

# 4<sup>th</sup> Biennial International Conference on Future Learning Aspects of Mechanical Engineering (FLAME - 2024)

## 31<sup>st</sup> July-2024 (Day 1)

8:30AM-9:15 AM	Registration			
9:15AM-11:15 AM	INAUGURAL SESSION (E2- Auditorium)			
11:15AM-11:30 AM	High Tea			
Guest of Honor Talk				
11:30AM-12:05 PM	Prof. (Dr.) K Muralidhar, IIT Kanpur (Guest of Honor) (Venue F3 Seminar Hall), 35 Minute			
Plenary Talks				
12:05 PM-12:40 PM	Prof. (Dr.) K. Srinivas Reddy, IIT Madras (Venue F3 Seminar Hall), 35 Minute			
12:40 PM-1:15 PM	Dr. N Ranjana, Director Directorate of Futuristic Technology Management, DRDO HQs, New Delhi (Venue F3-Seminal Hall), 35 Minute	Prof. (Dr.) Sivarao Subramonian, UTeM Malaysia (Venue F1-Seminal Hall), 35 Minute		
1:15 PM-1:50 PM	Prof. (Dr.) Edgar Estupiñan University of Tarapaca, Chile (Venue F3-Seminal Hall), 35 Minute	Prof. (Dr.) Andallib Tariq, IIT Roorkee (Venue F1-Seminal Hall), 35 Minute		
1:50PM-2:20 PM	LUNCH (F-1 Block)			
Keynote Talks				
2:20PM- 2:50 PM	Prof. (Dr.) Mamilla Ravi Sankar, IIT Tirupati, 30 Minute	Prof. (Dr.) Atul A. Sagade University of Tarapaca, Chile 30 Minute	Prof. (Dr.) Kishor Kumar Sadasivuni, Qatar University, Qatar 30 Minute	Prof. (Dr.) Sutapat Kwankaomeng, KMITL School of Engineering, Bangkok 30 Minute
	Venue F1-Seminal Hall	Venue: F1- MDP Hall	Venue: F3- MDP Hall	Venue: F3- Seminar Hall
2:50 -3:50 PM (Technical Poster presentation)	Technical Poster Presentation Session-1 (E2- Auditorium)	Technical Poster Presentation Session-2 (E2- Auditorium)	Technical Poster Presentation Session-3 (E2- Auditorium)	Technical Poster Presentation Session-4 (E2- Auditorium)
	Session Chairs: 1. Dr. Tushar Chaudhary, PDPM IITDM, Jabalpur 2. Dr. Gaurav Dwivedi, MANIT, Bhopal	Session Chairs: 1. Dr. Tikendra Nath Verma, MANIT, Bhopal 2. Dr. Jitendra Katiyar, Chitkara University, Chandigarh	Session Chairs: 1. Dr. Ashwani Kumar, Technical Education Department Kanpur 2. Dr. Vishakha Baghel, Dayalbagh Educational Institute (D.E.I), Agra	Session Chairs: 1. Dr. Rituprna Dutta, Capgemini, Bengaluru 2. Prof. (Dr.) Ishbir Singh, Indus University, Ahmedabad, Gujarat
	Coordinator: Dr. Pallav Gupta	Coordinator: Prof. (Dr.) Shyamal Samant	Coordinator: Prof. Ravinder Kumar	Coordinator: Dr. Umesh Vates

