

4TH ICRAME 2023

February 03-05, 2023

Program Schedule

Day-1 (03rd February, Friday)

Time (IST)	Session	DETAILS OF THE SESSION	Venue
08:15-09:00AM		REGISTRATION	Dr. Bhupen Hazarika Auditorium, New Library
09:00-10:30 AM		INAUGURAL CEREMONY https://meet.google.com/mfk-uovh-kir	Dr. Bhupen Hazarika Auditorium, New Library
10:30-11:00 AM		HIGH TEA	Dr. Bhupen Hazarika Auditorium, New Library
11:00-12:00PM	Keynote Address – 1	PROF. S. S GOKHALE <i>Chair-Prof. A. Dalal</i> <i>Co-chair-Dr. A.B. Deoghare</i>	Dr. Bhupen Hazarika Auditorium, New Library
12:00-01:00 PM	Keynote Address – 2	PROF. P. CARLONE <i>Chair- Prof. R. Balasubramaniam</i> <i>Co-chair- Dr. S. Bhowmik</i>	Dr. Bhupen Hazarika Auditorium, New Library
01:00-02:30 PM		LUNCH BREAK	
2:30-03:30 PM	Keynote Address – 3	PROF. R. BALASUBRAMANIAM <i>Chair- Prof. P. Carlone</i> <i>Co-Chair- Prof. P. K Patowari</i>	Dr. Bhupen Hazarika Auditorium, New Library
03:45-05:05 PM	Technical Session-1 (Offline) (Thermofluid-1) Chair-Dr. D. Bhanja Co-Chair- Dr. B. Nath	1. PID-45: IMPLICATION OF VISCOPLASTIC FLUID ON HEAT TRANSFER ENHANCEMENT THROUGH CHANNEL WITH BACKWARD FACING STEP <i>Author (s): Saurav Kumar, Md. Faizan, Sukumar Pati, Pitamber R Randive</i> 2. PID-89: FORCED CONVECTION HEAT TRANSFER AROUND A ISOTHERMAL SPHERE FOR LOW PRANDTL NUMEBRS <i>Author (s): Rupam Saha, B. Hema Sundar Raju</i> 3. PID-94: PREDICTION OF STORE SEPARATION TRAJECTORIES OF THE EGLIN TEST MODEL	Dr. Bhupen Hazarika Auditorium, New Library

		<p>USING CRADLE CFD <i>Author (s): Ganesh Pawar R, Nuza Nigar, Praphul T., Karthik Sundarraj</i></p> <p>4. PID-138: NUMERICAL INVESTIGATION ON HEAT TRANSFER AND FLUID FLOW IN A CIRCULAR TUBE WITH RECTANGULAR CUT TWISTED TAPE <i>Author (s): Voddepalli Soumith, Sujit Nath, Agnimitra Biswas</i></p> <p>5. D-124: SENSITIVITY ANALYSIS OF COMBINED ELECTROOSMOTIC AND PRESSURE-DRIVEN FLOW IN A MICROCHANNEL: AN ANALYTICAL STUDY <i>Author (s):Ananya Kalita, Smruti Sourav, Debanjan Banerjee, Sukumar Pati, Pankaj Biswas</i></p>	
	<p>Technical Session-2 (Offline) (Design Synthesis-1)</p> <p>Chair: Dr. P. Choudhury Co-Chair: Dr. Santosh Kumar</p>	<p>1. PID-21:DESIGN AND ANALYSIS OF HIGHLY SENSITIVE PIEZOELECTRIC ACTUATED ACCELEROMETE <i>Author (s): Manda Krishna Sai Lakshmi Gayatri, Raju Kovvasu ,Prabina Kumar Meher, Alfa Bisoi</i></p> <p>2. PID-108: DYNAMIC ANALYSIS OF FUNCTIONALLY GRADED PANELS IN THERMAL ENVIRONMENT USING COMSOL <i>Author (s): Ashish Kuma Singh, Atanu Sahu</i></p> <p>3. PID-68: DYNAMIC RESPONSE ANALYSIS OF FUNCTIONALLY GRADED STIFFENED PANELS SUBJECTED TO BLAST LOADING <i>Author (s): Anwasha Pal, Anuja Roy, Atanu Sahu</i></p> <p>4. PID-201: CNT REINFORCED ALCOCRFENI HIGH-ENTROPY ALLOY UNDER SHEAR LOADING-A MOLECULAR DYNAMICS APPROACH <i>Author (s): Subrata Barman, Sudip Dey</i></p> <p>5. PID-84: COMPARATIVE ANALYSIS OF TODIM AND TOPSIS FOR AN AUTOMOBILE PARTS SUPPLIER <i>Author (s): Rishav Raj Singh, Divya Zindani, Saikat R Maity</i></p>	<p>Seminar Room, Department of Mechanical Engineering</p>
	<p>Technical Session-3 (Offline) (Materials and Machining Processes-1)</p> <p>Chair: Dr. S. Bhowmik Co-Chair: Dr. Prosum Mondal</p>	<p>1. PID-74: EXPERIMENTAL INVESTIGATION OF FIBER LASER TREPAN DRILLING FOR TITANIUM ALLOY USING MOORA ANALYSIS <i>Author (s): Alemu Workie Kebede, Promod Kumar Patowari, Chinmaya Kumar Sahoo</i></p> <p>2. PID- 7: PREPARATION AND PROPERTIES OF PLURONIC F-127 BASED ALUMINA INKS FOR ADDITIVE MANUFACTURING <i>Author (s): Debabrata Majumder, P Karuna Purnapu Rupa</i></p> <p>3. PID-69: RECENT ECENT PROGRESS ON COOLING SYSTEM IN MACHINING: A REVIEW <i>Author (s): Deepak Kumar Sharma, Krishna Murari Pandey</i></p> <p>4. PID-82: MACHINING OF MICRO-CHANNEL USING WIRE ELECTRICAL DISCHARGE MACHINING AND ITS PARAMETRIC STUDY</p>	<p>Seminar Room, Department of Mathematics</p>

