



The Institution of Engineers (India)



36TH NATIONAL CONVENTION OF CHEMICAL ENGINEERS

Theme: Frontier Technologies for 21st Century's Process Industries

March 6-7, 2021

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= PROGRAMME SCHEDULE =

Day 1: March 6, 2021

1430 hrs-1530 hrs

INAUGURAL SESSION & AWARD PRESENTATION

- : Welcome Address
Prof K C Ghanta, Chairman, IEI- Durgapur Local Centre
- : About the Theme
Dr Abhiram Hens, Organising Secretary
- : Address by
Mr S Rajagopal, Chairman, Chemical Engineering Division Board, IEI
- : Presidential Address
Er Narendra Singh, President, The Institution of Engineers (India)
- : **Releasing of Proceeding / Souvenir of the Convention**
- : Felicitation of Eminent Engineering personalities
(*Reading of brief Biodata by Dr Abhiram Hens*)
 - ✚ **Prof Suddhasatwa Basu**, Director, CSIR - Institute of Minerals and Materials Technology, Bhubaneswar
 - ✚ **Mr Santosh Chandra**, Chief Executive Officer, Essar Oil & Gas Exploration and Production Limited, Mumbai
 - ✚ **Mr Ashok Kumar Ghosh**, Executive Vice President, Haldia Petrochemicals Ltd., Haldia, West Bengal

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- : Address by the Chief Guest
Prof Anupam Basu, Director, National Institute of Technology, Durgapur
- : Vote of Thanks
Mr M K Biswal, Honorary Secretary, IEI- Durgapur Local Centre
- 1535 hrs–1605 hrs**
State-of-the-Art Lecture
- : **Prof Suddhasatwa Basu**, Director, CSIR - Institute of Minerals and Materials Technology, Bhubaneswar
Topic: *Energy on Fingertips: Membrane-less Microfluidic Water Electrolyzer for Hydrogen and Oxygen Production*
- 1605 hrs-1645 hrs**
Acharya Prafulla Chandra Ray Memorial Lecture
[Session Chairman: Mr S Rajagopal, Chairman, CHDB, IEI]
- : **Prof Ravindra D Gudi**, Professor-in-Charge, IIT Bombay Research Park Foundation, IIT Bombay, Mumbai
Topic: *Towards Next Gen Process Industries: Exciting opportunities from IoT and AI & ML*
- 1650 hrs- 1710 hrs**
Keynote Address
- : **Mr Ashok Kumar Ghosh**, Executive Vice President, Haldia Petrochemicals Ltd., Haldia, West Bengal
Topic: *Frontier Technologies for 21st Century's Process Industries*
- 1710 hrs-1725 hrs**
Panel Discussion
- : Open discussion on “**Future of Chemical Engineering**”
Panelists: Mr S Rajagopal, Chairman, CHDB, IEI
Mr K H Shethna, Member, CHDB, IEI
Prof K C Ghanta, Member, CHDB, IEI
Mr Vineet Singhal, Vice President & Head - Facilities & HSE, Essar Oil and Gas Exploration & Production Limited

TECHNICAL SESSIONS

- Technical Session–I** : **Theme: Chemical and Biochemical Process**
Chairman: Prof Gopinath Halder, NIT Durgapur
Session Coordinator: Dr Sandip Kumar Lahiri, NIT Durgapur
- 1730 hrs-1740 hrs** : **Title:** *Identification and characterization of microbes from fruits waste for the production of value added product for laundry application*
Paper ID: IE36
Authors: K Saranya, S Sunil, A Cyril Stephen, V Manivasagan

