

# NHBT-2023: Poster Presentation Schedules

Session I: 27<sup>th</sup> November 2023; Time: 1300-1500h

Venue: YMCA Hall Building (behind Hotel Residency Tower)

Posters No PP 001-PP 080

(Posters should be placed on the allotted board before 0900h on the day of the presentation and removed after 1600h same day)

Poster no	Title, authors
<b>Abstracts of Posters</b>	
<b>ENVIRONMENTAL BIOTECHNOLOGY</b>	
PP 001	<b>Organic fraction of municipal solid waste as a renewable feedstock for biofuel and biobased materials: A circular economy approach</b>  <u>M. Athparia</u> and R. Kataki
PP 002	<b>Enhanced biodegradability and biomethanation of rice straw with biochar supplementation.</b>  <u>Sachin Krushna Bhujba</u> , Pooja Ghosh and Virendra Kumar Vijay
PP 003	<b>Physicochemical study of opium industry effluent and developing a method for its bioremediation</b>  <u>Gaurav Verma</u> <sup>a</sup> , Vinay Dwivedi <sup>b</sup> and Manish Singh Rajput <sup>a</sup>
PP 004	<b>Microplastic Flocculating Microbes, A New Hope in Microplastic Mitigation</b>  <u>Shehbas Chekkath</u> <sup>1,2</sup> and K Madhavan Nampoothiri <sup>1</sup>
PP 005	<b>Controlled Precipitation of Jarosite and Schwertmannite and their Comparative Analysis for Adsorption of Toxic Oxyanions</b>  <u>Upasana JHARIYA</u> , Mei-Fang CHIEN, Masaki UMETSU and Masanobu KAMITAKAHARA
PP 006	<b>Enhance the efficacy of the biological process for effective degradation of azo dye from wastewater</b>  Alankriti Singh <sup>a</sup> , Diwakar Patel <sup>b</sup> and <u>Ravi Kumar Sonwani</u> <sup>a</sup>
PP 007	<b>ANAEROBIC DIGESTION OF STP SECONDARY SLUDGE; EFFECT OF THERMAL PRE-TREATMENT &amp; CO-DIGESTION ON PATHOGEN REMOVAL</b>

	Haritha K <sup>a,b</sup> , Akhina M K <sup>a,b</sup> and Krishnakumar B <sup>a,b</sup>
PP 008	<b>BIO-METHANATION POTENTIAL OF LONG-TERM STORED ANAEROBIC SLUDGE UNDER DIFFERENT CONDITIONS</b>  Akhina M K <sup>1,2</sup> , Haritha K <sup>1,2</sup> , Dipin Nath R S <sup>1,2</sup> and Krishnakumar B <sup>1,2</sup>
PP 009	<b>Reinforced Elastomer-Based Atmospheric Water Harvesting</b>  <u>Drishya S.</u> , Ramakrishna Prasad Are and Anju R. Babu
PP 010	<b>Unleashing microbically induced calcite precipitation (MICP) for enhanced durability and strength of concrete with a thermophilic Bacillus species</b>  <u>Nimisha R. Nair</u> , Ramya Krishnan, Anupama K. Jith and Shyni S
PP 011	<b>Biodegradability and Toxicity Studies of Sol-Gel based Fire-Fighting Materials</b>  <u>Pritam Sangwan</u> , Shruti Kaushik, Rekha Mann and P.K. Rai
PP 012	<b>Effects of pH on oxidative stress and histopathological damage in <i>Briareum violacea</i></b>  Ya-Ting Chen <sup>1</sup> , De-Sing Ding <sup>2</sup> , Ting-Yu Chang <sup>1</sup> , Shuchen Hsieh <sup>3</sup> , Chiu-Wen Chen <sup>4</sup> , Cheng-Di Dong <sup>4</sup> and <u>Shu-Ling Hsieh<sup>1</sup></u>
PP 013	<b>From Waste to Value: Crustacean and <i>Terminalia Catappa</i> Waste Valorization for the Fabrication of Edible Food Packaging</b>  <u>B. Hari Deva Muthu</u> and Jesu Arockiaraj
PP 014	<b>Seasonal variation of Nitrogen based fertilizers on Greenhouse gas emissions in rice based agro-ecosystem of Assam</b>  <u>Manas Protim Rajbonshi<sup>1</sup></u> and Sudip Mitra <sup>1,2</sup>
PP 015	<b>Landscaping bacterial <math>\beta</math>-lactam resistance in environmental settlements of Delhi-NCR, India: Implications for Mitigation Strategies</b>  <u>Priyanka Gehlot<sup>1</sup></u> and Hariprasad. P.
PP 016	<b>Sustainable utilization of regional agro-waste using a cohesive approach</b>  <u>Narkhede K. P.</u> , Patil N. D., Chandratre S. J., Rade R. S. and Narkhede M. K.
PP 017	<b>Assessment of AMR Transmission through Water: A Study of Buckingham Canal, Chennai, India</b>  <u>Shubham Anurag<sup>1</sup></u> , Ravikrishna Raghunathan <sup>1</sup> and Indumathi Nambi <sup>2</sup>
PP 018	<b>Biological removal of UV-aged polyethylene microplastics using the red basidiomycete yeast <i>Rhodospiridium toruloides</i></b>  <u>Gyeongtaek Gong<sup>a,b</sup></u> and Sung Ok Han <sup>c</sup>
PP 019	<b>Prospective microbial consortia enabling bioremediation of Polyaromatic Hydrocarbons (PAHs)</b>