<b>Technical Poster Presentation (E2 -Auditorium)</b>									
<b>Paper-ID</b>		<b>Paper-ID</b>			<b>Paper-ID</b>		<b>Paper-ID</b>		
5	24	32	48	57	72	80	116		
6	26	33	49	58	74	83	117		
7	27	34	52	60	75	85	118		
8	28	35	53	61	76	91	119		
13	30	36	56	62	79	93	120		
15	584	39	433	65	67	101	364		
16	409	40	442	66	512	102	503		
19	417	43	299	68	482	103	599		
22	569	44	45	562	69	240	115	507	
290	181	46	637	70	71	--	--		
<b>3:50 PM-4:00 PM</b>	<b>High Tea- F Block</b>								
<b>Keynote Talks</b>									
<b>4:00PM- 4:30 PM</b>	<b>Dr. G D Thakre, CSIR-Indian Institute of Petroleum, Dehradun 30 Minute</b>	<b>Prof. (Dr.) Pallab Sinha Mahapatra, IIT Madras 30 Minute</b>		<b>Dr. Rituprna Datta, Capgemini Technology Services India Limited, Bengaluru 30 Minute</b>		<b>Mr. Ramesha BS, Altair – India 30 Minute</b>			
	<b>Venue: F1- Seminar Hall</b>	<b>Venue: F1- MDP Hall</b>		<b>Venue: F3- MDP Hall</b>		<b>Venue: F3- Seminar Hall</b>			
<b>4:30 -5:30 PM (Technical Poster presentation)</b>	<b>Technical Poster Presentation Session-5 (E2- Auditorium)</b>	<b>Technical Poster Presentation Session-6 (E2- Auditorium)</b>		<b>Technical Poster Presentation Session-7 (E2- Auditorium)</b>		<b>Technical Poster Presentation Session-8 (E2- Auditorium)</b>			
	<b>Session Chairs: 1. Dr. Leeladhar Nagdeve, NIT- Delhi 2. Dileep Kumar Pandiya, Principal Engineer, ZoomInfo, Boston, USA</b>	<b>Session Chairs: 1. Dr. Anil Kumar, DTU Delhi 2. Dr. Ravi Kumar, NIT Patna</b>		<b>Session Chairs: 1. Dr. Kishan Pal Singh, Mangalaytan University Aligarh 2. Dr. Rahul, KIIT Bhubaneswar 3. Dr. Vikas Kumar, NIT Kurukshetra</b>		<b>Session Chairs: 1. Dr. Ashok Kumar Singh, GCET, Greater Noida 2. Dr. Ashok Kumar Yadav, RKGIT, Ghaziabad</b>			
	<b>Coordinator: Dr. Rajeev Kumar Singh</b>	<b>Coordinator: Dr. Umesh Vates</b>		<b>Coordinator: Dr. Prem Narayan</b>		<b>Coordinator: Dr. Mayank Chhabra</b>			
	<b>Technical Poster Presentation (E2 -Auditorium)</b>								
	<b>Paper-ID</b>		<b>Paper-ID</b>			<b>Paper-ID</b>		<b>Paper-ID</b>	
	121	145	150	180	195	223	232	252	259
124	146	151	184	197	224	234	260		
128	147	156	186	202	228	235	261		

	129	148	158	187	205	229	236	237	264
	130	149	162	189	206	231	239		268
	131	426	170	193	207	216	241		305
	133	590	172	518	213	92	242		640
	135	591	173	600	215	64	243		-
	137	581	178	54	220	310	245		-
	143	606	179	609	221	358			-

**Gala Dinner -Hotel Lemon Tree (06:30 PM - 09:30 PM)**

# 1<sup>st</sup> AUGUST-2024 (Day 2)

## Plenary Talks

09:30AM-10:05 AM	Prof. (Dr.) J Ramkumar, IIT Kanpur (Venue F1-Seminal Hall), 35 Minute	Prof. (Dr.) Deepak Sharma, IIT Guwahati (Venue F3-Seminal Hall), 35 Minute
10:05AM-10:40 AM	Prof. (Dr.) Rajneesh Bhardwaj, IIT Bombay (Venue F1-Seminal Hall), 35 Minute	Prof. (Dr.) Jaesun Lee Changwon National University, South Korea (Venue F3-Seminal Hall), 35 Minute
10:40AM-11:15 AM	Prof. (Dr.) Amaresh Dalal, IIT Guwahati (Venue F1-Seminal Hall), 35 Minute	Prof. (Dr.) P.M. Pathak, IIT Roorkee (Venue F3-Seminal Hall), 35 Minute