		<p><i>Author (s): Paresh Kumar Padhy, Pallab Sarmah, Promod Kumar Patowari</i></p> <p>5. PID-73: A STUDY ON MACHINABILITY OF TI-6AL-4V ELI (GRADE 23) TITANIUM ALLOY USING MICRO-EDM PROCESS <i>Author (s): Tanmoy Majumder, Promod Kumar Patowari</i></p>	
	<p>Technical Session-4 (Online) (Design and synthesis-2) Chair: Dr. S. Dey Co-Chair: Dr. D. Sunilkumar</p>	<p>1. PID-72: DYNAMIC BEHAVIOUR OF ALUMINIUM ALLOY 7075 USING SHPB SIMULATION <i>Author (s): Yasir Majeed Bhat, Manish Kumar Gupta</i></p> <p>2. PID-88: FAULT DIAGNOSIS IN ROTATING MACHINES USING VIBRATION ANALYSIS <i>Author (s): Shamim Pathan, Nilaj N Deshmuk, Praseed Kumar</i></p> <p>3. PID-47: STUDY ON VIBRATION PARAMETERS OF ADHESIVELY BONDED PLATE STRUCTURE: SIMULATION AND EXPERIMENTATION APPROACH <i>Author (s): Waseem Baig, Mohammed Mushtaq</i></p> <p>4. PID-101: VIBRATION BASED DAMAGE DETECTION IN PLATES USING MODE SHAPES <i>Author (s): Shubham S. Makwana, Nilaj N. Deshmukh, Praseed Kumar</i></p> <p>5. PID-153: POSITIONAL ACOUSTIC ANALYSIS OF NOISE ATTENUATION IN LOUVER WINDOW CONFIGURATIONS <i>Author (s): Santosh Kumar, N. S. Sriprasad, B. Goutham Krishna, B. Mohammed Akram, R. Eshanth and G. Avinash</i></p>	<p>Presentation Link: https://meet.google.com/mfk-uovh-kir</p>
	<p>Technical Session-5 (Online) (Energy-01) Chair: Dr. P. Debroy Co-Chair: Dr. Santosh Kumar</p>	<p>1. PID-22: THERMAL PERFORMANCE EVALUATION OF ALIGNED AND STAGGERED BATTERY CELL CONFIGURATIONS FOR LI-ION BATTERY PACK <i>Author (s): Satya Prakash Verma, Samir Saraswati</i></p> <p>2. PID-59: SIMULATION AND EXPERIMENTAL ANALYSIS OF A SINGLE AXIS PASSIVE SOLAR TRACKER <i>Author (s): Shivam Tiwari, Tangellapalli Srinivas, Parmvir Singh</i></p> <p>3. PID-136: AN APPLICATION OF MULTIVARIATE REGRESSION ANALYSIS IN YIELD OPTIMISATION OF BIODIESEL SYNTHESIS FROM USED SUNFLOWER OIL <i>Author (s): Prasanta Kr. Choudhury and Marulina Kalita</i></p> <p>4. PID-27: COMPARATIVE REVIEW ON BIO-DIESEL WITH WATER EMULSIFIED DIESEL AS AN ALTERNATIVE FUEL FOR CI ENGINES <i>Author (s): Sabyasachi Naiya, Pijush Kanti Mondal, Bijan Kumar Mandal</i></p> <p>5. PID-53: ARTIFICIAL NEURAL NETWORK BASED MODEL FOR GALLOPING BASED PIEZOELECTRIC ENERGY HARVESTER <i>Author (s): Rakesha Chandra dash, Prabhat Ranjan</i></p>	<p>Presentation Link: https://meet.google.com/mekn-qrt</p>

05:05-05:15 PM		TEA BREAK	All 3 venues
05:15-06:35 PM	<p>Technical Session-6 (Offline) (Energy-2) Chair: Dr. S. Nath Co-Chair: Dr. P. Singh</p>	<ol style="list-style-type: none"> 1. PID-86: THE FEASIBILITY OF MICRO HYDRO POWER PLANT IN KAMLE DISTRICT OF ARUNACHAL PRADESH OF INDIA: A CASE-STUDY <i>Author (s): Bikuk Lomdak, A. Parida, Ghritartha Goswami, Shantanu Dutta,</i> 2. PID-157: SOLAR-HYBRID POLYGENERATION SYSTEMS: RECENT DEVELOPMENTS IN DESIGN AND PERFORMANCE <i>Author (s): Utpal Kumar Dutta, Agnimitra Biswas, Dipankar Bhanja</i> 3. PID-127: PERFORMANCE TESTING OF A NOVEL PEROVSKITE BASED CATALYTIC CONVERTOR FOR EMISSION REDUCTION OF A CI ENGINE UNDER DIFFERENT EQUIVALENCE RATIOS <i>Author (s): Benjamin E Basker, Abhishek Paul, Sumita Debbarma</i> 4. PID-120: TORQUE COEFFICIENT EVALUATION OF A DOUBLE-STAGE DOUBLE BUCKET SAVONIUS WATER TURBINE IN LOW-FLOW STREAMS <i>Author (s): Kanak Chandra Sarma, Biswajit Nath, Agnimitra Biswas, Rahul Dev Misra</i> 5. PID-184: A COMPARATIVE STUDY ON USABILITY PROSPECTS OF HYDROGEN AND ACETYLENE IN CI ENGINES RUNNING ON RCCI MODE: FINDING OPTIMALITY BY PERFORMANCE, COMBUSTION AND EMISSION ANALYSI <i>Author (s): Parthasarathi Deb, Abhishek Paul, Mukund Kumar</i> 	<p>Dr. Bhupen Hazarika Auditorium, New Library</p>
	<p>Technical Session-7 (Offline) (Thermofluid-2) Chair: Prof. R.D. Misra Co-Chair: Dr. S. Debbarma</p>	<ol style="list-style-type: none"> 1. PID-90: RAYLEIGH-BÉNARD CONVECTION IN A RECTOTRAPEZOIDAL ENCLOSURE <i>Author (s): Debanjan Banerjee, Sukumar Pati, Pankaj Biswas</i> 2. PID-198: NUMERICAL INVESTIGATION ON HEAT TRANSFER ENHANCEMENT USING DIMPLES ON THE INNER PIPE OF A DOUBLE PIPE HEAT EXCHANGER <i>Author (s): Lai Cheng Chetia, Anindya Nath, Darpahari Das, Sukumar Pati, Pitambar R Randive</i> 3. PID-97: EXPERIMENTAL ANALYSIS ON LOCATION AND NUMBER OF EXTERNAL SQUARE DIMPLES ON NACA 4412 PROFILE IN H-DARRIEUS WIND TURBINE <i>Author (s): Sahastranshu K K, A Siva Nagaraju, Rajat Gupta, Biplab Das, A R Sengupta</i> 4. PID-122: EFFECT OF STREAM-WISE JET SPACING ON THE THERMAL PERFORMANCE OF VARIOUS SOLAR AIR COLLECTOR DESIGNS UTILIZING JET IMPINGEMENT <i>Author (s): Supreme Das, Agnimitra Biswas, Biplab Das</i> 5. PID-182: NUMERICAL STUDY OF HYPERTHERMIA TO TREAT MALIGNANT TUMOR IN HUMAN SKIN FOR DIFFERENT AGE GROUP OF PATIENTS: LOCAL THERMAL NON-EQUILIBRIUM APPROACH <i>Author (s): Rituparna Das, Aishik Dinda, Sujit Nath</i> 	<p>Seminar Room, Department of Mechanical Engineering</p>

