2ⁿᵈ International Conference on Modern Research in Aerospace Engineering (MRAE 2023)		
Conference Schedule		
Day 1: 21ˢᵗ September 2023 (Thursday)		
8:30 AM-9:30 AM	Registration (F2 Block Foyer)	
9:30 AM-11:05 AM	INAUGURAL SESSION (F2-Seminar Hall)	
11:05 AM-11:15 AM	Tea Break	
11:15 AM-12: 15 AM	Keynote Talks 1 & 2 (F2-Seminar Hall)	
Parallel Technical Sessions		
	Technical Session 1 (F2 Seminar Hall)	Technical Session 2 (F1 MDP Room)	Technical Session 3 (G 06 Block B)
	Session Chair: Professor Andrew Ooi	Session Chair: Professor T. K. Jindal	Sessin Chair: Professor Om Prakash Singh
	Session Co-Chair: Professor V. R. Sanal Kumar	Session Co-Chair: Dr. H. Jeevan Rao	Session Co-Chair: Professor Sanjay Singh
	T-1	T -12	T-10
12:15 PM	Paper ID- 23	Paper ID-10	Paper ID-4
12:30 PM	Paper ID- 27	Paper ID-19-offline	Paper ID-45
12:45 PM	Paper ID- 39	Paper ID-22- offline	Paper ID-53
1:00 PM	Paper ID- 76	Paper ID-24	Paper ID-89
1:15 PM	Lunch (F2 block)		
02:15 PM-3:15 PM	Keynote Talks 3 & 4 (F2-Seminar Hall)		
Parallel Technical Sessions		
	Technical Session 4 (F2 Seminar Hall)		Technical Session 5 (F1 MDP Room)
	Session Chair: Professor Andrew Ooi		Session Chair: Professor T. K. Jindal
	Session Co-Chair: Professor V. R. Sanal Kumar		Session Co-Chair: Dr. H. Jeevan Rao
	T-1		T-12
3:15 PM	Paper ID- 79		Paper ID-36-offline
3:30 PM	Paper ID- 83		Paper ID-50
3:45 PM	Paper ID- 95-offline		Paper ID-56
4:00 PM	Paper ID- 96-offline		Paper ID-64
(04:15 to 04:30) Tea Break		
4:30 PM	Paper ID- 102		Paper ID-81
4:45 PM	Paper ID- 103		Paper ID-70
5:00 PM	Paper ID- 108		Paper ID-73-offline
5:15 PM	Paper ID- 122-offline		Paper ID-98
5:30 PM	Paper ID-116-offline (T-7)		Paper ID-99
5:45 PM			Paper ID-107
	Tea		
Dinner (07:30 PM)		

2nd International Conference on Modern Research in Aerospace Engineering (MRAE 2023)			
Conference Schedule			
Day-2: 22nd September-2023 (Friday)			
09:30 AM-10:30 AM	Keynote Talks 5 & 6 (F2-Auditorium)		
10:30 AM-10:45 AM	Tea Break		
Parallel Technical Sessions			
	Technical Session 6 (F2 Auditorium)	Technical Session 7 (F1 MDP Room)	Technical Session 8 (F 3 MDP Hall)
	Sessin Chair: Professor V.R. Sanal Kumar	Sessin Chair: Professor Sachin Singh Gautam	Session Chair: Professor Mahesh G T
	Session Co-Chair: Dr. Basant K Agarwal	Session Co-Chair: Dr. H. Jeevan Rao	Session Co-Chair: Dr. Neeraj K Gahlot
	T- 3	T-11	T-4, 6, 5, 7 & 9
10:45 AM	Paper ID- 14	Paper ID-05	Paper ID-07
11:00 AM	Paper ID-35	Paper ID-62-offline	Paper ID-105
11:15 AM	Paper ID-41	Paper ID-74	Paper ID-106
11:30 AM	Paper ID-49	Paper ID-75	Paper ID-93
11:45 AM	Paper ID- 67	Paper ID-77	Paper Id-104-offline
(12:00 to 12:10 PM) Tea			
12:10 PM	Paper ID- 68	Paper ID-80	Paper ID-32
12:25 PM	Paper ID- 69	Paper ID-84	Paper ID-66
12:40 PM	Paper ID- 87	Paper ID-114	Paper ID-59
12:55 PM	Paper ID-100	Paper ID-115	
1:10 PM	Paper ID- 111		
1:25 PM	Paper ID-112		
(01:40 to 2:10 PM) Lunch			

02:10 PM-03:10 PM	Keynote Talks 7 & 8 (F2-Auditorium)	
	Parallel Technical Sessions	
(03:10 to 3:20 PM) Tea		
	Technical Session 9 (F2 Auditorium)	Technical Session 10 (F1 MDP Room)