**11:15AM-11:30AM**

## HIGH TEA

11:30AM-12:00 PM	Prof. (Dr.) Ranjan Ganguly, Department of Power Engineering, Jadavpur University, Kolkata, India (Venue F1-Seminal Hall), 30 Minute	Prof. (Dr.) Subashisa Dutta IIT Guwahati (Venue F3-Seminal Hall), 30 Minute	Prof. (Dr.) Dhiraj K. Mahajan, IIT Ropar (Venue F3- MDP), 30 Minute
12:00PM-12:30 PM	Ir. Dr. Ahmad Baharuddin Abdullah, Universiti Sains Malaysia Engineering Campus (Venue F1-Seminal Hall), 30 Minute	Prof. (Dr.) Dinesh Singh G. Thakur, Director, Planning & Policy & NEP DIAT (DU), DRDO (Venue F3-Seminal Hall), 30 Minute	Prof. (Dr.) Suraj Surendra Rane, Goa College of Engineering, Goa (Venue F3- MDP), 30 Minute

## Keynote Talks

12:30PM-1:00 PM	Prof. (Dr.) Dibakar Rakshit, IIT Delhi (Venue F1- Seminar Hall), 30 Minute	Dr. Bhanu Pratap Singh, CSIR-National Physical Laboratory, New Delhi (Venue F3- Seminar Hall), 30 Minute	Dr. Maneesh Punetha, IIT Bhubaneswar (Venue: F3- MDP Hall), 30 Minute	Prof. (Dr.) J V Tirkey, IIT BHU (Venue: F1- MDP Hall), 30 Minute	
	Technical Poster Presentation Session-9 (E2- Auditorium)	Technical Poster Presentation Session-10 (E2- Auditorium)	Technical Poster Presentation Session-11 (E2- Auditorium)	Technical Poster Presentation Session-12 (E2- Auditorium)	
1:00 PM-2:00 PM (Technical Poster presentation)	Session Chairs: 1. Dr. Swati Gangwar, NSUT Delhi 2. Dr. Siddharth Jain, UPES Dehradun 3. Prof. (Dr.) Ashish Agarwal, IGNOU New Delhi	Session Chairs: 1. Dr. Abhishek Tevatia, NSUT Delhi 2. Dr. Neelam Khandelwal, JSS Academy of Technical Education, Noida	Session Chairs: 1. Dr. Navneet Pandey, JSS Academy of Technical Education, Noida 2. Dr. Sumit Tiwari, Shiv Nadar University, Greater Noida	Session Chairs: 1. Dr. Harish Kumar, NIT- Delhi 2. Dr. Mohammad Danish, Bennet University, Greater Noida 3. Dr. Gopal Ji, Graphic Era University, Dehradun	
	Coordinator: Dr. Pallav Gupta	Coordinator: Prof. (Dr.) Shyamal Samant	Coordinator: Prof. (Dr.) Ravinder Kumar	Coordinator: Dr. Puspendra Rathore	
	<b>Technical Poster Presentation (E2 -Auditorium)</b>				
Paper-ID		Paper-ID		Paper-ID	
270	608	297	319	251	345      555



