

2024 Second International Conference on  
**Recent Trends in Engineering and Technology (ICRTET – 2024)**

14 - 15, MARCH 2024 | Erode, India | [www.icrtet.com](http://www.icrtet.com)

### Program Schedule

Date	Time	Event
14.03.2024	10.00 am to 10.30 am	Inaugural Function Meeting link: <a href="https://meet.google.com/kju-vcxn-dys">https://meet.google.com/kju-vcxn-dys</a>
14.03.2024	10.30 am	<b>Keynote Address:</b> <b>Prof. Dr. Mohamad Nur Khairul Hafizi Rohani</b> Universiti Malaysia Perlis, Malaysia Meeting link: <a href="https://meet.google.com/kju-vcxn-dys">https://meet.google.com/kju-vcxn-dys</a>
14.03.2024	11.00 am to 04.00 pm	Session 01: CHE01(online)
		Session 02: CE01(online)
		Session 03: EECE01(online)
		Session 04: ME01(online)
		Session 05: ME02(online)
		Session 06: ME03(online)

ME - Mechanical Engineering; CHE – Applied Chemistry; CE – Civil Engineering  
 EECE – Electrical, Electronics & Computer Engineering

**Note:**

1. Start time given above indicates Indian Standard Time (IST).
2. Presentation will be conducted using Google Meet.
3. Participants can join their respective sessions by clicking the meet link given
4. Mode of presentation should be powerpoint presentation(ppt or pptx)
5. Duration of presentation: 10 minutes (presentation) + 5 minutes (Queries)
6. Participant using Google Meet will be admitted at any time prior to their scheduled time.
7. Participant using Google Meet SHOULD join the session at least 30 minutes prior to their scheduled time.
8. Participants are requested to follow the scheduled time; especially regarding the time for your talk.
9. Participants are requested to contact the respective session Chairs/coordinators for presentation related queries.

**Session 01: CHE01**

Date: 14.03.2024

Time: 11.00 am to 04.00 pm

**Session Chair(s):**

1. Dr. S. Shamshath Begum, Department of Polymer Engineering,  
B.S.Abdur Rahman Crescent Institute of Science & Technology, Chennai

**Session Coordinator:**

1. Dr. A. Murugesan, Professor/ Chemical Engineering, Nandha Engineering College, Erode

Google Meet ID: <https://meet.google.com/huk-uqmc-ncy>

Time	Paper ID	Paper Title	Authors
11.00 am to 12.45 pm	RTET 1071	Removal of Cr(VI) From Tannery Effluent	Sivakumar K.K., Senthil A., Amulya Nandan, Meghana, Muni Krishna Teja and Bhargavi
	RTET 3029	Optical and Antibacterial Properties of HPMC- AuNPs Nanocomposite Films	S. B. Suma and Y. Sangappa
	RTET 3037	Synthesis and Characterization of Prussian Blue Nanoparticles with single precursor K <sub>3</sub> Fe(CN) <sub>6</sub> by Coprecipitation Method	Bhism Narayan, Mukesh, Ankita Gupta and Ajeet Kumar
	RTET 3059	Biodiesel Produced from A Blended Oil by Transesterification: Properties, Effect of Parameters, Thermal Efficiency and Emission Characteristics	Husam Talib Hamzah, Veluru Sridevi, Thamer Adnan Abdullah, S. Nikhil, G. Saketh, M. Tukarambai, Venkata Rao Poiba, Ny Hafaliana Koloina Heriniaina, Geethika Gudapati,
	RTET 3064	Studies on growth and characterization of non- centrosymmetric L-Alanine hydrogen ortho phthalate	G. B. Anushya, M. Divya and P. Malliga
	RTET 4038	Electrochemical Studies on the Anti-Corrosion Properties of Amphiphilic Polymer Composite Coating on Mild Steel in the Marine Environment	Ajay Perumal Pandi, Velkannan Veerapandian, Kottaisamy Muniasamy

