

Detailed Technical Programme

Plenary/Keynote Lectures

Plenary Lectures	
PL 1	<p>Prof Ishwar K Puri, McMaster University, Canada <i>Playing with magnets: Creating novel materials and translational devices</i> Chair: Prof. Subrata Roy, University of Florida January 4, 2018 12:00 – 12:45</p>
PL 2	<p>Prof Mustafizur Rahman, National University, Singapore <i>Mechanical Engineering for Sustainability Through Innovation</i> Chair: Shri Debabrata Roy, GTRE January 4, 2018 12:45 – 13:30</p>
Keynote Lectures	
KL 1A	<p>Sri Debabrata Roy, GTRE, Bengaluru <i>Gas Turbine Research & Development in India for Defence Application</i> Chair: Prof. Pravash Chandra Chakrabarti, Jadavpur University January 4, 2018 14:30 – 15:00</p>
KL 1B	<p>Prof Subrata Roy, University of Florida, USA <i>Influence of Surface Plasma Actuation on Flow Transition to Turbulence</i> Chair: Prof. Arun Kumar Bhattacharya, Jadavpur University (Retd.) January 4, 2018 14:30 – 15:00</p>
KL 1C	<p>Prof. Avinash K. Agarwal, IIT Kanpur <i>Technology Roadmap for DME/ Methanol Fuelled Vehicles in Indian Mega-Cities</i> Chair: Prof. Amitava Sarkar, IEST Shibpur January 4, 2018 14:30 – 15:00</p>
KL 1D	<p>Prof. Amit Agrawal, IIT Bombay <i>Development of Innovative Point-of-Care Microdevices</i> Chair: Prof. Ishwar K. Puri, McMaster University January 4, 2018 14:30 – 15:00</p>
KL 2A	<p>Prof Gopinath Chattopadhyay, Federation University, Australia <i>Asset Management and its future direction in balancing cost, risk and performance in line with ISO55000</i> Chair: Prof. Mustafizur Rahman, National University of Singapore January 5, 2018 10:45 – 11:15</p>
KL 2B	<p>Prof Suman Chakraborty, IIT Kharagpur <i>Electrically modulated manipulation of droplets: some perspectives and beyond</i> Chair: Prof. Amit Agrawal, IIT Bombay January 5, 2018 10:45 – 11:15</p>
KL 2C	<p>Dr. Soumitra Tarafder, NML Jamshedpur <i>The mechanics of damage evolution in material microstructures</i> Chair: Prof. Gopes Chandra Das, Jadavpur University January 5, 2018 10:45 – 11:15</p>
KL 2D	<p>Prof. Nilesh J. Vasa, IIT Madras <i>Recent Advances in Laser Surface Texturing Techniques and Applications</i> Chair: Prof. Dipten Misra, Jadavpur University January 5, 2018 10:45 – 11:15</p>
KL 2E	<p>Prof S.K. Som, IEST Shibpur/Prof. U. Rana, IEST Shibpur <i>Dynamics and Thermodynamics of Premixed and Diffusion Flame in a Micro Combuster with Heat Recirculating Wall</i> Chair: Prof. Amitava Datta, Jadavpur University January 5, 2018 10:45 – 11:15</p>
KL 3A	<p>Prof. P.K. Ray, IIT Kharagpur <i>Design and Development of Lean Engineering Practices in Manufacturing</i></p>

	<p><i>Organizations: A Case Study</i> Chair: Prof. Gopinath Chattopadhyay, Federation University January 5, 2018 11:30 – 12:00</p>
KL 3B	<p>Prof A.K. Chattopadhyay, IIT Kharagpur <i>Advanced Coatings for High Speed Machining</i> Chair: Prof. Siddhartha Roy, Heritage Institute of Technology January 5, 2018 11:30 – 12:00</p>
KL 3C	<p>Prof. Sumit Basu, IIT Kanpur <i>Fracture mechanics of bamboo: an example of how nature designs structures that ensure survival</i> Chair: Dr. Saumitra Tarafder, NML, Jamshedpur January 5, 2018 11:30 – 12:00</p>
KL 3D	<p>Prof. Sarit K. Das, IIT Ropar <i>Interfacial physics of complex nanocolloids: Effect of interplay of surfactants and nanoparticles</i> Chair: Prof. Suman Chakraborty, IIT Kharagpur January 5, 2018 11:30 – 12:00</p>
KL 3E	<p>Dr. Deb Mukhopadhyay, BARC Mumbai <i>Basic Concepts in Reactor Safety</i> Chair: Prof. Samir Kumar Saha, Jadavpur University (Retd.) January 5, 2018 11:30 – 12:00</p>
KL 4C	<p>Sri D.S. Mullick, DCPL Kolkata <i>Cooling Tower for Utility Power Plants -Wet or Dry</i> Chair: Dr. Deb Mukhopadhyay, BARC Mumbai January 5, 2018 14:30 – 15:00</p>
KL 5A	<p>Prof. A.K. Mallik, IEST Shibpur <i>Use of Models and Demonstrations in Mechanical Engineering Education</i> Chair: Prof. Kamalesh Majumdar, Jadavpur University (Retd.) January 6, 2018 11:00 – 11:30</p>
KL 5B	<p>Dr. Gautam Goswami, TIFAC, DST <i>Future Technological Landscape of India</i> Chair: Prof. Gautam Sutradhar, Jadavpur University January 6, 2018 11:00 – 11:30</p>

Details of Contributed Papers

Time Slot	Paper No.	Paper Details
		<p>Session 1A January 4, 2018 15:00 – 16:00 Solid Mechanics/ Design (4) Chair: Prof. Debasis Datta, IEST Shibpur</p>
15:00 – 15:15	5	Amlan Paul and Debabrata Das. A study on post-buckling load-deflection behavior of tapered Timoshenko functionally graded beam under linear thermal gradient
15:15 – 15:30	21	Mrinmoy Jana, Sankar Dhar and Sanjib Kumar Acharyya. A cohesive zone model for crack growth simulation in Ductile Material (20MnMoNi55)
15:30 – 15:45	22	Sukalpa Choudhury, Sanjib Kumar Acharyya and Sankar Dhar. Estimation of G _{fr} for short crack growth from the ductile stretch using Cohesive Zone Model
15:45 – 16:00	25	Tamonash Jana, Anirban Mitra and Prasanta Sahoo. Effect of yield strength on dynamic behaviour of deformable sphere-rigid plane contact.
		<p>Session 1B January 4, 2018 15:00 – 16:00 Fluid Mechanics/ Heat Transfer (4) Chair: Prof Swetaprovo Chaudhuri, IISc Bangalore</p>
15:00 – 15:15	23	Aravind M D and Sourav Rakshit. STUDY OF EFFECT OF THE CIRCULAR CONTROL CYLINDER ON THE FLOW AROUND CIRCULAR MAIN