	370		392		412	111		436		
	373		394		413			439		
	374		396		414			443		
	376	379	398		415			258		
<b>4:00PM-4:15 PM</b>	<b>HIGH TEA</b>									
<b>Keynote Talks</b>										
<b>4:15PM-4:45 PM</b>	<b>Prof. (Dr.) Bahni Ray, IIT Delhi</b>		<b>Mr. Shabir Ahmed, IRDE-DRDO Dehradun</b>		<b>Prof. (Dr.) Pradeep Kumar, IIT Mandi</b>		<b>Prof. (Dr.) Sachin Singh Gautam, IIT Guwahati</b>			
	<b>(Venue F1- Seminar Hall), 30 Minute</b>		<b>(Venue F3- Seminar Hall), 30 Minute</b>		<b>(Venue: F3- MDP Hall), 30 Minute</b>		<b>(Venue: F1- MDP Hall), 30 Minute</b>			
<b>4:45 -5:30 PM (Technical Poster presentation)</b>	<b>Technical Poster Presentation Session-17 (E2- Auditorium)</b>		<b>Technical Poster Presentation Session-18 (E2- Auditorium)</b>		<b>Technical Poster Presentation Session-19 (E2- Auditorium)</b>		<b>Technical Poster Presentation Session-20 (E2- Auditorium)</b>			
	<b>Session Chairs: 1. Dr. Siddharth Varma, IMI, New Delhi 2. Dr. Prashant Chauhan, JSS Academy of Technical Education, Noida 3. Dr. Ruchika Gupta, MIMT Greater Noida</b>		<b>Session Chairs: 1. Dr. Anil Kumar Sharma, Jamia Milia Islamia University, Delhi 2. Dr. Vaibhav Jain, MAIT Delhi 3. Dr. Rajesh Kumar Shukla, TIET, Patiala</b>		<b>Session Chairs: 1. Dr. Subhra Das, Amity University Haryana 2. Dr. Gaurav Saini, HBTU Kanpur</b>		<b>Session Chairs: 1. Dr. Rajesh S. Prabhu Gaonkar, Indian Institute of Technology Goa 2. Dr. Vinay Pratap Singh, HBTU Kanpur</b>			
	<b>Coordinator: Dr. Pallav Gupta</b>		<b>Coordinator: Dr. Umesh Vates</b>		<b>Coordinator: Prof. (Dr.) Ravinder Kumar</b>		<b>Coordinator: Prof. Puspendra Rathore</b>			
	<b>Technical Poster Presentation (E2 -Auditorium)</b>									
	<b>Paper-ID</b>		<b>Paper-ID</b>		<b>Paper-ID</b>		<b>Paper-ID</b>			
	445		464		475		494			
	446		468		479		495			
	453		470		487		498			
	454		471		488		499			
	459		472		492		501			
463		473		493		508	525			
277	323	583	589		247	604		565	566	
255	607		95		208		571			
132	233		279		598		573	576		
<b>6:00PM</b>	<b>CULTURAL EVENT (E2- Auditorium)</b>									
<b>7:00PM</b>	<b>Dinner (Wall Street F2 Block)</b>									

## 2<sup>nd</sup> AUGUST-2024 (Day 3)

### Plenary Talks

09:30AM-10:05 AM	Prof. (Dr.) K. M. Singh, IIT Roorkee (Venue F1-Seminal Hall), 35 Minute	Dr. Dipankar Chatterjee, CSIR Durgapur (Venue F3-Seminal Hall), 35 Minute
10:05AM-10:40 AM	Dr. Naveen Garg, CSIR-National Physical Laboratory, New Delhi (Venue F1-Seminal Hall), 35 Minute	Capt. (Dr.) AVSN Murty, Naval Science & Technological Laboratory (NSTL), Vizag (Venue F3-Seminal Hall), 35 Minute
10:40AM-11:15 AM	Prof. (Dr.) P. Thanikaivelan, CSIR-Central Leather Research Institute, Chennai (Venue F1-Seminal Hall), 35 Minute	Dr. Ajai K. Sahani, Opto-Mechanical Engineering (OME) IRDE, DRDO (Venue F3-Seminal Hall), 35 Minute