<p>Technical Session-8 (Offline) (Vibration and Robotics-1) Chair: Dr.S. Halder Co-Chair: Dr. D. Sunilkumar</p>	<ol style="list-style-type: none"> PID-93: COMPARISON OF 2D AND 3D CFD BASED MODELS OF TUNED LIQUID DAMPERS <i>Author (s): Anwasha Pal, Anuja Roy, Atanu Sahu</i> PID-98: VIBRATIONAL ANALYSIS OF A FIXED WING OF AN UAV FOR VIBRATIONAL ENERGY HARVESTING USING ANSYS <i>Author (s): Pushpendra Singh, Alfa Bisoi</i> PID-165: DEVELOPMENT OF A SHAPE MEMORY ALLOY ACTUATION BASED PLANAR 1PRR 2PRP PARALLEL MANIPULATOR <i>Author (s): Rutupurna Choudhury, Sunny Kumar Saurabh, Yogesh Singh</i> PID-155: DESIGN AND DEVELOPMENT OF 4PR PARALLEL LOWER LIMB REHABILITATION ROBOTIC SYSTEM <i>Author (s): Abhishek Kumar, Rutupurna Choudhury, Yogesh Singh</i> 	<p>Seminar Room, Department of Mathematics</p>
<p>Technical Session-9 (Online) (Robotics-01) Chair: Dr. Y. Singh Co-Chair: Dr. P. Mondal</p>	<ol style="list-style-type: none"> PID-169: DESIGN AND DEVELOPMENT OF A COST-EFFECTIVE, 3-FINGERED PROSTHETIC ARM <i>Author (s): Shivansh Chaudhary, Himanshu Kumar, Santha Kumar Mohan</i> PID- 167: REAL TIME CONTROL OF MULTIPLE ROBOTS USING HAND GESTURES <i>Author (s): Anand Kumar Yadav, Krishna Gupta, Abhishek Kaushal, Anuj Kumar Sharma</i> PID-185: LIVE TERRAIN MONITORING AND CLASSIFICATION USING MOBILE ROBOT <i>Author (s): Suraj Chaurasia, Abhishek Kaushal, Farhan Khan, Anuj Kumar Sharma</i> PID-152:ACOUSTIC ANALYSIS OF VARYING NUMBER OF LOUVERS IN NOISE ATTENUATION <i>Author (s): G. Avinash, N. S. Sriprasad, B. Goutham Krishna, B. Mohammed Akram , R. Eshanth, and Santosh Kumar</i> PID-224: FORCED VIBRATION OF LAMINATED COMPOSITE CURVED BEAMS USING AN EFFICIENT LAYER-WISE THEORY <i>Author (s): Mirza Shariq Beg, M Yaqoob Yasin</i> PID-200: MULTIPLE IMPACT RESPONSES OF BENDING STIFF COMPOSITE PLATES– A FINITE ELEMENT APPROACH <i>Author (s): Gayathri Bolugoddu, Vaishali, Sudip Dey</i> 	<p>Presentation Link: https://meet.google.com/mfk-uovh-kir</p>
<p>Technical Session-10 (Online) (Thermo fluid-3) Chair: Dr. A. Biswas</p>	<ol style="list-style-type: none"> PID- 205: COALESCENCE AND DETACHMENT DYNAMICS OF DUAL DROPLETS IN A CONFINEMENT FOR FUEL CELL APPLICATIONS <i>Author (s): Golamur Rahman Khan, Rahikim Tanzim, Anik Sarker, Manash Protim Boruah</i> PID-160: EFFECT OF CONCAVE-CONVEX RATIO ON LAMINAR FLUID FLOW AND HEAT TRANSMISSION CHARACTERISTICS IN A GROOVED CHANNEL - A NUMERICAL STUDY 	<p>Presentation Link: https://meet.google.com/mom-mekn-qrt</p>

