

TECHNICAL PROGRAM – 21st IBCAST-2024

(Fluid Dynamics Activity)

	0930-1010	1010-1030	1030-1050	1050-1110	1110-1130	1130-1210	1210-1230	1230-1250	1250-1310	1310-1430	1430-1510	1510-1530	1530-1550	1550-1630	1630-1710	1710-1730	1730-1750	1750-1810		
Day – 1 20 th Aug											REGISTRATION & CHECK-IN				Chaired by Dr. M. Rafique					
											Invited Talk				1	2	3			
											Dr. Shazia Bashir PIEAS				ID-135	ID-294	ID-331			
Day – 2 21 st Aug	Chaired by P.J. Skinner					TEA	Chaired by Prof. Sitki UsLu				LUNCH	Chaired by Mauro F. Morelli								
	Invited Talk	4	5	6	Invited Talk		7	8	9	Invited Talk		10	11	Invited Talk						
	Mauro F. Morelli CSIR, South Africa	ID-67	ID-168	ID-505	Prof. Dr. Liang Guozhu BUAA, China		ID-280	ID-65	ID-498	Prof. Dr. Sitki UsLu TEDU, Turkey		ID-224	ID-298	Peter J. Skinner CSIR, South Africa						
							CHECK-OUT													
Day – 3 22 nd Aug	Chaired by Dr. N. Durrani					TEA	CHECK-OUT													
	Invited Talk	12	13	14																
	Prof. Dr. Sitki UsLu TEDU, Turkey	ID-34	ID-299	ID-144																
Day – 4 23 rd Aug	CLOSING CEREMONY																			

LEGENDS		Session Chair
		Invited Talks
		Contributed Talks

21st IBCAST-2024

FLUID DYNAMICS ACTIVITY

(TECHNICAL PROGRAM)

DAY-1	SESSION – I [Chaired by Dr. Muhammad Rafique]	20 th August 2024
16:30 – 17:10	Invited Talk – Droplet Microfluidics: Fundamentals and Applications	Dr. Shazia Bashir PIEAS
17:10 – 17:30	#1 [ID-135] - Experimental and Numerical Investigation of Heat Transfer Enhancement with Optimized Fin and Hybrid Nano Fluid for Transformer	M. Hammad Asif, IST
17:30 – 17:50	#2 [ID-294] - Enhancing Water Droplet Movement on Digital Microfluidic Platform using Replaceable Dielectric Layer and Natural Hydrophobic Lubricants	Hammas Ullah, GIKI
17:50 – 18:10	#3 [ID-331] - Impact of Gravitational Force on droplets on sliding surfaces in Digital Microfluidics	Moazzam Ali, GIKI

DAY - 2 SESSION – I [Chaired by Peter Jonathan Skinner]		21st August 2024
09:30 – 10:10	Invited Talk – Aspects of Wind Tunnel Testing Practices	Mauro F. Morelli CSIR, South Africa
10:10 – 10:30	#4 [ID-67] – Optimizing Electric Ducted Fan Performance (EDF): A Computational Design and Analysis Approach	M. Abid Ali, NUST
10:30 – 10:50	#5 [ID-168] – Flight Mechanics of a Supersonic Projectile: A Parametric Investigation	Abdul Rafey, NUST
10:50 – 11:10	#6 [ID-505] – To Investigate the Dynamic Stability of an Autonomous Under Water Vessel Using Computational Fluid Dynamics	Arif Hussnain, CESAT
11:10 – 11:30	<u>TEA BREAK</u>	
SESSION – II [Chaired by Prof. Dr. Sitki UsLu]		
11:30 – 12:10	Invited Talk – Inlet Flow Characteristics Analysis of Air-breathing Rotating Detonation Engine	Prof. Dr. Liang Guozhu BUAA, China
12:10 – 12:30	#7 [ID-280] – Identification of Important Design Zones of Bladeless Thruster	M. Farzan Aslam, IST
12:30 – 12:50	#8 [ID-65] – Analysis of Hot Streak Migration Characteristics in a Transonic Turbine Employing Nonlinear Harmonic Method	M. Afzaal Asghar, CESAT
12:50 – 13:10	#9 (ID-498) – Vortex Flow Mechanism Study of Plasma Co-Flow Jet Cylinder	Fahad Nawaz, NPU, China
13:10 - 14:30	<u>LUNCH BREAK</u>	
SESSION – III [Chaired by Mauro F. Morelli]		
14:30 – 15:10	Invited Talk – CFD Prediction of Ignition and High Altitude Relight in a Jet Engine Combustor	Prof. Dr. Sitki UsLu, TEDU, Türkiye
15:10 – 15:30	#10 [ID-224] – Aerodynamics and Stability Characteristics of BWB Aircraft In-Ground-Effects	Bilal Ali, NUST
15:30 – 15:50	#11 [ID-298] – Multi-Fidelity Aerodynamic Shape Optimization Strategies: Minimizing Induced Drag and Achieving Desired Lift Distribution	Amna Haq, IST
15:50 – 16:30	Invited Talk – Perspectives on Design of Experiments	Peter Jonathan Skinner CSIR, South Africa

DAY-3**S E S S I O N – I [Chaired by Dr. Naveed Durrani]****22nd August 2024**

09:30 – 10:10	Invited Talk – Numerical and Experimental Investigation of Combustion Instability in a Dual Inlet Dump Type Ramjet Combustor	Prof. Dr. Sitki UsLu TEDU, Türkiye
10:10 – 10:30	#12 [ID-34] – Lattice Boltzmann Simulation of a Gas Diffusion Stage	Fahad Ahmed, IST
10:30 – 10:50	#13 [ID-299] – VIV & Heat Transfer for flow around a Square Cylinder with Corner Modifications at Low Re	Asad Ijaz, MUST
10:50 – 11:10	#14 [ID-144] – Lattice Gas Simulation of Droplets in Bipropellant Spray Configuration	Waleed Arshad, CESAT
11:10 – 11:30	<u>TEA</u>	
11:30 – 13:00	ROOM CHECK - OUT	
13:10 - 14:30	LUNCH	