall Complex	Paper IDs: 194, 216, 218, 247, 293, 332, 346
Mini-symposium – Mechanics of Composite Materials Venue: L12, Lecture Hall Complex	Invited Lecture by Prof. Suresh Kumar, DMSRDE Title: C/SiC Composites for Thermo-structural Applications: Achievements, Mechanics Challenges and Development Methodology Paper IDs: 278, 280, 281, 304, 307, 340, 359, 370, 375	
Mini-symposium - Geomechanics and Planetary Science Venue: L13, Lecture Hall Complex	Invited Lecture by Prof. Manash Chakraborty, IIT (BHU) Varanasi Title: Seepage and consolidation flow through unsaturated soil Invited Lecture by Prof. Satyajit Pramanik, IIT Guwahati	

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		Title: Deformation-driven mixing in a soft porous medium
		Paper IDs: 70, 82, 111, 113, 157, 259, 266, 282
	Mini-symposium – Numerical Simulations for Static and Dynamic Studies Venue: TB 110, Tutorial Block	Invited Lecture by Prof. S.K. Panda, IIT (BHU) Varanasi Title: Dynamic fracture behavior of nuclear graphite
		Paper IDs: 19, 21, 24, 46, 48, 54, 86, 136
	Mini-symposium – Mechanics of Smart Materials and Structures Venue: TB 111, Tutorial Block	Invited Lecture by Prof. Shaikh Faruque Ali, IIT Madras Title: Mechanics of energy harvesters
		Paper IDs: 10, 20, 42, 91, 132, 156, 163, 177
12:45 - 14:00	Lunch Break (Main Auditorium Lawn)	
14:00 - 16:00	Parallel sessions	
	Mini-symposium - Plasticity and Creep Venue: L18, Lecture Hall Complex	Invited Lecture by Prof. Shyam Keralavarma, IIT Madras Title: Mechanics of plastic instability in thermo-viscoplastic solids
		Invited Lecture by Prof. P. J. Guruprasad, IIT Bombay Title: Dislocation mean free path and grain size effects in creep plasticity of polycrystalline metals
		Paper IDs: 271, 273, 276, 285
	Mini-symposium - AI and HPC for Applied Mechanics Venue: L8, Lecture Hall Complex	Invited Lecture by Prof. Souvik Chakraborty, IIT Delhi Title: See, hypothesize, discover: Agentic AI for scientific discovery
		Paper IDs: 360, 361, 369, 373
Mini-symposium – Contact Adhesion & Friction Venue: L9, Lecture Hall Complex	Invited Lecture by Dr Ramkumar Penchaliah, IIT Madras Title: Systematic approach for contact mechanics-based FEM wear simulation	

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		Paper IDs: 38, 309, 311, 267, 374
	Mini-symposium - Mechanics in Bio-applications and Sports Venue: L12, Lecture Hall Complex	Paper IDs: 229, 235, 246, 248, 321, 335, 353, 355
	Mini-symposium - Design of Engineering Structures Venue: L13, Lecture Hall Complex	Invited Lecture by Prof. Avik Samanta, IIT Patna Title: Behavior of class-4 steel beams with opening
		Paper IDs: 342, 350, 364, 125
	Mini-symposium – Numerical Simulations for Static and Dynamic Studies Venue: TB 110, Tutorial Block	Invited Lecture by Prof. B. Venkataraman, Amrita Vishwa Vidyapeetham Title: Mechanics of static and dynamic indentation and its relevance in engineering application
		Paper IDs: 144, 165, 189, 207, 326, 327, 366, 372
	Mini-symposium - Mechanics of Highly Deformable Bodies & Materials Venue: TB 111, Tutorial Block	Invited Lecture by Prof. M. S. Bobji, IISc Bengaluru Title: Controlled cone crack formation in hydrogels during needle insertion: Influence of network structure
		Invited Lecture by Prof. Akshay Joshi, IISc Bengaluru Title: Hetero-EUCLID: Interpretable model discovery for heterogeneous hyperelastic materials using stress-unsupervised learning
		Paper IDs: 34, 145, 153, 287
16:00 -16:30	Tea Break (L18 Foyer)	
16:30 - 18:30	Mini-symposium - Plasticity and Creep Venue: L18, Lecture Hall Complex	Invited Lecture by Prof. Ilaksh Adlakha, IIT Madras Title: Effect of hydrogen on plasticity of α -Fe: A multi-scale assessment

