



## Session-1 - Waste Recycling & Circular Economy - I

	<b>Paper-ID</b>	<b>Corresponding Author</b>	<b>Name of Presenter</b>	<b>Title of the Paper</b>
1	S01-GTSD2-003	Bhatoa Karanjeet Singh R	Bhatoa Karanjeet	Converting Metallurgy and MSW into high performance ground enhancers for Sustainable gains.
2	S01-GTSD2-006	Saurabh S. Soni	Karan Surana	Photon driven sheet breaking of reduced graphene oxide for amplifying UV light transmission
3	S01-GTSD2-009	Dr. Leena Bora	Mr. Sudeep Wadia	Photoelectrocatalytic system for organic degradation of wastewater
4	S01-GTSD2-010	Sunil R Patel	Sheth Bhavan	Ciprofloxacin (CIP) Removal from Synthetic Wastewater by Electrocoagulation
5	S01-GTSD2-019	Pandya Chintan Harikrishnbhai	Pandya Chintan Harikrishnbhai	A Critical Review on Conventional versus Electrochemical Methods for Dye Wastewater Treatment
6	S01-GTSD2-024	Dhwanik Natvarlal Patel	Dhwanik Patel	Water disinfection by Hydrodynamic Cavitation Technology-Review
7	S01-GTSD2-083	Bhavi Mukesh Pandya	Bhavi Mukesh Pandya	Enhancing Microbial Fuel Cell Performance through Modified Carbon Felt Electrodes: A Comprehensive Investigation of Power Generation and Wastewater Treatment
8	S01-GTSD2-091	Pavan V Kalivarapu	Pavan V Kalivarapu	Innovative Approaches for Improving Nutritional Quality and Sustainability in Spirulina Production
9	S01-GTSD2-175	Dr. Jayesh Ruparelia		Studies to produce steel from waste: Sustainable approach towards circular economy



## Session-2 - Waste Recycling & Circular Economy - II

	<b>Paper-ID</b>	<b>Corresponding Author</b>	<b>Name of Presenter</b>	<b>Title of the Paper</b>
1	S02-GTSD2-021	Ishita Kishorchadra Raval	Ishita Raval	Comparison Study of ZnO and TiO <sub>2</sub> Catalyst for Photocatalytic Treatment of Wastewater
2	S02-GTSD2-029	Harshil Parikh	Harshil Parikh	TRANSESTERIFICATION OF WASTE COTTONSEED OIL TO BIODIESEL USING METHANESULPHONIC ACID AS A HOMOGENEOUS CATALYST
3	S02-GTSD2-066	Dr Vimal Gandhi	Sreekanth Damodaran	Recovery of Precious Metals from the CRU Spent Catalyst
4	S02-GTSD2-077	Khyati Vakharia	Khyati Vakharia	A Systematic Review On Recent Trends And Emerging Technologies For Sustainable Solid Waste Recycling And Circular Economy
5	S02-GTSD2-117	Meka Srinivasarao	Tarang M. Oganja	Optimizing Municipal Solid Waste Management: A Strategy for Nadiad Town, Gujarat (India)
6	S02-GTSD2-118	Anand P. Dhanwani	Jaydeep M. Jivani	Optimizing Wastewater Management: A Hybrid Approach of Early Treatment Options and End of the Pipe treatment for Sustainable Batch Processes
7	S02-GTSD2-145	Nikita P. Chokshi	Nikita P. Chokshi	Catalytic Ozonation of dye waste water using La-Ce-Co composite metal oxide Catalyst
8	S02-GTSD2-159	Ketan Chillal		Synthesis and Characterization of Multi-Metal Oxides for Dye Degradation Applications



