



**TWO-DAY NATIONAL CONFERENCE ON
ADVANCES IN POLYMER COMPOSITES "APC-2024"
23-24 February, 2024 (Friday-Saturday)
Technical Paper Presentation (Oral) Schedule**

Sl. No	Date	Time	Paper Code	Theme	Authors	Presentation Topic
Session I						
1	23.02.24	10.45 AM – 11.00 AM	APC01	Advanced Matrices & Reinforcements	Aadhithya R, Rajalakshmi Institute of Technology	Investigation of Tribological Behaviour in (Tio ₂ -Loaded) Jute Fibre Reinforced Polyester Composites
2		11.00 AM – 11.15 AM	APC02		Gayathri S, Central Institute Of Petrochemicals Engineering and Technology, Chennai	Hybrid Reinforcement with Advanced Polymeric Composites
3		11.15 AM – 11.30 AM	APC03		Pandayaraj V^a, Rajadurai A ^b , K. Kalaichelvaanc, Assistant Professor, Department of Mechanical Engineering, Sri Sai Ram Engineering college bProfessor, Department of Production Technology, MIT-Anna University, Chennai-44, cProfessor, Department of Ceramic Technology, AC Tech-AU	Energy absorption characteristics of spherical sandwich structure
4		11.30 AM – 11.45 AM	APC04		Dr. Ravikumar, Sharik, B.S. Abdur Rahman University, Chennai	Advanced polymer composites for Forced Draft (FD) Fans in coal-dependent thermal power plants.
5		11.45 AM – 12.00 PM	APC05		Dr. Ravikumar, S. Peraisoodan Viswanath, Rohan Senthilkumar, B.S. Abdur Rahman University, Chennai	Advanced polymer composites for Bucket elevator in bulk material handling.
6		12.00 PM – 12.15 PM	APC06		Amit Kumar¹, Dr. J. Jayaseelan ² , Dr. K. R. Vijayakumar ³ 1 Research Scholar, 2 Associate Professor, 3 Professor, Dr. M.G.R. Educational and Research Institute, Chennai	Fire retardant behaviour of hybrid benzoxazine resin based glass fibre composites
7		12.15 PM – 12.30 PM	APC07		Prabavathi. V ¹ , Shankara Narayanan. S ² , John Peter. D ³ , Muthuselvam. D ⁴ , Department of Robotics and Automation, Karpaga Vinayaga college of engineering and technology, Chengalpattu.	Mechanical properties of banana fiber and kenaf fiber reinforced epoxy composites

Session II						
8	23.02.24	02.00 PM – 02.15 PM	APC08	Composites for Automobile and Aerospace	P. Nantha kumara , A. Raja duraib, P. Hariharanc a Research Scholar, c Professor, Department of Manufacturing Engineering, CEG campus, Anna university, Chennai – 25 b Retd. Professor, Department of Production Technology, MIT campus, Anna University	Thermogravimetric Analysis of Polyester Composite Filled with Submicron Sized Fly Ash for Automotive Engine Cowling Application
9		02.15 PM – 02.30 PM	APC09		B.Rajasundar , B.S. Abdur rahman crescent college, Chennai	Natural Fiber Reinforced Biocomposites for Automobile Application
10		02.30 PM – 02.45 PM	APC10		Priyadarshini. M , Sangeetha Dharmalingam*, Institute for Energy Studies, Department of Mechanical Engineering, College of Engineering Guindy, Anna University, Chennai-600025	Visible light driven polymer composites with enhanced photocatalytic activity for photocatalytic microbial fuel cell applications: A review
11		02.45 PM – 03.00 PM	APC11		R.Daulath Banu, K.I.Mohammedd Ashfack , Mohammed Fazil, Polymer engineering, Crescent University	Development of Bio-Hybrid Composite for Automotive Application
12		03.00 PM – 03.15 PM	APC12		Ragamath Rughi M , Abdul Rahim Sherif, Naveen & Dr. J. Shahitha Parveen, B.S.Abdur Rahman Crescent Institute of Science and Technology, Chennai	PVDF/IL/Dehydrofluorination salt incorporated membrane developed for enhancing the performance of Lithium batteries.
Session III						
13	23.02.24	04.00 PM – 04.15 PM	APC13	3.Composites for construction Industries	Rahima Shabeen S¹ and Arief RazackM2, 1Assistant Professor, 2Postgraduate Student, Department of Civil Engineering, College of Engineering Guindy, Anna University, Chennai.	Experimental Study on Basalt Fiber Reinforced Polymer (BFRP) Concrete Beams
14		04.15 PM – 04.30 PM	APC14		Dr.V.R.Giridev and Dr.S.Sudha , Department of Textile Technology, Anna University, Chennai	Comparative Analysis of Knitted Jute Composites Based on Mechanical Properties and Water Absorption Studies
15		04.30 PM – 04.45 PM	APC15		Suganyadevi Sarangan1* , S.Thamaraikannan2 1- Madras Institute of Technology, Chennai 2- K.C.G. College of Technology - Chennai	Flexural and Vibration Analysis of Composite Structure
16		04.45 PM – 05.00 PM	APC16		Dr. M. Govindaraja ,* Dr. K. Vijayakumarb and N. Sudhakaranca Department of Chemistry, cDepartment of Electrical and Electronics Engineering, K.Ramakrishnan College of Technology (Autonomous), Samayapuram, Trichy-621112.bDepartment of Chemistry, M.Kumarasamy College of Engineering	Sustainable Wood polymer composites: Synthesis, Characterisation and applications
17		05.00 PM – 05.15 PM	APC17		Bharath Vaidhyaselvan , Department of Mechanical Engineering, Easwari Engineering College, Chennai -89	Experimental and Numerical Studies on Acoustical and Mechanical Properties of Luffa/Kevlar Epoxy Composites with Silica Aerogel Inclusion