Time Slot	Paper No.	Paper Details
		CYLINDER AT LOW REYNOLDS NUMBERS USING AN IMMERSED BOUNDARY METHOD
15:15 – 15:30	24	Somnath Santra, Dipak Kumar Mandal and Somnath Chakrabarti. Effect of Hyperlipidemia and Hyperthermia on LDL Species Transportation in Arterial Wall Layers
15:30 – 15:45	28	Rajesh Sarkar, Subhrajyoti Sarkar, Chittrak Mondal, Nirmalendu Biswas and Nirmal K. Manna. THERMAL MAGNETO-HYDRODYNAMICS IN A LID-DRIVEN CAVITY
15:45 – 16:00	34	Tapas Kumar Nandi and Himadri Chattopadhyay. Parametric numerical study of Flow and Heat transfer in simultaneously developing inlet pulsatile flow inside microchannels
		Session 1C January 4, 2018 15:00 – 16:00 Materials (4) Chair: Sri Debabrata Roy, GTRE Bengaluru
15:00 – 15:15	3	Rahul ., Thrinadh Jadam, Saurav Datta, Manoj Masanta, Bibhuti Bhusan Biswal and Siba Sankar Mahapatra. Characteristics of EDMED work surfaces of 304SS, Inconel 601 and titanium alloy Ti-6Al-4V
15:15 – 15:30	4	Tapan Sarkar, Tapan Kumar Pal and Akshay Kumar Pramanick. Effect of Cerium content in Austempered Ductile Iron (ADI) Weld metal
15:30 – 15:45	236	Samir Kumar Acharya and Niharika Mohanta. Moisture Absorption and Its Effect on Tensile and Flexural Properties of Luffa Fibre Reinforced Epoxy Composite
15:45 – 16:00	11	Abhijit Patra, Subhas Ganguly, Partha Protim Chattopadhyay and Shubhabrata Datta. ANN DATA ANALYTICS FOR THE AGING BEHAVIOR OF AL-CR ALLOYS
		Session 1D January 4, 2018 15:00 – 16:00 Manufacturing (4) Chair: Prof Bijoy Bhattacharya, Jadavpur University
15:00 – 15:15	20	Tanusree Bera, Samir Kumar Acharya and Goutam Sutradhar. Production and characterization of cenosphere particulate reinforced Al-Si12 alloy matrix composites by squeeze casting method
15:15 – 15:30	38	Bishal Dey, Nripen Mondal, Chitraditya Barman and Debraj Paul. OPTIMIZATION ON THE PROCESS PARAMETERS TO MINIMIZE IN DRILLING BURR FORMATION WITH ANOVA ANALYSIS
15:30 – 15:45	47	Subhas Chandra Moi, Asish Bandyopadhyay and Pradip Kumar Pal. OPTIMIZATION OF TIG WELDING PROCESS PARAMETERS ON TENSILE PROPERTIES OF 316L STAINLESS STEEL USING RSM
15:45 – 16:00	77	Pradip Pal and Subrata Mondal. DYNAMIC PERFORMANCE OF GEAR HOBBING MACHINE EXPERIMENTS AND ANN MODELING
		Session 1E January 4, 2018 15:00 – 16:00 Dynamical Systems (4) Chair: Prof. Amitava Gupta, Jadavpur University
15:00 – 15:15	53	Somnath De, Arijit Bhattacharya, Achintya Mukhopadhyay and Swarnendu Sen. STATISTICAL SIGNAL ANALYSIS OF LEAN PREMIXED FLAME NEAR BLOWOUT
15:15 – 15:30	15	Siddhartha Ganguly, Anindita Ganguly, Soubhagya Mondal, Anish Majumder, Aniruddha Ghosh and Saikat Hazra. Computing Fractional Order Differential Equation Problems By Triangular Functions
15:30 – 15:45	41	Anindita Ganguly, Aniruddha Ghosh, Subhabrata Basak, Shailesh Verma and Sayandeep Sen. HYBRID FUNCTION BASED APPLICATION TO SOME CHAOTIC PROBLEMS
15:45 – 16:00	49	Anindita Ganguly, Anirban Mukhopadhyay and Saumya Deep Chatterjee. Extension Of One Dimensional Hybrid Function (A Combination Of Sample and Hold Function and Right Hand Triangular Function) to Two Dimensions and Its Application to Solving Linear and Nonlinear Volterra Integral Equations
		Session 1F January 4, 2018 15:00 – 16:00 Micro-/Nano-scale Technology

Time Slot	Paper No.	Paper Details
	(4)	Chair: Prof. Ranjan Ganguly, Jadavpur University
15:00 – 15:15	48	Saswata Bose, Arit Das and Anirban Ghosh. Enhanced Thermal and Mechanical Performance of Functionalized Graphene Epoxy Nanocomposites: Effect of Processing Conditions, Different Grades & Loading of Graphene
15:15 – 15:30	61	Sayan Das, Shubhadeep Mandal and Suman Chakraborty. Effect of interfacial viscosity on the motion of a surfactant-laden droplet in an unbounded Poiseuille flow
15:30 – 15:45	62	Siddhartha Mukherjee, Jayabrata Dhar, Sunando Dasgupta and Suman Chakraborty. Forced convection in electroosmotic flow of Phan-Thien-Tanner fluids
15:45 – 16:00	106	Sumit Kumar, Sunando Dasgupta and Suman Chakraborty. NANOPARTICLES MODULATED ELECTROWETTING ON THE SOFT SURFACE
		Session 2A January 4, 2018 16:15 – 17:00 Solid Mechanics/ Design (3) Chair: Prof. Debabrata Nag, Jadavpur University
16:15 – 16:30	30	Abhishek Sarmah, Manoranjan Kherkatary, Jigyash Rijal, Bedabrata Sarma and Ritam Paul. Effect of triaxiality factor on failure behaviours and relative strengths of different riveted lap joints
16:30 – 16:45	39	Mrutyunjay Rout and Amit Karmakar. FREE VIBRATION OF ROTATING TWISTED COMPOSITE STIFFENED PLATE
16:45 – 17:00	50	Hareram Lohar, Anirban Mitra and Sarmila Sahoo. Large Amplitude Static Deflection of Axially Functionally Graded Plates on Elastic Foundation
		Session 2B January 4, 2018 16:15 – 17:00 Fluid Mechanics/ Heat Transfer (3) Chair: Prof. Somnath Chakraborty, IEST Shibpur
16:15 – 16:30	35	Sayan Halder, Sudipta Rakshit, Nirmalendu Biswas and Nirmal K. Manna. BUOYANT MAGNETO-HYDRODYNAMICS IN A POROUS CAVITY
16:30 – 16:45	51	Supratim Saha and Anirban Bose. ANALYSIS OF VARIOUS TYPES OF BLOCKAGE TO BLOOD FLOW IN ARTERY THROUGH CFD USING FINITE VOLUME METHOD.
16:45 – 17:00	52	Meghna Das Chaudhury and Anirban Bose. A CFD ANALYSIS TO SHOW ENHANCEMENT OF HEAT TRANSFER BY CNT NANOFUID IN HEAT EXCHANGER TUBES AT FULLY DEVELOPED TURBULENT REGION
		Session 2C January 4, 2018 16:15 – 17:00 Thermal Engg. / Energy (3) Chair: Prof. Sudip Ghosh, IEST Shibpur
16:15 – 16:30	29	Ranendra Roy and Bijan Kumar Mandal. Performance Comparison of Vapour Cascade Refrigeration System Using R41/R404A and R170/R404A as Refrigerant Combination
16:30 – 16:45	31	Shahnawaz Alam, Subha Mondal and Sudipta De. WASTE HEAT RECOVERY THROUGH EJECTOR REFRIGERATION CYCLES USING DRY WORKING FLUIDS
16:45 – 17:00	33	Madhu Sruthi Emani, Ranendra Roy, Achin Kumar Chowdhuri and Bijan Kumar Mandal. Energy and Exergy Analysis of Vapour Compression Refrigeration System using Alternative Refrigerants
		Session 2D January 4, 2018 16:15 – 17:45 Manufacturing (6) Chair: TBA
16:15 – 16:30	86	Arunangsu Das, Malobika Karanjai, Susenjit Sarkar and Goutam Sutradhar. SENSITIVITY ANALYSIS OF MRR DURING WIRE-EDM OF SINTERED TITANIUM POWDER METALLURGY PARTS
16:30 – 16:45	94	Aritra Ghosh and Dipten Misra. EXPERIMENTAL INVESTIGATION ON LASER WELDING OF 2205 DUPLEX STAINLESS STEEL
16:45 – 17:00	109	Punit Sharma, Nikesh Chowrasia and Santanu Duari. OPTIMIZATION OF PROCESS PARAMETERS IN CNC TURNING OF COPPER ALLOY USING TAGUCHI APPROACH