	<u>Anwasha Mohapatra</u> , Mohammed Monzoorul Haque, Swadha Anand and Sharmila S Mande
PP 020	<b>Bioprocess development for enhancement in hydrogen production from <i>Clostridium beijerinckii</i> G117 by the co-fermentation of crude glycerol and rice bran hydrolysates</b>  <u>Akanksha Jain</u> , Md. Ebrahim Khalil and Gobinath Rajagopalan
PP 021	<b>Environmental impact of E-waste on biotic and abiotic parameters: A Study in Seelampur, Delhi</b>  <u>Mitali Yadav</u> , Juhi Gupta and Puja Gupta
PP 022	<b>Investigate the effect of magnetic biochar in agricultural crops grown in PAH-contaminated soil</b>  <u>Songita Sonowal</u> and Ram Prasad
PP 023	<b>Importance and application of Life Cycle Assessment (LCA) for biological wastewater treatment technologies with focus on municipal environment for circular economy</b>  <u>Pinaki Dasgupta</u> , Madan Kumar, Vivek Kumar and Anushree Malik
PP 024	<b>Environmental Impacts of Robusta Coffee by Pulped natural/Honey coffee process: A Life Cycle Perspective</b>  Aswathi K. N <sup>a, c</sup> , Sandeep N. Mudliar <sup>b</sup> and Pushpa S. Murthy <sup>a, c</sup>
PP 025	<b>Cost-Benefit Analysis of Hydrogen and Diesel Production from Non-Recycled Municipal Plastic Waste Pyrolysis in the UK</b>  <u>Bauyrzhan Biakhmetov</u> and Siming You
PP 026	<b>Recycling of Slaughterhouse Waste into enriched biofertilizer through bacterial fermentation</b>  <u>Susovan Patra</u> <sup>1</sup> , Tanmoy jana <sup>1</sup> , Shubhadeep Mondal <sup>2</sup> , Suman kumar Halder <sup>1</sup> and Keshab Chandra Mondal
PP 027	<b>Material pre-treatment allows bioaugmented landfill-mined soil-like material to be used in biopolymer composting: Sustainable Waste Management towards drought resistant agriculture</b>  <u>Arnab Banerjee</u> <sup>1,2</sup> , Vimal Katiyar <sup>2,3</sup> and Sreedeeep Sekharan <sup>1,2</sup>
PP 028	<b>Whole genome sequencing and analysis of herbicide glyphosate degrading <i>Stenotrophomonas maltophilia</i> GP-1</b>  <u>Vidhi Bhatt</u> and Bragadish Iyer
PP 029	<b>A study on removal of SDS from synthetic wastewater using vertical flow constructed wetland</b>  <u>Pukhrambam Subash</u> , Divyani Kumari and Kasturi Dutta
PP 030	<b>Cost-Effective Surface-Modification of 3D-Printed Electrodes for Application in Microfluidic Microbial Fuel Cell</b>

	<a href="#">Srinithya Ravinuthala</a> and Saravanan S.
PP 031	<b>Exploring the diversity of beta-lactam antibiotics and its enzymatic opponents in surface water: sources, detection and epidemiology</b>  <a href="#">Deepshi Chaurasia</a> and Preeti Chaturvedi Bhargava
PP 032	<b>Anaerobic combined low-cost material-based wetland system for wastewater treatment</b>  <a href="#">Sanitha Gopalakrishnan</a> <sup>a,b</sup> , Aparna V L <sup>a</sup> , Akshay D Shende <sup>a,b</sup> and Krishnakumar Bhaskaran <sup>a,b</sup>
PP 033	<b>Assessment of Nitrogen Removal Efficiency of Heterotrophic Nitrification and Aerobic Denitrification (HNAD) Bacteria: Process Optimization and Kinetic Modelling</b>  <a href="#">Nandini Thakur</a> <sup>1</sup> , Bunushree Behera <sup>1</sup> , Neha Thakur <sup>1</sup> , Prangya Ranjan Rout <sup>2</sup> and Snehi Kinger <sup>1</sup>
PP 034	<b>Characterization studies of foulants extracted from membranes used in drinking water purification</b>  <a href="#">Anju Tomy</a> <sup>1,2</sup> and Rakesh Yasarla <sup>2</sup>
PP 035	<b><i>Strychnos potatorum</i> seeds derived magnetic graphene oxide nanocomposite for removal of nickel from wastewater: Adsorption performance, isotherm, kinetic and desorption behavior</b>  <a href="#">Janani Rameshbabu</a> <sup>1</sup> , Baskar Gurunathan <sup>1</sup> and Sivakumar Kandhasamy <sup>2</sup>
PP 036	<b>Microalgae as a single-pot system for nutrient removal and wastewater treatment: Comparison of effluents and species performance</b>  <a href="#">Sarath C. Gowd</a> , Prabakaran Ganeshan and Karthik Rajendran
PP -037	<b>Accumulation of Yeast Cells by Electrophoretic Deposition for Biosorption</b>  <a href="#">Masaki UMETSU</a> , Keita SUZUKI and Masanobu KAMITAKAHARA

### Abstracts of Posters

## AGRICULTURE & PLANT BIOTECHNOLOGY

PP 038	<b>Antimicrobial resistance (AMR) development mediated through pesticide exposure in non-clinical set up</b>  <a href="#">Valan Rebinro G.</a> <sup>1,2</sup> , Aswathi A <sup>1,2</sup> and Rajeev K. Sukumaran <sup>1,2</sup>
PP 039	<b>Assessment of antimicrobial resistance and resistance patterns in the major waterways of Chennai, India</b>  <a href="#">Thara M V</a> <sup>a</sup> , Rama Vaidyanathan <sup>b</sup> and Indumathi M Nambi <sup>a</sup>
PP 040	<b>Bioprocess optimization strategies to increase the biomass productivity in cell suspension cultures of <i>Nothapodytes nimmoniana</i></b>