Session IV						
18	24.02.24	09.15 AM – 09.30 AM	APC18	4.Composites for Biomedical Applications	S.Sundaraganesan ¹ , M.Rengasamy ² , A.Naufal Shafi ³ , K.Kanimozhi ⁴ 1,3 Student, 2 Assistant Professor, Dept. of Petrochemical Engineering, 4 Assistant Professor, Department of chemistry, University College of Engineering, BIT Campus, Anna University, Tiruchirappalli -620 024	Review on Bio-Materials in Total Hip Arthroplasty(THA)
19		09.30 AM – 09.45 AM	APC19		Priyanka Chemudgunata ¹ , E Madhan ¹ , V Sharvin ¹ , 1 Department of Robotics and Automation, Karpaga Vinayaga College of Engineering and Techonolgy	Advancements of composite materials in medical applications
20		09.45 AM – 10.00 AM	APC20		K.Yokesh , B.Yuvaraj, P.Keerthana, Y.Lehkashree, M.Kalaiselvi & J. Shahitha Parveen,	PLA hydrogel composite incorporated nanofillers and fabricate the biomedical device/scaffolds by 3D printing technique
21		10.00 AM – 10.15 AM	APC21		Kiran joy , D. Sathya Seeli, M. Prabakaran, Department of Chemistry, Hindustan Institute of Technology and Science, Padur, Chennai	Fabrication of 3D porous polycaprolactone/chitosan-g-Graphene oxide scaffold for bone tissue engineering
22		10.15 AM – 10.30 AM	APC22		Lakshmi Narayanan P , Nagarajan SK, Siddharthan A*, Vijay Vignesh NS, Arunagiri N Department of Production Technology, MIT Campus, Anna University, Chennai-600044, TN.	Experimental study on bone plates for fracture fixation with bio composites of Poly lactic acid polymer with Hydroxyapatite
Session V						
23	24.02.24	11.30 AM – 11.45 AM	APC23	Advanced Nanocomposites	Vaidhegi Kugarajah ^{1*} , Moogambigai Sugumar ² , Thabares F ¹ and Muthukumar V ¹ , 1Department of Nanobiomaterials, Institute for Biomedical Engineering, 2Department of Medical Biotechnology and Integrative Physiology, Institute for Biotechnology, Saveetha, School of Engineering, Saveetha Institute of Medical and Technical Sciences, Chennai-602015.	Performance Assessment: Chitosan Zinc Nanocomposites versus Chitosan Zinc Hydrogel Nanocomposites for enhanced biological applications
24		11.45 AM – 12.00 PM	APC24		Rajkumar.M Department of Mechanical Engineering, Rajalakshmi Engineering College	Investigation of Impact of Properties of Various Nano Fillers in Natural Fibers
25		12.00 PM – 12.15 PM	APC25		Moses V G Isaiah , Dept of Physics VEC	Synthesis and electrical properties of nanocomposite electrolyte film containing Al ₂ O ₃ nanoparticles added PVP-MgBr ₂ polymer
26		12.15 PM – 12.30 PM	APC26		S.Tharmalingam a , M. Ravichandran b*, a Department of Robotics and Automation, Karpaga Vinayaga College of Engineering and Technology, Madurantakam, Chengalpet 603308, b Department of Mechanical Engineering, K. Ramakrishnan	Friction Stir Processing of Magnesium Alloys for Automotive Applications: A Review