Time Slot	Paper No.	Paper Details
17:00 – 17:15	113	Mihir Samantaray, Dhirendranath Thatoi and Seshadev Sahoo. AN APPROACH TO NUMERICAL MODELLING OF TEMPERATURE FIELD IN DIRECT METAL LASER SINTERING OF AlSi10Mg ALLOY POWDER
17:15 – 17:30	121	Apurba Das, Sarbani Mukherjee, Santu Kumar Giri and Aditya Kumar Lohar. A LEARNING BASED APPROACH TOWARDS CLOSED LOOP HEIGHT CONTROL OF LASER METAL DEPOSITION PROCESS
17:30 – 17:45	131	Amit Kumar, Saroj Kumar, Amitava Mandal, Amit Rai Dixit, Alok Kumar Das and Rabesh Kumar Singh. A Study on the Performance of Nano Powder mixed EDM Process
		Session 2E January 4, 2018 16:15 – 17:45 Micro-/Nano-scale Technology (5) Chair: Prof. Amit Agrawal, IIT Bombay
16:15 – 16:30	126	Krishnaraja D and Shyama Prasad Das. The role of surface tension and viscosity on jetting in Faraday waves
16:30 – 16:45	191	Abhishek Samanta, Ranjan Ganguly, Amitava Datta and Nipu Modak. Theoretical modelling of transport of magnetic microspheres in an aqueous two phase system (ATPS) in a microchannel
16:45 – 17:00	238	Saikat Ray and Ranjan Ganguly. EVOLUTION OF NANOLITER SIZE FLUID DROPLET ON MICROPATTERNED SURFACE
17:00 – 17:15	234	Gourab Banerjee, Amitava Datta and Ranjan Ganguly. IMAGING AND ANALYSIS OF CONDENSATION IN PRESENCE OF NONCONDENSABLE GASES – EFFECT OF SURFACE WETTABILITY
17:15 – 17:30	257	S. Sett, X. Yan, N. Miljkovic ^{1,2,3} Jumping Velocity of Coalescence-Induced Jumping Droplets
17:30 – 17:45		
		Session 2F January 4, 2018 16:15 – 17:45 Dynamical Systems (6) Chair: Prof. Amitava Chatterjee, Jadavpur University
16:15 – 16:30	78	Ritabrata Saha, Koushik Ghosh, Achintya Mukhopadhyay and Swarnendu Sen. FLOW REVERSAL PREDICTION OF A SINGLE PHASE SQUARE NCL USING SYMBOLIC TIME SERIES ANALYSIS
16:30 – 16:45	101	Amit Banerjee and Goutam Pohit. CRACK DETECTION BY VIBRATION EXPERIMENT DATA USING CASCADE NEURO-GA HYBRID TECHNIQUE
16:45 – 17:00	138	Shantanu Datta and Shibayan Sarkar. BLOCKAGE DETECTION IN OIL PIPELINE USING PRESSURE FREQUENCY RESPONSE APPROACH
17:00 – 17:15	139	Babla Ghosh and Debabrata Nag. Diagnosis of Machinery Health by Vibration Analysis Techniques
17:15 – 17:30	163	Anindita Ganguly, Anirban Mukhopadhyay, Saumya Deep Chatterjee, Alok Mazumdar, Ajay Gautam and Omer Berenfeld. Optimal control of Implantable Cardioverter Defibrillator via Hybrid Function
17:30 – 17:45	186	Somnath De, Arijit Bhattacharya, Tryambak Gangopadhyay, Achintya Mukhopadhyay and Swarnendu Sen. COMBUSTION DYNAMICS NEAR LEAN BLOWOUT
		Session 3A January 5, 2018 10:00 – 10:45 Solid Mechanics/ Design (3) Chair: Prof. Amit Karmakar, Jadavpur University
10:00 – 10:15	71	Apurba Das, Mrutyunjay Rout and Amit Karmakar. TIME DEPENDENT RESPONSE OF LOW VELOCITY IMPACT INDUCED Ni/Cu FUNCTIONALLY GRADED CONICAL SHELL
10:15 – 10:30	76	Kallol Khan, Koustav Roy and Sayan Batabyal. Vibration Suppression of Jute-Epoxy based bio-composite laminated beam
10:30 – 10:45	82	Sushanta Ghuku and Kashi Nath Saha. DESCRIPTION OF UPDATED BEAM GEOMETRY IN MATHEMATICAL AND PHYSICAL PARLANCE
		Session 3B January 5, 2018 10:00 – 10:45 Fluid Mechanics/ Heat Transfer