02.00 am to 04.00 pm	RTET 4074	Synthesis, characterization, biological evolution of some platinum (II) complexes with mixed isatin-N-(2-oxoindolin-3-ylidene)benzohydrazide and phosphine ligands	Noor F. Hasan, Ahmed A. Irzoqi, Yuosra K. Alasadi
	RTET 4094	Effect of Nickel Sulphate on Electrical Parameters of generic polyelectrolyte PVA/PSSA membrane.	Poonam Raturi, Pankaj Kumar, Anurag Singh, Suraj Kumar
	RTET 3025	Optimization of Solvent in Extraction of Essential Oils	Hemlata Karne, Purti Shah, Samarth Upare, Pratiksha Sarak, Sanket Saravalakar, Prakriti Singh
	RTET 4040	Amla liquid based ionic conducting polymer membrane	Sribidhya Mohanty, Priya Khanduri and Varij Panwar
	RTET 4041	Impact of Electrolytes on PVA/PSSA Membrane	Priya Khanduri, Sribidhya Mohanty and Varij Panwar, Aarshi Lalorya
	RTET 7007	Metal Complexes of 2-Aminopyridine Schiff Bases: Synthesis, Characterization, and Antibacterial Investigation	Aparna Surendra Babu, Sarukrishna S, Ahsana Fathima S and Divya Mohan R
	RTET 7023	Synthesis of albizia procera-iron nanoparticles (ap-fenps) for the removal of crystal violet dye	Pichika Satya Kedarnath, Beeram Sri Mahi Saroj Prathap, Yagna Sri Thikkada, Kapavarapu Sreekar, Meena Vangalapati
	RTET 7024	Morphological and Physiological Characterisation of Bacterial Isolates for the Degradation of Malathion	Sumanjali AvaniGadda, D. Naga Akhila, G. Divya Deepika, Reddy Johnny Mohan Krishna, B. Sarada Sri Yagna, Aanathi.Yarlagadda, Meena Vangalapati

**Session 02: CE01**

Date: 14.03.2024

Time: 11.00 am to 04.00 pm

**Session Chair(s):**

1. **Dr. G. Shyamala**, Professor, Department of Civil Engineering, SR University, Warangal

**Session Coordinator:**

1. **Mr. K. L. Ravisankar**, Assistant Professor / Civil Engineering

Google Meet ID: <https://meet.google.com/xqx-ziuf-tiz>

Time	Paper ID	Paper Title	Authors
11.00 am to 12.45 pm	RTET 3024	Performance Analysis of a Geogrid-Reinforced Highway Embankment using Finite Element	Shailesh Singh Thakur, Swati Agrawal, Akshit Lamba, Manas Rathore, Piyush Das, Deeksha Chandrakar
	RTET 3068	Strength Studies on Fly Ash and Bagasse Ash Based Geopolymer Concrete with Varying Percentages of Polypropylene Fibre	M.Banu Priya, S Anbazhagan,
	RTET 6033	Water Treatment by Using Banana Peels Powder as Adsorbent Material	Hyman Jafar Meerza Al-Jaaf, Lubna Ghalib, Rand Salih Al-Jadiri
	RTET 6068	Performance Analysis of Reactive Powder Concrete with Partial Replacement of Fine Aggregate with Iron Sludge Powder	S. Geetha, M. Selvakumar, G. Nivetha, S. Shaan and S. Kishore Kumar
	RTET 7013	Experimental Investigation on Concrete Using Industrial By-Products	A.Dhanalakshmi, M.Indhumathi Anbarasan, Nagamani.S, Herald Lessely, J.Ramprashath
	RTET 3016	An Experimental Study on Strength Characteristics of SFRC with Different Aspect Ratio	Hemant Kumar Sain, Anil Kumar Sharma, Amrita Raj, Pramod Kumawat, Mohammad Shahid, Ramchandra Siwal
02.00 pm to 04.00 pm	RTET 3028	Waste Management and Challenges: A Comprehensive Review on Technological Advancements	Vandana Rathore, Vandana Yadav, Priyanka Gupta
	RTET 3081	A Comprehensive Study on Epoxy-Coated Reinforcement and Crack Control in Reinforced Concrete	Ishan Shukla, Manas Rathore

	RTET 4023	Development of Vendor Safety Management System (VSMS) on Vendor Selection Process at PT X to Improve Construction Safety Performance	Rizki Nufta Anindya, Rossy Armyn Machfudiyanto
	RTET 4063	Evaluation of various-shaped elevated RCC water storage containers in Zone	Abhishekh Dakhole, S.W. Dhengare, M.Raut, R.M.Bhagat
	RTET 5041	Repair and Rehabilitation of RCC Bridge	Dhiraj G. Agrawal, Pranay W. Deulkar
	RTET 5062	Optimizing Alizarine Red Dye Adsorption Using Arecanut Husk Biochar	Jeevan Mathew Tharayil, Prakash Chinnaiyan, Pramasha B S, Apoorva Ajith, Akshay S Krishnan
	RTET 7018	Comparative Study of Design of Elevated Storage Reservoir using IS 3370:2009 and IS 3370:2021	Amruta A. Yadav, Jayesh R. Wankhede, Pranita S. Bhandari, Vinay V. Anasane, Deepanshu S. Lewarkar