	<p>Co-Chair: Dr. D. Bhowmik</p>	<p><i>Author (s): Ananya Mandal, Aditya Kumar, Auronil Mukherjee, Soumen Chakraborty and Supratim Saha</i></p> <p>3. PID-110: COMPUTATIONAL STUDY OF FLOW PAST A CYLINDER IN TANDEM SETUP <i>Author (s): Farheen Akhtar, Rajneesh Anand</i></p> <p>4. PID-119: REBOUND SUPPRESSION OF IMPACTING DROPLETS ON A SUPERHYDROPHOBIC SURFAC <i>Author (s): Ajit Kumar, Manabendra Pathak</i></p> <p>5. PID-158: EFFECT OF YOUNG’S MODULUS OF ELASTICITY ONTHE FLUID-STRUCTURE INTERACTION OF A SPLITTER PLATE <i>Author (s): Yusuf Ali, Tridib Kumar Chowdhury, Manash Protim Boruah</i></p>	
	<p>Technical Session-11 (Online) (Design and synesis-3)</p> <p>Chair: Dr. C.K. Sahoo Co-Chair: Dr.Santosh Kumar</p>	<p>1. PID-96: FATIGUE FAILURE ANALYSIS OFTWO DIFFERENT I BEAM IN 2D USINGANSYS WORKBENCH <i>Author (s): Mukesh Kumar Gorain, Sunil Kumar Chaudhary</i></p> <p>2. PID 203:AN EXPERIMENTAL AND FEA APPROACH TO INVESTIGATE EFFECT OF CRACKS ON A SINGLE DISK ROTOR BEARING SYSTEM <i>Author (s): Kedar Kishor Patil, Dr. Sanjay Hari Sawant</i></p> <p>3. PID168:VERTICAL DYNAMIC ANALYSIS OF THREE WHEELER PASSENGER VEHICLE WITH AN OPTIMALLY TUNED SMC CONTROLLER <i>Author (s): Gurubasavaraju T.M, Shaik Mahaboob Subhani, K. Hemanth Kumar, Vijay M</i></p> <p>4. PID-117:DESIGN AND ANALYSIS OF PIEZOELECTRIC ENERGY HARVESTER FOR BIOMEDICAL DEVICE <i>Author (s): Deepjyoti Hazarika, Jitul Teron, Sohan Paul, Sayantan Das, Mohd Anis Ansari, Alfa Bisoi</i></p> <p>5. PID-32:DESIGN AND DEVELOPMENT OF MAKHANA PROCESSING MACHINE <i>Author (s): N. Nithyavathy, K. Suganeswaran, S. Arunkumar, C.V. Rahav, M. Thangapandi, K. Tharun Kumar</i></p>	<p>Presentation Link: https://meet.google.com/egh-ydtr-kjm</p>

4TH ICRAME 2023

February 03-05, 2023

Program Schedule

Day-2 (04th February, Saturday)

Time (IST)	Session	DETAILS OF THE SESSION	Venue
09:30-10:30AM	Keynote Address – 4 (Online)	PROF. B.B SAHA <i>Chair: Prof. A. Dalal</i> <i>Co-chair- Dr. S. Nath</i> https://meet.google.com/mfk-uovh-kir	Dr. Bhupen Hazarika Auditorium, New Library
10:30-11:30 AM	Keynote Address – 5	PROF. I. MANNA <i>Chair- Prof. Balasubramaniam</i> <i>Co-chair- Dr. S. Pati</i> https://meet.google.com/mfk-uovh-kir	Dr. Bhupen Hazarika Auditorium, New Library
11:30-11:45 AM	TEA BREAK		Dr. Bhupen Hazarika Auditorium, New Library
11:45-01:00 PM	Technical Session-12 (Offline) Thermofluid-4 Chair: Dr. A. Biswas Co-Chair: Dr. S. Negi	<ol style="list-style-type: none"> PID-51: RECENT ADVANCES IN SIMULTANEOUS HEAT AND MASS TRANSPORT IN FIREFIGHTER'S PROTECTIVE TURNOUT GEAR: A REVIEW <i>Author (s): Virendra Kumar, Jnanaranjan Acharya, Aishik Dinda, Dipankar Bhanja</i> PID-49: INFLUENCE OF FABRIC OPTICAL BEHAVIOUR ON DIFFERENT AGED GROUP INDUSTRIAL FIREFIGHTERS' CLOTHING PERFORMANCE DURING A HIGH INTENSITY THERMAL RADIATION ENVIRONMENT <i>Author (s): Jnanaranjan Acharya, Virendra Kumar, Aishik Dinda, Rahul Dev Misra, Dipankar Bhanja</i> PID-17: LINEAR INSTABILITY ANALYSIS OF VISCOUS LIQUID SHEET TRAVELLING IN A CONFINED SPACE WITH TWO CO-FLOWING GAS STREAM OF EQUAL VELOCITY CONSIDERING INITIAL VARICOSE MODE OF DISTURBANCE <i>Author (s): Saurabh Sharma, Sujit Nath, Dipankar Bhanja</i> PID-183: INFLUENCE OF OPTICAL PROPERTIES OF FABRIC ON THE PROTECTIVE PERFORMANCE OF INDUSTRIAL FIREFIGHTERS' CLOTHING BASED ON THE EXPOSED BODY LOCATION TO RADIANT HEAT EXPOSURE <i>Author (s): Plabita Bhuyan, Jnanaranjan Acharya, Dipankar Bhanja, Sujit Nath</i> 	Dr. Bhupen Hazarika Auditorium, New Library