Time Slot	Paper No.	Paper Details
	(3)	Chair: Prof. Shyama Prasad Das, IIT Madras
10:00 – 10:15	58	Chitrak Mondal, Rajesh Sarkar, Subhrajyoti Sarkar, Nirmalendu Biswas and Nirmal K. Manna. IMPACT OF MAGNETIC FIELDS ON BUOYANT DRIVEN CAVITY
10:15 – 10:30	59	Sudipta Rakshit, Sayan Halder, Nirmalendu Biswas and Nirmal K. Manna. MHD CONVECTION IN A CORNER HEATED POROUS CAVITY
10:30 – 10:45	60	Anirban Bose, Abhisekh Dey, Prithwiraj Chatterjee and Shubham Giri. PERFORMANCE ENHANCEMENT OF HYBRID SOLAR WATER HEATING SYSTEM BY CNT-WATER NANOFLUID
		Session 3C January 5, 2018 10:00 – 10:45 Thermal Engg. / Energy (3) Chair: Prof. Subhashis Neogi, Jadavpur University
10:00 – 10:15	43	Syed M. Rahman, Himadri Chattopadhyay and Romesh Laishram. ASSESSMENT OF WIND ENERGY POTENTIAL FOR POWER GENERATION AT IMPHAL, MANIPUR (INDIA)
10:15 – 10:30	45	Sai Sarath Kruthiventi, Meghana Rayedi, Lokesh Kalapala and Sravani Kola. MODELLING AND PARAMETRIC ANALYSIS OF COOLING SYSTEM OF AN INSULATED GATE BIPOLAR TRANSISTOR
10:30 – 10:45	226	Amey Pednekar, Dhiman Chatterjee and Sandipan Bandyopadhyay. PERFORMANCE EVALUATION OF SOLAR STILL
		Session 3D January 5, 2018 10:00 – 10:45 Materials (3) Chair: Prof. Samir Kumar Acharya, NIT Rourkela
10:00 – 10:15	79	Tanmoy Sarkar, Probir Kumar Bose and Goutam Sutradhar. INVESTIGATION OF AUSTEMPERING TIME ON TRIBOLOGICAL BEHAVIOR OF AUSTEMPERED GRAY IRON (AGI)
10:15 – 10:30	83	Santanu Duari, Arkadeb Mukhopadhyay, Tapan Kr. Barman and Prasanta Sahoo. COMPARISON OF FRICTION AND WEAR PROPERTIES OF ELECTROLESS Ni-B COATING UNDER DRY AND LUBRICATED CONDITION
10:30 – 10:45	84	Soumajit Talukdar and Sankar Kumar Roy. NATURAL FREQUENCIES OF A CURVED BEAM USING FINITE ELEMENT METHOD
		Session 3E January 5, 2018 10:00 – 10:45 Fluid Mechanics (3) Chair: Prof. Somnath Roy, IIT Kharagpur
10:00 – 10:15	175	Bharat Bhatia and Ashoke De. DNS Study of Flapping Jet in Coflow
10:15 – 10:30	193	Debajit Saha and Snehamoy Majumder. CFD ANALYSIS OF SWIRLING FLUID FLOW IN A CIRCULAR DUCT WITH COAXIAL CONFINED JET AT INLET
10:30 – 10:45	195	Chandrachur Hazra, Nirmalendu Biswas and Nirmal K. Manna. MAGNETO HYDRODYNAMICS IN A VENTILATED ENCLOSURE
		Session 4A January 5, 2018 12:00 – 13:30 Solid Mechanics/ Design (6) Chair: Prof. Partha Pratim Dey, IEST Shibpur
12:00 – 12:15	92	Nishibonya Kakoti, Rajat Sethi, Shubham Agarwal, Divya Zindani and Sumit Bhowmik. STUDY OF TENSILE BEHAVIOUR OF BAMBOO EPOXY COMPOSITES USING FINITE ELEMENT METHOD
12:15 – 12:30	93	Sarmistha Kundu, Arnab Banerjee, Goutam Laha and Anirban Bose. A FINITE ELEMENT ANALYSIS SHOWING THE PERFORMANCE ENHANCEMENT OF SPUR GEAR BY Al-SiC COMPOSITE
12:30 – 12:45	97	Sourav Banerjee and Sajan Shrestha. COMPARISON OF ELASTODYNAMIC GREEN'S FUNCTION FORMULATIONS FOR WAVE MODELLING IN COMPOSITE MATERIALS
12:45 – 13:00	98	Priyambada Nayak and Kashi Nath Saha. EFFECT OF YIELD STRESS VARIATION ON YIELD FRONT GROWTH OF NON-UNIFORM BARS SUBJECTED TO THERMAL LOAD
13:00 –	100	Brajesh Panigrahi and Goutam Pohit. INFLUENCE OF HIGHER ORDER

Time Slot	Paper No.	Paper Details
13:15		HARMONICS ON NONLINEAR FORCED VIBRATION OF TIMOSHENKO BEAMS
13:15 – 13:30	104	Sayantan Mandal, Anirban Mitra and Prasanta Sahoo. EXPERIMENTAL INVESTIGATION ON FREE VIBRATION BEHAVIOUR OF CONCENTRICALLY STIFFENED PLATES
		Session 4B January 5, 2018 12:00 – 13:30 Fluid Mechanics/ Heat Transfer (6) Chair: Prof. Dhiman Chatterjee, IIT Madras
12:00 – 12:15	66	Priyankan Datta, Aranyak Chakravarty, Koushik Ghosh, Achintya Mukhopadhyay and Swarnendu Sen. A COMPARATIVE ASSESSMENT OF MODELLING DIRECT CONTACT CONDENSATION PHENOMENON USING VOF APPROACH
12:15 – 12:30	67	T.K. Favas and G. Jilani. CONJUGATE HEAT TRANSFER ANALYSIS OF AN ENERGY GENERATING PLATE WITH VARIABLE THERMAL CONDUCTIVITY
12:30 – 12:45	85	Arindam Mandal and Snehamoy Majumder. EFFECTS OF RADIAL BAFFLES FITTED DOWNSTREAM OF AN AXI-SYMMETRIC SUDDEN EXPANSION ON THE TURBULENT FLUID FLOW
12:45 – 13:00	88	Basukinath Mandal, Snehamoy Majumder and Prabir Kumar Dey. NUMERICAL ANALYSIS OF NANOFLUID FLOW AND CONJUGATIVE HEAT TRANSFER THROUGH A 3-DIMENSIONAL RECTANGULAR DUCT
13:00 – 13:15	96	Shantanu Dutta, Arup Biswas and Sukumar Pati. Numerical Analysis of Laminar Natural Convection in a Quadrantal Cavity with Non-uniform heating of hot Bottom Wall
13:15 – 13:30	102	Aakash Gupta, Anish Pal, Sayanta Midya, Nirmalendu Biswas and Nirmal K. Manna. IMPACT OF MAGNETIC FIELDS ON CONVECTION IN CAVITY
		Session 4C January 5, 2018 12:00 – 13:30 Materials (6) Chair: Prof. Jerzy Kubacki, Silesia University
12:00 – 12:15	95	Manas Kumar Saha, Manohar Kumar and Santanu Das. EFFECT OF HEAT INPUT ON CORROSION OF DUPLEX STAINLESS STEEL CLAD LOW ALLOY STEEL PLATE EMPLOYING FLUX CORED ARC WELDING
12:15 – 12:30	252	Prajapati Naik, Samir Kumar Acharya and Prasanta Sahoo. ABRASIVE WEAR STUDY OF ORANGE PEEL REINFORCED EPOXY COMPOSITES
12:30 – 12:45	115	Surjeet Singh and K.N. Pandey. Study of effect of coating thickness on erosion behavior of thermal barrier coatings (TBCs) deposited on AA2024 -T4 by sol-gel method
12:45 – 13:00	116	Howa Begam, Anushika ., Prakhar Sharma and Priyanka Khobragade. ELECTROPHORETIC-DEPOSITION OF TITANIA DOPED HYDROXYAPATITE ON STAINLESS STEEL FOR BIOMEDICAL APPLICATION
13:00 – 13:15	149	Swagatam Paul, Sanjib Kumar Acharyya, Prasanta Sahoo and Jayanta Chattopadhyay. TRANSITION REFERENCE TEMPERATURE FOR 20MnMoNi55 RPV STEEL AT DIFFERENT LOADING RATES
13:15 – 13:30	154	Jerzy Kubacki, Abhijit Chanda, Bronislaw Psiuk and Marek Kulpa. Photoemission study and segregation process in BSCF material at elevated temperatures
		Session 4D January 5, 2018 12:00 – 13:30 Manufacturing (5) Chair: Prof. A.K. Chattopadhyay, IIT Kharagpur (Retd.)
12:00 – 12:15	136	Anirban Changdar, Aditya Kumar Lohar, Naresh Chandra Murmu and Somnath Chattopadhyaya. OPTIMIZATION OF PROCESS PARAMETERS IN LASER METAL DEPOSITION
12:15 – 12:30	143	Srinath Das, Debal Pramanik, Soumya Sarkar, Subir Kumar Debnath, Arunanshu Shekhar Kuar and Souren Mitra. PARAMETRIC MODELING AND ANALYSIS OF FIBER LASER FOR MICRO MARKING OF ALUMINIUM-6061 ALLOY.