## Session-3 Energy & Sustainability - I

	<b>Paper-ID</b>	<b>Corresponding Author</b>	<b>Name of Presenter</b>	<b>Title of the Paper</b>
1	S03-GTSD2-007	Dr. Devansh Desai	Dr. Devansh Desai	Enhancing Sustainability through remote sensing of Evapotranspiration for Climate Change Adaptation
2	S03-GTSD2-014	Pranav Mehta	Pranav Mehta	Parametric investigation of single basin single slope solar distiller by design modifications: An experimental approach
3	S03-GTSD2-025	Yogeshkumar D Khimsuriya	Yogeshkumar D. Khimsuriya	Enhancing Thermal Efficiency of a Solar Air Heater with Rotating Spiral Baffles
4	S03-GTSD2-028	Prasad Dixit	Prasad Dixit	Comprehensive review on Solar drying technologies for agricultural products
5	S03-GTSD2-036	Ananya Singh	Ananya Singh	Sustainable approaches towards Carbon-Neutral Steel Sector
6	S03-GTSD2-045	Sunil Kumar Dewangan	Sunil Kumar Dewangan	Large-Scale Green Hydrogen Storage and Transportation: Advancements and Challenges for Sustainable Energy Integration
7	S03-GTSD2-067	Divyang Gopikrishan Bohra	Divyang G Bohra	Harnessing Clean Hydrogen from Wastewater: Technologies, Challenges, and Environmental Implications
8	S03-GTSD2-070	Lav Kumar Kaushik	Mom Veasna	Design of a Piezoelectric Ocean Wave Energy Converter: Towards Sustainable Energy Harvesting
9	S03-GTSD2-111	Sejal Purvang Dalal	Jay Shah	Experimental Investigation on use of Parali Powder as partial replacement of Sand in Concrete for Sustainable Development.



## Session-4 Energy & Sustainability - II

	<b>Paper-ID</b>	<b>Corresponding Author</b>	<b>Name of Presenter</b>	<b>Title of the Paper</b>
1	S04-GTSD2-013	Samikkumar P Bhatt	Mr. Samikkumar P Bhatt	Optimizing Output: A Critical Analysis of Strategies to Improve Flat Plate Solar Thermal Collector Performance
2	S04-GTSD2-039	Ayush Raj	Ayush Raj	Green Building Rating System: Strategies for Energy Efficiency and Sustainable Building in India.
3	S04-GTSD2-081	Joshi Rajesh Muljlibhai	Joshi Rajesh Joshi	Exploring Digital twins applications for solar-thermal systems: A review
4	S04-GTSD2-090	Nikita P Chokshi	Harvin Patel	Driving towards Sustainability: A case study on Flex-Fuel and tracing the path to its adoption
5	S04-GTSD2-096	Nikita P Chokshi	Shankesh Oswal	Sustainable Biofuels: Exploring different feedstock and production processes for a greener future
6	S04-GTSD2-098	Heta Shah	Anuj Shah	Review on various techniques to optimize use of non-renewable resources
7	S04-GTSD2-101	Pranav Rasikbhai Parikh	Pranav Rasikbhai Parikh	Sustainable and Eco-Friendly Lab Grown Diamonds – The Shape of Tomorrow’s Jewellery
8	S04-GTSD2-143	Heta S. Shah		Energy-Efficient Green Buildings: Technologies, Strategies, and Impacts



## Session-5 - Modelling, Optimization & Intensification – I

	<b>Paper-ID</b>	<b>Corresponding Author</b>	<b>Name of Presenter</b>	<b>Title of the Paper</b>
1	S05-GTSD2-005	Samidha Banka	Samidha Banka	Optimizing Transesterification of Azadirachta indica Fatty Acids: ASPEN-Based Simulation for Methylated Ester Production in Reactive Distillation
2	S05-GTSD2-011	Kavit Rameshchandra Shah	Kavit R Shah	Towards Sustainable Supply Chains: Exploring the Synergy of Innovative Practices in Hardware-Based Digitization and Subscription Models
3	S05-GTSD2-037	Alok Goutam	Jignesh Joshi	Optimization of parameters for extraction and isolation of Steviol glycosides from Stevia Rebaudiana leaves using water
4	S05-GTSD2-046	Mihir P Shah	Mihir P Shah	Improving reactor performance through hydrodynamic studies
5	S05-GTSD2-056	Ratnesh Parmar	Ratnesh Parmar	Process simulation of coal and biomass co-firing in fluidized bed reactor
6	S05-GTSD2-059	Dr. Jharna Gupta	Kunal P. Argade, Dhaval G. Shrimali	Optimisation of Biodiesel Production process from different types of edible oils using KOH and NaOH as homogeneous catalysts
7	S05-GTSD2-078	Mr. Chintan Modi	Mr. Nirmal Patel	Simulation studies of extractive distillation for separating the Toluene/2-Methoxyethanol binary azeotrope mixture using Glycerol & Lactic Acid Green Solvents
8	S05-GTSD2-085	Milind Joshipura	M H Joshipura	SIMULATION OF CLOSE BOILING MIXTURE USING GREEN SOLVENTS
9	S05-GTSD2-166	Dr. N. V. Bhate	Tailor J K	Studies in double pipe heat exchanger with small diameter tubes: Experimental and Modelling



