



MANIPAL INSTITUTE OF TECHNOLOGY

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TENTATIVE PROGRAM SCHEDULE

International Conference on Recent Advances in Fluid Mechanics and Nanoelectronics-(ICRAFMN-2023) July 12-14, 2023

Day 1 – Wednesday 12 th July 2023												
Time/Session Indian Standard Time	EVENTS											
8:30 AM-9:30 AM	REGISTRATION											
9:30 AM-10:30 AM	INAUGURATION https://tinyurl.com/Inaug-ICRAFMN23											
10:30 AM-10:40 AM	TEA BREAK											
Session A	Lecture Name			Speakers			Title of the Lecture			Session Chair		
10:45 AM-11:30 AM	Plenary Address-1 Online Venue: Auditorium, AB4, MIT-BLR https://tinyurl.com/PlenaryAddress1			Prof. Alan Jeffrey Giacomini Editor in Chief, Physics of Fluids, Queen’s University, Kingston, Ontario, Canada			Recent Advances in Polymer Viscoelasticity from General Rigid Bead-Rod Theory			Prof. Suman Chakraborty IIT Kharagpur		
Session B	Session B1: Room Number-501 Chair: Prof. Rama Govindarajan ICTS Bengaluru https://tinyurl.com/SessionB1			Session B2: Room Number-502 Chair: Prof. Rajesh K Pandey IIT BHU https://tinyurl.com/SessionB2			Session B3: Room Number-503 Chair: Prof. Rajeev IIT BHU https://tinyurl.com/SessionsB3			Session B4: Room Number-504 Chair: Dr. Manoranjan Mishra IIT Ropar https://tinyurl.com/SessionB4		
	Lecture Name	Speakers	Title of the Lecture	Lecture Name	Speakers	Title of the Lecture	Lecture Name	Speakers	Title of the Lecture	Lecture Name	Speakers	Title of the Lecture
11:40 AM-12:20 PM	Keynote Address-1	Prof. Suman Chakraborty IIT Kharagpur	Microvasculature on a Chip –Blood Vessel-Mimics for Probing Micro-	Keynote Address-2	Online Prof Anuj Mubayi, Illinois State University, United States	Where is Creativity Hidden? Mechanics of Thinking from Theory to Practice	Keynote - Address-3	Online Prof. K. H. Mekheimer Al-Azhar University, Egypt	Bio-fluid mechanics and its applications	Keynote Address-4	Online Prof. E Y K Ng Nanyang Technological University, Singapore	Machine Learning on Fault Diagnosis in Wind Turbines



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			Circulation Physiology									
12:20 PM-01:00 PM	Keynote Address-5	Prof. Chakravarty Balaji IIT Madras	Fine-Tuning Rainfall Predictions: A Hybrid Approach for India's Extreme Weather	Keynote Address-6	Prof. K. S. Nisar Prince Sattam bin Abdulaziz University, Kingdom of Saudi Arabia	Understanding multi-disciplinary research: an engineering applications approach	Keynote Address-7	Prof. Sree Hari Rao Vadrevu JNTU, Hyderabad	An Introspective Re-look at Fundamental Equations of Fluid Flow: Special Reference to Blood Flows in Human Circulatory Systems	Keynote Address-8	Online Prof. Rama Bhargava IIT Roorkee	Meshfree Methods and its Application to Numerical Simulation of Cryosurgery Problem
01:00 PM-02:00 PM	LUNCH BREAK											
Session C	Session C1: Room Number-501 Chair: Prof. Chakravarty Balaji IIT Madras https://tinyurl.com/SessionC1			Session C2: Room Number-502 Chair: Prof. K. S. Nisar Prince Sattam bin Abdulaziz University, Kingdom of Saudi Arabia https://tinyurl.com/SessionC2			Session C3: Room Number-503 Chair: Prof. Abhishek Kumar Tiwari MNIT Allahabad https://tinyurl.com/SessionsC3			Session C4: Room Number-504 Chair: Prof. Sree Hari Rao Vadrevu JNTU, Hyderabad https://tinurl.com/SessionC4		
	Lecture Name	Speakers	Title of the Lecture	Lecture Name	Speakers	Title of the Lecture	Lecture Name	Speakers	Title of the Lecture	Lecture Name	Speakers	Title of the Lecture
02:00 PM-02:40 PM	Keynote Address-9	Prof. Saptarshi Basu IISc, Bengaluru	Multiphase systems: An account of transport processes across multiple spatio-temporal scales	Keynote Address-10	Prof. Rama Govindarajan ICTS, Bengaluru	Which cloud will rain?	Keynote Address-11	Prof. Manoranjan Mishra IIT Ropar	Hydrodynamic Instabilities in a reaction-induced viscously stratified channel flow	Keynote Address-12	Online Prof. O Anwar Beg Salford University, UK	CFD simulation and visualization in aerospace engineering – applications in jet engine, rocket combustion and rocket