	5. PID-154: RECENT TRENDS IN INJECTION STRATEGIES IN SCRAMJET COMBUSTOR: A REVIEW <i>Author (s): Subhasis Chakravarthy, Pitambar Randive</i>	
Technical Session-13 (Offline) (COMPOSITES-1) Chair: Dr. S. Dey Co-Chair: Dr.Y. Singh	1. PID-76: EFFECTS OF FIBER LOADING ON PHYSICAL AND MECHANICAL PROPERTIES OF FLAX-RAMIE REINFORCED POLYMERIC GREEN COMPOSITES FOR STRUCTURAL APPLICATIONS <i>Author (s): Santosh Kumar, Vijay Kumar Mahakur, Sumit Bhowmik</i> 2. PID-181: EFFECTS OF REINFORCEMENT PARTICLES LOADING ON WEAR AND FRICTION BEHAVIOUR OF BANANA FILLER REINFORCED POLYMERIC COMPOSITES AT DIFFERENT LOADING AND SLIDING CONDITIONS <i>Author (s): Sumit Bhowmik, Utkarsh Kumar, Atul Kumar, Santosh Kumar</i> 3. PID-221: FABRICATION OF THERMOFORMABLE POLYMER COMPOSITE USING BIOBASED MATERIALS <i>Author (s): Lakshi Nandan Borah, Anubhav Saiki, Sudipta Halder, Pannalal Choudhury</i> 4. PID-223: SILANE FUNCTIONALIZATION OF MONTMORILLONITE CLAY WITH OPTIMIZED REACTION TIME AND TENSILE PERFORMANCE OF CLAY LOADED EPOXY NANOCOMPOSITES <i>Author (s): Swatantra Kumar, Sudipta Halder, Pannalal Choudhury</i> 5. PID-129: EXPERIMENTAL INVESTIGATION ON PHYSICAL PROPERTIES OF 3D PRINTED RECYCLED ABS/ BAMBOO COMPOSITE <i>Author (s): Md Abdul Wadud, Tarif Rayhan, Ayushi Sonker, Rachana Bubna, Vishal Mishra, CH KapiLRor, Sushant Negi</i>	Seminar Room, Department of Mechanical Engineering
Technical Session-14 (Offline)	Buffer session	Seminar Room, Department of Mathematics
Technical Session-15 (Online) (Thermo-Fluid-5) Chair: Dr. S. Debbarma Co-Chair: Dr.R.N.Gupta	1. PID-128: OPTIMIZATION OF GUIDE VANES FOR PROVIDING EQUAL FLOW DISTRIBUTION TO ESP'S <i>Author (s): Prateek Kumar Jain, R B Anand, D Santhosh Kumar</i> 2. PID-65: ANALYSIS OF HYDRODYNAMIC PERFORMANCE UNDER TRIANGULAR SHAPE LEAP WALL OF OSCILLATING WATER COLUMN (OWC) DEVICES BY CHANGING ORIFICE RATIO AND RELATIVE OPENING <i>Author (s): Ravi Ranjan Manjul, Sanjeev Ranjan, Pradip Deb Roy</i> 3. PID-208: A LOW VOLTAGE BASED DIELECTROPHORETIC MICRODEVICE FOR CANCER CELL SEPARATION <i>Author (s): Tridib Kumar Chowdhury, Yusuf Ali, Manash Protim Boruah</i> 4. PID-211: FLOW OF NON-NEWTONIAN FLUIDS AROUND MODIFIED SQUARE CYLINDER: EFFECT OF POWER-LAW INDEX AND ASPECT RATIO	Presentation Link: https://meet.google.com/mfk-uovh-kir

		<p><i>Author (s): Geeta Verma, Bishwajit Sharma, Rabindra Nath Barman</i></p> <p>5. PID-92: AN EXPERIMENTAL ANALYSIS OF FREE CONVECTION IN THE TOP OPEN AND SIDE VENTED INCLINED CAVITY WITH THE BOTTOM HEATED PLATE <i>Author (s): Rakesh Kumar, Ravi Shankar Prasad, Ravi Prakash Singh</i></p>	
	<p>Technical Session-16 (Online) (Energy-3) Chair: Dr. S. Nath Co-Chair: Dr.D. Bhowmik</p>	<p>1. PID- 126:DESIGN AND DEVELOPMENT OF ADVANCED BATTERY ENCLOSURE FOR LI-ION BATTERY CELLS THROUGH SIMULATION AND EXPERIMENTAL TEST <i>Author (s): Naveen Jain, Suneel Anand, Deepak Singh</i></p> <p>2. PID- 151: IMPACT OF VARIATION IN COMPRESSION RATIO ON THE EMISSIONS AND EFFICIENCY OF KARANJA OIL BIODIESEL FUELLED DIESEL ENGINES <i>Author (s): HIRAK JYOTI SAIKIA, CHINMOY JIT SARMA, BHASKOR J BORA, DILIP KUMAR BORA</i></p> <p>3. PID- 140: A REVIEW ON HYDROGEN FUEL FOR A CLEANER FUTURE <i>Author (s): Prasanta Kumar Choudhury, Deepjyoti Patowary, Jitumoni Kumar</i></p> <p>4. PID- 87:TECHNO FEASIBILITY STUDY OF THE SOLAR CHIMNEY WITH STORAGE: A CASE STUDY BASED ON CLIMATIC DATA FROM THE STATES OF NORTH-EASTERN INDIA <i>Author (s): Biren K. Behera, Kaushal K. Sharma, Sudhansu S. Sahoo</i></p> <p>5. PID-109:EFFECT OF DIETHYL ETHER ADDITIVES TO IMPROVE EMISSION CHARACTERISTICS OF GSOME & AMP; ITS RESPECTIVE BLENDS OPERATED IN VCR DIESEL ENGINE <i>Author (s): Aman Sharma, S S Ragit, Hemant Hajare, G. Singh, S K Mohapatra, K Kundu</i></p>	<p>Presentation Link: https://meet.google.com/mom-mekn-qrt</p>
01:00-02:30 PM	LUNCH BREAK		
2:30-03:30 PM	<p>Keynote Address – 6 (Online)</p>	<p>PROF. G. BISWAS <i>Chair: Prof. R.D. Misra</i> <i>Co-Chair: Dr. P. Randive</i> https://meet.google.com/mfk-uovh-kir</p>	<p>Dr. Bhupen Hazarika Auditorium, New Library</p>
03:30-04:30 PM	<p>Keynote Address – 7 (Online)</p>	<p>PROF. V.K. JAIN <i>Chair: Dr. P. Carlone</i> <i>Co-Chair: Dr. S. Sharma</i> https://meet.google.com/mfk-uovh-kir</p>	
04:30-04:45 PMTEA BREAK			
04:45-07:00 PM	<p>Technical Session-17 (Offline) Thermo-Fluid-6) Chair: Dr. P. Debroy Co-Chair:</p>	<p>1. PID-132: EFFICACY OF DIFFERENTIAL TRANSFORM METHOD FOR MAGNETOHYDRODYNAMIC ELECTROSMOTIC FLOW OF NEWTONIAN FLUID <i>Author (s):Kaushik Mahanta, Debanjan Banerjee, Sukumar Pati, Pankaj Biswas</i></p> <p>2. PID-144: VORTEX ASSISTED CONTROLLING OF CHEMICAL REACTION INSIDE AN ELECTROSMOTIC MICRO-REACTOR <i>Author (s): Sumit Kumar Mehta, Anindya Nath, Sukumar Pati</i></p> <p>3. PID-134: BUOYANCY DRIVEN HEAT TRANSFER FROM A HEATED CYLINDER IN AN ENCLOSURE WITH NON-UNIFORM HEATING</p>	<p>Dr. Bhupen Hazarika Auditorium, New Library</p>