	<a href="#">Hemalatha Rajendran</a> and Smita Srivastava
PP 041	<b>Toxicity evaluation of GM cotton efficacious to whitefly (<i>Bemisia tabaci</i>)</b> <a href="#">Pallavi Gupta</a> , Parneeta Mishra and Pradhyumna Kumar Singh
PP 042	<b>Interaction of functional amyloid protein of EPS of a biofilm-forming marine bacterium <i>Pseudomonas aeruginosa</i> PFL-P1 with polycyclic aromatic hydrocarbons</b> <a href="#">Swetambari Kumari</a> , Bhavuk Gupta and Surajit Das
<b>Abstracts of Posters</b>	
<b>MEDICAL &amp; PHARMACEUTICAL BIOTECHNOLOGY</b>	
PP 043	<b>Exploring <i>Clostridium butyricum</i> B1: A Next-Generation Probiotic Candidate</b> <a href="#">Vaidehi Pisu</a> <sup>1,3</sup> , Prajakta Margale <sup>1</sup> , Siddhi Chandras <sup>1,3</sup> , Neelam Kapse <sup>1,3</sup> , Deepa Shetty <sup>1</sup> , Shilpa Wagh <sup>2</sup> , Sumit Singh Dagar <sup>1,3</sup> and Prashant K. Dhakephalkar <sup>1,3</sup>
PP 044	<b>Impact of siderophorogenic probiotics treatment on serum iron status</b> <a href="#">Debabrata Goswami</a> , Suman Kumar Halder and Keshab Chandra Mondal
PP 045	<b>Investigation of the Inhibitory Potential of <i>Bergenia ligulata</i> and <i>Ocimum sanctum</i> extracts on Uric Acid Crystallization</b> <a href="#">Anjana Krishnan A. S.</a> , Ashish P. Pradhane, Pradip B. Dhamole and Ravi N. Methekar
PP 046	<b>Exploring Catecholate Siderophore: Production, Purification, and Chemical Characterization from the Newly Isolated Probiotic Strain of <i>Lactobacillus</i> sp.</b> <a href="#">Sudipta Samanta</a> <sup>1</sup> , Tanmoy Jana, <sup>1</sup> Subhadeep Mondal <sup>2</sup> , Suman Kumar Halder <sup>1</sup> and Keshab Chandra Mondal <sup>1</sup>
PP 047	<b>Characterization of a L-Asparaginase producing Probiotic <i>Bacillus amyloliquefaciens</i> KMH10</b> <a href="#">Hilaluddin</a> <sup>a</sup> , Subhadeep Mondal <sup>a</sup> , Subham Rakhshit <sup>b</sup> , Kalyanbrata Pal <sup>b</sup> , Susovan Patra <sup>b</sup> , Tanmoy Jana <sup>b</sup> , Suman Kumar Halder <sup>b</sup> and Keshab Chandra Mondal <sup>b</sup>
PP 048	<b>Production of probiotic juice from <i>Limonia acidissima</i> (Wood apple)</b> <a href="#">A.V. Narayan</a> <sup>1</sup> , Dhivyapriya R <sup>2</sup> , Spoorti Soratur <sup>2</sup> Spoorthi B. R. <sup>2</sup> and Ashwani Sharma <sup>1</sup>
PP 049	<b>Agri-food biomass valorization as a sustainable source of phenolics and other bioactive compounds</b> <a href="#">De Nisi P.</a> , Dell'Orto M. and Adani F.
PP 050	<b>Metagenomic insights into fermented milk product Chhurpi of Ladakh, exploring its microbial diversity and functional potential</b> Ashutosh K. Singh <sup>1</sup> , <a href="#">Ashish K. Singh</a> <sup>1</sup> , Amit K. Rai <sup>2</sup> and Sudhir P. Singh <sup>1</sup>
PP 051	<b>Evaluation of functional properties of traditionally fermented green mango pickle</b>

[Saswati Parua \(Mondal\)](#) <sup>1</sup>, Kuntal Ghosh<sup>2</sup> and Keshab Chandra Mondal<sup>3</sup>

## Abstracts of Posters

### MEDICAL & PHARMACEUTICAL BIOTECHNOLOGY

PP 052	<b>Biocompatibility Evaluation of Antioxidant Cocktail Loaded Gelatin Methacrylamide as Bioink for Extrusion-Based 3D Bioprinting</b> <a href="#">Anupama Sekar J</a> <sup>1</sup> , Shiny Velayudhan <sup>2</sup> and Anil Kumar PR <sup>1</sup>
PP 053	<b>Construction of Semipermeable Liposomes</b> <a href="#">Sreelakshmi Radhakrishnan</a> <sup>1</sup> and Harsha Bajaj <sup>1,2</sup>
PP 054	<b>Nematode Pan Allergen (WbNPA) as potential diagnostic antigen for Tropical Pulmonary Eosinophilia</b> Jefferillah J <sup>1</sup> , Anup Chaudry <sup>1</sup> , Sathish Kumar R <sup>2</sup> and <a href="#">Anand S B</a> <sup>1</sup>
PP 055	<b>Structural modelling and analysis of recombinant fluorescent-tagged Invasion plasmid antigen D (IpaD): A vaccine target against bacillary dysentery</b> <a href="#">Aishwarya Mallick</a> and Nibedita Mahat
PP 056	<b>Designing a Multi-Epitope Vaccine for <i>Mycobacterium tuberculosis</i> and HIV Coinfection through Immunoinformatics Approaches</b> <a href="#">Geethu S Kumar</a> <sup>1,2</sup> , Sharad Agrawal <sup>1</sup> and Vivek Dhar Dwivedi <sup>2</sup>
PP 057	<b>Preliminary studies of Antivenom and Antioxidant activities of <i>Gymnema sylvestre</i> R.Br. Leaf extracts</b> <a href="#">Nuzhat Ara Jamal</a> , Sumana Sarkhel, Kanchan Saha, Poulami Parua and Upasana Chatterjee
PP 058	<b>Comparative Account of Antibacterial Peptide Biosynthesis by Bacterial-challenged and Nonbacterial-challenged Larvae of <i>Bombyx mori</i> L</b> <a href="#">Deeya Ghosh Dastidar</a> <sup>a</sup> , Kalyanbrata Pal <sup>b</sup> , Subham Rakshit <sup>b</sup> , Swaroop Biswas <sup>d</sup> , Amarendra Nath Biswas <sup>d</sup> , Keshab Chandra Mondal <sup>b</sup> , Barna Chakraborty <sup>c</sup> and Suman Kumar Halder <sup>b</sup>
PP 059	<b><i>In vitro</i> and <i>in vivo</i> anti-oxidant potential of saponin from <i>Quillaja saponaria</i> Molina (QS) bark extract and assessment of the anti-Russell's Viper Venom activity of saponin <i>in silico</i></b> <a href="#">Poulami Parua</a> , Kanchan Saha, Sumana Sarkhel and Upasana Chatterjee
PP 060	<b><i>Mitragyna parvifolia</i> potential drug target for the treatment of lymphatic filariasis associated Acute Dermato lymphangioadenitis (ADLA)</b> Ashwathdaman A V <sup>1</sup> , Jefferillah J <sup>1</sup> , Annaraj J <sup>2</sup> and <a href="#">Anand S B</a> <sup>1</sup>
PP 061	<b><i>In vitro</i> inhibition of <i>Vipera russelli</i> venom with Alginic acid-based silver nanoparticles</b>

