PROGRAMME

24th Refining & Petrochemicals Technology Meet

19-21 January, 2020
Bangalore International Exhibition Centre
Bengaluru, India

Driving Refining & Petrochemicals towards Sustenance

पेट्रोलियम एवं प्राकृतिक गैस मंत्रालय
भारत सरकार
Ministry of Petroleum and Natural Gas
Government of India
<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Venue</th>
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<tr>
<td>18 January, 2020</td>
<td>1700 – 2000 hrs</td>
<td>Bangalore International Exhibition Centre, Bengaluru</td>
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<tr>
<td>19-20 January, 2020</td>
<td>0730 – 1800 hrs</td>
<td>Bangalore International Exhibition Centre, Bengaluru</td>
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<tr>
<td>21 January, 2020</td>
<td>0730 – 1100 hrs</td>
<td>Bangalore International Exhibition Centre, Bengaluru</td>
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Programme

19 January, 2020

Inaugural Session & Presentation of Awards
0930 – 1110 hrs
Venue: Hall Jacaranda

Inauguration : Exhibition Stalls (Cassia) & Poster Gallery
1110 – 1140 hrs

Hi-Tea
1140 – 1200 hrs
24th Refining & Petrochemicals Technology Meet

19 January, 2020

Technical Session - 1
1200 – 1345 hrs
Venue: Hall Jacaranda

Refining and Petrochemicals Outlook

Session Chairperson: Shri Sunil Kumar
Joint Secretary (Refineries)
Ministry of Petroleum & Natural Gas
Govt. of India

Technical Papers

1.1 Energy Industry's Challenges and it's Important Role in De-Carbonization
   Jonathan Forbes Lane, Shell Catalysts and Technologies

1.2 Global Refining & Petrochemical Overview and Asia’s Challenges and
   Opportunities
   Anshuman Agrawal, Stratas

1.3 Hydrogen Economy – Road to Sustainable Future
   Dr. S.S.V. Ramakumar, Indian Oil Corporation Limited, R&D Centre

1.4 Oil Market - Sea of Uncertainties
   Ravi Narayanaswamy, IHS Markit

1.5 Renewable Fuels - Stepping Stone for Future Energy Globe
   Jacob Brix, Haldor Topsoe

Lunch
1345 – 1445 hrs
Venue: Food Court, BIEC
Technical Session – 2
1445 – 1630 hrs
Venue: Hall Jacaranda

Driving Refining & Petrochemicals towards Sustenance

Session Chairperson: Shri M.K. Surana
Chairman & Managing Director
Hindustan Petroleum Corporation Limited

Technical Papers

2.1 Bottom of Barrel – What is the Right Upgrade Technology?
Goutam Biswas, Chevron Lummus Global LLC

2.2 Global Chemical Industry Outlook & Major Industry Trends
Sanjay Sharma, IHS Markit

2.3 Keeping up the Pace: Insights into How the Leading Refineries are Adapting to the Changing Competitive and Regulatory Landscapes
Kevin Henke, Solomon Associates

2.4 Carbon Utilization & Petrochemical Integration: Capturing Value via Residue to Chemicals Projects
Jacques Rault, AXENS

2.5 Optimizing Refinery Profitability with a Unique Blend of Technology, Operational Excellence and Funding – BOO
Stefano Innocenzi, Linde Engineering

2.6 Crude to Chemicals
Pankaj Sinavasta, Honeywell UOP

Tea
1630 – 1700 hrs
24th Refining & Petrochemicals Technology Meet

19 January, 2020

Technical Session – 3
1700 – 1830 hrs
Venue: Hall Jacaranda

Moving Towards Sustainable Future

Session Chairperson: Dr. Anil Kakodkar
Chairman
Scientific Advisory Committee on Hydrocarbons of Ministry of Petroleum & Natural Gas