Time Slot	Paper No.	Paper Details
12:30 – 12:45	147	Arpan Mandal, Debal Pramanik and Arunanshu Shekhar Kuar. OPTIMIZATION ON ANGULAR DEVIATION OF FDM 3-D PRINTING ON ABS.
12:45 – 13:00	148	Sudip Banerjee and Goutam Sutradhar. Analysis of Casting Defects in Investment Casting by Simulation
13:00 – 13:15	196	Sasmita Tripathy and Prof .Dr Goutam Sutradhar. COMPUTER AIDED STUDY OF ALUMINIUM ALLOY FOR DEFECT FREE CASTING
13:15 – 13:30		
Session 4E January 5, 2018 12:00 – 13:30		Thermal Engg./ Energy (6)
Chair: Prof. Ashoke De, IIT Kanpur		
12:00 – 12:15	56	Pijush Kanti Mondal and Bijan Kumar Mandal. EXPERIMENTAL INVESTIGATION ON IC ENGINE PERFORMANCE AND EMISSION CHARACTERISTICS USING EMULSIFIED DIESEL
12:15 – 12:30	57	Manasa Ram Kotal, Somnath De, Swarnendu Sen and Achintya Mukhopadhyay. EXPERIMENTAL STUDY ON LPG–AIR MIXED FLAME IN LAMINAR CO-FLOW BURNER
12:30 – 12:45	91	Nitish Sinha, Arun Singh and Vinit Gupta. Stability of a rock slope using rate state temperature and pore pressure friction model
12:45 – 13:00	69	Avik Ghosh and Aritra Ganguly. THERMAL MODEL DEVELOPMENT OF A PARTIALLY CLOSED SOLAR DESICCANT ASSISTED GREENHOUSE COOLING SYSTEM
13:00 – 13:15	141	Abhijit Dutta and Prokash C Roy. DEVELOPMENT OF BIOMASS PELLET MACHINE AND PELLETISATION OF SAWDUST
13:15 – 13:30	208	Ayush Upadhyay and Sudipto Mukhopadhyay. Numerical Simulations of the Sandia Flame D Using OpenFOAM
Session 4F January 5, 2018 12:00 – 13:30		Fluid Mechanics/ Heat Transfer (6)
Chair: Prof. Alakesh Mandal, IIT Kanpur		
12:00 – 12:15	103	Bishwajit Sharma, Dr. Rabindra Nath Barman and Dr. Thangadurai Murugan. EXPERIMENTAL AND NUMERICAL INVESTIGATION OF FLOW OVER 70°/40° DOUBLE DELTA WING AT LOW REYNOLDS NUMBER
12:15 – 12:30	119	Subrata Das and Sisir Kumar Guha. EFFECT OF TURBULENCE ON STABILITY OF JOURNAL BEARING WITH MICROPOLAR LUBRICATION: A NON-LINEAR APPROACH
12:30 – 12:45	120	Soumyodeep Mukherjee, Nirmalendu Biswas and Nirmal K. Manna. MHD NATURAL CONVECTION WITH HEAT GENERATION IN CAVITY
12:45 – 13:00	122	Sumit Kumar and Somnath Chakrabarti. FLOW CHARACTERISTICS STUDY ON A CONFIGURATION OF BACKWARD-FACING STEP WITH BAFFLE BY STREAMLINE CONTOURS
13:00 – 13:15	123	Sudip Simlandi, Soumyanil Nayek and Raunak Joshi. STUDIES ON FLUID FLOW THROUGH AN ELLIPTICAL MICROCHANNEL OF DIFFERENT ASPECT RATIOS
13:15 – 13:30	134	Abhijit Dutta, Himadri Chattopadhyay and Avirup Biswas. EFFECT OF AIR FRICTION ON THE ENTROPY GENERATION IN THE HUMAN RESPIRATORY TRACT
Session 5A January 5, 2018 16:15 – 17:00		Thermal Engg./ Energy + Fluid Mechanics (3)
Chair: Prof. Apurba Kumar Santra, Jadavpur University		
16:15 – 16:30	145	Chandan Mandal and Somnath Chakrabarti. STUDY ON STREAMLINE CONTOURS AND WALL STATIC PRESSURE OF FLUID PASSING THROUGH DUMP COMBUSTORS
16:30 –	146	Joydeep Munshi, Sourav Sarkar, Achintya Mukhopadhyay and Swarnendu Sen. A

Time Slot	Paper No.	Paper Details
16:45		NUMERICAL STUDY ON DISPERSION OF POLYDISPERSE SPRAY DROPLETS IN A CROSSFLOW USING EULERIAN MULTI-FLUID METHOD
16:45 – 17:00	153	Amlan Garai, Tryambak Gangopadhyay, Achintya Mukhopadhyay and Swarnendu Sen. Spray Characterisation of Diesel Using a Hybrid Atomizer
		Session 5B January 5, 2018 16:15 – 17:00 Materials (3) Chair: Prof. Sumit Basu, IIT Kanpur
16:15 – 16:30	18	Bablu Sikder and Abhijit Chanda. Effect of annealing on the indentation fracture toughness of Ba _{0.5} Sr _{0.5} Co _{0.8} Fe _{0.2} O _{3-δ} , a potential energy material for oxygen separation
16:30 – 16:45	19	Prasanna Gadhari and Prasanta Sahoo. STUDY OF TRIBOLOGICAL BEHAVIOR OF Ni-P-TiO ₂ COMPOSITE COATINGS BY OPTIMIZING COATING PROCESS PARAMETERS
16:45 – 17:00	70	Suswagata Poria, Prasanta Sahoo and Goutam Sutradhar. CORROSION BEHAVIOR OF STIR-CAST Al-TiB ₂ METAL MATRIX COMPOSITES
		Session 5C January 5, 2018 16:15 – 17:00 Thermal Engg./ Energy (3) Chair: Prof. Bijan Kumar Mandal, IEST Shibpur
16:15 – 16:30	228	Sombuddha Bagchi, Sourav Sarkar, Achintya Mukhopadhyay and Swarnendu Sen. NUMERICAL SIMULATION OF VORTEX SHEDDING FROM CYLINDRICAL BLUFF BODY FLAME STABILIZER
16:30 – 16:45	250	Bharadwaj Kuchimanchi and Debopam Das. EXPERIMENTAL INVESTIGATION OF A TURBULENT LAZY PLUME
16:45 – 17:00	251	Alakesh Chandra Mandal, P Phani Kumar and G Balamurugan. Simultaneous hotwire and PIV measurements in bypass transition
		Session 5D January 5, 2018 16:15 – 17:45 Solid Mechanics/ Design (6) Chair: Prof. Sourav Banerjee, University of Arizona
16:15 – 16:30	105	Arnab Ray, Nripen Mondal and Arijit Kundu. TOPOLOGY OPTIMISATION OF A MOTORCYCLE CHASSIS
16:30 – 16:45	107	Puja Basu Chaudhuri, Dr. Anirban Mitra and Dr. Sarmila Sahoo. FREQUENCY ANALYSIS OF LAMINATED COMPOSITE STIFFENED HYPAR SHELL WITH CUT-OUT ON HIGHER MODES
16:45 – 17:00	110	Vijay Barethiye, Goutam Pohit and Anirban Mitra. ACTIVE SUSPENSION SYSTEM FOR NONLINEAR HALF CAR MODEL
17:00 – 17:15	118	Suman Pal and Debabrata Das. Free vibration analysis of radially-free rotating FGM beam with clamped ends
17:15 – 17:30	128	Manbodh Das, Shibayan Sarkar and Bhanwar Singh Choudhary. DRAGLINE TOOTH STRESS AND FATIGUE FAILURE MODELING IN ANSYS
17:30 – 17:45	130	Parichay Basu, Sanjib Kumar Acharyya and Prasanta Sahoo. 2D RVE BASED MICRO-MECHANICAL MODELLING OF 20MnMoNi55 STEEL
		Session 5E January 5, 2018 16:15 – 17:45 Fluid Mechanics/ Heat Transfer (6) Chair: Prof. Sourav Rakshit, IIT Madras
16:15 – 16:30	137	Neeraj Paul Manelil and Shaligram Tiwari. Three-dimensionalities in the wake of flow past in-line circular cylinders under influence of downstream cylinder rotation
16:30 – 16:45	157	Motahar Reza, Anindita Bhattacharyya and Debarchana Ghosh. Heat Transfer on The MHD Fluid Flow Over a Nonlinear Stretching Sheet With Convective Boundary and Slip Condition
16:45 – 17:00	164	Alok Mishra, M. Hazla and Ashoke De. PASSIVE FLOW CONTROL OVER A 2D CYLINDER USING SLIT
17:00 – 17:15	166	Nitish Arya and Ashoke De. Performance of Different Subgrid Scale Models for LES of Separating-Reattaching and Confined Swirling Flows