	<a href="#">Kanchan Saha</a> , Poulami Parua, Sumana Sarkhel, Upasana Chatterjee, Nuzhat Ara Jamal and Simi Manna Pradhan
PP 062	<b>Structure and function analysis of human ATE1 isoforms and their interactions with Arg-tRNA<sup>Arg</sup></b>  <a href="#">Rahul Naga</a> and Sougata Saha
PP 063	<b>Anti-fibrotic Effects of Methanolic Leaf, Stem and Root Extracts of <i>Amaranthus spinosus</i> L. on Thioacetamide induced Murine Liver Model: A Comparative Study</b>  <a href="#">Sanchari Bhattacharyya</a> <sup>1</sup> and Sagar Acharya <sup>2</sup>
PP 064	<b>Employing machine learning models to predict potential <math>\alpha</math>-glucosidase inhibitory plant secondary metabolites targeting type-2 Diabetes</b>  <a href="#">Lemnaro Jamir</a> and Hariprasad. P.
PP 065	<b>Hetisine and Ajaconine as potent inhibitors of SARS-CoV-2 main protease (M<sup>Pro</sup>): from <i>Piper barberi</i> Gamble</b>  <a href="#">Vivek A S</a> and Swapna T S
PP 066	<b>Targeting Autophagy with Hybrid Nano-Encapsulated Ferulic Acid to Alleviate Chronic UVA-induced Photoaging</b>  <a href="#">ApekshaVikram</a> <sup>1,2</sup> , Sunil Kumar Patel <sup>1,2</sup> , and Ratan Singh Ray <sup>1,2</sup> , Lipika Ray <sup>3</sup> and Ashish Dwivedi <sup>1,2</sup>
PP 067	<b>Targeted Suppression of Dental Pathogens using Zinc Oxide Nanoparticles Coated with Multifunctional <math>\kappa</math>-Carrageenan derived from <i>Kappaphycus alvarezii</i></b>  <a href="#">Ajay Guru</a>
PP 068	<b>Characteristics of <i>Vibrio cholerae</i> O1 carrying Haitian <i>ctxB</i> and attributes of classical and El Tor biotypes isolated between 2015-2016 from Silvassa, India</b>  <a href="#">Kumari Shambhavi</a> <sup>1</sup> , Moon Moon Das <sup>2</sup> , Dolatsinh Zala <sup>3</sup> and Durg Vijai Singh <sup>1</sup>
PP 069	<b>Liposomal delivery of bioactive peptide complex for the management of cancer</b>  Shabeer Padariyakam <sup>1</sup> , Nimisha R. Nair <sup>2</sup> , Unnikrishnan B. S <sup>3</sup> ., <a href="#">Ramya Krishnan</a> <sup>2</sup> and S.L. Kothari <sup>4</sup>
PP 070	<b>Neuronal control of Transgenerational Inheritance of learnt behavior in <i>Caenorhabditis elegans</i></b>  <a href="#">Mounish B S C</a> and Balamurugan K
PP 071	<b>Cellular and molecular aspect of <i>Klebsiella aerogenes</i> infection in <i>Caenorhabditis elegans</i></b>  <a href="#">Thirumugam Gowripriya</a> <sup>1</sup> , Radhakrishnan Yashwanth <sup>2</sup> , James P Bhaskar <sup>2</sup> , Ramamurthi Suresh <sup>2</sup> and Krishnaswamy Balamurugan <sup>1</sup>

PP 072	<p><b>Targeting the quorum-sensing controlled pathogenicity of <i>P. aeruginosa</i> by diketopiperazines from termite-nest associated <i>Nocardia</i> sp. EMB27- an in vitro and in silico approach</b></p> <p><a href="#">Saniya Zaidi</a> and Sunil Kumar Khare</p>
PP 073	<p><b>Antibacterial resistome profiling and microbial community analysis of an urban community using wastewater-based epidemiology</b></p> <p><a href="#">Yamini Javvadi</a> and S. Venkata Mohan<sup>1,2</sup></p>
<p><b>Abstracts of Posters</b></p> <p><b>SYNTHETIC BIOLOGY &amp; METABOLIC ENGINEERING</b></p>	
PP 074	<p><b>Purification and biochemical characterisation of N demethylases from <i>Pseudomonas</i> sp. NCIM 5235</b></p> <p><a href="#">Pranjali Singh</a> and Sathyanarayana N Gummadi</p>
PP 075	<p><b>Characterization of cold active hormone sensitive lipase from <i>Lactobacillus plantarum</i> Cest- 2923</b></p> <p><a href="#">Sambita Das</a> and Sathyanarana N Gummadi</p>
PP 076	<p><b>Cloning, expression and characterization of thermostable extracellular <math>\alpha</math>-amylase from <i>Bacillus subtilis</i> k2cm in <i>Escherichia coli</i> BL21 and application of immobilized enzyme for malto-oligosaccharides production</b></p> <p><a href="#">Krishnendu Mondal<sup>a</sup></a>, <a href="#">Prayatna Sharma<sup>b</sup></a>, <a href="#">Ishfaq Nabi Najar<sup>b</sup></a>, <a href="#">Santosh Kumar<sup>b</sup></a>, <a href="#">Sonia Tamang<sup>b</sup></a>, <a href="#">Suman Kumar Halder<sup>a</sup></a>, <a href="#">Nagendra Thakur<sup>b</sup></a> and <a href="#">Keshab Chandra Mondal<sup>a</sup></a></p>
PP 077	<p><b>A novel L-rhamnose isomerase variant for synthesis of rare sugar, D-allose</b></p> <p><a href="#">Sweety Sharma</a>, Satya Narayan Patel and Sudhir P. Singh</p>
PP 078	<p><b>Effect of ultrasound and microwave pretreatments on the functional characteristics of Alcalase mediated hydrolysates of almond protein obtained from de-oiled meal</b></p> <p><a href="#">T.P. Sari</a> and Prarabdh C. Badgujar</p>
PP 079	<p><b>Screening and optimization of medium for higher production of recombinant clostridial cellulolytic chimeric (CtGH1-CtGH5-F194A) enzyme</b></p> <p><a href="#">Vishwanath Yadav</a> and Arun Goyal</p>
PP 080	<p><b>Biochemical characterization and functional analysis of a xylanase of family GH30 glycoside hydrolase (AcGH30B) from <i>Acetivibrio clariflavus</i></b></p> <p><a href="#">Bipasha Choudhury</a> and Arun Goyal</p>