11:15-11:30 AM

HIGH TEA

### Keynote Talks

11:30AM-12:00 PM	Prof. (Dr.) Kanmani Subbu S, IIT Palakkad (Venue F1- Seminar Hall), 30 Minute	Prof. (Dr.) Syed Fahad Anwer, AMU, Aligarh (Venue F3- Seminar Hall), 30 Minute	Prof. (Dr.) Ashish Bhateja, IIT Goa (Venue F3- MDP Hall), 30 Minute	Prof. (Dr.) Supreet Singh Bagha, IIT Delhi (Venue F1- MDP Hall), 30 Minute
12:00PM-12:30 PM	Prof. (Dr.) Basant Singh Sikarwar, Amity University Noida (Venue F1- Seminar Hall), 30 Minute	Dr. A S Parihar, Scientist 'F', DMSRDE, DRDO, Kanpur. (Venue F1- Seminar Hall), 30 Minute	Prof. (Dr.) Amornrat Kaewpradap, King Mongkut's University of Technology Thonburi, Thailand (Venue F3- MDP Hall), 30 Minute	Dr. Márton TAKÁCS, Budapest University of Technology and Economics, Hungary (Venue F1- MDP Hall), 30 Minute

### Keynote Talks and Poster Presentation

12:30PM-1:00 PM	Dr. Sandeep Kumar IIT Delhi (Venue F1- Seminar Hall), 30 Minute	Dr. Shobhana Singh, IIT Jodhpur (Venue F3- Seminar Hall), 30 Minute	Dr. Sandip Patil, E spin Nanotech (Venue F3- MDP Hall), 30 Minute	Dr. Vijay Mudgal, Fichtner Consulting Engineers (India) Pvt. Ltd. (Venue F1- MDP Hall), 30 Minute
	Technical Poster Presentation Session-21 (E2- Auditorium)	Technical Poster Presentation Session-22 (E2- Auditorium)	Technical Poster Presentation Session-23 (E2- Auditorium)	Technical Poster Presentation Session-24 (E2- Auditorium)
1:00 PM -1:45 PM (Technical Poster presentation)	Session Chairs: 1. Dr. Milan Singh IIT Roorkee 2. Dr Sanjay Kumar Tyagi, Higher Colleges of Technology, Fujairah, United Arab Emirates	Session Chairs: 1. Dr. D K Singh, NSUT Delhi 2. Dr. Jitendra Mohan Giri, Lloyd Institute of Engineering & Technology, Greater Noida 3. Prof. (Dr.) Navneet Kumar Motihari Engineering College, Motihari, (Govt. Institute), Bihar	Session Chairs: 1. Dr. Suvandan Saraswat, JSS Academy of Technical Education, Noida 2. Dr Vikas Goyat, SRM Institute of Science and Technology, Ghaziabad	Session Chairs: 1. Dr Mahesh Kumar Gupta, SRM Institute of Science and Technology, Ghaziabad 2. Dr Gyander Ghangas, SRM Institute of Science and Technology, Ghaziabad 3. Dr. Ashish Kumar Srivastava, MIT Muzaffarpur, Bihar

Coordinator: Dr. Pallav Gupta		Coordinator: Prof. (Dr.) Shyamal Samant			Coordinator: Prof. Ravinder Kumar		Coordinator: Prof. Puspendra Rathore						
<b>Technical Poster Presentation (E2 -Auditorium)</b>													
<b>Paper-ID</b>		<b>Paper-ID</b>			<b>Paper-ID</b>		<b>Paper-ID</b>						
505	196	519	390	541	626	561	621						
506	188	524	630	542	624	563	601						
509	21	529	611	544	632	567	634						
510	438	533	619	545	593	570	612						
511	467	536	438	549	572	575	628						
282	318	537	633	552	577	578	579						
25	3	638	343	639	266	643	456	635	588	580	641	582	603
461	642	562	335	643	458	559	636	457	892			467	
<b>1:45 PM-2:30 PM</b>		<b>LUNCH (F-1 Block)</b>											
<b>Guest of Honor Talk</b>													
<b>2:30 PM -3:15 PM</b>		<b>Prof. (Dr.) G. Biswas, IIT Kanpur (Guest of Honor) (Venue E2 Auditorium)</b>											
<b>3:15 PM-4:35 PM</b>		<b>VALEDICTORY FUNCTION - Venue: E2 Auditorium</b>											
<b>4:35PM- 4:45M</b>		<b>Photo Session</b>											
<b>4:45PM</b>		<b>HIGH- TEA</b>											