					College of Engineering, Samayapuram, Trichy	
27		12.30 PM – 12.45 PM	APC27		B.Kishore Kumar^a , R.Karthikeyan ^b , K.Bhaskarc, aStudent, bAssistant Professor, cProfessor, Department of Automobile Engineering, Rajalakshmi Engineering College, Chennai-602105	Assessment of mechanical attributes in polyethylene incorporating tanning waste polymer
Session VI						
28	24.02.24	02.30 PM – 02.45 PM	APC28	Other Topics	N. Gobi & Steve Roy Department of Textile Technology, Anna University, Chennai - 600025	DEVELOPMENT OF COMPOSITES FROM RECYCLED MATERIALS
29		02.45 PM – 03.00 PM	APC29		VR. Keerthivasan, M. Sakthisurya , Mrs.R.Daulath Banu, B.tech polymer engineering, Crescent university	EPDM based rubber compound
30		03.00 PM – 03.15 PM	APC30		Iniyam K.E , Udhaya Kumar V, Central Institute of Petrochemicals Engineering, Chennai-600032	Recycling of composite materials
31		03.15 PM – 03.30 PM	APC31		Muralidhar Na and Vadivuchezhian Kaliveeranb* aDepartment of Civil Engineering, Malnad College of Engineering, Hassan and 573201, INDIA, bDepartment of Water Resources and Ocean Engineering, National Institute of Technology Karnataka, Surathkal, and 575025	FEM and Experimental validation of Betelnut Fiber Composites
32		03.30 PM – 03.45 PM	APC32		Lakshmi Narayanan P, Nagarajan SK, Siddharthan A * , Vijay Vignesh NS, Arunagiri N Department of Production Technology, MIT Campus, Anna University, Chennai-600044.	Experimental study on bone plates for fracture fixation with bio composites of Poly lactic acid polymer with Hydroxyapatite

Parallel Session (I)
23.02.2024 (Friday)
(02.00 PM – 03.30 PM)

33	23.02.2024 (Friday)	02.00 PM – 02.15 PM	APC33	R. Balan, Vadivuchezhian Kaliveeran* Department of Water Resources and Ocean Engineering, National Institute of Technology	Thermal Bending of Carbon Composite Laminate Using Finite Element Numerical Modeling
34		02.15 PM – 02.30 PM	APC34	Ganapathi Malarvizhia, Hemavathy Mb* a Professor, b Research Scholar, Division of Transportation Engineering, Anna University, Chennai -25	Experimental investigation on rheological properties of LDPE and HDPE -modified binder
35		02.30 PM – 02.45 PM	APC35	Debargha Sen, Dr. Vadivuchezhian Kaliveraan* , Department of Water Resources and Ocean Engineering, National Institute of Technology, Karnataka, Suratkhil, Mangaluru – 575025, INDIA	Insulation of steel pipeline with Kevlar and Glass fibres using two-dimensional finite element method
36		02.45 PM – 03.00 PM	APC36	N. Gobi, G. Vignesh and D. Jaya surya babu , Department of textile technology, Anna University, Chennai	Functionalized biodegradable pre filter for water filtration
37		03.00 PM – 03.15 PM	APC37	Ashish Singh and Vadivuchezhian Kaliveeran * Department of Water Resources and Ocean Engineering, National Institute of Technology Karnataka, Surathkal, and 575025, INDIA.	Finite element analysis to design offshore pipeline subjected to before buckling situation
38		03.15 PM – 03.30 PM	APC38	S. J. Narasimharaju* , K. Annamalai, Poorna Chandra Rao B, Department of Automobile Engineering, Madras Institute of Technology Campus, Anna University, Chennai-44.	Advancements in Polyaniline Coatings on Enhanced Electric Conductivity of Metallic Bipolar Plates for PEMFC Application