## Session-6 - Modelling, Optimization & Intensification - II

	<b>Paper-ID</b>	<b>Corresponding Author</b>	<b>Name of Presenter</b>	<b>Title of the Paper</b>
1	S06-GTSD2-086	Milind Joshipura	M H Joshipura	Optimizing Carbon Dioxide Absorption Efficiency in Industrial Flue Gas Streams: A Comparative Study of Amine-Based Absorption and Deep Eutectic Solvents
2	S06-GTSD2-088	Mr. Rahul V Prajapati	Ayushi Chauhan	Ethyl levulinate Production from Biomass Derived Furfural Alcohol: A Study of Modeling, Simulation, and Economics for Sustainability
3	S06-GTSD2-092	Dr. Krunal Suthar	Mr. Dhruv Patel	Study on Critical Properties based Models for the Density Estimation of Deep Eutectic Solvents
4	S06-GTSD2-097	Manish R. Nasit	Manish R. Nasit	Adsorption of chromium from industrial waste water by in situ formation of iron oxide particles: an approach for process intensification
5	S06-GTSD2-103	Nirav Vora	Nirav Vora	Investigate effect of machining parameters on geometric form and orientation controls (2 <sup>3</sup> Design)
6	S06-GTSD2-109	Naitik Padsala	Naitik Padsala	Column Composite Curve, Invariant Rectifying and Stripping Curves- as Energy Targets of Distillation Column
7	S06-GTSD2-121	Dr. Nareshkumar R. Vaghela	Dr. Nareshkumar R. Vaghela	Treatment of model wastewater containing Rhodamine B (RhB) by Electrochemical Fenton (ECF) process: Modeling and optimization using Box-Behnken Design (BBD)
8	S06-GTSD2-147	Mahula Santra		Quantum chemistry insights behind the formation of iodide-based deep eutectic solvents



## Session-7 - Systems Engineering

	<b>Paper-ID</b>	<b>Corresponding Author</b>	<b>Name of Presenter</b>	<b>Title of the Paper</b>
1	S07-GTSD2-012	Chirag Parmar	Soham Dalwadi	The HAZOP and Fault Tree Analysis of Sulphonation Reaction in Batch Process
2	S07-GTSD2-017	Dr Shruti J Raval	Dr Shruti J Raval	Examining and Addressing Green Lean Six Sigma Drivers: Insights from Higher Education Institution
3	S07-GTSD2-071	Chirag Dalal	Sanjay Varyani	Nucleonic Level Measurement in Fluid Catalytic Cracking Unit, Oil & Gas Refinery
4	S07-GTSD2-072	Tigmanshu Patel	Tigmanshu Patel	Adapting conventional energy meter to be “Smart” for smart grid
5	S07-GTSD2-075	Tigmanshu Patel	Tigmanshu Patel	Actuator Fault Detection of Active Suspension System in Rail Vehicles
6	S07-GTSD2-082	Dhrumil Gandhi	Keta Parikh	Abrupt and incipient fault detection and compensation for a Quadruple tank system benchmark
7	S07-GTSD2-160	Prof. Hetal Shah		Weather Adaptive Helmet