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- 17:40 hrs-17:50 hrs**
Paper ID: IE08 : **Title:** *Influence of chemical pretreatments and drying air temperatures on the physical quality of green mango powder*
Authors: Palani Kandasamy
- 17:50 hrs-18:00 hrs**
Paper ID: IE06 : **Title:** *Growth Kinetics of Spirulina Platensis using Microcontroller based Photobioreactor*
Authors: M Shiva Naresh, Anjali Dasari, P Mallika Rani, S Dinakara Vara Prasad
- 18:00 hrs-18:10 hrs**
Paper ID: IE28 : **Title:** *Bio-prospecting of waste vegetable resources for isolation of milk clotting protease*
Authors: Sarthak Saxena, Soumya Sasmal
- 18:10 hrs-18:20 hrs**
Paper ID: IE46 : **Title:** *Study of the Role of Radical Exit in Butyl Acrylate Emulsion Polymerisation*
Authors: Anushree Trivedi, Ashwini Sood
- 18:20 hrs-18:40 hrs** : **Discussion (Q&A)**

Day 2: March 7, 2021

TECHNICAL SESSIONS

- Technical Session–II** : **Theme: Process Modelling and Simulation**
Chairman: Prof Jayanta Chakraborty, IIT Kharagpur
Session Coordinator: Dr Bikash Kumar Mondal, NIT Durgapur
- 1000 hrs-1010 hrs**
Paper ID: IE10 : **Title:** *Optimization of Multi-Stage Fluidized Bed using Amine Sorbents as an Alternative to Alkanol-Amine for Deep Sour Gas Removal*
Authors: Ankit Pahwa, Arvind Kumar Sharma
- 1010 hrs-1020 hrs**
Paper ID: IE43 : **Title:** *Modeling and Optimization of High Density Polyethylene (HDPE) Reactor using Artificial Intelligence*

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based technique

Authors: Annasha Dey, Rhythm Aich, Sandip Kumar Lahiri

- 1020 hrs-1030 hrs**
Paper ID: IE19 : **Title:** *Design optimization of heat exchanger by old and new generations metaheuristic optimization algorithms: Insights and comparisons*
Authors: Boyina Venkata Akhil, Prashanna Sharma, Sandip Kumar Lahiri
- 1030 hrs-1040 hrs**
Paper ID: IE18 : **Title:** *Control of waste water treatment plant using fuzzy logic controller*
Authors: Sreenath Y, G Prabhaker Reddy
- 1040 hrs-1050 hrs**
Paper ID: IE45 : **Title:** *Novel process modelling and optimization methodology for design of a tubular reactor*
Authors: Sucharita Pal, Bipul Jha, Sandip Kumar Lahiri
- 1050 hrs-1100 hrs** : **Discussion (Q&A)**
- Technical Session–III** : **Theme: Thermodynamic, Kinetic and Flow analysis**
Chairman: Prof Gargi Das, IIT Kharagpur
Session Coordinator: Dr Bikash Kumar Mondal, NIT Durgapur
- 1115 hrs – 1125 hrs**
Paper ID: IE38 : **Title:** *Multifunctional Epoxy Nanocomposites for Improved Mechanical Properties for Surface Coating Applications*
Authors: Archana Mishra, Moksh Shukla, Manoj Kumar Shukla, Deepak Srivastava, A K Nagpa
- 1125 hrs – 1135 hrs**
Paper ID: IE17 : **Title:** *Thermodynamic and Structural Analysis on Monatomic (mW) Water in Supercooled region*
Authors: Arvind K Gautam
- 1135 hrs – 1145 hrs**
Paper ID: IE26 : **Title:** *Comparative study on synthesis of performic acid in a microreactor and batch reactor using amberlite catalyst*
Authors: K Peddintaiah, T Bala Narsaiah, S Sharada
- 1145 hrs – 1155 hrs** : **Title:** *VLE prediction for non ideal binary systems using a*

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Paper ID: IE29

novel three parameter activity coefficient model

Authors: Sivaprakash B, D Nirubamaa, I Purushothaman, V Vandhana

1155 hrs – 1205 hrs

Paper ID: IE27

: **Title:** *Isothermal and isobaric VLE prediction from a novel activity coefficient model for binary systems*