Technical Papers

3.1 Higher Margin with an Integrated, Cost-effective Refinery Scheme
Samir Saxena, KBR Technology

3.2 Oil to Chemicals: Optimum Refinery Configuration and RIL’s MCC process
Sukumar Mandal, Reliance Industries Limited

3.3 Digital Transformation in Refining & Petrochemicals – A Digital Twin Approach
Akshay Gupta, Honeywell UOP

3.4 Refining & Chemical Sustainability
Dr. Partha P. Maitra, Reliance Industries Limited

3.5 Crude to Chemicals - Examples of Technology Advancements for Refiners to Maximize Chemicals
Dilip Dharia, Technip FMC

Dinner
1930 hrs
Venue: Aura, Hotel Taj Vivanta, Yestwantpur, Bengaluru
Poster Session – 1

Time duration for display - 0930 to 1830 hrs

01. Green Jet Fuel Production from Hydroprocessed Renewable Feedstocks  
    Torkil Hansen, Haldor Topsoe

02. Photo Electro Catalytic Reduction of Carbon Dioxide - Gateway to Sustainable Energy  
    Narasimharao Kanna, Hindustan Petroleum Corporation Limited

03. Near Zero Emissions – Clean Air Future  
    Nitin Sud, Linde Engineering

04. Block Chain in Supply Chain Management  
    Avratanu Roy, Hindustan Petroleum Corporation Limited

05. A Novel, Sustainable and Profitable Solution for Solid Waste Management: Extraction of Vanadium and Nickel from Gasification Slag and Refinery Spent Catalysts  
    Venkata Narasimha Rao Chellli, Reliance Industries Limited

06. Iron Poisoning and and Effective Novel Solution for RFCC is demonstration of Technology and Catalytic Development toward Sustainable Future  
    John Haley, Rezel Catalysts Corporation

07. Inline Crude Oil Blending for Refineries  
    Thomas W. Edwards, Technics Inc.

08. Crude to Chemicals - Indian Prospective  
    Himanshu Sharma, Engineers India Limited

09. Technical Assistance with Densicat Loading  
    Court Jean-Baptiste, PETROVAL

10. Topsoe Furnace Manager (TFM) – Online Furnace Monitoring  
    Naveen Kumar, Haldor Topsoe

11. Use of Liquid Liquid Coalescers for treating high TAN Kerosene Streams in Caustic Treatment  
    Ashwin Prabhu, Pall Corporation

12. Enhancement of Hydrocracking Unit Performance with Honeywell UOP’s Uniflow™ Hydroprocessing Reactor Internals: A Case Study jointly developed by IOCL and Honeywell UOP  
    Yash Jain, Honeywell UOP

13. Development of New Solvent for CO₂ Separation in Natural Gas Sweetening Process  
    Rahul Sharma, GAIL
14. Critical Requirements for Isolation Valves – Hydrogen Service  
   Harsh Kukreja, Honeywell UOP

15. UOP High Performance Tubes for Sustainable Future in Refining and Petrochemicals  
   Raymond Tucker, Honeywell UOP

16. Low Cost Revamp of Delayed Coking Unit with Odd Number of Drums  
   Hardeep Singh, Bharat Oman Refineries Limited

17. Making On-Purpose Propylene and Butylene from Refinery Stream to Aligning Refineries towards an Economically Sustainable Future  
   Kartik Dhara, Rozel Catalysts Corporation

18. Introduction to KBR K-COT Technology (Process & Catalyst)  
   Amit Kumar Parekh, KBR Technology

19. Processing More Resid through an FCC Unit using KBR’s RegenMax Technology  
   Rahul Pillai, KBR Technology

   Susanta Sadhukhan, Bharat Petroleum Corporation Limited

   Dinesh Brahma, Numaligarh Refinery Limited

22. Practical Challenges in Tube Side Heat Transfer and Ways to Overcome  
   Ashwin Chandarana, Entech Engineers

23. Improving Combustion Efficiency through Nuclear Magnetic Resonance by creating Harmonic Excitation of Fuel Molecules  
   A. Ramanathan, Hindustan Petroleum Corporation Limited