## Session-8 - Green Technologies for Pharmaceutical Industries

	<b>Paper-ID</b>	<b>Corresponding Author</b>	<b>Name of Presenter</b>	<b>Title of the Paper</b>
1	S08-GTSD2-022	Hemangini P Patel	Hemangini P Patel	
2	S08-GTSD2-038	Shantilal Padhiyar	Shantilal Padhiyar	Development & validation of green RP-HPLC method for simultaneous determination of bupivacaine and meloxicam in their bulk and synthetic mixture
3	S08-GTSD2-041	Dr. Vipul T Prajapati	Dr. Vipul T Prajapati	Stability indicating Greenness assessment of RP-HPLC method for simultaneous determination of Drospirenone and Ethinylestradiol in Tablet dosage form
4	S08-GTSD2-050	Dr. Carol P. Macwan	Nandini Upadhyay	Development and Characterization of Glycyrrhizin loaded Herbal Lozenges for Mouth Ulcer Treatment
5	S08-GTSD2-053	Mr. Shantilal P Padhiyar	Mr. Shantilal P Padhiyar	Development & validation of green RP-HPLC method for simultaneous determination of bupivacaine and meloxicam in their bulk and synthetic mixture
6	S08-GTSD2-061	Himani Ramkrishnabhai Patel	Himani Ramkrishnabhai Patel	
7	S08-GTSD2-074	Dr. Carol P. Macwan	Shruti Bapodra	FORMULATION AND EVALUATION OF TOPICAL HERBAL OINTMENT FOR JOINT PAIN USING Calotropis gigantea LEAVES
8	S08-GTSD2-080	Komal Parmar	Komal Parmar	
9	S08-GTSD2-107	Chirag Karelia		Development & validation of green RP-HPLC method for simultaneous determination of Sitagliptin Phosphate and Metformin HCl in their bulk and pharmaceutical dosage form
10	S08-GTSD2-119	Ruby Christian	Ruby Christian	Formulation and characterization of local in-situ gel for treatment of Periodontal Diseases
11	S08-GTSD2-154	Harish Patil	Harish Patil	Novel sustainable approach for development of NIR dyes and its applications





## Session-9 - Photo-, Bio- & Micellar Catalysis

	<b>Paper-ID</b>	<b>Corresponding Author</b>	<b>Name of Presenter</b>	<b>Title of the Paper</b>
1	S09-GTSD2-015	Sahaj H. Gajjar	Sahaj H. Gajjar	Sunlight-Powered Dye Degradation with Plant-Based Magnetic Spinel Photocatalysts.
2	S09-GTSD2-020	Dhaval Kumar I. Upadhyay	Dhaval Kumar I. Upadhyay	Recent trends of Green Lean Six Sigma system: A review”
3	S09-GTSD2-033	Jayrajsinh J Parmar	Jayrajsinh J Parmar	Liquid-phase selective oxidation of o-chlorotoluene (OCT) to o-chlorobenzaldehyde (OCBD)
4	S09-GTSD2-040	Noman Ahmed Siddiqui	Noman Ahmed Siddiqui	Utilization of Nano-Silica and Nano-Alumina for Enhancing Mechanical Properties of Sustainable Concrete
5	S09-GTSD2-048	Dr. Vimal Gandhi	Nair Niraj Kumar Gangadharan	Enhancing Levofloxacin Degradation Using Nitrogen-Doped TiO <sub>2</sub> under Visible Light: A Comparative Study
6	S09-GTSD2-058	Rushil Bhatt	Rushil Bhatt	A critical review on Biosurfactants in the application of oil and wastewater treatment
7	S09-GTSD2-069	Divyang Gopikrishan Bohra	Divyang G Bohra	Gas Foil Bearings: Enabling Sustainable Solutions in Green Tribology for High-Speed Rotating Machinery
8	S09-GTSD2-099	Dr. Jayesh Ruparelia	Jayvir Atodariya	A Comprehensive Overview of Efficiency Improvement & Electrolyser Design For Green Hydrogen Production Via Photo-Electrochemical Process
9	S09-GTSD2-113	Dr. Krishna Chauhan	Pranam Parmar	Greener Encapsulates of Essential Oil
10	S09-GTSD-161	Dr. Anand Metre	Aditi Vetel	A comprehensive review on Sustainable Pathways to Synthesize 2, 5-Furandicarboxylic Acid (FDCA) from 5-Hydroxymethylfurfural (HMF) via Oxidative Processes
11	S09-GTSD-177	Dr. Shashi V. Ranga	Ms. Mansi Gandhi	Green Solvents in Synthesis of Schiff's Base: A Comprehensive Review of Sustainable Approach