Authors: Sivaprakash B, Agastinraj T, Rakesh E, Santhosh Kumar S

1205 hrs – 1220hrs

Discussion (Q&A)

Technical Session–IV

Chairman: Prof Tapas Modal,

IIT Guwahati

Session Coordinator: Dr Bimal

Das, NIT Durgapur

: **Theme: Industrial Waste Treatment and Utilization**

1220 hrs – 1230 hrs

Paper ID: IE11

: **Title:** *Synthesis of Coal Fly Ash Based Adsorbent for the Sequestration of Heavy Metals from Effluent - A Sustainable Approach for Waste Water Treatment*

Authors: Divya Tirva, Ritesh R Palkar, Latesh B Chaudhari

1230 hrs – 1240 hrs

Paper ID: IE07

: **Title:** *Extraction, Adsorption and Optimization of Chitosan (from Prawn Shells) in the study of Removal of Copper ions*

Authors: P Mallika Rani, D Anjali, M Shiva Naresh, S Manikanta, N Manoj Yadav, S Krishnaveni

1240 hrs – 1250 hrs

Paper ID: IE12

: **Title:** *Experimental Investigation in Making Low Cost Concrete from Paper Industry Waste*

Authors: D Sakthivel, S Ramesh Kumar, E Vellaingiri

1250 hrs – 1300 hrs

Paper ID: IE16

: **Title:** *Experimental Investigation of Industrial Wastewater by using Dragon Peel*

Authors: S Ramesh Kumar, D Sakthivel, E Vellaingiri

1300 hrs – 1315hrs

Discussion (Q&A)

1315 hrs – 1400 hrs

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LUNCH BREAK

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Technical Session–V

Chairman: Dr Omkar S
Deshmukh, IIT Guwahati
Session Coordinator: Dr Rajib
Ghosh Chowdhury, NIT
Durgapur

Theme: Plant Operation and Industrial Safety

1400 hrs – 1410 hrs

Paper ID: IE23

: **Title:** *General formula for optimum location of chip breaker in tool inserts for industrial safety*
Authors: Gourav Vivek Kulkarni, Ajay Parulkar

1410 hrs – 1420 hrs

Paper ID: IE22

: **Title:** *Design of failsafe SCADA systems from chemical kinetics perspective for handling of hazardous chemicals*
Authors: Gourav Vivek Kulkarni

1420 hrs – 1430 hrs

Paper ID: IE25

: **Title:** *Alternate Energy Projects - Manage Risks to Reap Rewards*
Authors: Rajeev Supekar

1430 hrs – 1440 hrs

Paper ID: IE44

: **Title:** *A study on production process in thoothukudi salt cluster*
Authors: E Bhaskaran

1440 hrs – 1450 hrs

Paper ID: IE21

: **Title:** *Design of SCADA systems employing automated industrial valves for handling of hazardous chemicals*
Authors: Gourav Vivek Kulkarni

1450 hrs – 1500 hrs

Discussion (Q&A)

1510 hrs – 1530 hrs

: **Questionnaire sessions**

1540 hrs – 1700 hrs

VALEDICTORY FUNCTION

: Welcome Address
Prof K C Ghanta, Chairman, IEI- Durgapur Local Centre

: Reporting on the Technical Sessions
Dr Bikash Kumar Mondal, Convenor, Technical Committee

: Concluding Remarks
Mr S Rajagopal, Chairman, Chemical Engineering Division Board, IEI

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- : Finalization of Recommendations
Prof Susmita Dutta, Chairperson, Technical Committee

- : Address by the Chief Guest
Dr Amit Ganguly, Senior Principal Scientist, Head-
Energy Research & Technology Group, CSIR-Central
Mechanical Engineering Research Institute, Durgapur

- : Vote of Thanks
Mr Safikul Islam, Convenor, Organising Committee