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											module splashdown	
02:40 PM-03:10 PM	Invited Lecture-1	Prof. N. B. Naduvinamani Gulbarga University, Karnataka	Surface Roughness Effects on The Static and Dynamic Characteristics of Porous Rayleigh Step Bearing Lubricated with Couplestress Fluid	Invited Lecture-2	<u>Online</u> Prof. Jagrati Sahariya NIT Uttarakhand	Electronic and optical response of materials used in energy storage and energy conversion	Invited Lecture-3	Prof. Srinivasa Rao Pentyala Indian Institute of Technology (ISM), Dhanbad	Discontinuous Galerkin Methods: An Overview and Some Applications	Invited Lecture-4	Prof. Gopal Chandra Shit Jadavpur University, Kolkata	Modeling of targeted drug delivery with magnetic-nanoparticles and its application in MPI
03:10 PM-03:40 PM	Invited Lecture-5	<u>Online</u> Prof. Satyananda Panda NIT Calicut	Longwave Modelling of Thin Film Flow of a Generalized Second-Grade Fluid Down an Inclined Plate	Invited Lecture-6	Prof. Rajesh K. Pandey IIT BHU	Fractional Sturm-Liouville Problem: Numerical Approximation with Application	Invited Lecture-7	Prof. Kalpna Sharma Manipal University Jaipur	Effect of heat source parameter along with first order multi slip conditions on MHD convective Casson fluid flow along an upright stretching sheet	Invited Lecture-8	<u>Online</u> Prof. Sachin Shaw Botswana International University of Science and Technology, Botswana	Fractionalized solute dispersion of drug-carrier during magnetic drug targeting
03:40 PM-03:50 PM	TEA BREAK											
Session D	Session D1: Room Number-501 Chair: Prof. Utpal Deka MIT Bengaluru https://tinyurl.com/SessionD1			Session D2: Room Number-502 Chair: Prof. N. B. Naduvinamani Gulbarga University, Karnataka https://tinyurl.com/SessionsD2			Session D3: Room Number-503 Chair: Prof. Kalpna Sharma Manipal University Jaipur https://tinyurl.com/SessionD3			Session D4: Room Number-504 Chair: Prof. Srinivasa Rao Pentyala IIT Dhanbad https://tinyurl.com/SessionD4		



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	Lecture Name	Speakers	Title of the Lecture	Lecture Name	Speakers	Title of the Lecture	Lecture Name	Speakers	Title of the Lecture	Lecture Name	Speakers	Title of the Lecture				
03:50 PM-04:20 PM	Industry Talk-1	Mr. Adwaith Gupta CEO & Founder, Paanduv Applications, Bareilly	AM PravaH: World's first truly multiphase computational modeling software for predicting defects in 3D Printing processes	Invited Lecture-9	Online Prof. M. V. Reddy Senior Professional Researcher, Quebec, Montreal, Canada	Recent Advances in Materials for Energy storage Technology and Sustainability	Invited Lecture-10	Online Prof. Anand S. Subbiah King Abdullah University of Science and Technology, Saudi Arabia	Scaling-up Tandem Photovoltaics: Perovskite - Silicon monolithic devices	Invited Lecture-11	Online Prof. Kuldeep Singh Nottingham University, UK	Computationally Efficient Thin Film Modelling Approach for Aerospace Applications				
04:20 PM-05:00 PM	Industry Talk-2	Dr. Ravishankar Bhat Co-Founder, Biological Research Innovation Centre and Solutions LLP, Bangalore	Entrepreneurial Opportunities in Nanotechnology	Industry Talk-3	Mr. Vijay Raghav Varada CEO & Director, Fractal Works	Disruptive Applications of 3D Printed Composite Polymers in Industry	Keynote Address-13	Online Prof. Liao, Guojun G University of Texas at Arlington, USA	Grid Generation and Adaptation	Keynote Address-14	Online Prof. Padmanabhan Seshaiyer George Mason University, USA	Computational Modelling using a novel continuum approach coupled with Physics Informed Neural Networks to study the dynamics of complex systems				
Session E TECHNICAL PRESENTATIONS																
05:10 PM-06:40 PM	Room Number 203 Session E1:	Room Number 204 Session E2:	Room Number 205 Session E3:	Room Number 206 Session E4:	Room Number 207	Room Number 208	Room Number 209	Room Number 210	Room Number 211	Room Number 212 Session E10	Room Number 213 Session E11	Room Number 214 Session E12	Room Number 311 Session E13	Room Number 312 Session E14	Room Number 313 Session E15	Room Number 314 Session E16