24. Integration of Uni-Cracking and Uniflex MC  
   Prateek Gupta, Honeywell UOP

25. Case Study of Flaring Loss Reduction through Data Analytics  
   Karthick R., Mangalore Refinery & Petrochemicals Limited

26. The Refining Chemical Complex of the Present and Future in a World of Energy Transition and Digitalization  
   Speaker  
   Sarjerao Chopade, AspenTech

27. Technological Advancement in Catalyst Ex-Situ Pre Sulfdiding/ Activation and Regeneration/ Rejuvenation for Maximizing Refinery Margins with Improved Environment Management  
   Francois Locatelli, Eurecat India Catalyst Services
Technical Session – 4
0900 – 1045 hrs
Venue: Hall Jacaranda

Gasification: Towards Sustainability

**Session Chairpersons**
Shri R. Ramachandran
Director (R)
Bharat Petroleum Corporation Limited

Ms. Vartika Shukla
Executive Director (T)
Engineers India Limited

**Technical Papers**

4.1 **Innovation in Biomass / Waste Gasification Solutions for Generation of Biofuels**
Ashok Chaudhuri, Ankur Scientific Energy Technologies Pvt. Ltd.

4.2 **FLEXICOKING™ New Offer Announcement**
Siva Ariyapadi, ExxonMobil

4.3 **A Novel Clean Coal Technology - Catalytic Gasification Integrated with CO₂ Capture**
Dr. Sateesh Daggupati, Reliance Industries Limited

4.4 **Optimising the Refinery Scheme - The Role of Residue Gasification**
Nan Liu, Shell

4.5 **CFBC Technology Absorption, Operating Experience, Challenges faced and Reliability Improvement**
Alok Kumar Gupta, Bharat Oman Refineries Ltd.

Tea
1045 – 1115 hrs
Technical Session – 5
0900 – 1045 hrs
Venue: Hall Gulmohar

Advances in Refining Technology - 1

Session Chairpersons:
- Shri Murli Madhavan
  Executive Director (Kochi Refinery)
  Bharat Petroleum Corporation Limited
- Shri Brij Behari
  Executive Director (Haldia Refinery)
  Indian Oil Corporation Limited

Technical Papers

5.1 Alkylation Technology as an Answer to the C4 Management and Gasoline Pool Constraints
   Gabriel Buffin, Axens

5.2 Route to RON Enhancement
   A. Vignesh, Indian Oil Corporation Limited, R&D Centre

5.3 Bharat – Divided Wall Column Technology: Development and Implementation
   Srinivasulu Kaalva, Bharat Petroleum Corporate R&D Centre

5.4 Maximizing Earnings with a C4 Processing Value Chain
   Jose DeBarros, McDermott (Lummus)

5.5 All-Hydroprocessing Technology Pathways to a more Sustainable future for Refineries
   Subhasis Bhattacharya, Chevron Lummus Global LLC

Tea
1045 – 1115 hrs
Technical Session – 6
1115 – 1300 hrs
Venue : Hall Jacaranda

Hydrogen Economy – Road to Sustainable Future

Session Chairpersons : Dr. S.S.V Ramakumar
Director (R&D)
Indian Oil Corporation Limited

Shri Sanjay Bhargava
Executive Director (R&D)
Bharat Petroleum Corporation Limited

Technical Papers

6.1 Role of Hydrogen and Fuel Cells as Emerging Energy Solution for Energy Companies
Sachin Chugh, Indian Oil Corporation Limited, R&D Centre