Parallel Session (II)
23.02.2024 (Friday)
(03.45 PM – 05.15 PM)

39	23.02.2024 (Friday)	03.45 PM – 04.00PM	APC39	Parikshith Prasad and Vadivuchezhian Kaliveeran * , Department of Water Resources and Ocean Engineering, National Institute of Technology, Karnataka, Suratkhil, and 575025, INDIA.	Finite element analysis offshore pipeline with polyethylene integral buckle arrestor
40		04.00 PM – 04.15 PM	APC40	Jasna P.H1 , and Rajesh P. Nair2 1Research Scholar, 2Assistant Professor, Department of Ship Technology, Cochin University of Science and Technology, India	Modal and harmonic analysis of vibration isolator mounting using FEM
41		04.15 PM – 04.30 PM	APC41	Pugal Vendan Bangaru, Vadivuchezhian Kaliveeran * , Subrahmanya Kundapura, Department of Water Resources and Ocean Engineering, National Institute	Strip Polymeric Beam Analysis using Finite Element Approach

				of Technology, Karnataka, Surathkal	
42		04.30 PM – 04.45 PM	APC42	G.Kumaresan and Deepak V Das , Department of Production Technology, MIT Campus, Anna University	Experimental Investigation of Natural Fiber reinforced Epoxy based Composites for Automotive Application
43		04.45 PM – 05.00 PM	APC43	Balan Raju and Vadivuchezhian Kaliveeran * , Department of Water Resources and Ocean Engineering, National Institute of Technology,	Numerical Analysis of Thermal Buckling of Steel Tube with CFRP Stiffeners
44		05.00 PM – 05.15 PM	APC44	Aravind K R , A.Mathiazhagan, C.B. Sudheer, Cochin University of Science and Technology, Kochi- 22	Assessing the Viability and Environmental Sustainability of Composite Materials in Inland Vessel Construction: A Case Study of Kerala's Waterway Network
Parallel Session (III) 24.02.2024 (Saturday) (09.15 AM – 10.45 AM)					
45	24.02.2024 (Saturday)	09.15 AM – 09.30 AM	APC45	Pugal Vendan Bangaru, Vadivuchezhian Kaliveeran* , Subrahmanya Kundapura, Department of Water Resources and Ocean Engineering, National Institute of Technology Karnataka, Surathkal, and 575025, INDIA.	Finite Element Analysis of Block Type Stiffened Polycarbonate Longitudinal Rectangular Axial Bar used in Fretting Fixture
46		09.30 AM – 09.45 AM	APC46	Raveesh R M 1 , Vadivuchezhian Kaliveeran 2* , Subrahmanya Kundapura 3, 1,2,3 Department of Water Resources and Ocean Engineering, National Institute of Technology, Karnataka, Surathkal	A Numerical Study on Carbon Fiber reinforced polymer (CFRP) laminate composite specimen subjected to tensile Load
47		09.45 AM – 10.00 AM	APC47	[1] Previn R , [2] Joseph Bensingh R, [3] Rashia Begum, [4] Bhuvana K.P [1], [2],[4] Department of Petrochemical Technology, Central Institute of Petrochemical Engineering and Technology (CIPET), Chennai, [3] Department of Mechanical engineering, College of Engineering, Anna University, Adyar,	Performance Analysis of 5kWp Floating Solar Photovoltaic Power plant at High Altitude using PVsyst
48		10.00 AM – 10.15 AM	APC48	Pallav Joshia , Sunil Nimjea, a Department of Mechanical engineering, DIAT (DU), Pune	Vibration Performance of Particulate Aluminium Matrix Composite Box
49		10.15 AM – 10.30 AM	APC49	Muralidhar Na and Vadivuchezhian Kaliveeranb*, aDepartment of Civil Engineering, Malnad College of Engineering, Hassan and 573201, bDepartment of water Resources and Ocean Engineering, National Institute of Technology, Karnataka,Surathkal,and 575025	Viscoelastic Behavior of Areca Nut Husk Fine (ANHFE) Fiber Composites under Dynamic Loading Condition – An Experiment and Numerical Approach