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	Chair: Prof. K. S. Nisar Prince Sattam bin Abdulazi z Universit y, Kingdom of Saudi Arabia https://ti nyurl.co m/Sessio n-E1	Chair: Prof. Lavanya B MIT Manipal https://ti nyurl.co m/Sessio n-E2	Chair: Prof. Abhishek Kumar Tiwari MNIT Allahaba d https://ti nyurl.co m/Sessio n-E3	Chair: Prof. Santosh Patil Manipal Universit y Jaipur https://ti nyurl.co m/Sessio n-E4	Session E5 Chair: Prof. Rajeev IIT Varanasi https://ti nyurl.co m/Sessio n-E5	Session E6 Chair: Prof. Shah Moham med Abdul Khader MIT Manipal https://ti nyurl.co m/Sessio n-E6	Session E7 Chair: Prof. Manjuna tha M S MIT Bengalur u https://ti nyurl.co m/session -E7- Room- 209	Session E8 Chair: Prof. Katta Ramesh Sunway Universit y, Malaysia https://ti nyurl.co m/E8- Room- 210	Session E9 Chair: Prof. Rekha G Pai MIT Manipal https://ti nyurl.co m/Sessio n-E9	Chair: Prof. S. N. Prasad MIT Bengalur u https://ti nyurl.co m/Sessio n-E10	Chair: Prof. Sujaya Raghave nra MIT Bengalur u https://ti nyurl.co m/Sessio n-E-11	Chair: Prof. N. B. Naduvini amani Gulbarga Universit y Karnatak a https://ti nyurl.co m/Sessio n-E12	Chair: Prof. Manjuna tha Gudekot e MIT Manipal https://ti nyurl.co m/Sessio n-E13	Chair: Prof. N N Katag MIT Manipal https://ti nyurl.co m/Sessio n-E14	Chair: Prof. S Ravi VIT Vellore https://ti nyurl.co m/Sessio n-E15	Chair: Prof. Rajendr a Prasad K S MIT Bengalur u https://ti nyurl.co m/Sessio n-E16
2	43	4	42	117	144	404	156	190	621	18	219	240	275	434	374	
6	44	9	51	126	145	406	157	195	628	56	224	242	277	438	376	
7	47	10	53	134	146	442	164	197	634	142	226	245	281	455	451	
8	48	16	54	138	151	469	168	198	641	200	227	246	287	456	467	
14	52	17	110	139	152	470	170	204	643	201	230	247	292	461	505	
26	57	19	123	140	158	475	175	207	645	202	231	250	296	463	514	
33	82	25	446	141	159	493	179	208	649	228	232	260	297	496	548	
35	84	27	129	148	160	501	184	212	624	311	233	261	298	520	560	
36	107	29	130	153	161	545	185	213	150	318	234	265	299	537	562	
39	116	30	131	154	165	549	188	216	566	336	238	266	304	543	604	
652	625	31	132	155	166	554	655	218	656	340	239	269	307	608	614	
412	143	313	135	437	651	646		654	657	363					635	