**Session II: 28<sup>th</sup> November 2023; Time: 1250-1430h**

**Venue: YMCA Hall Building (behind Hotel Residency Tower)**

**Posters No PP 081-PP 155**

**(Posters should be placed on the allotted board before 0900h on the day of the presentation and removed after 1600h same day)**

Poster no	Title, authors
PP 081	<b>Heterologous expression, characterization and in-silico analysis of a thermostable nitrilase from <i>Corynebacterium glutamicum</i> ATCC 13032</b>  <u>Amrutha M</u> <sup>1,2</sup> and K Madhavan Nampootheri <sup>1</sup>
PP 082	<b>Biochemical and functional characterization of recombinant endo-<math>\beta</math>-1,4-galactanase (AtGH53) from <i>Acetivibrio thermocellum</i></b>  <u>Shreya Biswas</u> and Arun Goyal
PP 083	<b>Chemical modification of laccase using 2-OSA for application in cashew apple juice clarification</b>  <u>Saaylee Danait-Nabar</u> and Rekha S. Singhal
PP 084	<b>Biochemically characterizing a novel acid-active endopolygalacturonase for pectin depolymerization, production of pectic oligomers, and clarification of fruit juices</b>  <u>Nitish Sharma</u> and Sudhir P. Singh
PP 085	<b>Characterization of Plasticizer degrading microbial consortia from Municipal Solid Waste site</b>  <u>Shivani Singh</u> and Preeti Chaturvedi Bhargava
PP 086	<b>Identification of microplastics and degradation via bacterial and fungal consortium</b>  <u>Akshay Kumar</u> and Kashyap Kumar Dubey
PP 087	<b>Exploring the Combined Impact of Mycogenic Zinc Oxide Nanoparticles and Bioslurry formulation on <i>Vigna radiata</i> (L.) R. Wilczek</b>  <u>Abhinav Singh</u> , Ajit Varma and Arti Goel
<b>Abstracts of Posters</b>	

## INDUSTRIAL BIOTECHNOLOGY

PP 088	<p><b>Effect of Carbon Sources and Dye degradation on Growth profile and Lipid Production of <i>Rhodospiridium paludigenum</i></b></p> <p><u>Tamal Ghosh</u>, Kasturi Dutta and Sangeeta Singh</p>
PP 089	<p><b>Effect of temperature and substrate size on Fruit and vegetable waste based-Garbage Enzyme: Application and Environmental impacts</b></p> <p><u>Suraj Negi</u>, Ching-Wen Chang and Shu-Yuan Pan</p>
PP 090	<p><b>Evaluating the potential of Sago Pith Waste for the production of citric acid</b></p> <p><u>Reena Rooben</u> <sup>a,b</sup> and Binod Parameswaran <sup>a,b</sup></p>
PP 091	<p><b>Metabolic engineering of <i>Bacillus subtilis</i> for co-production of 3-hydroxypropionic acid and biodiesel by the valorization of waste cooking oil</b></p> <p><u>Rajesh Rajendran Omana</u> and Ashish A. Prabhu</p>
PP 092	<p><b>Investigating the impact of pretreated microbial cultures on Biohydrogen production from pretreated food waste via dark fermentation</b></p> <p><u>Paneti Rajesh</u><sup>a</sup>, Naveen Kumar Mamindlapelli<sup>a</sup>, Vijayalakshmi Arelli<sup>a</sup>, Sameena Begum<sup>a</sup> and Gangagni Rao Anupoju <sup>a</sup></p>
PP 093	<p><b>Parameter optimization studies for enhancing biohydrogen production from rice straw using <i>Clostridium</i> spp. of termite origin via dark fermentation route at ambient temperature</b></p> <p><u>Kalyani Deshmukh</u>, Sumit Dagar and Prashant Dhakephalkar</p>
PP 094	<p><b>Influence of immobilizing materials on the yield of methane-hydrogen biogas (biohythane) during two-stage anaerobic digestion of cheese whey</b></p> <p><u>Elza R. Mikheeva</u><sup>1</sup>, Inna V. Katraeva<sup>1</sup>, Andrey A. Kovalev<sup>1</sup> and Yuriy V. Litti<sup>2</sup></p>
PP 095	<p><b>Rhamnolipid production from torrefied aspen waste</b></p> <p><u>Anjana Hari</u>, Tharaka Rama Krishna Chowdary Doddapaneni and Timo Kikas</p>
PP 096	<p><b>The accumulation of iron in <i>Thermoanaerobacterium thermosaccharolyticum</i> cells coincides with increased biohydrogen production</b></p> <p><u>Alexandra A. Laikova</u><sup>1,2</sup>, Polina D. Biryuchkova<sup>1,3</sup>, Svetlana V. Shekhurdina<sup>1,2</sup>, Elena A. Zhuravleva<sup>1</sup>, Artem A. Ivanenko<sup>1,2</sup>, Natalia G. Loiko<sup>1</sup>, Andrey A. Kovalev<sup>4</sup>, Dmitriy A. Kovalev<sup>4</sup> and Yuriy V. Litti<sup>1</sup></p>
PP 097	<p><b>EVALUATION OF PLANT GROWTH PROMOTING ABILITY OF <i>ENTEROBACTER LUDWIGII</i> FRS42-AN ENDOPHYTE OF <i>FICUS RELIGIOSA</i></b></p> <p><u>Bragadish Iyer</u> and Sonam Patel</p>
PP 098	<p><b>Cryogenic Preservation of Hydrogen Producing Granules</b></p>