<p>Dr.C.K. Sahoo</p>	<p><i>Author (s): Ankit Chourasia, Dhrijit Kumar Deka, Sukumar Pati</i></p> <p>4. PID-70: EFFECT OF SURFACE CHARGE HETEROGENEITIES ON THE ELECTROSMOTIC MIXING PERFORMANCE IN A RACCOON MICROMIXER WITH SINUSOIDAL ZETA POTENTIAL <i>Author (s): Anindya Nath, Sukumar Pati, László Baranyi</i></p> <p>5. PID-50: A COMPARATIVE ANALYSIS OF THE PERFORMANCE OF DIFFERENT MULTI-LAYER FIRE RETARDANT FABRIC ORIENTATIONS UNDER HIGH RADIANT EXPOSURE: A NUMERICAL APPROACH <i>Author (s): AishikDinda, Jnanaranjan Acharya, Virendra Kumar, Sujit Nath</i></p> <p>6. PID-52: OPTIMIZATION OF PROCESS PARAMETERS FOR BIOETHANOL PRODUCTION FROM VEGETABLE WASTE <i>Author (s): Keetha Vivek, Robba Mohan Chand, K S M R Vamsi, M Venu Madhav, Sumita Debbarma</i></p> <p>7. PID-121: ANALYSIS OF EFFECTIVENESS OF DIFFERENTIAL TRANSFORM METHOD FOR ELECTROSMOTIC FLOW OF PSEUDOPLASTIC FLUID <i>Author (s):Kaushik Mahanta, Debanjan Banerjee, Sukumar Pati, Pankaj Biswas</i></p>	
<p>Technical Session-18 (Offline) (Material and Machining Processes-2) Chair: Dr. S.R. Maity Co-Chair: Dr.P.Mandal</p>	<p>1. PID-145: MACHINABILITY STUDY OF THE FABRICATED AA6063 BASED METAL MATRIX COMPOSITES USING WIRE-EDM PROCESS <i>Author (s): YugabratGogoi, Rishi Raj Bhattacharjee, Debarka Chattopadhyay, Mrinmoi Borah, Pallab Sarmah, Promod Kumar Patowari</i></p> <p>2. PID-131: EXPERIMENTAL INVESTIGATION AND STUDY OF THE EFFECT OF LASER MACHINING PARAMETERS FOR THE MACHINING OF AISI 304 STAINLESS STEEL <i>Author (s): K. Sai Kiran Chowdary, Sukesh Kamtam, Akhil Sai Yekula, Chinmaya Kumar Sahoo</i></p> <p>3. PID-46: A CRITICAL REVIEW ON THE FABRICATION OF SUPERHYDROPHOBIC MEMBRANE FOR OIL-WATER SEPARATION <i>Author (s): Avinash Kumar, Yadav Narendra Kumar Rajbahadur, Sushant Negi, Simanchal Kar</i></p> <p>4. PID-113:EFFECT OF LASER BEAM PARAMETERS ON THE WELD QUALITY OF DISSIMILAR WELDED NI-CR ALLOYS AUSTENITIC STAINLESS STEELS: A REVIEW <i>Author (s): Ashutosh Padhan, Sumitra Sharma</i></p> <p>5. PID-44: PARAMETRIC OPTIMIZATION TO IMPROVE SURFACE QUALITY OF FFF PRINTED PETG/CENOSPHERE COMPOSITES <i>Author (s): Jitendra Kumar, Sushant Negi</i></p> <p>6. PID-204: DESIGNING OF LIGHTWEIGHT SPORTS HELMET OF AUXETIC STRUCTURE USING 3D PRINTER</p>	<p>Seminar Room, Department of Mechanical Engineering</p>

	<i>Author (s): Danish Khandekar, KritarthaSutradhar, Ashok Deb, Bikash Thakur, Vishal Mishra, Simanchal Kar</i>	
Technical Session-19 (Offline)	Buffer session	Seminar Room, Department of Mathematics
Technical Session-20 (Online) (Thermo-Fluid-7) Chair: Dr.R. Randive Co-Chair: Dr.B. Nath	<ol style="list-style-type: none"> PID-12: EVALUATING THE EFFECTS OF INITIAL DIAMETER ON EVAPORATION DYNAMICS OF ETHANOL DROPLET UNDER FORCE CONVECTION CONDITION <i>Author (s): Numan Siddique Mazumder, Pradip Lingfa, AsisGiri, Champak Kr. Neog</i> PID-213: CRYOGENIC PULSATING HEAT PIPE TO COOL THE SENSITIVE PARTS OF THE MAGNETIC RESONANCE IMAGING SYSTEM <i>Author (s): K. Satyanarayana, N.V.S.M Reddy, Dr. S. Venugopal</i> PID-83:AN EXPERIMENTAL STUDY OF FREE CONVECTION IN A VERTICAL AND TILTED CAVITY WITH TOP AND SIDE OPENING <i>Author (s): Ravi Prakash Singh, Ravi Shankar Prasad, Rakesh Kumar</i> PID-26: INVESTIGATION OF DIFFERENT PARAMETERS OF SERPENTINE MICROCHANNEL ON VAPORED QUALITY AND MIXING <i>Author (s): Chandra Bhushan Vishwakarma; Prasant Mishra; Dharamveer Yadav; Prashant Prajapati; Brijesh Verma; Devendra Yadav</i> PID-104: NUMERICAL ANALYSIS OF JET IMPINGEMENT HEAT TRANSFER PROCESS ON STEEL BAND FOR INDUSTRIAL GALVANIZING LINE <i>Author (s): Alok Raj, Y. Naresh</i> PID-159: PARAMETRIC ANALYSIS OF A COMBINED GAS TURBINE AND ABSORPTION COOLING SYSTEM <i>Author (s): Gautam Kumar, Dhaneshwar Mahto</i> 	Seminar Room, Department of EIE
Technical Session-21 (Online) (Joining Processes-1) Chair: Dr.P.L. Choudhury Co-Chair: Dr. P. Singh	<ol style="list-style-type: none"> PID-179: PERFORMANCE STUDY OF CERIUM OXIDE REINFORCED COPPER COMPOSITE FABRICATED VIA FRICTION STIR PROCESSING <i>Author (s): Ram Niwas, Dr. Vikas Kumar</i> PID: 178: EFFECT OF PROCESS PARAMETERS ON AA-2014/TIB 2 COMPOSITE FABRICATED BY FRICTION <i>Author (s): Yogender Chauhan, Vikas Kumar, Ram Niwas</i> PID-79: EFFECT OF ACTIVATED TUNGSTEN INERT GAS WELDING ON THE MICROSTRUCTURAL AND MECHANICAL PROPERTIES OF NICKEL-BASED SUPER ALLOY INCONEL 625 <i>Author (s): Ashish W. Fande, Ravindra V. Taiwade, Dheeraj C. Narayane</i> PID-174: WELDING PARAMETERS EFFECT ON MECHANICAL PROPERTIES OF AA7475-AA360 ALUMINIUM ALLOYS OF TWO DISSIMILAR METALS USING FRICTION STIR WELDING <i>Author (s): Sasidhar Gurugubelli, Sai Charan Katari, Lava Kumar Ginni</i> 	Presentation Link: https://meet.google.com/mfk-uovh-kir