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Day 2 – Thursday 13 th July 2023												
Time/Session	Events											
Session F	Lecture Name			Speakers			Title of the Lecture			Session Chair		
9:00 AM-09:45 AM	Plenary Address-2 Online Venue: Auditorium, AB4, MIT-BLR https://tinyurl.com/PlenaryAddress2			Prof. S. Sundar Director, NIT Mizoram & Professor, IIT Madras			Particles in Fluids: Models, Analysis and Numerics			Prof. V. Kumaran IISc, Bengaluru		
Session G	Session G1: Room Number-501 Chair: Prof. Santosh Patil Manipal University Jaipur https://tinyurl.com/SessionG1			Session G2: Room Number-502 Chair: Prof. Katta Ramesh Sunway University, Malaysia https://tinyurl.com/SessionG2			Session G3: Room Number-503 Chair: Prof. P. Muthu NIT Warangal https://tinyurl.com/SessionG3			Session G4: Room Number-504 Chair: Prof. Sukhendu Ghosh IIT Jodhpur https://tinyurl.com/SessionG4		
	Lecture Name	Speakers	Title of the Lecture	Lecture Name	Speakers	Title of the Lecture	Lecture Name	Speakers	Title of the Lecture	Lecture Name	Speakers	Title of the Lecture
10:00 AM-10:40 AM	Keynote Address-15	Prof. P. S. Anil Kumar IISc Bengaluru	High-velocity Skyrmions: A front runner for the next-generation spintronic devices	Keynote Address-16	Prof. V. Kumaran IISc, Bengaluru	From chip-in-a-lab to lab-on-a-chip: Basic advances surmount technology barriers	Keynote Address-17	Prof. John Philip Homi-Bhabha National Institute (HBNI), Tamil Nadu	Heat transfer applications of Magnetic Nanofluids	Keynote Address-18	Online Prof. Huihe Qiu The Hong Kong University of Science & Technology, China	Distinct Features of Superbiphilic Micro/Nanost ructures for Bubble Dynamics and Heat Transfer Manipulation
10:40 AM-11:20 AM	Keynote Address-19	Prof. Tanmay Basak IIT Madras	Finite element analysis of natural convection in cavities with distributed solar heaters	Keynote Address-20	Prof. Rathish Kumar BV IIT Kanpur	A Study of rheological effects on the hemodynamic s in a human descending abdominal artery with	Keynote Address-21	Online Prof. P V S N Murthy IIT Kharagpur	Unsteady Solute Dispersion in Pulsatile non-Newtonian Fluid Flow in a Tube	Keynote Address-22	Prof. G. P. Raja Sekhar IIT Kharagpur	Mathematical modeling of multi-phase flow models in oil reservoirs



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						abdominal aortic aneurysms and right internal iliac stenosis						
11:20 AM-11:30 AM TEA BREAK												
Session H	Session H1: Room Number-501 Chair: Prof. Tanmay Basak, IIT Madras https://tinyurl.com/SessionH1			Session H2: Room Number-502 Chair: Prof. Rathish Kumar BV IIT Kanpur https://tinyurl.com/SessionH2			Session H3: Room Number-503 Chair: Prof. John Philip Homi-Bhabha National Institute (HBNI), Tamil Nadu https://tinyurl.com/SessionH3			Session H4: Room Number-504 Chair: Prof. Rajesh K Pandey IIT BHU https://tinyurl.com/SessionH4		
	Lecture Name	Speakers	Title of the Lecture	Lecture Name	Speakers	Title of the Lecture	Lecture Name	Speakers	Title of the Lecture	Lecture Name	Speakers	Title of the Lecture
11:30 AM-12:00 PM	Invited Lecture-12	Prof. Vivekanand MNIT Jaipur	Biomass to Bioenergy	Invited Lecture-13	Prof. Katta Ramesh Sunway University, Malaysia	Peristaltic propulsion of nanofluids: Influence of multiple factors and transport phenomena	Invited Lecture-14	Prof. Ravi Kumar Sharma Manipal University Jaipur	Nano enhanced phase change materials	Invited Lecture-15	Online Prof. Qasem Al-Mdallal UAE Univesity	Computational investigation of heat transfer from a heated circular cylinder performing a circular motion in a uniform stream
12:00 PM-12:30 PM	Invited Lecture-16	Online Prof. Isaac Lare Animasaun Federal University of	Transient air and water through three-inlets of t-shaped ducts: the problem	Invited Lecture-17	Online Prof. R. Sivaraj NIT, Jalandhar	Convective flows of nanofluids in cavities and applications	Invited Lecture-18	Online Prof. Mithilesh Kumar Chaube IIIT Raipur	Effect of Peripheral Layer Viscosity on Biological Fluid Flow	Invited Lecture-19		