	Jeun Ko, Hwan-Hong Joo and Sang-Hyoun Kim
PP 099	<b>Enrichment and characterization of chemolithoautotrophic bacteria for their potential role in bioconversion of CO<sub>2</sub> to value added product</b>  P K Saha <sup>1</sup> , P Sar <sup>2</sup> and S K Kazy <sup>1</sup>
PP 100	<b>Alkaline hydrogen peroxide pretreatment and its influence on physiochemical properties and enzymatic digestibility of bamboo residues</b>  <u>Sabeela Beevi Ummalyama</u> <sup>1</sup> , Ningthoujam Herojit and Rajeev K. Sukumaran <sup>2</sup>
PP 101	<b>Microwave-Assisted Catalytic Pyrolysis of Biomass for Hydrogen Production</b>  <u>Mahendra Tiwari</u> and Vinu R.
PP 102	<b>Bio-solubilization of metals from spent EV Batteries</b>  <u>Ajeet Gangwar</u> <sup>1,2</sup> , Pratima Meshram <sup>1</sup> and Abhilash <sup>1</sup>
PP 103	<b>Catalytic pyrolysis of pine needles: Effect of structure and Si/Al ratio of catalyst on bio-oil yield and product distribution</b>  <u>Omvesh</u> <sup>1,2</sup> , Meenu Jindal <sup>1,2</sup> , Richa Bhatt <sup>1</sup> , Thallada Bhaskar <sup>1,2</sup> and Venkata Chandra Sekhar Palla <sup>1,2</sup>
PP 104	<b>Comparative study of reductive catalytic fractionation of different biomass feedstock: insights into the key role of lignin monomer units on product distribution</b>  <u>Priyanka Uniyal</u> <sup>1</sup> , Meenu_Jindal <sup>1,2</sup> and Thallada Bhaskar <sup>1,2</sup>
PP 105	<b>Slow pyrolysis of coffee processing industry wastes</b>  <u>Valiveti Tarun Kumar</u> <sup>1</sup> , Ramandeep Kaur <sup>1,2</sup> , Bhavya B. Krishna <sup>1,2</sup> and Thallada Bhaskar <sup>1,2</sup>
PP 106	<b>Techno-Economic Evaluation of Sustainable Biodiesel Production from Macroalgae and Non-Edible Oil Blend through Innovative Catalytic Strategy using a De-Oiled Macroalgal Biomass</b>  <u>Pravin Ravichandran</u> and Baskar Gurunathan
PP 107	<b>Screening of low-cost adsorbents for detoxification of sequential alkali/ acid hydrolysate and assessment of xylitol production</b>  <u>Vishnu Damodaran Nambissan</u>
PP 108	<b>Effect of torrefaction condensate on growth, biochemical composition and EPS production of the microalgae <i>Chlamydomonas reinhardtii</i></b>  <u>Salini Chandrasekharan Nair</u> , Renu Geetha Bai, Tharaka Rama Krishna C. Doddapaneni and Timo Kikas
PP 109	<b>OPTIMIZATION OF MEDIUM COMPOSITION FOR PRODUCTION OF POLYHYDROXYALKANOATES (PHA) USING JATROPHA OIL AS A SUBSTRATE</b>  <u>Samini O. Charan</u> and Bragadish D. Iyer
PP 110	<b>Exploring the multifaceted potential of <i>Candida glabrata</i></b>

	<u>Nair M Lakshmi</u> <sup>1,2</sup> , Anilkumar Arya <sup>1</sup> , Palanisamy Athiyaman Balakumaran <sup>1</sup> and Parameswaran Binod <sup>1</sup>
PP 111	<b><math>\gamma</math>-Linolenic Acid Enriched Fungal Oil: Circular and Sustainable Alternative to Palmolein</b>  <u>P S Jiju</u> and Parameswaran Binod
PP 112	<b>Comparative study on the production of 1,3-propanediol and organic acids by whole cell recycling and immobilized cell fermentation strategies</b>  <u>Maria Paul Alphy</u> <sup>1,2</sup> and Parameswaran Binod <sup>1</sup>
PP 113	<b>Phytochemical Characterization of Novel Plant <i>Clerodendrum</i> Spp.</b>  <u>Sushil Kumar Singh</u> and Manish Singh Rajput
PP 114	<b>Media Optimisation and Scale up Studies of Clavulanic Acid Fermentation</b>  <u>Sree Priya S</u> <sup>1,2</sup> and Rakesh Yasarla <sup>1</sup>
PP 115	<b>Metagenomics investigation of novel agarases and heterologous expression to produce oligomers</b>  <u>Suresh G</u> and S. Venkata Mohan
PP 116	<b>Molecular insights into halocin producing <i>Haloferax larsenii</i></b>  Sumit Kumar <sup>a</sup> , <u>Bibhuti Bhusan Das</u> <sup>b</sup> and Sunil Kumar Khare <sup>b</sup>
PP 117	<b>Bioactivity of newly isolated lactic acid bacteria against biofilm formation of <i>Streptococcus mutans</i></b>  <u>Anaswara P. A.</u> <sup>1,2</sup> and K Madhavan Nampoothiri <sup>1</sup>
PP 118	<b>Utilization of Agri-processing residues for the production of exopolysaccharide and its potential application</b>  <u>Varsha Sharma</u> <sup>a,b</sup> , and Vinod Kumar <sup>a,b</sup>
PP 119	<b>Study of antifungal effect of newly isolated LAB strains against <i>Fusarium</i> culture</b>  <u>Vipin Krishnan.S</u> <sup>1</sup> , Anandhu Suresh <sup>1</sup> , P.A. Bala Kumaran <sup>1</sup> , Tünde Pusztahelyi <sup>2</sup> , István Pócsi <sup>3</sup> and K Madhavan Nampoothiri <sup>1</sup>
PP 120	<b>Efflux mediated mechanism of chlorpyrifos tolerance in <i>Escherichia coli</i></b>  <u>Aswathi A</u> <sup>1,2</sup> , Ashok Pandey <sup>3</sup> and Rajeev K Sukumaran <sup>2</sup>
PP 121	<b>Exploration of acetogenic microbial populations from deep subsurface granitic rocks and their characterization</b>  <u>Swatilekha Sarkar</u> , Rajendra Prasad Sahu, Debarshi Mukherjee, Shuchishloka Chakraborty and Pinaki Sar
PP 122	<b>Characterization of autochthonous <i>Komagaetibacter</i> isolates of coconut vinegar for bacterial cellulose production</b>