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		Paper IDs: 322, 356, 358
	Mini-symposium - Turbulent and Complex Flows Venue: L8, Lecture Hall Complex	Invited Lecture by Prof. Aniruddha Sinha, IIT Bombay Title: Modelling non-axisymmetric jet noise
		Paper IDs: 80, 88, 104, 116, 118
	Mini-symposium – Contact Adhesion & Friction Venue: L9, Lecture Hall Complex	Invited Lecture by Prof. Nitya Nand Gosvami, IIT Delhi Title: Anisotropic frictional characteristics of bioinspired nanopatterned surfaces
		Paper IDs: 377, 262, 279, 305, 376
	Mini-symposium - Mechanics in Bio-applications and Sports Venue: L12, Lecture Hall Complex	Paper IDs: 357, 365
	Mini-symposium - Mechanics of Smart Materials and Structures Venue: L13, Lecture Hall Complex	Paper IDs: 193, 200, 204, 233, 243, 250, 261
	Mini-symposium - Mechanics of Soft and Biological Matter Venue: TB 110, Tutorial Block	Paper IDs: 256, 295, 306, 319
18:30 – 19:30	Cultural Program (Outreach Auditorium)	
19:30	Gala Dinner (Main Auditorium Lawn)	

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Time	DAY 3, Saturday (11 July 2026)	
09:00 - 09:45	Plenary Lecture 3: Karunakaran Memorial Lecture - Prof. Ravindra Adusumilli (Venue: L18, Lecture Hall Complex) Title: When development devours people: A critique of S&T competency in grassroots solutioning	
09:45 - 10:15	Tea Break (L18 Foyer)	
10:15 - 12:45	Parallel sessions	
	Mini-symposium – Ayurveda Venue: L18, Lecture Hall Complex	Invited lecture by Prof. V Srinivasa Chakravarthy, IIT Madras Title: Rethinking the tridosha theory of Ayurveda: A biothermodynamic perspective Invited Lecture by Dr. GRR Chakravarthy, SJSACH, Chennai Title: Yukti Vyapāśraya: Scientific characterisation of rational therapeutics Invited Lecture by Dr Rishi Manivannan, Director, Vaidyarishi Ayurveda Title: Daivavyapasraya chikitsa – Unmada & Apasmara: wrt autism spectrum disorder Invited Lecture by Prof Shripathi Acharya, Muniyal Institute of Ayurveda Medical Sciences Title: Role of daiva vyapashraya chikitsa in the management of autism
		Paper IDs: 60, 224, 283
	Mini-symposium – Turbulent and Complex Flows Venue: L8, Lecture Hall Complex	Invited Lecture by Prof. Somnath Roy, IIT Kharagpur Title: Flow features over bileaflet mechanical heart valves
		Paper IDs: 215, 223, 297, 302, 313, 338, 339, 345

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	Mini-symposium – Mechanics of Smart Materials and Structures Venue: L9, Lecture Hall Complex	Invited Lecture by Prof. Bishakh Bhattacharya, IIT Kanpur Title: Evolution of intelligent autonomous system based on smart materials
		Paper IDs: 292, 328
	Mini-symposium – Extreme Mechanics Venue: L12, Lecture Hall Complex	Invited Lecture by Prof. Dhiraj K. Mahajan, IIT Ropar Title: Understanding the interplay of multiple mechanisms of hydrogen embrittlement using experiments and simulations
		Paper IDs: 62, 85, 90, 99, 108, 138, 174, 181
12:45 - 14:00	Lunch Break (Main Auditorium Lawn)	
14:00 - 16:00	Parallel sessions	
	Mini-symposium – Ayurveda Venue: L18, Lecture Hall Complex	Invited Lecture by Dr. P. K. Partheeban, Swabhimaan Trust – Holistic Solutions for Autism Title: Bridging neurodiversity, tradition, and technology
		Panel Discussion
	Mini-symposium - Geomechanics and Planetary Science Venue: L8, Lecture Hall Complex	Paper IDs:
	Mini-symposium - Mechanics of Highly Deformable Bodies & Materials Venue: L9, Lecture Hall Complex	Invited Lecture by Prof. Abir Bhattacharyya, IIT Jodhpur Title: Elastic modulus and strain-dependent lateral to axial strain ratio in semi-dilute polyacrylamide hydrogels

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		Paper IDs: 301, 312
	Mini-symposium – Extreme Mechanics Venue: L12, Lecture Hall Complex	Invited Lecture by Prof. Ganpule Shailesh Govind, IIT Roorkee Title: Biomechanical analysis of surrogate head forms equipped with ballistic helmets under high velocity bullet impact
		Paper IDs: 260, 272, 337, 344
	Tea Break (L18 Foyer)	
16:15 -16:30	Valedictory Function	