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		Technology, Akure	of cold fronts subject to turbulence									
12:30 PM-01:00 PM	Invited Lecture-20	Prof. Pranab Kumar Mondal IIT Guwahati	Plant Root Dynamics: The Role of Microfluidics	Invited Lecture-21	Prof. Sukhen du Ghosh IIT Jodhpur	Hydrodynamic Instability and Control of Rotating Flows	Invited Lecture-22	Prof. M Kothandapani Anna University, Chennai	Analysis of MHD hybrid nanofluid flow induced by peristalsis in a curved asymmetric channel: A realistic model for mimicking physiological conduits	Invited Lecture-23	Online Prof. Dan Wang University of Jinan, Shandong Province, China	Dynamic response analysis of vortex-induced vibration of low-dimensional models of marine risers
01:00 PM-02:00 PM	LUNCH BREAK											
Session I	Session I1: Room Number-501 Chair: Prof. Gopal Chandra Shit Jadavpur University, Kolkata https://tinyurl.com/SessionI1			Session I2: Room Number-502 Chair: Prof. G. P. Raja Sekhar IIT Kharagpur https://tinyurl.com/SessionsI2			Session I3: Room Number-503 Chair: Prof. M Kothandapani Anna University, Chennai https://tinyurl.com/SessionI3			Session I4: Room Number-504 Chair: Prof. Pranab Kumar Mondal IIT Guwahati https://tinyurl.com/SessionI4		
	Lecture Name	Speakers	Title of the Lecture	Lecture Name	Speakers	Title of the Lecture	Lecture Name	Speakers	Title of the Lecture	Lecture Name	Speakers	Title of the Lecture
02:00 PM-02:30 PM	Invited Lecture-24	Online Prof. M. M. Bhatti Shandong University of Science and Technology, China	Unleashing the Power of Electromagnetic Fields: Exploring Non-Darcian Carreau Fluid Flow and Heat Transfer in Micro-	Invited Lecture-25	Prof. Kulwant Singh Manipal University Jaipur	MEMS Impedance Flow Cytometry: An Efficient microfluidic technique for Biosensing Applications	Invited Lecture-26	Prof. Santosh Patil Manipal University Jaipur	Physiological Loading and its effect on streaming potential generated By Interstitial Fluid flow in Disordered	Invited Address-27	Prof. Rajeev IIT Varanasi	A non-classical Stefan problem with a variable thermal conductivity