**Session 03: EECE01**

Date: 14.03.2024

Time: 11.00 am to 04.00 pm

**Session Chair(s):**

1. Dr. Kishore Balasubramanian, Associate Professor/EEE,  
Dr. Mahalingam College of Engineering & Technology, Pollachi India

**Session Coordinator:**

1. Dr. D. Arulanantham, Associate Professor / ECE, Nandha Engineering College

**Google Meet ID:** <https://meet.google.com/uuj-ebtd-ocy>

Time	Paper ID	Paper Title	Authors
11.00 am to 12.45 pm	RTET 4037	Analysis of PVA Graphite Composite Films	Priya Khanduri, Mohd Umer Ansari and Varij Panwar
	RTET 1097	Performance Analysis of Multi-level ANPC inverter based Solar PV Generation for Weak Grid Condition	A Preethi, Arulmozhiyal R and Murali M
	RTET 3067	Enhancing Efficiency in Renewable Energy Generation with the ZETA Boost Converter	Inba Remy A, Nancy Mary J S, Yuvarani K
	RTET 3079	A Secure and Transparent Sensor-Based Digital Donation Management System for Temples	S Maheswari, Ashmita R S, Gokula Krishnan L, Jaishri G V and Jeevansharma R
	RTET 4003	medVR: Human Anatomy and Surgery Study through Interactive Virtual Reality	Manikrao Dhore, Gaurav Gaikwad, Ankit Gaikwad, and Vansh Rahangdale
	RTET 4027	Performance Evaluation of Fuzzy Controlled FACTS Devices Using PSO Technique under Different Fault Conditions	K.Parventhan, Umamaheswari S, Vallarsu S and Thenmozhi .M
02.00 pm to 04.00 pm	RTET 4029	A Comparative Analysis for Series Resonant Boost Converter with ACMC & Hysteresis PWM Techniques for PV Applications	K.Parventhan, Umamaheswari S, Navaneethakrishnan.P and Thenmozhi .M
	RTET 4031	Deep Reinforcement Learning for Detecting Advance Robotics Grasping System	Soumyashree, Gurmeet Singh and Harjot Singh Gill

	RTET 4032	Decoding Cosmetic Ingredients: A Comprehensive Approach to Toxicity Analysis and Safety Recommendations Using Advanced Machine Learning Models	K V Uma, P Sarvika, C Lakshmi Aiswarya and K Jayaa Sri
	RTET 4048	Optimizing wireless power transfers for telecommunication networks: Performance evaluation and strategies	Anuj Gupta, Deependra Nigam, Amit Chauhan, Ashish Kumar Rawat
	RTET 4071	An Extensive Study of Hyper loop Transportation System	Ganesh Patil, Kamalkishor Maniyar, Rutuja Warbhe, Ekta Mishra
	RTET 4072	Energy Conservation using DC Microgrid	Ganesh Patil, Kamalkishor Maniyar, Rutuja Warbhe, Ekta Mishra