Time Slot	Paper No.	Paper Details
17:15 – 17:30	170	Pradeep Kumar S and Ashoke De. COMPARATIVE STUDY OF PRESSURE RECONSTRUCTION SCHEMES IN SHARP INTERFACE IMMERSSED BOUNDARY METHOD
17:30 – 17:45	173	Sumanta Banerjee, Tanbir Mukherjee and Shubhabrato Sarkar. NATURAL CONVECTION IN AN ENCLOSURE WITH ISOFLUX HEATING OF SINUSOIDAL CORRUGATED TOP SURFACE
		Session 5F January 5, 2018 16:15 – 17:45 Rigid Body Dynamics (6) Chair: Prof. Subhashis Bhaumik, IEST Shibpur
16:15 – 16:30	68	Pratik Gyawali, Shailesh Bamoriya and S.K. Dwivedy. Joint Space Trajectory Tracking of 5R Manipulator using Open Source Hardware
16:30 – 16:45	125	Krishnendu Maji, Abu Bakar Siddiqui Thakur, Sanjib Kumar Acharyya, Saikat Mookherjee, Rana Saha and Dipankar Sanyal. Preliminary Design of a quadruped robot based on static gait
16:45 – 17:00	140	Aniruddha Sarkar, Rana Saha, Saikat Mookherjee, Sanjib Kumar Acharyya and Dipankar Sanyal. ANALYSIS OF A FLOW EFFICIENT GAIT TRANSITION FROM STATIC WALK TO TROT FOR AN ELECTROHYDRAULIC QUADRUPED
17:00 – 17:15	190	Abu Bakar Siddiqui Thakur, Krishnendu Maji, Saikat Mookherjee and Dipankar Sanyal. ANALYSING A STABLE STATIC WALKING GAIT MODEL FOR NEGOTIATING A SLOPE BY A QUADRUPED AT CONSTANT SPEED
17:15 – 17:30	233	Chandrashekhar Akhadkar and Ashish Deoghare. Effect of Tolerance Stack on Path Generation of Four-bar Mechanism
17:30 – 17:45	247	Nigussie Adem and Tarun Kanti Naskar. OPTIMIZATION OF TIME RATIO AND LINK PARAMETERS OF QUICK RETURN MECHANISMS
		Session 6A January 6, 2018 10:00 – 11:00 Solid Mechanics/ Design (4) Chair: Prof. Arghya Nandi, Jadavpur University
10:00 – 10:15	210	Subhajit Sanfui and Deepak Sharma. GPU Acceleration of Local Matrix Generation in FEA by Utilizing Sparsity Pattern
10:15 – 10:30	232	Prasenjit Das. CYCLIC PLASTICITY MODEL WITH MODIFIED ISOTROPIC HARDENING RULE FOR LOW CYCLE FATIGUE LIFE PREDICTION OF SA333 GR.6 CARBON STEEL
10:30 – 10:45	239	Saroj Kumar Basantia, Niloy Khutia and Debdulal Das. Microstructure Based FE Simulation to Predict Flow Behaviour of Dual Phase Steel Through RVE Approach
10:45 – 11:00	249	Soumen Mondal, Sushanta Ghuku and Kashi Nath Saha. EFFECT OF CLAMPING TORQUE ON STRESS AND DEFLECTION RESPONSE OF CANTILEVER BEAM
		Session 6B January 6, 2018 10:00 – 11:00 Fluid Mechanics/ Heat Transfer (4) Chair: Prof. Akshoy Ranjan Paul, MNNIT Allahabad
10:00 – 10:15	221	Pallab Sinha Mahapatra. Lid driven cavity flow of self-propelled particles
10:15 – 10:30	224	Pringale Kumar Das, Sombuddha Bagchi, Soham Mondal and Pranibesh Mandal. EXPERIMENTAL STUDY OF VELOCITY PROFILE OF AIR OVER AN AEROFOIL IN A FREE WIND STREAM IN WIND TUNNEL
10:30 – 10:45	230	Sudhir Murmu and Himadri Chattopadhyay. Numerical simulation of flow and heat transfer around trapezoidal shape bluff body
10:45 – 11:00	248	Partha Goswami, Dipak Kumar Mandal, Nirmal Kumar Manna and Somnath Chakrabarty. INVESTIGATION OF LOW AND OSCILLATORY WALL SHEAR STRESS IN REALISTIC PULSATILE FLOW THROUGH STENOSED ARTERY