	Sessin Chair: Professor Priyanka Vasistha	Sessin Chair: Professor Sachin Gautam
	Session Co-Chair: Dr. H. Jeevan Rao	Session Co-Chair: Dr. Narender Singh
	T-8	T-2
3:20 PM	Paper ID-11	Paper ID-34
3:35 PM	Paper ID-12	Paper ID-43
3:50 PM	Paper ID-15	Paper ID-117
4:05 PM	Paper ID- 82	Paper ID-86
4:20 PM	Paper ID- 94	Paper ID-90
4:35 PM		Paper ID-101
04:35 PM-05:05 PM	**Presentation of Conference report and Vote of thanks**	
	(F2-Auditorium)	
(5:05 to 5:15) Tea		

Track No.	Track Details
1	Aerodynamics, Fluid Dynamics, Wind Tunnel and Computational Fluid Dynamics
2	Aerospace Materials, Composite Materials and Manufacturing System
3	Aerospace Propulsion and Combustion systems
4	Air Safety, Air Worthiness and Environmental issues
5	Airborne Defense Systems
6	Aircraft Control System and Stability
7	Aircraft Maintenance, Overhauling, NDT and other technical tests
8	Artificial Intelligence and Machine Learning applications in Aerospace Engineering
9	Electric Mobility in Aerospace Engineering
10	Space Research, Rocketry, Avionics and Instrumentation
11	Structural Analysis and Finite Element Method
12	Unmanned Aerial Vehicles

Paper ID	Paper Title	Author Names
4	Numerical Analysis of Forebody Wake Effects on Parachute Performance for Re-Entry Space Application	M, Rudresh*; Mehrotra, Raghav; Ruhal , Akshat ; Golchha, Tinu ; Tiwari, Harsh
5	Analytical Model of Spur Gear Tooth Crack for Evaluating the Effect Of Crack Propagation Angle On Vibration Response	Barot, Ami R*; Kulkarni, Pravin
7	Predicting Air Pollution: A Smart Step in Pollution Management	Bansal, Megha*; Goel, Neha; Rustagi, Mitanshi
10	Design And Development of Hand Gesture Drone	Sinha, Jayanta*; Ghadge, Aayush ; Khandelwal, Ayush
11	Eduline: A Novel Edtech Platform	Pathak, Shrey *
12	Net Quest: Networking Through Gaming	Bansal, Pankaj*; Sharma, Dr Purushottam; Salina Singh, Rushali; Saini, Aarushi
14	Numerical Studies of Hybrid Rocket Propellent	Srivastava, Sachin*
15	Analysis Of Code Smells Using Machine Learning Algorithms	Gupta, Aakankshi*
19	Solar Powered Fixed Wing UAV: Fabrication Procedures with Design Methods	N C, Ajay Vishwath*; Dhanwani, Payal; Bendale, Ram; Mehta, Parshva; Baghel, Rajeev Kumar
22	Experimental Testing of Agriculture Drone with Design Optimization	N C, Ajay Vishwath*; Rajput, Akash; Gouse, Shamam; Bhuva, Sneha; Pandey, Upendra
23	Aerodynamic Analysis of The Disk Shape on The Multi Row Disk Inlet Device	Sinha, Jayanta*; Singh, Sanjay
24	Control Systems for Unmanned Aerial Vehicles: Advancement And Challenges	Yogi, Nikhil*; Kumar, Niraj
27	A Tri-Ducted Fan Tilting VTOL UAV: Conceptual Design and Aerodynamic Analysis	Arora, Divij; Nikam, Sanjivini; Singh, Riptapan; Kumar, Rahul*; Thakur, Amit Kumar ; Gupta, Lovi Raj; CM, Bilji
32	Long Range, Wide Swath, Fast and Real-Time High-Resolution SAR Image Formation Using Digital Beam Formation	Goswami, Anupama*; ARORA, NEHA
34	Experimental And Computational Evaluation of Mechanical Properties of Glass Epoxy Composite Laminates at Different Fiber Orientations	REDDY, KOTA BHASKAR; Singh, Narender*; Saluja, Rajesh K; Gahlot, Dr. Neeraj Kumar