	<u>Indhuja S</u> <sup>1</sup> , Archa Rajeevan <sup>3</sup> , Jeena Mathew <sup>1</sup> , Alka Gupta <sup>2</sup> , Murali Gopal <sup>2</sup> and Anithakumari P <sup>1</sup>
PP 123	<b>Co-culturing <i>Citrobacter amalonaticus</i> and <i>Bacillus subtilis</i> for succinic acid production in Electro-Fermentation system</b>  <u>Triya Mukherjee</u> <sup>1,2</sup> and S Venkata Mohan <sup>1,2</sup>
PP 124	<b>Biorefinery development for poly(3-hydroxybutyrate) production including an efficient downstream separation and purification process</b>  <u>Olga Psaki</u> , Lina Zoghbi, Drosoula Galani, Dimitris Ladakis and Apostolis Koutinas
PP 125	<b>Bioconversion of ionic liquid treated lignocellulosic biomass into bioethanol using immobilized cellulose</b>  <u>Ashwini John J</u> and Selvarajan Ethiraj
PP 126	<b>Enhancement of biocontrol and plant-growth-promoting activity of <i>T. viride</i> using substrate supplementation and co-culture strategies</b>  <u>J. D. Narwade</u> <sup>a</sup> , A. A. Odaneth <sup>b</sup> and S. S. Lele <sup>a</sup>
PP 127	<b>Combined stress and inhibitors effect on thraustochytrids for improved essential polyunsaturated fatty acids production</b>  <u>Ajeet Singh Chauhan</u> <sup>1,3†</sup> , Anil Kumar Patel <sup>1,2†</sup> , Chiu-Wen Chen <sup>1,3,5</sup> , Cheng-Di Dong <sup>1,3</sup> and Reeta Rani Singhania <sup>2,3</sup>
PP 128	<b>New hybrid evolutionary machine learning method for green hydrogen production forecasting and dynamic membrane bioreactor feature selection</b>  <u>Ashutosh Kumar Pandey</u> and Sang-Hyoun Kim
PP 129	<b>Valorization of sugarcane bagasse pith digestate to biochar and its application</b>  <u>Madan Kumar</u> <sup>1</sup> , Falguni Pattnaik <sup>1</sup> , Nitin Kumar Agarwal <sup>1</sup> , Komalkant Adlakh <sup>1</sup> , Asmita Gupta <sup>2</sup> and Vivek Kumar <sup>1</sup>
PP 130	<b>Immobilization of <i>Streptomyces angustmyceticus</i> KL6B cellulase on ZIF-8 for the effective hydrolysis of deep eutectic solvent treated agricultural biomass</b>  Ashwini John. J and <u>Selvarajan Ethiraj</u>
PP 131	<b>Bioethanol production from wheat straw using commercial cellulase (Sacchari SEB C6L) and <i>Saccharomyces cerevisiae</i> NCIM 3215</b>  Oinam Riya Devi <sup>1,2</sup> , <u>Akshay Kumar</u> <sup>2</sup> , Maibam P. Devi <sup>2</sup> , Aishwarya <sup>2</sup> and Arun Goyal <sup>2</sup>
PP 132	<b>Extraction of lignin from Sugarcane bagasse by different pretreatment methods under optimized conditions for active packaging applications</b>  <u>Mohit Kumar Mehra</u> and Althuri Avanthi
PP 133	<b>Designing an Eco Ethanosolv for Coconut Shell Lignin Extraction: RSM Optimization and Antioxidant Attributes</b>

	<u>Chamssane Issouffou</u> , Khanok Ratanakhanokchai, Saengchai Akepratumchai, Sarttrawut Tulaphol, Lakha Salaipeth, Ken-Lin Chang and Paripok Phitsuwan
PP 134	<b>Optimization of lignin extraction from macadamia shell using a deep eutectic solvent</b>  <u>Chokamnuai Sriwankham</u> , Sarttrawut Tulaphol, Saengchai Akeprathumchai, Lakha Salaipeth, Takashi Watanabe and Paripok Phitsuwan
PP 135	<b>Synergistic effects of nitrogen explosion decompression and protic ionic liquid pretreatment of <i>Populus tremula</i></b>  <u>Sabarathinam Shanmugam</u> <sup>a</sup> , Nikki Sjulander <sup>a</sup> , Sharib Khan <sup>a</sup> , Daniel Rauber <sup>b</sup> , Christopher W. M. Kay <sup>b,c</sup> and Timo Kikas <sup>a</sup>
PP 136	<b>Quality Improvement of Banana Fiber Through Sequential Enzymatic Treatment</b>  <u>Tanmoy Jana</u> , Susovan Patra, Suman k Halder and Keshab Chandra Mondal
PP 137	<b>Reductive Catalytic Fractionation of Pre-treated Agro-residues into Value-added Chemicals</b>  <u>Preety Kumari</u> and Ravikrishnan Vinu
PP 138	<b>Assessment of water hyacinth biomass as a feedstock for bioethanol/bio refineries</b>  <u>Adarsh V</u> <sup>a,b</sup> , Athira P Sathish <sup>a</sup> , Meena Sankar <sup>a,b</sup> , Dileep R Nair <sup>a</sup> , Merin Varghese <sup>a</sup> and Rajeev K Sukumaran <sup>a,b</sup>
PP 139	<b>Assessment of <i>lytic polysaccharide monoxygenases</i> (LPMO) activity from different fungal strains collected from ecological niches of Rajasthan</b>  <u>Shivangi Mudaliar</u> and Pradeep Verma
PP 140	<b>Insights into Lignocellulosic Xylan Degradation by a Novel strain of <i>Streptomyces</i> sp. KAU_LT through Whole-Genome Analysis and Expression Studies on Xylanase genes</b>  <u>Leya Thomas</u> <sup>1</sup> , Raveendran Sindhu <sup>2</sup> , Ravisankar Valsalan <sup>1</sup> and Deepu Mathew <sup>1</sup>
PP 141	<b>Performance evaluation of commercial cellulases and knowledge-based blending for efficient sugar release</b>  <u>Meena Sankar</u> <sup>a,b</sup> , Reshma M Mathew <sup>a,b</sup> , Adarsh VP <sup>a,b</sup> and Rajeev K Sukumaran <sup>a,b</sup>
PP 142	<b>Bioethanol production from raw cassava starch</b>  <u>Athulya</u> <sup>1,2</sup> , Anoop Puthiyamadam, Dileep R Nair and Rajeev K Sukumaran <sup>1</sup>
PP 143	<b>Acidophilic CAZymes for biorefinery applications</b>  <u>Meera Christopher</u> <sup>1</sup> , Tom Coleman <sup>1</sup> , Vu Nguyen Thanh <sup>2</sup> , Johan Larsbrink <sup>1</sup> and Lisbeth Olsson <sup>1</sup>
PP 144	<b>A newly constituted bacterial cellulase system involving endoglucanase (<i>RfGH5_4</i>) from <i>Ruminococcus flavefaciens</i> FD-1 v3, cellobiohydrolase (<i>CtCBH5A</i>) and <math>\beta</math>-glucosidase (<i>CtBgL1</i>) from <i>Clostridium thermocellum</i> for saccharification of <i>Sorghum durra</i> stalk</b>