**Session 04: ME01**

Date: 14.03.2024

Time: 11.00 am to 04.00 pm

**Session Chair(s):**

1. Dr. P. Ravikumar, Associate Professor / Mechatronics Engg.,  
Akshaya College of Engineering & Technology, Coimbatore

**Session Coordinator:**

1. Dr. B. Ashok Kumar, Professor / Mechanical Engineering, Nandha Engineering College

Google Meet ID: <https://meet.google.com/yup-ptex-yyp>

Time	Paper ID	Paper Title	Authors
11.00 am to 12.45 pm	RTET 1090	Design of Insulation for Furnace Column – Safety & Energy Conservation	S. Saravanakumar, T.S. Parvatha Kailash, Karthik Silaipillayarputhur, G. Sridharan
	RTET 3011	Synthesis and Analysis of Effect of Machining Parameters of Cu-Al-Mn Shape Memory Alloys Using CNC Milling	A. V. Srinidhi, A. G. Shivasiddaramaiah, U. S. Mallik, R. Suresh, N. Praveen
	RTET 3049	Exploring Spiral Heat Exchangers: Design, Material selection and Flow simulation	Sunil Shinde, Amol Wagle, Om Vartak, Veersing Pardeshi, Yash Digraskar, Yash Dhandhukia
	RTET 3088	Experimental Analysis of The Thermal History of a Moving Hot Plate: A case study	Gourab Banerjee, Prahar Sarkar, Pranibesh Mandal, Tamal Roy Chowdhury, Swastik Banerjee, Achintya Mukhopadhyay and Swarnendu Sen
	RTET 3091	Tribological and Impact Behavior of LM25/SiC/Al <sub>2</sub> O <sub>3</sub> /Graphite Hybrid Composites - An Experimental Study	Shanmugaselvam P, Santhosh Mozhuguan Sekar, S. Prakash, Suyash Pawar
	RTET 3094	Flexural and Inter-laminar Shear Strength Properties of Raw and NaOH-treated Ramie/epoxy composites	Sharad Shukla, Rajdeep and Prashant Rawat
02.00 pm to 04.00 pm	RTET 4013	Computational Analysis of Saponeceous Surfactants to obtain Optimum Saponification	Balachandra P Shetty, Krupa R, Preethi J, G J Naveen
	RTET 4021	Influence of Diffusion Annealed Electrode Tool Material on Geometrical and Surface Properties of Wire Electric Discharge Machined Nickel-Titanium Alloy	Chandana P Panji, Vinayak N Kulkarni and V N Gaitonde



	RTET 4022	Investigations on Material Removal Rate and Tool Wear Rate during Wire EDM of Ni rich NiTi Shape Memory Alloy	Gurusiddayya S G, Vinayak N Kulkarni and V N Gaitonde
	RTET 4030	A Multi-modal 3D CNN-BiLSTM framework for Robot Controlling and Path Planning Based on Dijkstra's method	Rijul Kumar Srivastava, Pulkit jain and Gurmeet Singh
	RTET 4044	Optimization of 3D Printing Process Parameters for Tensile Strength of PLA Materials	Ganesh Dongre, Prathamesh Bhosale, Bhushan Berlikar, Om Bobade, Nikita Chavan
	RTET 4051	Dual Fuel Engine Operated with Compressed Natural Gas and Argemone Methyl Ester	Praveen Harari, Vijayakumar S. Totad, B. Vishnu Prasad, B. Jayaprakash
	RTET 4055	Optimizing the Tensile Properties of Raw and Alkaline (NaOH) Treated Flax and Jute Fibers under varying Concentration Ratios and Duration	Shivank Kumar, Prashant Rawat

**Session 05: ME02**

Date: 14.03.2024

Time: 11.00 am to 04.00 pm

**Session Chair(s):**

1. Dr. P.Senthilkumar, Professor/Mechanical Engg., PGP College of Engg. & Technology

**Session Coordinator:**

1. Dr. M. Manikandan, Assistant Professor / Mechanical Engineering, Nandha Engineering College

**Google Meet ID:** <https://meet.google.com/bux-dtcy-bsr>

Time	Paper ID	Paper Title	Authors
11.00 am to 12.45 pm	RTET 6031	Mechanical behaviour of heavy-wall API X70 pipeline steel: Effect of a “slab/sheet thickness” ratio	Vadym Zurnadzhy, Yuliia Chabak, Ivan Sili, Alexey Efremenko, Ruslan Sagirov, Vasily Efremenko
	RTET 6034	Structural and mechanical properties of AgAu alloy: Insights from molecular dynamics simulations	Mai Van Dung and Nguyen Thi Huynh Nga
	RTET 6048	Optimizing Laser Surface Texturing Parameters for Groove and Hole Formation: A Systematic Experimental Investigation	Ganesh Dongre, Suvarna Patil, Sidhesh Rithe, Mohammed Sange, Nishant Sarthak, Shardul Situt, Nilay Sole
	RTET 6067	Effect of Material Parameters on The Statics and Dynamics of Micro Clamped-Clamped Beam Under Electro-Static Actuation	Sonal J. Bhojani, Reena Trivedi and Dharmendra S. Sharma
	RTET 6085	Microstructural and Electrochemical Corrosion Behavior of DP-TIG welded SMO 254 Joint	P. John Raj Kumar, A. Baskaran, D. Thirumalaikumarasamy
	RTET 3040	Design and analysis of planetary gearbox for electric vehicle Optimisation	Sankalp Ramshyam Tiwari, Kajal Vilas Pawar, Ritik Tejaram Harinkhede, Om Milind Ambare
	RTET 3048	Micro Frontend: Envisages	Prema Mani and Mythily M
	RTET 4026	3D Printing Assisted Electrical Discharge Machining of Ti 6 Al 4 V	Ganesh Dongre, Parag Kshirsagar, Shruti Kulat, Bhargav Kulkarni, Vedant Kulkarni and Sanket More