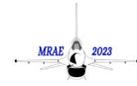
35	Aging And Atomization Characteristics of Aluminium Loaded and Unloaded Ethanol Gel	Jain, Sankalp*; Kumar, Rajiv
36	Design, Calibration and Navigation of Bird Ambulance Drone Using APM Flight Controller	N C, Ajay Vishwath*; Pandey, Sujeet; Vechalapu , Phanendra; kurmapu, amarnath; Reddy, tarun
39	Parametric Studies of An Un-Guided Rocket Using Simple Point-Mass Trajectory Simulation Model	Panwar, Mardav*; Gorrepati, Dr. Srinivasa Rao; Chauhan, Manish Kumar
41	Prediction Of Thermal Conductivity of Binder Systems Of High Energy Propellant Using Reverse Non-Equilibrium Molecular Dynamics Simulation Method	M, Alphin*; Singh, Avtar; Gorrepati, Dr. Srinivasa Rao; Chauhan, Manish Kumar
43	Microstructural Analysis of Mg/CNT Surface Composite Using Friction Stir Processing	tolety, eesha; gupta, anmol; Singh, Narender*; Saluja, Rajesh K; Gahlot, Dr. Neeraj Kumar
45	Multi-Layer Microstrip Antenna for Broadband Monopulse Tracking Technique	Panchal, Vrajesh*; Borkar, Dr. Vijay; ARORA, NEHA
49	Experimental Determination of Heat of Combustion Values, Viscosity, Surface Tension And Density For Different Jet Fuel And 2-Propanol Blending	Paul, Arghya*
50	Non-Linear Controller for A Drone with Slung-Load	Manalathody, Abhishek; Santhana Krishnan, Kishoor; Subramanian, Jisnu Adindtra; Thangavel , Sakthivel *; Thangeswaran, Rajesh Senthil Kumar
53	Design And Implementation of FFT Using VERILOG HDL For Radio Altimeter Signal Processing	SAI RAMA, SARAVANA KOLLURI*; ARORA, NEHA
56	Enhancing The Performance of UAV Propeller Using Bio-Inspired Humpback Whales Tubercle - A Parametric Study at The Hub and Tip Locations	R, Kousik Kumaar*; T, Muthumari; M, Kesavan; M, Saravanan
59	Optimization Of Design Parameters for Fuel Cells Used in Spacecrafts	Bhandari, Vansh*; Saluja, Rajesh K; Singh, Narender; Gahlot, Dr. Neeraj Kumar
62	Machine Learning Assisted Development of Eight Noded Hexahedral Finite Element	Tadala, Subhash; SINGH, ANKIT; Nath, Dipjyoti; Gautam, Sachin S*
64	A Comparative Study of PID And Non-Linear Backstepping Flight Control Laws for Pixhawk-Based Multicopter	Singh, Divyansh*; Radhakrishnan , Keerthana ; Verma, Hari Om; Kumar, Vivek; Saluja, Rajesh K; Singh, Sanjay
66	Countering Drone Using a Mountable Net Mechanism	M, Rudresh; Shetty Kannoor, Ayush; Babunaidu, Gagana*; Manoharan, Gnana Shibi; S Bellavi, Sudeep ; Tsalla, Vinayak; G V , Sharath Chandra
67	Effect Of Different Injectors on Performance of Hybrid Rocket Motor by Varying The L/D Ratio	Dubey, Arpit*; Kumar, Rajiv
68	Effect Of Change in Alignment of The Multiport Grain on The Performance of A Hybrid Rocket Motor	Deep, Gyan*; Kumar, Rajiv
69	Effect Of Metal Addition on The Ignition Characteristics of a Pyrotechnic Igniter	Dubey, Ritesh*
70	Enhancing UAV Capabilities for Environmental Research and Rescue Missions Through Autonomous Control And Sensor Integration	Sheikh, Raahil Riyaz*; Gujjar, Priya; Dabas, Arjun; Minde, Prathamesh; Dwivedi, Himanshu