	<u>Parmeshwar Vitthal Gavande</u> and Arun Goyal
PP 145	<b>Microwave-assisted Lewis-acid-based tetrahydrofuran organosolv pretreatment system for conversion of lignocellulosic biomass</b>  <u>Lakshana G Nair</u> and Pradeep Verma
PP 146	<b>Evaluation of non-thermal plasma as pretreatment technology for enhancing the enzymatic hydrolysis of agro-industrial waste streams</b>  <u>Katiana Filippi</u> , Dimitrios Ladakis and Apostolis Koutinas
PP 147	<b>Biorefinery development for efficient production of value-added products targeting packaging applications</b>  <u>Mirva Sarafidou</u> , Olga Psaki, Olga Vittou, Katiana Filippi, Eleni Stylianou and Apostolis Koutinas
PP 148	<b>A study on the impact of polymer molecular weight and film casting method on PLA film properties</b>  <u>Bhavya Surendran V S</u> and Althuri Avanthi
PP 149	<b>Photosynthetic Based Bioplastic: Harnessing Microalgae and Cyanobacteria</b>  <u>Poonam Kumari</u> <sup>1,2</sup> and S. Venkata Mohan <sup>1,2</sup>
PP 150	<b>Biomass Conversion of green seaweed <i>Chaetomorpha antennina</i> into fermentable sugars for the Microbial cell growth and biochemical production</b>  <u>Anbu Chezhiyan Elango</u> <sup>a</sup> , Mugesh Sankaranarayanan <sup>a</sup> and B. Bharathiraja <sup>b</sup>
PP 151	<b>Screening of Microalgae and Cyanobacteria as Potential Sources of Natural Antioxidants</b>  <u>Udaypal</u> , Rahul Kumar Goswami and Pradeep Verma
PP 152	<b>Potassium doped biochar as a potential heterogenous catalyst for biodiesel production from <i>Chlorella vulgaris</i> microalgal oil</b>  T. Devi <sup>1</sup> and G. Baskar <sup>2</sup>
PP 153	<b>Investigation of Thermal Characteristics of the Seaweeds Collected from Kollam Coastal Area for Utilization as a Feedstock for Bio-Oil Production</b>  <u>Meera Bai S</u> <sup>1</sup> , Merine Francis <sup>1</sup> , Swathishma <sup>1</sup> , Sandra Vijay <sup>1</sup> and Adriel Raji Koshy <sup>1</sup> and Vanavil Balakrishnan <sup>2</sup>
PP 154	<b>The photobioreactor with a venturi tube microbubble generator to improve CO<sub>2</sub> fixation and biogas upgrading by oleaginous microalgae</b>  <u>Wageeporn Maneechot</u> , Benjamas Cheirsilp and Chayut Nuntadusit
PP 155	<b>VALUE-ADDED TYPE-III AND TYPE-V RESISTANT STARCH MOLECULES ARE GENERATED FROM PLANT BIOMASS-DERIVED STARCH THROUGH THE USE OF A NOVEL TYPE 1 PULLULANASE</b>  <u>Monika Thakur</u> and Sudhir P. Singh

PP 156	<p><b>Reductive Catalytic Fractionation of cotton stalks over Ni-based catalysts</b></p> <p><u>Meenu Jindal</u><sup>1,2</sup>, Priyanka Uniyal<sup>2</sup> and Thallada Bhaskar<sup>1,2</sup></p>
PP 157	<p><b>A process model to investigate the biodiesel production from hybrid oil feedstocks using magnetically recyclable basic ionic liquid nanocatalyst</b></p> <p><u>Sangeetha Baskaran</u> and Baskar Gurunathan</p>
PP 158	<p><b>Enhanced production of Xylose reductase from <i>Debaryomyces nepalensis</i> NCYC 3413 in <i>E. coli</i> rosetta cells</b></p> <p><u>Akilandaeswari J</u> and Sathyannarayana N Gummadi</p>
PP 159	<p><b>Exploring the therapeutic potential of furan-based synthetic chalcone derivative in alleviating intestinal inflammation and oxidative stress in <i>in-vivo</i> zebrafish</b></p> <p>SP Ramya Ranjan Nayak, L.S. Dhivya, Kathiravan M and <u>Jesu Arockiaraj</u></p>
PP 160	<p><b>Comparative analysis of different enzyme immobilisation strategies for bi-substrate reactions</b></p> <p><u>Reshma M. Mathew</u><sup>1,2</sup>, Meena Sankar<sup>1,2</sup>, Anoop Puthyamadam<sup>1,2</sup>, Prajeesh Kooloth-Valappil<sup>3</sup> and Rajeev K Sukumaran<sup>1</sup></p>
PP 161	<p><b>Advantages of Thermal Hydrolysis coupled with Anaerobic Digestion for Treatment of Municipal Sludge</b></p> <p>Gowtham Balasundaram<sup>1</sup>, Pallavi Gahlot<sup>1</sup>, Vinay Kumar Tyagi<sup>2</sup>, Absar A. Kazmi<sup>1</sup>, <u>Ashish K Sahu</u><sup>3</sup>, and Harald Kleiven<sup>3</sup></p>
PP 162	<p><b>Over-Expression of CODH/ACS Complex of <i>Clostridium</i> sp. for Improved Acetate and Alcohol Production</b></p> <p><u>Athmakuri Tharak</u><sup>1,2</sup> and S Venkata Mohan<sup>1,2</sup></p>
PP 163	<p><b>Bioconversion of bakery waste through fungal cell factories for the production of Lactic acid</b></p> <p><u>Chandukishore T</u>, K. Narsimhulu and Ashish A Prabhu</p>
PP 164	<p><b>Comparative Analysis of Lignin Extraction Methods from Sugarcane Tops and Synthesis of Lignin-Based Hydrogels for Sustainable Industrial Applications</b></p> <p><u>Sumona Garg</u> and Althuri Avanthi</p>
PP 165	<p><b>Biorefinery Process for Valorisation of Millet Residual Biomass Eleusine coracana for Micro/Nano Cellulose, Lignin and Silica</b></p>

	<u>Cheemalamarri Chandrasekhar</u> <sup>1</sup> , R.T. Venkata Narayana <sup>1</sup> , Harishankar Kopperi <sup>1,2</sup> and S. Venkata Mohan <sup>1,2</sup>
--	--