Time Slot	Paper No.	Paper Details
		Session 6C January 6, 2018 10:00 – 11:00 Materials (4) Chair: Prof. Santanu Karmakar, IEST Shibpur
10:00 – 10:15	10	Arkadeb Mukhopadhyay, Tapan Kumar Barman and Prasanta Sahoo. OPTIMIZATION OF TRIBOLOGICAL BEHAVIOR OF ELECTROLESS Ni-B COATINGS AT ELEVATED TEMPERATURES
10:15 – 10:30	237	Smrutiranjana Pradhan, Tapan Kumar Barman and Prasanta Sahoo. COMPARISON OF FRICTION BEHAVIOUR OF Al-5% SiC MMC UNDER DRY, AQUEOUS AND ACID MEDIUMS
10:30 – 10:45	108	Sanjib Kundu, Suman Kalyan Das and Prasanta Sahoo. FRICTION AND WEAR CHARACTERISTICS OF HEAT TREATED Ni-P-W COATINGS UNDER DIFFERENT VELOCITY AND TEMPERATURE
10:45 – 11:00	124	Dr. M. A. Gafur, M. A. Wadud, M. R. Qadir and M. O. Rahman. Study of the Mechanical, Thermal and Electrical Properties of Sn-8Zn-1X Alloys (where X=Al, Bi and Sb) as Lead Free Soldering Alloy
		Session 6D January 6, 2018 10:00 – 11:00 Thermal Engg./ Energy (4) Chair: Prof. Saptarshi Basu, IISc Bangalore
10:00 – 10:15	222	Abhyuday Aditya, Prahar Sarkar and Pranibesh Mandal. Experimental Study on the effect of air flow rate on cooling of an MS plate in an ROT
10:15 – 10:30	245	Niladri Sekhar Mondal and Bijan Kumar Mandal. PERFORMANCE AND EMISSION STUDIES OF A DIESEL ENGINE USING MAHUA OIL BIODIESEL AND 3-HOLE INJECTOR NOZZLE
10:30 – 10:45	258	Compliance of Boiler Standards and Industrial Safety in Indian Subcontinent
10:45 – 11:00	65	Aranyak Chakravarty, Priyanka Datta, Koushik Ghosh and Swarnendu Sen. PRESSURE DEPENDENCE OF DRYOUT IN A HEAT-GENERATING POROUS DEBRIS BED
		Session 6E January 6, 2018 10:00 – 11:00 Structural Engineering (4) Chair: Prof. Arup Guha Neogi, Jadavpur University
10:00 – 10:15	44	Anurag Sharma, Naman Nishant Rana, Vishal Mishra and Rohit Gupta. DESIGN OF BASE ISOLATION SYSTEM FOR STEEL FRAME BUILDING
10:15 – 10:30	46	Amit Shiuly and Malay Maity. A STUDY ON PERFORMANCE OF HIGH RISE BUILDING DURING EARTHQUAKE IN KOLKATA
10:30 – 10:45	54	Kaustav Bakshi and Dipankar Chakravorty. RELATIVE PERFORMANCE STUDY OF COMPOSITE CONOIDAL SHELL ROOFS IN TERMS OF FIRST PLY FAILURE LOADS
10:45 – 11:00	89	Dona Chatterjee and Dipankar Chakravorty. STUDY OF ALONG WIND PEAK TIP DEFLECTION AND VARIATION OF REYNOLDS NUMBER FOR DIFFERENT MODELS OF RCC CHIMNEYS
		Session 6E January 6, 2018 10:00 – 11:00 Micro/Nano-scale Technology (4) Chair: Prof. Goutam Pohit, Jadavpur University
10:00 – 10:15	194	Sandip Kumar and Bijoy Bhattacharyya. MICRO-ELECTROCHEMICAL TEXTURING ON STAINLESS STEEL SURFACE
10:15 – 10:30	212	Amrita Sengupta and G. Pohit. PIEZOELECTRIC ENERGY HARVESTER USING TORSIONAL VIBRATION
		Session 7A January 6, 2018 11:45 – 13:45 Solid Mechanics/ Design (8) Chair: TBD
11:45 – 12:00	132	Smitadhi Ganguly, Sumanta Neogy and Arghya Nandi. RESPONSE ANALYSIS OF ROTOR SYSTEMS USING LUMPED GYROSCOPIC MATRIX

Time Slot	Paper No.	Paper Details
12:00 – 12:15	142	Raghavendra Kalakuntla. Effect of Force sensor and article mis-alignment with gravity on Multi point CG measurement Rig
12:15 – 12:30	144	Amit Bhowmick, Arghya Nandi, Sumanta Neogy and Smitadhi Ganguly. A SHAFT FINITE ELEMENT FOR ANALYSIS OF VISCOELASTIC TAPERED ROTORS
12:30 – 12:45	150	Siddhartha Patra, Sankar Dhar and Sanjib Acharyya. Determination of Critical Strain of SS 316L between 450-550°C
12:45 – 13:00	151	Siddhartha Patra, Sarmita Sinha and Abhijit Chanda. Finite Element Modeling of Hysteresis loop of Superelastic Nitinol
13:00 – 13:15	165	Saurabh Kumar, Anirban Mitra and Haraprasad Roy. NONLINEAR FORCED VIBRATION BEHAVIOUR OF FUNCTIONALLY GRADED PLATE
13:15 – 13:30	167	Sanjeev Kumar, Om Prakash Pandit, Pawan Kumar Singh and Ajay Kumar Singh. THERMAL ANALYSIS OF STRESS DISTRIBUTION IN THE VICINITY OF UNDERGROUND COAL GASIFICATION (UCG)
13:30 – 13:45	188	Snehasish Bhattacharjee, Sankar Dhar, Sanjib Acharyya and Suneel Gupta. MODIFICATION OF CYCLIC YIELD STRESS USING ‘MARQUIS’ APPROACH TO SIMULATE CYCLIC SOFTENING
Session 7B January 6, 2018 11:45 – 13:45		Fluid Mechanics/ Heat Transfer (8)
Chair: Prof. Koustuv Debnath, IEST Shibpur		
11:45 – 12:00	198	Arpan Das, Prashant Kumar and Shaligram Tiwari. LOW SPEED AERODYNAMICS OF PITCHING AIRFOIL
12:00 – 12:15	204	Ritesh Kumar, Nitish Sagar and Pawan Kumar Singh. HEAT TRANSFER AND FLUID FLOW IN OBLIQUE FINNED CHANNEL
12:15 – 12:30	206	Dilip Singh Naruka, Pawan Singh, Prabhat Dansena and H. E. Patel. THERMAL CONDUCTIVITY PREDICTION OF CuO NANOFUID USING ARTIFICIAL NEURAL NETWORK
12:30 – 12:45	213	Arijit Banerjee, Nirmalendu Biswas and Nirmal K. Manna. MIXED CONVECTION IN FOUR-SIDED LID-DRIVEN CAVITY
12:45 – 13:00	214	Hemant Naik, Prashant Kumar and Shaligram Tiwari. EFFECT OF LOCATION OF WINGLET PAIR ON FLOW AND HEAT TRANSFER IN FLOW PAST SURFACE-MOUNTED CYLINDER
13:00 – 13:15	218	Rakesh Kumar Shukla, Vivek Kumar Srivastav, Akshoy Ranjan Paul and Anuj Jain. Analysis of Airflow through Compliant Human Airways using Fluid Structure Interaction.
13:15 – 13:30	219	Suvanjan Bhattacharyya, Arpan Chatterjee, Amitava Das and Himadri Chattopadhyay. EXPERIMENTAL INVESTIGATION OF HEAT TRANSFER ENHANCEMENT FROM SQUARE CHANNEL CONTAINING TRIANGULAR PRISM
13:30 – 13:45	220	Kuppuraj Rajamanickam, Aditya Potnis, Munjani Akashkumar A and Saptarshi Basu. IDENTIFICATION OF FLOW STRUCTURES IN COMPLEX SWIRLER GEOMETRIES USING TIME-RESOLVED PIV
Session 7C January 6, 2018 11:45 – 13:45		Materials (8)
Chair: Dr. M.A. Gafur, Bangladesh		
11:45 – 12:00	155	Abhijit Biswas, Suman Kalyan Das and Prasanta Sahoo. HARDNESS AND WEAR TRENDS OF HEAT TREATED ELECTROLESS Ni-W-P COATING
12:00 – 12:15	158	Sulabh Srivastava. Effect of Coating Thickness of Sol-gel based Thermal Barrier Coatings on Thermal Shock loading
12:15 – 12:30	178	Ahad Noor and Sachin Singh Gautam. FINITE ELEMENT ANALYSIS OF EFFECT OF SURFACE ROUGHNESS ON PARTICLE EROSION OF DUCTILE MATERIAL
12:30 –	182	Satarupa Biswas, Abhijit Chanda and Partha Pratim Bandopadhyay. MICROSCOPIC