73	Analysis On Performance of Various BLDC Motor and Propeller	N C, Ajay Vishwath*; Vaishampayan, Vibhav; Patil, Deep; Mehta, Parshva; Donde, Gaurangi

74	Designing And Analysis of Mild Steel Landing Gear Strut for A 3 Ton Unmanned Aerial Vehicle	S M, Satheesh*; Thirumurugan, Vishal; N R, Thirushah; S, Subramanian
75	Comparative Study of Natural Frequency of a C-141a-Il Air-foil Wing and Cantilever Beam: Simulation and Experimental Investigation	Sehgal, Madhav*; Trikha, Saarthak; Tripathi, Sudhanshu
76	Dynamic Stall of a Pitching Airfoil: Comparison Of Open-foam Results With ONERA Model	Thangeswaran, Rajesh Senthil Kumar*; Thangavel , Sakthivel ; Ramachandran, Sanjay; Micheal, Arockiya Fridolin Sherbin; Rajarathinam, Gengatharan; Lakshmanan, Deepak
77	Physics Informed Neural Network for Adhesive Problems	Kini, Ayush Prasad; Nath, Dipjyoti; Gautam, Sachin S*
79	Conjugate Heat Transfer In 2D Square Cylinder Using Lattice Boltzmann Method	Hussain, Aanif*
80	Prediction And Experimental Validation of Burst Pressure of A Gimbal Bellow Used In A Cryogenic Stage Of A Launch Vehicle	K R, Unnikrishnan*; Srinivas, Kodati; R, Vasudevan; Asraff, A K
81	Design And Calibration With Flight Testing of KK2.1.5 Flight Controller Powered Drone	N C, Ajay Vishwath*; Patel, Mansha Kumari; Yella, Aamuktha; Darji, Hitarth; Modha, Khushi
82	Application Of Artificial Neural Network in Impact and Crashworthiness: A Review	Nath, Dipjyoti*; SINGH, ANKIT; Neog, Debanga Raj; Singh, Sachin S
83	A Comparative Study of Dual Throat Nozzles for Fluidic Thrust Vectoring Applications	M, Siva sakthi*; Bogadi, Surendra
84	Experimental, Theoretical and Numerical Study of Aluminium 6061 – Poly Urethane Foam Sandwich Composite for Space Ground System Infrastructure	Sharma, Manish*; Sandeep, Sreelakshmi
86	Effects Of Reinforcements on Mechanical and Microstructural Properties of Aerospace Al-Li Alloy Based Composites: A Review	Ghangas, Gyander*; Daniel, Freedon
87	Optimization Of Temperature for Synthesis of Low Molecular Weight Glycidyl Azide Polymer As Plasticizer	Kommajosyula, Nikhil*; Biswas, Shelly ; SARANGI P, PRABHU PRASAD
89	Studies Of Curing Time and Curing Temperature Of AP-HTPB Based Composite Solid Propellant.	Phondekar, Prabhat D*; Biswas, Shelly
90	Free Vibration Analysis of Functionally Graded Material Sandwich Plate Using Refined Shear Deformation Theory	Malviya, Saloni*; Sah, Supen Kumar
93	Control Applications in Marine Robot Vehicles.	Arun, Arun*; PRASAD, MODI PANDU R
94	Impression Of Stressors and Stress Detection Model Using Amalgamation of Machine Learning and Transfer Learning in Aviation	Bansal, Megha*; vyas, Dr. vaibhav
95	A Concise Explanation of Aerodynamic Lift and The Threshold Condition for Drag Divergence and Shock Wave in Transonic Aircraft	Vinay, Dekkala*; VR, SANAL KUMAR; Sharma, Raunak; Dey, Ria P; Raj, Yash; Panchal, Dhruv
96	Longitudinal Static and Dynamic Stability of a Biconic Re-Entry Body in Subsonic Mach Number Using CFD	Leons, Joben Benedict*; M, Jathaveda; G, Vidya