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			Parallel Plates via Mixed Convection									Bone's Canaliculi				
02:30 PM-03:00 PM	Invited Address-28	Online Prof. Amit Setia BITS Pilani - K. K. Birla Goa Campus, Goa	Application of Haar wavelets in solving control problems in fluid dynamics	Invited Address-29	Online Prof. Yasser Aboelkassem University of Michigan-Flint, USA	Bioinspired Valveless Micropumping Flow Model in a Microchannel using Membrane Contraction	Invited Address-30	Online Prof. Mahesha Narayana The University of the West Indies Mona, Jamaica	Boundary effects on gravity-modulated Rayleigh-Benard convection	Keynote Address-23	Online Prof. Gangaram Ladde University of South Florida, USA	Hybrid dynamic system with applications: Role and Scope				
03:00 PM-03:15 PM	TEA BREAK															
Session J	TECHNICAL PRESENTATIONS															
03:15 PM-05:45 PM	https://ti.nyurl.com/Session-n-J1 Room Number 203 Session J1 Chair: Prof. Vivekandan MNIT Jaipur	https://ti.nyurl.com/Session-n-J2 Room Number 204 Session J2 Chair: Prof. M Kothandapani Anna University, Chennai	https://ti.nyurl.com/Session-n-J3 Room Number 205 Session J3 Chair: Prof. Sujay Raghavendra MIT Bengaluru	https://ti.nyurl.com/Session-n-J4 Room Number 206 Session J4 Chair: Prof. N N Katagi MIT Manipal	https://ti.nyurl.com/Session-n-J5 Room Number 207 Session J5 Chair: Prof. Kulwant Singh Manipal University Jaipur	https://ti.nyurl.com/Session-m/mjfk6hza Room Number 208 Session J6 Chair: Prof. Abdul Khader MIT Manipal	https://ti.nyurl.com/Session-n-J7 Room Number 209 Session J7 Chair: Prof. Nagendra H N MIT Bengaluru	https://ti.nyurl.com/Session-m/2txkkaff Room Number 210 Session J8 Chair: Prof. Balachandra Achar MIT Bengaluru	https://ti.nyurl.com/Session-n-J9 Room Number 211 Session J9 Chair: Prof. Ravi Kumar Sharma Manipal University Jaipur	https://ti.nyurl.com/Session-n-J10 Room Number 212 Session J10 Chair: Prof. Kalpna Sharma Manipal University Jaipur	https://ti.nyurl.com/Session-n-J11 Room Number 213 Session J11 Chair: Prof. Santosh Patil Manipal University Jaipur	https://ti.nyurl.com/Session-n-J12 Room Number 214 Session J12 Chair: Prof. Sukhendu Ghosh IIT Jodhpur	https://ti.nyurl.com/Session-n-J13 Room-311 Session J13 Chair: Prof. Manjunta M S MIT Bengaluru	https://ti.nyurl.com/Session-n-J14 Room Number 312 Session J14 Chair: Prof. Ramesh Katta Sunway University, Malaysia	https://ti.nyurl.com/Session-n-J15 Room Number 313 Session J15 Chair: Prof. Gopal Chandra Shit Jadavpur University, Kolkata	https://ti.nyurl.com/Session-n-J16 Room Number 314 Session J16 Chair: Prof. Pranab Kumar Mondal IIT Guwahati
	308	366	480	524	23	426	556	272	171	414	244	460	20	525	558	322



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	323	368	481	539	45	432	565	278	173	419	248	462	136	527	559	330
	324	371	484	541	50	436	573	279	176	420	255	465	162	529	567	331
	334	375	485	553	55	448	610	283	189	424	257	471	203	531	569	338
	335	378	487	563	59	454	613	305	192	425	270	479	210	532	579	339
	337	379	490	572	105	458	622	312	194	433	282	495	211	534	580	345
	343	380	491	574	167	466	626	314	205	439	288	498	235	535	581	346
	352	384	492	575	187	468	629	327	206	440	293	500	258	536	582	349
	353	385	497	577	199	472	631	365	214	443	294	502	344	538	584	383
	354	389	513	594	253	473	633	377	220	444	301	506	361	542	585	390
	355	393	515	612	256	474	642	391	222	445	302	507	367	547	587	398
	357	400	516	623	262	477	616	401	223	450	303	510	382	550	597	407
	359	403	517	627	271	478	637	427	229	452	309	511	386	552	599	415
	360	405	518	639		423	647	429	236	459	319	521	399	555	600	416
	364	413	519	640		607	650		243		320	522	619	557	603	417
05:45 PM-07:00 PM	CULTURAL PROGRAM, Venue: Auditorium, AB4, MIT Bengaluru															
07:30 PM-10:30 PM	GALA DINNER, Venue: GCBC, Yelahanka, Bengaluru															

Day 3 – Friday 14 th July 2023				
Time/Session	Events			
Session K	Lecture Name	Speakers	Title of the Lecture	Session Chair
9:00 AM-09:45 AM	Plenary Address-3 Venue: Auditorium, AB4, MIT-BLR	Prof. V Ramgopal Rao	Sensor Platforms & Affordable IoT Solutions for the Developing World	Prof. G. C. Layek