50		10.30 AM – 10.45 AM	APC50	John Solomon , Sangeetha Dharmalingam, Institute for Energy Studies, Dept. of Mechanical Engineering, Anna University, Chennai-25	Biosynthesis and Sulphonation of Iron (II, III) oxide nanoparticles prepared from tea extract as antifoulant in polymer electrolyte membrane for Microbial Fuel Cell application
Parallel Session (IV) 24.02.2024 (Saturday) (11.30 AM – 12.45 PM)					
51	24.02.2024 (Saturday)	11.15 AM – 11.30 AM	APC51	*Sri Pooja Thangam R , ** Dr. G. B. Bhaskar, *Tamil Mani V S, *Tharun G, *Varsha S * Student, ** Professor, Department of Production Technology, MIT, Anna University.	Fabrication of Borosilicate Glass Microfluidic Device Using Ultrasonic Drilling with UV Bonding
52		11.30 AM – 11.45 AM	APC52	Manickavasaham G a*, Venkatesan D b, Chandra Sekaran L C, Charles Peromio A a, Arunkumar Md a Assistant Professor, b PG Student, c Associate Professor, Dept. of Mechanical Engineering, Mookambigai College of Engineering, d Teaching Fellow, Dept. of Rubber and Plastics Technology, Anna University, MIT Campus, Chennai- 44	Thermal Stability and Water Absorption Behaviour of Cuttlefish Bone Particle-Filled Glass Fiber-Reinforced Epoxy Composites
53		11.45 AM – 12.00 PM	APC53	Betha Srikanth and Vadivuchezhan Kaliveeran *, Department of Water Resources and Ocean Engineering, National Institute of Technology, Karnataka, Surathkal, and 575025, INDIA.	Stress Analysis of Solid Tapered Cork using Finite Element Method
54		12.00 PM – 12.15 PM	APC54	R.Meenakshi, LS.Jayakumari, P.Durga, B.Santhose Sakthi, Anna University, MIT Campus, Chennai-44	Study of mechanical properties of luffa and sterculia foetida fiber reinforced hybrid particulate composites
55		12.15 PM – 12.30 PM	APC55	Sahana T S 1 , P. Palanikumar 2 , Vadivuchezhan Kaliveeran 3* , Subrahmanya Kundapura 4 1,3,4 Department of Water Resources and Ocean Engineering, National Institute of Technology 2 Department of Automobile engineering, Karpaga Vinayaga College of Engineering andTechnology, Chengalpattu, Tamil Nadu 603308, India.	Curing and temperature effects on aluminium double strap joints specimen subjected to tensile load
Parallel Session (V) 24.02.2024 (Saturday) (02.30 PM – 03.45 PM)					

56	24.02.2024 (Saturday)	02.30 PM – 02.45 PM	APC56	1. Barath raj K C ² . Shivani R ³ .Sushmitha P 4.Elangovan K ⁵ .Srirangarajalu N Madras Institute of Technology campus, Anna University, Chennai-44	Experimental Analysis of Friction Stir Welding of two dissimilar plastics
57		02.45 PM – 03.00 PM	APC57	Prabakaran M *1 , Bhaskar G B *2 , *Department of Production Technology, MIT Campus, Anna University, Chennai, Tamilnadu, India	Effect of ballistic penetration of kevlar- carbon- polypropylene/polyethylene hybrid composites
58		03.00 PM – 03.15 PM	APC58	Mr..D.Bala subramanian ¹ , Dr.R.Elangovan ² , Mr.C.Arun ³ , Mr.S.Rjarethinam ⁴ , Arunkumar M ⁵ , Piyali Roy Choudhury ⁶ 1 Assistant professor, Mookambigai college of Engineering– Pudukkottai-622502, Tamilnadu, India. Dept. of Rubber and Plastics Technology, Anna University, MIT Campus, Chennai-44	Experimental Investigation of mechanical characteristics of Kevlar49 and carbon-reinforced polymer composites
59		03.15 PM – 03.30 PM	APC59	Viswanaath K V M *1 , Bhaskar G B *2 , *Department of Production Technology, MIT Campus, Anna University, Chennai, Tamilnadu, India	Mechanical behaviour of glass - polypropylene/polyethylene hybrid composites
60		03.30 PM – 03.45 PM	APC60		