98	Development of a Sampling Based UAV Path-Planner for Collision-Free Navigation	malik, aliasgar s*; Radhakrishnan, keerthana; Verma, Hari Om; Kumar, Vivek
99	Design And Fabrication of Flapping Wing Uav	Biswal, Ashutosh*; Batosiya, Vanshika; Kapatkar, Tejas S; Saluja, Rajesh K; Verma, Hari Om

100	Let's Make the Boeing 2707 Supersonic Passenger Aircraft Fly: Higher Standoff Distance of Sonic Jacket Reduces Aerodynamic Heating	Vinay, Dekkala*; VR, SANAL KUMAR; Sharma, Raunak
101	Evaluation of Elastic, Mechanical and Thermophysical Properties of Nanostructured Aluminides for Aviation Industries	Tripathi, Sudhanshu*; Saluja, Rajesh K; Vashisth, Dr. Rashmi; Singh, Devraj
102	Investigation Of Full-Length Aerospike Nozzle	Reza, Md Saquib*; Agarwal, Dr. Basant; Tarnacha, Ram
103	Enhancing Robotic Arm Performance: Integrating Arduino Control and Aerodynamic Principles For 6 Degrees of Freedom	Vashisht, Priyanka*
104	Analysis Of Indian Aircraft Maintenance Engineer Licensing in The Global Regulatory Framework	Paidisetty, Manoj K*; VR, SANAL KUMAR; Singh, Sanjay; Chandola, Deepak Chandra
105	Assessing The Influence of Quality Control and Assurance on Aircraft Maintenance Turnaround Time Reduction: A Regression Modelling Approach	Chandola, Deepak Chandra*; Chandola, Preeti; Verma, Seema; Jaiswal, Kamal; Paidisetty, Manoj K; Kholiya, Rajendra Prasad
106	Fuzzy FMERA Methodology with Safety, Redundancy, And Diversity Considerations	Sarswat, Rohan*
107	Various Payload Dropping Mechanisms Used in Aerial Vehicles	Srivastava, Riddhi *; Suman, Pratiksha ; Gaba, Akshita ; Verma, Hari Om
108	Combined Effects of External and Nozzle Exit Flows on The Jet Acoustic Power Levels of Chevron Nozzles for Transonic Aircraft	Ahmad, Arsalan*; Vinay, Dekkala; Sundaria, Shubhangi; Raza, Sobia; Srivastasva, Maansi; Singh, Tanisha; Saha, Sagnik; VR, SANAL KUMAR
111	Design Of Detonation Free High-Performance Dual Thrust Solid and Hybrid Propellant Rockets Using the Chapman–Jouguet Condition	Vinay, Dekkala*; Kushwaha, Amit; Sharma, Hindool; Abbas, Arwa Farhat; Sharma, Raunak; Dey, Ria P; Raj, Yash; Panchal, Dhruv; Sharma, Rohan; Sai Shashank, Akula; Pradeep, Hridya B ; VR, SANAL KUMAR; Sarswat, Rohan
112	Design Of Tip-Optimized Chevrons to Enhance Momentum Thrust and Reduce Acoustic Power Levels in Supersonic Aircraft	Vinay, Dekkala*; Kapatkar, Tejas S; Biswal, Ashutosh; Ashraf, Md Ibrahim; Batosiya, Vanshika; VR, SANAL KUMAR
114	Isogeometric Free Vibration Analysis of Multilayered Composite Plates in Hygrothermal Environment	Gupta, Abha*; Prasad, Rabindra; Kumar, Rakesh ; Jindal, Tejinder Kumar
115	Linear Thermal Bending Analysis of Functionally Graded Square Plate Under Different Boundary Conditions and Geometric Effects	Sahoo, Smruti Ranjan*; Verma, Surendra; Thakur, Babu Ranjan; Singh, Bhrigu Nath
116	Recent Developments of Battle Tanks Used in Defence Applications – A Review	T, Mahesha G*
117	An Observer-Based Solution for Structural Health Monitoring of Mechanical Systems Subjected to Unknown Inputs.	Rao, H Jeevan *
122	Recent Development of Aircraft Engine Axial Flow Compressor – A Review	G, SRINIVAS*