		<p>5. PID-161: FINITE ELEMENT ANALYSIS OF ROTARY FRICTION WELDING PROCESS <i>Author (s): Manjunath M. Ullegaddi, Balappa B U, N. C. Mahendra Babu</i></p> <p>6. PID-24:APPLICATION OF RESPONSE SURFACE METHODOLOGY FOR OPTIMIZATION OF SUBMERGED ARC WELDING PROCESS PARAMETERS <i>Author (s): Rimeshikha Saikia, Plabon Kakoti</i></p> <p>7. PID-150: EFFECT OF P-TIG WELDING TECHNIQUE ON THE MICROSTRUCTURE AND MECHANICAL PROPERTIES OF DISSIMILAR WELDED INCONEL 718 AND AISI 321 BUTT JOINT <i>Author (s): Sumitra Sharma, Alok Prakash, Ashutosh Padhan</i></p>	
	<p>Technical Session-22 (Online) (Material and Machining Process-3) Chair: Dr. S. Dey Co-Chair: Dr. Sunil Kumar D</p>	<p>1. PID-6: ANALYZING THE ROLE OF MULTI AGENT TECHNOLOGY IN PRODUCTION SYSTEM <i>Author (s): Vikram Singh, Somesh Kr. Sharma</i></p> <p>2. PID-222: INFLUENCE OF LASER SHOCK PEENING ON MECHANICAL PROPERTIES AND MICROSTRUCTURE OF WIRE ARC ADDITIVE MANUFACTURED STAINLESS STEEL 308L WITH THREE DISTINCT REGIONS <i>Author (s): T. Geethapriyan, I. A . Palani</i></p> <p>3. PID-163: GREEN PERFORMANCE ASSESSMENT OF CNC CYLINDRICAL GRINDING MACHINE TOOLS UNDER MULTI-CRITERIA HOMOGENEOUS GROUP DECISION MAKING APPROACH <i>Author (s): Soumik Dutta, Bipradas Bairagi, Balaram Dey</i></p> <p>4. PID-105: OPTIMIZATION OF WEDM PROCESS PARAMETERS USING TOPSIS-TAGUCHI HYBRID APPROACH FOR THE DEVELOPMENT OF FE-BASED TURNING TOOL INSERT <i>Author (s): Vishwajeet Kumar, Subhas Chandra Mondal</i></p> <p>5. PID-85: EFFECT OF PARTIAL SUBSTITUTION OF CEMENT BY STEEL SLAG IN AUTOCLAVE AERATED CONCRETE (AAC) <i>Author (s): Hrishikesh Bhattacharyya, Anil Borah, U. K. Nath</i></p> <p>6. PID-207: INVESTIGATION ON INCREMENTAL SHEET FORMING OF TEMPERED ALUMINIUM ALLOY <i>Author (s): Rupesh Kumar, Vikas Kumar</i></p> <p>7. PID-149: ANALYSIS OF RESIDUAL STRESS EFFECT ON THIN WALL PARTS MANUFACTURING OF AA2014-T651 DURING AGEING HEAT TREATMENT <i>Author (s): N.Vinaya Kumar, M. Indira Rani</i></p>	<p>Presentation Link: https://meet.google.com/mom-mekn-qrt</p>

4TH ICRAME 2023

February 03-05, 2023

Program Schedule

Day-3 (05th February, Sunday)

Time (IST)	Session	DETAILS OF THE SESSION	Venue
09:30-10:30 AM	Keynote Address – 8 (Online)	DR. T. SUDARSHAN <i>Chair: Prof. P.K Patowari</i> <i>Co-Chair: Dr. S. Bhowmik</i> https://meet.google.com/mfk-uovh-kir	Dr. Bhupen Hazarika Auditorium, New Library
10:30 - 11:30AM	Keynote Address – 9 (Online)	PROF. S.CHAKRABORTY <i>Chair: Prof. R.D. Misra</i> <i>Co-Chair: Dr. D. Bhanja</i> https://meet.google.com/mfk-uovh-kir	Dr. Bhupen Hazarika Auditorium, New Library
11:30-11:45 AM	TEA BREAK		Dr. Bhupen Hazarika Auditorium, New Library
11:45-01:15 PM	Technical Session-23 (Offline) (Energy-4) Chair: Dr. S. Pati Co-Chair: Dr. B. Nath	<ol style="list-style-type: none"> PID-114: AN EXPERIMENTAL STUDY ON THE CONVERSION OF WASTE SAWDUST INTO ETHANOL <i>Author (s): Santhosh Thota, Shreyas Kumar, Abhishek Paul</i> PID-112: AN EXPERIMENTAL STUDY ON RCCI OPERATION OF A CI ENGINE UNDER DIFFERENT FUEL <i>Author (s): Mukund Kumar, Abhishek Paul, Parthasarathi Deb</i> PID-141:PARAMETRIC OPTIMISATION BY TAGUCHI L9 APPROACH TOWARDS BIODIESEL PRODUCTION FROM YELLOW OLEANDER SEED OIL CATALYZED BY WASTE CITRUS LIMETA PEEL DERIVED HETEROGENEOUS CATALYST <i>Author (s): SubhamChetri, Abhishek Bharti, Sumita Debbarma</i> PID-123:SELECTION OF WALL MATERIAL FOR PASSIVE COOLING IN VERNACULAR HOUSES USING FUZZY TOPSIS METHOD <i>Author (s): Prayag Raj Chanda, Agnimitra Biswas</i> 	Dr. Bhupen Hazarika Auditorium, New Library