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	https://tinyurl.com/PlenaryAddress3						Group Vice Chancellor BITS Pilani			University of Burdwan, West Bengal		
09:45 AM-10:00 AM	Tea Break											
Session L	Session L1: Room Number-501 Chair: Prof. Hanumesh Vaidya VSK University Ballari https://tinyurl.com/SessionL1			Session L2: Room Number-502 Chair: Prof. Manjunatha M S MIT Bengaluru https://tinyurl.com/SessionL2			Session L3: Room Number-503 Chair: Prof. Kulwant Singh Manipal University Jaipur https://tinyurl.com/SessionL3			Session L4: Room Number-504 Chair: Prof. S. N. Prasad MIT Bengaluru https://tinyurl.com/SessionL4		
	Lecture Name	Speakers	Title of the Lecture	Lecture Name	Speakers	Title of the Lecture	Lecture Name	Speakers	Title of the Lecture	Lecture Name	Speakers	Title of the Lecture
10:00 AM-10:40 AM	Keynote Address-24	Online Prof. Amit Agrawal IIT Bombay	Development of Innovative Point-of-Care Microdevices	Keynote Address-25	Mr. S. Rajagopal Program Director, Aeronautical Development Establishment		Keynote Address-26	Prof. G. C. Layek University of Burdwan, West Bengal	Organized Structures in Chaotic Motions	Keynote Address-27	Prof. Satyajit Roy IIT Madras	Entropy Generation Analysis In Hybrid Nanofluid Flow Using Temperature-Sensitive Water Propertie
10:40 AM-11:10 AM	Invited Address-31	Prof. Abhishek Kumar Tiwari MNIT Allahabad	Skeletal Mechanobiology of Bone Disorders: Role of Interstitial Fluid Dynamics	Industry Talk-4	Dr. Ranga Srinivas Gunti Head, Talent Development-Tata Passenger Electric Mobility, General Manager, Tata Motors, Pune	Insights into Future Mobility and Digital Transformation - An OEM Perspective	Invited Address-32	Online Prof. Ram Prakash Sharma NIT Arunachal Pradesh	Nanofluids, Hybrid Nanofluids and Its Applications	Industry Talk-5	Dr. Shashishekar Adiga Head, Materials & Simulations, Samsung Electronics	Role of modeling and simulations in making batteries powerful and safe
11:10 AM-11:40 AM	Invited Address-33	Online Prof. Rashmi Dubey	Role of external heating in	Invited Address-34	Prof. P. Muthu NIT Warangal	Oscillatory flow in an elastic tube	Invited Address-35	Prof. Jyotirmoy Rana	Solute dispersion in non-	Invited Address-36	Dr. Aniruddha Sanyal	Numerical analysis of flow restart operation



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		University of Petroleum and Energy Studies, Dehradun, Uttarakhand, India	altering the onset criteria for convection in flow through porous layer			of varying cross-section with suction/injection		IIT Hyderabad	Newtonian blood flow		NIT Calicut	in a crude oil pipeline
Session M TECHNICAL PRESENTATIONS												
11:40 AM-12:30 PM	Room Number 203 Session M1 Chair: Prof. Hanumesh Vaidya VSK University Ballari https://tinyurl.com/Session-M1		Room Number 204 Session M2 Chair: Prof. K. V. Prasad VSK University Ballari https://tinyurl.com/Session-M2		Room Number 205 Session M3 Chair: Prof. N. N. Katagi MIT Manipal https://tinyurl.com/Session-M3-205			Room Number 206 Session M4 Chair: Prof. Manjunatha Gudekote MIT Manipal https://tinyurl.com/Session-M4				
	38 40 648		653 183 11		191 564			659 661				
12:30 PM-01:30 PM LUNCH BREAK												
01:30 PM-02:00 PM Address by COMSOL												
02:00 PM-03:00 PM Panel Discussion: https://tinyurl.com/Panel-dis Moderators: Prof. Jagannath K & Dr. Dharmendra Tripathi												
Panelists	Prof. V Ramgopal Rao Group Vice Chancellor BITS Pilani	Prof. Rathish Kumar BV IIT Kanpur	Prof. Sree Hari Rao Vadrevu JNTU, Hyderabad	Prof. S. Rajagopal Program Director, Aeronautical Development Establishment	Dr. Ranga Srinivas Gunti Head, Talent Development-Tata Passenger Electric Mobility,	Mr. Adwaith Gupta CEO & Founder, Paanduv Applications, Bareilly	Dr. Shashishekar Adiga Head, Materials & Simulations, Samsung Electronics					
03:00 PM-04:00 PM Valedictory and Award Ceremony												



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