6.2 Low Carbon Hydrogen- for a Cleaner and Healthier Future
Himanshu Chauhan, Johnson & Matthey

6.3 Hydrogen – Fuel for Future: Promising and Challenging
Maruthi Ethakota, Technip FMC

6.4 Hydrogen Generation – Innovative Ways to Meet Future Refinery Requirements
Maninder Jit Singh, Haldor Topsoe

6.5 Relevance of Hydrogen Fuel Cell based Transportation for India
Chandrashekar Chincholkar, KPI, Pune

6.6 Thermo-chemical Conversion of Biomass to Hydrogen Rich Syngas – Hydrogen for a Range of Downstream Applications
Prof. S. Dasappa, IISc Bangalore

Lunch
1300 – 1400 hrs
Venue : Food Court, BIEC
Technical Session – 7
1115 – 1300 hrs
Venue: Hall Gulmohar

Advances in Refining Technology - 2

Session Chairpersons:
Shri L.K. Vijh
Director (Tech.)
Engineers India Limited

Shri Sanjay Varma
Group General Manager (I/c Refinery)
Mangalore Refinery & Petrochemicals Limited

Technical Papers

7.1 Novel Desalter Technology for Enhanced Crude Salt Removal
S. Bhagath, Engineers India Limited

7.2 Cost Effective Indigenous Dewaxing Catalyst BHARAT-HiCAT for LOBS Production: Commercial Performance and Recent Advances
Rej Kumar Das, Bharat Petroleum Corporate R&D Centre

7.3 India Centric Innovation for Sustainable Growth in Refining and Petrochem Sector
Dr. Asit Das, Reliance Industries Limited

7.4 Unlocking Competitive Advantage through Molecule Optimization
Bharat Goenka, Shell

7.5 Development of Diesel - Ethanol Engine for HCV
Prasanna S. Sutar, ARAI

7.6 Added Flexibility in Light Olefin Production Utilizing a World Scale INDMAX FCC Unit
Shailosh Bansal, McDermott (Lummus)

Lunch
1300 – 1400 hrs
Venue: Food Court, BIEC
Technical Session – 8
1400 – 1545 hrs
Venue: Hall Jacaranda

Bio-fuels and Alternatives -1

Session Chairpersons:
Shri V.S. Shenoy
Director (R)
Hindustan Petroleum Corporation Ltd.

Shri M.S. Patke
Executive Director (Biofuels)
Bharat Petroleum Corporation Limited

Technical Papers

8.1 Advanced Technologies Shaping the Future of Renewable Fuels & Chemicals
Harshit Agarwal, Axens

8.2 Bringing Cellulosic Ethanol to Scale
Swadhin Banerjee, Clariant India

8.3 RIL - Circular Economy Sustainable Process for Catalytic Conversion of Waste Plastic into a Stable Oil
Ms Sayani Thakur, Reliance Industries Limited

8.4 “Waste to Wealth” - Converting problem of Stubble Burning and Used Cooking Oil adulteration into Energy Security Opportunity for India
Dharmesh Mahajan, Honeywell UOP

8.5 An Effective Conversion Technology for Biomass to Drop-in Fuels: Scale-up and Commercialisation of Opportunity
Dr. Laxmi Narasimhan, Shell

Tea
1545 – 1615 hrs
Technical Session – 9
1400 – 1545 hrs
Venue : Hall Gulmohar

Advances on Products and Processes

Session Chairpersons: Dr. R.K. Malhotra
Director General
Federation of Indian Petroleum Industry (FIPI)

Shri Vinay Kumar
Director (R)
Mangalore Refinery & Petrochemicals Limited

Technical Papers

9.1 Propylene Growth: Dispelling Conventional Wisdom, FCC Innovations
Change Supply Side Dynamics
Marc Nicolas, Albermarle

9.2 On Purpose Propylene Production & the Production of Hexene1 using
Energy Neutral Metathesis
Ronald M Venner, McDermott (Lummus)

9.3 Low Cost Anti Coking and Sulfiding Additive for Crackers and HT Catalysts
Biswajit Shown, Reliance Industries Limited