		<p>5. PID-48:A CRITICAL REVIEW ON ANTI-SOILING AND ANTI-REFLECTIVE COATINGS FOR SELF-CLEANING SURFACE ON SOLAR PHOTOVOLTAIC PANELS <i>Author (s): Yadav Narendra Kumar Rajbahadur, Avinash Kumar, Maloth Mohan Kumar, Sushant Negi, Simanchal Kar</i></p>	
	<p>Technical Session-24 (Offline) (COMPOSITES-2) Chair: Prof. P.K. Patowari Co-Chair: Dr. S.R. Maity</p>	<p>1. PID-81: NUMERICAL ANALYSIS OF COIR FILLER BASED POLYMER COMPOSITES FOR EVALUATING THE MECHANICAL PROPERTIES <i>Author (s): Ananya Kalita, Vijay Kumar Mahakur, Sumit Bhowmik</i></p> <p>2. PID-133: STUDY OF THE TRIBOLOGICAL BEHAVIOR OF ALUMINIUM-BASED COMPOSITES FABRICATED THROUGH POWDER METALLURGY <i>Author (s): Sudhir Kumar, Pallab Sarmah, Rajeev Nayan Gupta</i></p> <p>3. PID-164: EVALUATION OF MECHANICAL AND PHYSICAL PROPERTIES OF ECO-FRIENDLY, BIODEGRADABLE FIBRE COMPOSITES <i>Author (s): Paldi Vivek, Banoth Sandeep, CH H S S Surya Chandra, Kanhu Champati, Vishal Mishra, Avinash Kumar, Simanchal Kar</i></p> <p>4. PID-115: AN EXPERIMENTAL STUDY ON DEGRADATION OF STARCH-BASED BIOPLASTIC <i>Author (s): Dasari Nageswararao, Swatha das, Abhishek Paul</i></p> <p>5. PID-75: INFLUENCE OF ADVANCED WELDING TECHNIQUES ON THE EVOLUTION OF MICROSTRUCTURE AND MECHANICAL PROPERTIES OF 2.25CR-1MO STEEL <i>Author (s): Sunilkumar D, Vasudevan M, Suresh D. Meshram, S. Muthukumaran</i></p>	<p>Seminar Room, Department of Mechanical Engineering</p>
	<p>Technical Session-25 (Offline)</p>	<p>Buffer session</p>	<p>Seminar Room, Department of Mathematics</p>
	<p>Technical Session-26 (Online) (Thermo-Fluid-8) Chair: Dr.Biplab Das Co-Chair: Dr. R.N. Gupta</p>	<p>1. PID-205: COALESCENCE AND DETACHMENT DYNAMICS OF DUAL DROPLETS IN A CONFINEMENT FOR FUEL CELL APPLICATIONS <i>Author (s): Golamur Rahman Khan, Rahikim Tanzim, Anik Sarker, Manash Protim Boruah</i></p> <p>2. PID-209:FLOW BOILING ANALYSIS OF R32 REFRIGERANTS FOR MINI-SCALE CIRCUIT COOLING <i>Author (s): Srija Sarkar, Abhishek Chatterjee, Md Naim Hossain</i></p> <p>3. PID-197: ENERGY AND EXERGY DESTRUCTION ANALYSIS OF VAPOR COMPRESSION REFRIGERATION SYSTEM WITH DEDICATED MECHANICAL SUBCOOLED USING R134A & R410A <i>Author (s): Naveen Solanki1, Akhilesh Arora, Raj Kumar Singh</i></p> <p>4. PID-33: A NUMERICAL INVESTIGATION ON THE COOLING OF LITHIUM ION CELL USING DIVERGING TYPE COLD PLATE</p>	<p>Presentation ink: https://meet.google.com/mfk-uovh-kir</p>

		<i>Author (s): Safwan Mohammed Kunhi, Sanjeev Kumar</i>	
	Technical Session-27 (Online) (COMPOSITES-3)	<p>1. PID-18:PHYSICO MECHANICAL PROPERTIES OF ALKALINE TREATED CHOPPED GREWIA OPTIVA / BASALT FIBER REINFORCED HYBRID POLYMER COMPOSITES <i>Author (s): Pramod Prabhakar Bijlwan, Lalta Prasad, Anshul Sharma</i></p> <p>2. PID-130: FABRICATION OF ALUMINIUM MATRIX COMPOSITE VIA FRICTION STIR PROCESSING BY INCORPORATING SIC PARTICLE <i>Author (s): Avinash Ravi Raja, Aditya Verma, Amit Sharma, Abhishek Priyadarshi, Sudesh Singh, Santosh Kumar</i></p> <p>3. PID-199: INVESTIGATION ON ABRASIVE WATER JET MACHINING OF SS316L <i>Author (s): Suman Nihar, Jisnu Basu, Gautam Majumdar</i></p> <p>4. PID-55: A SHORT-TERM REVIEW ON SELF-CHARGING SOLAR DRONE FOR DIFFERENT APPLICATIONS <i>Author (s): Bappa Mondal, B. Vamsi Krishna, B. Sai Suresh, Ch. Jagadeeswara Rao, B. Dhana Sekhar, Ch. Uma Maheswara Rao, A. Mohan Sai</i></p>	Presentation Link: https://meet.google.com/mom-mekn-qrt
01:15-02:30 PM	LUNCH BREAK		
2:30-02:40 PM	INAUGURATION OF POSTER PRESENTATION THEME: INNOVATION AND RESEARCH FOR SELF-RELIANT INDIA		
02:40-05:00 PM	POSTER PRESENTATION THEME: INNOVATION AND RESEARCH FOR SELF-RELIANT INDIA		
05:00-06:00 PM	VALEDICTORY		Dr. Bhupen Hazarika Auditorium, New Library Online Link: https://meet.google.com/mfk-uovh-kir