Time Slot	Paper No.	Paper Details
12:45		DAMAGES IN HUMAN CORTICAL BONE DURING DRILLING UNDER VARYING SPEEDS
12:45 – 13:00	184	Milan Kumar Das, Kaushik Kumar, Tapan Kr. Barman and Prasanta Sahoo. OPTIMIZATION OF MRR AND SURFACE ROUGHNESS IN PAC USING ARTIFICIAL BEE COLONY ALGORITHM
13:00 – 13:15	199	Sibabrata Mondal and Dipankar Bose. EXPERIMENTAL INVESTIGATION TO EVALUATE SURFACE ROUGHNESS IN WIRE ELECTRICAL DISCHARGE TURNING OF ELECTROLITIC TOUGH PITCH COPPER
13:15 – 13:30	207	Ravivarman R, K Palaniradja and Dr.R.Prabhu Sekar. A COMPARATIVE STUDY ON WEAR DEPTH BETWEEN NCR AND HCR SPUR GEAR DRIVE FOR BALANCED FILLET STRESS
13:30 – 13:45	231	Ghanshyam Boob, Ashish Deoghare and Pramod Walke. Fatigue life prediction model for steel EN-31 considering effect of turning process parameters
		Session 7D January 6, 2018 11:45 – 13:45 Industrial Engg (6)+Manufacturing (2) Chair: Prof Asis Bandyopadhyay, Jadavpur University
11:45 – 12:00	37	Kunal Ganguly. A CASE OF LOGISTICS OPTIMIZATION FOR A LARGE PROCESS INDUSTRY
12:00 – 12:15	72	Sudeshna Roy, Nipu Modak and Pranab K Dan. ENTERPRENEURIAL CULTURE IN TECHNICAL IMPROVEMENTS FOR PRODUCT QUALITY AND CUSTOMER SATISFACTION
12:15 – 12:30	73	Sudeshna Roy, Nipu Modak and Pranab K Dan. MANAGERIAL SUPPORT IN R&D PRACTICES FOR ACHIEVING TECHNOLOGICAL DEVELOPMENTS
12:30 – 12:45	112	Vivek Kumar Chawla, Dr Arindam Kumar Chanda and Prof . Dr Surjit Angra. Integrated Scheduling of Multi Load AGVs by Priority Hybrid Dispatching Rules in FMS-A Simulation Study
12:45 – 13:00	159	Debashis Sarkar, Susmita Sau, Subhash Chandra Panja and Sankar Narayan Patra. Failure Based Maintenance Modeling of IR Signalling Systems using Artificial Neural Network
13:00 – 13:15	161	Susmita Sau, Debashis Sarkar, Sayan Talapatra, K Vijaya Kumar, Subhash Chandra Panja and Sankar Narayan Patra. Failure and Availability Analysis of Axle Counter: A Case of Kolkata Metro Railway
13:15 – 13:30	211	Avinish Tiwari, Piyush Singh, Pankaj Biswas and Sachin D Kore. Friction Stir Welding of AISI 1006 Low Carbon Steel
13:30 – 13:45	215	Tina Ghara, Rashid Ansari, Deb Kumar Adak, M Ahmed, Santanu Das and Barun Haldar. ABRASIVE JET DRILLING OF PORCELAIN TILES AND SODA LIME GLASS UNDER DIFFERENT CONDITIONS
		Session 7E January 6, 2018 11:45 – 13:45 Thermal Engg./ Energy (8) Chair: Prof. Firoz Alam, RMIT, Melbourne
11:45 – 12:00	160	Avishek Ray and Sudipta De. Optimum design of a renewable based polygeneration using Flower Pollination Algorithm
12:00 – 12:15	168	Mayank Verma and Ashoke De. FLOW SEPARATION PATTERNS IN ROCKET NOZZLES IN OVEREXPANSION
12:15 – 12:30	169	Rupesh K. Sinha, Ashoke De and Malay K. Das. Numerical Investigation of Hypersonic Combustion Using Liquid Fuel and Gaseous Oxidiser
12:30 – 12:45	172	Mithun Das, Mouktik Sarkar, Amitava Datta and Apurba Kumar Santra. THE EFFECTS OF BLENDING CASTOR OIL METHYL ESTER WITH DIESEL ON COMBUSTION, PERFORMANCE AND EMISSION CHARACTERISTICS OF A COMPRESSION IGNITION ENGINE
12:45 – 13:00	174	Mayurakshi Mondal, Atmadeep Bhattacharya and Amitava Datta. EFFECT OF BIOMASS FEEDSTOCK ON ENERGY TRANSFER IN BIO-HYDROGEN GENERATION THROUGH GASIFICATION AND PRESSURE SWING

Time Slot	Paper No.	Paper Details
		ADSORPTION
13:00 – 13:15	177	Chiranjib Bhowmik, Sumit Bhowmik and Amitava Ray. SELECTION OF GREEN ENERGY SOURCES:AN ENTROPY-TOPSIS APPROACH
13:15 – 13:30	181	Sudip Simlandi, Malay K. Naskar and Nilkanta Barman. EMISSION CONTROL BASED ON ENERGY AND EXERGY ANALYSIS OF THE TRUBINES OF A 500MW COAL BASED POWER PLANT
13:30 – 13:45	197	Gunjan Kumar, Nikesh Kumar and Rohan Lal Kshetry. Sub-Terranean Air-Conditioning for Post-Harvest Underground Cold Storage
Session 7F January 6, 2018 11:45 – 13:45		Turbomachines (8)
Chair: Prof. Bireswar Majumdar, Jadavpur University		
11:45 – 12:00	40	Vinod J, Paladugu Venkaiah and Bikash Kr Sarkar. FRANCIS TURBINE IGV CONTROL UNDER FORCE ESTIMATION
12:00 – 12:15	55	Nitesh Mondal, Rana Saha and Dipankar Sanyal. AN EXPERIMENTAL INVESTITAGTION ON PRESSURE COMPENSATED VARIABLE DISPLACEMENT SWASH PLATE TYPE AXIAL PISTON PUMP
12:15 – 12:30	74	Parthasarathi Hans and Debabrata Roy. Marine Gas Turbine Engine Development – An Indian Scenario
12:30 – 12:45	117	Kartikaya Parmar, Somnath Roy and Somnath Sarangi. Modeling of a micro-turbine operating under variable flow rate
12:45 – 13:00	129	Dinesh Kumar and Shibayan Sarkar. REGION RECOGNITION OF STRESS INDUCED IN MODIFIED SAVONIUS HYDROKINETIC TURBINE BASED ON FLUID-STRUCTURE INTERACTION ANALYSIS
13:00 – 13:15	152	Rajesh Kumar and Rajeev Jain. Residual Growth in Rotating Disk due to Over-speed
13:15 – 13:30	189	Krushna Mohan Das, Paladugu Vankaiah and Bikash Sarkar. POWER CONTROL OF THE SMALL SCALE VARIABLE SPEED VARIABLE PITCH WIND TURBINE
13:30 – 13:45	217	Nimai Pada Mandal, Nitesh Mondal, Samir Kumar Hati, Atul Kumar Yadav, Anuj Raj and Anurag Gupta. Modelling and Analysis of a Gerotor Pump using Matlab Simulink