## Session-10 Nanomaterials and Nanotechnology

	<b>Paper-ID</b>	<b>Corresponding Author</b>	<b>Name of Presenter</b>	<b>Title of the Paper</b>
1	S10-GTSD2-001	Palak Trivedi	Palak Trivedi	Exploring the photocatalytic performance of graphene oxide nanocomposites for wastewater treatment
2	S10-GTSD2-032	Salman Hadi Saleh Dahwal	Salman Hadi Dahwal	Application of Nano Graphene Oxide for synthesizing Nanohybrids as Pour Point Depressants for Waxy Crude Oil
3	S10-GTSD2-042	Chirag Odedra	Chirag Odedra	Utilization of Nano-Silica and Nano-Alumina for Enhancing Mechanical Properties of Sustainable Concrete
4	S10-GTSD2-063	Pranjal Chauhan	Pranjal Chauhan	Performance Comparison Between Corn Starch And Lime Peel Nanoparticle With Cornstarch In Water Based Drilling Fluid
5	S10-GTSD2-076	Samirsinh Parmar	Samirsinh Parmar	An Impact of Nano-SiO <sub>2</sub> Addition on Soil Geotechnical Properties and Applications
6	S10-GTSD2-079	Dr. Nilesh Badgujar	Mr. Popat Ganesh Chavan	Development of Nano particle-based fungicides formulation and its utilization in paint to control the outbreak of Mold and fungi on coated substrates
7	S10-GTSD2-089	Dr. Jignesh Valand	Dr. Jignesh Valand	Synthesis of Clay supported Nickel Nanoparticles for Catalytic Hydrogenation Reaction
8	S10-GTSD2-112	Vaghela Akash Bharatbhai	Vaghela Akash Bharatbhai	Electrooxidation of Reactive Dye using Nanoparticle coated DSA Synthesized by Sol-Gel Method
9	S10-GTSD2-115	Dr. Punitkumar R. Bhatt	Dr. Punitkumar R. Bhatt	Green synthesis of silver nanoparticles of Ixora coccinea L. leaf extract and its antibacterial activity
10	S10-GTSD2-165	Hemant Kumar	Abhangi Jenil Aravindbhai	A Sustainable Nano-emulsion: Formulation, Parametric study and Modelling



## Session-11 Applications of AI and ML

	<b>Paper-ID</b>	<b>Corresponding Author</b>	<b>Name of Presenter</b>	<b>Title of the Paper</b>
1	S11-GTSD2-065	Kartik Mandavia	Kartik Mandavia	A Study of 3D Printing Technology and M.L Algorithms for Enhanced Production
2	S11-GTSD2-114	Archana N Vyas	Yashvi Desai	Evaluation of deep learning optimizers for Gujarati Handwritten Nymeral Recognition
3	S11-GTSD2-122	Rizwan Alad	Priya Bansal	“IOT based Virtual Doctor Robot
4	S11-GTSD2-126	Pinkesh Patel	Diya Gohil	Development of Adaptive Water Vending Machine Using Raspberry Pi
5	S11-GTSD2-128	Dr. Ashish Pandya	Dhyanam Patel	Implementation of Indigenous Voice Interactive System
6	S11-GTSD2-129	Dr. Mitesh Limachia	Divyesh Kapadiya	Development of Internet of Things (IoT) Based Solar Panel Cleaning System
7	S11-GTSD2-130	Vasim Vohra	Dhaval Patel	Optimizing RFID-Based Toll Gate Systems: A Novel Approach to Reducing Latency and Enhancing Traffic Flow
8	S11-GTSD2-131	Vasim Vohra	Zeel Maliwala	Bridging Reality and Virtuality through Gesture-Controlled 3D Holography
9	S11-GTSD2-132	Ashish Pandya	Dhairya Panchal	Design of Power Efficient Electronic Speed Controllers
10	S11-GTSD2-142	Parmar Avinashkumar B	Desai Devansh V.	Agribot: Arduino controlled Automatic seed sowing machine for small scale cultivation.
11	S11-GTSD2-146	Parmar Avinashkumar B.	Parmar Avinashkumar	Health Monitoring and Predictive Maintenance of DC Motor
12	S11-GTSD2-157	Prof. Hetal Shah		Design and Implementation 8-bit CPU Architecture for Undergraduate Learning Support