02.00 pm to 04.00 pm	RTET 4036	Complex Part Manufacturing by EDM using 3D Printing	Ganesh Dongre, Ghanshyam Mugle, Atharva Korde, Mohammad Monis Umar, Suryan Mukane, Atharva Kulkarni
	RTET 4092	Exploring the Aerodynamic Dynamics and Challenges of the Drag Reduction System in Formula Student Racing: A Computational Fluid Dynamics Analysis	Suvarna Patil, Vijay Itnal, Prathamesh Dorge, Aman Donewar, Rushikesh Gole, Piyush Fand
	RTET 4097	Mathematical Model and Simulation of Active Pneumatic Suspension System	Anith Kumar, Mohammed Sufaid, Nivedh D Bangera, Sheikh Rahib and Sandesh Nayak
	RTET 7021	Material Characterization and Mechanical Properties of Aluminium Hybrid Composite Incorporating Silicon Carbide and Graphite through Powder Metallurgy and Hot Pressing Technique	K. Sekar, P. Vasanthakumar
	RTET 7022	Tribological Behaviour of Aluminium Hybrid Metal-Matrix Composites Reinforced with Silicon Carbide and Graphite through Hot-Pressed	K. Sekar, P. Vasanthakumar

**Session 06: ME03**

Date: 14.03.2024

Time: 11.00 am to 04.00 pm

**Session Chair(s):**

1. **Dr. C.N.Marimuthu**, Professor & Dean / ECE, Nandha Engineering College

**Session Coordinator:**

1. **Dr. S. Magibalan**, Associate Professor / Mechanical Engineering

**Google Meet ID:** <https://meet.google.com/hpu-guku-oka>

Time	Paper ID	Paper Title	Authors
11.00 am to 12.45 pm	RTET 1092	Applications of Reliability and Availability in The Solar Panels	Ramya P, Kalaiarasi S and Preetha S
	RTET 3003	System Reliability in Testing the Power Transformer Using Markov Process	S. Preetha, S. Kalaiarasi, P.Ramya
	RTET 3089	Performance Analysis of Automotive Radiator with Twisted Tapes	Sunil Shinde, Rajkumar Bhagat, Himanshu Harip, Pranita Kabara, Pratik Joglekar, Vishvadhar Jaybhaye, Harshal Thakur
	RTET 3098	Equation-Guided Simulink Modeling for Comprehensive Fuel Cell Dynamic Analysis	Sunil Shinde, Rajkumar Bhagat, Piyush Joshi, Akshat Kalbho, Swayam Jadhav, Nidhi Hingankar
	RTET 4005	Driven Precision Crop Rotation Recommendations for Sustainable Farming	Margret Sharmila, Indhumathi M, Pravin R K and Preetham G
	RTET 5039	Immune Boosting Luscious Biting Cake	Anandhu K, Nouvshika E T, Priyanka S, Sharma E and Mugil M
02.00 pm to 04.00 pm	RTET 6016	A Review on Fabrication of Idols Using Agricultural Composites	V.Chandramohan, G.Aravind, J.V.Indresh, R.Kavinraj, M.Pooja
	RTET 6047	Advanced Materials Used in Flexible Solar Panels Installed in Electric Vehicles	Surender Kumar, Vikram Bali and Vivak Panday

	RTET 4084	Investigation of SICBBC for Battery Charging Application In EV	Sriram K, Nithish Kumar C, Kamalesh P, Viswanathan P, Suvetha Poyyamani Sunddararaj
	RTET 6026	Raising of Mexican Mint And Fishes Together In Soilless System	Sri Dharshini R, Harish R, Magesh A, Rithika T, Selin Princy A
	RTET 6021	Growing of Oyster Mushroom Using Sugarcane Bagasse & Dried Banana Leaves	T. Bragadeeswaran, P. Ravi pravin, G. Varsnica, G. Vidhya shree