9.4 Polyolefins - An Overview
M.P. Selvaakumar, Mangalore Refinery & Petrochemicals Limited

9.5 Hydrogen Peroxide & HPPO – The Heart of the PU value chain
Dr. David Bolz, EVONIK Resource Efficiency GmbH & Thomas Porschewski,
Thyssenkrupp Industrial Solutions

9.6 HPCORRMIT - A Novel Cost effective Corrosion Inhibitor for LPG Pipelines:
A Make in India Initiative
Raghava Krishna, Hindustan Petroleum Corporation Limited

Tea
1545 – 1615 hrs
Technical Session – 10
1615 – 1800 hrs
Venue: Hall Jacaranda

Bio-fuels and Alternatives - 2

Session Chairpersons:

- Dr. R. Kumar
  Professor Emeritus
  IISc, Bangalore
- Dr. D.K. Tull
  Chair
  Department of Bio Technology

Technical Papers

10.1 Commercial Scale Production of Low Carbon Fuels and Chemicals from Waste Gases
Prabhakar Nair, LanzaTech

10.2 An Efficient Biomethanation Technology - Organic Waste to Compressed Biogas (CBG)
Dr. Manoj Kumar, Indian Oil Corporation Limited, R&D Centre

10.3 A Process for Drop in Renewable Aviation Fuel
Dr. Anjan Ray, CSIR-IIT

10.4 R-CAT HTL – Sustainable Process for Renewable Drop-in Liquid Fuel for Co-Processing in Refinery
Nikhlesh Saxena, Reliance Industries Limited

10.5 Cultivation of Marine Microalgae in Raceway Pond for Bio-crude Production
Dr. M. Vijayaraj, Chennai Petroleum Corporation Limited

10.6 Renewable Energy Demand Enhancement
Dr. Y.B.K. Reddy, Solar Energy Corporation of India

Dinner
1930 hrs
Venue: Food Court, BIEC
Technical Session – 11
1615 – 1800 hrs
Venue: Hall Gulmohar

IR 4.0: Digital Revolution

Session Chairpersons:
- Shri Alok Khanna
  Executive Director (Strategic IS)
  Indian Oil Corporation Limited
- Shri Partha Ghosh
  Executive Director (Optimisation)
  Indian Oil Corporation Limited

Technical Papers

11.1 Digitally Enabled Refinery Operations
   Ajay Deshmukh, Honeywell UOP

11.2 Digitalisation in Refineries - Production Planning and Scheduling
   Dr. Jagadesh Donepudi, KBC

11.3 K Model: Desktop Solution for Crude Oil Blend Compatibility and Blend Optimization
   Pranab Kumar Rakshit, Bharat Petroleum Corporate R&D Centre

11.4 BPMARRK™: Real Time Crude Oil Assay for Monitoring and Optimisation of Crude Distillation Units
   Syed Imran Ahmed R., Bharat Petroleum Corporation Limited, Kochi Refinery

11.5 Plugging the Gaps in Value Chain with Application of Pipeline Scheduler Software
   Neeraj Kumar, Indian Oil Corporation Limited

11.6 Innovative Software Improves Crude Oil Logistics Scheduling
   Aurelio Ferrucci, Prometheus Sri & Manoj, Hindustan Mittal Energy Limited (HMEL)

Dinner
1930 hrs
Venue: Food Court, BIEC
Poster Session – 2

Time duration for display - 0900 to 1800 hrs

01. Digital Monitoring and Surveillance on Real time basis during RTA – Experience Sharing
    Monjit Kumar Borah, Numaligarh Refinery Limited

02. Refinery and Petrochemical Integration : An Innovative Approach for Direct Blending of C5 MS Rich Components from PGHU Depentaniser of Naphtha Cracker to Refinery MS Pool
    Anurag Sharma, Indian Oil Corporation Limited

03. CATACEL SSR- Tailored Hydrogen Catalyst Technology
    Setu Bajpai, Johnson Matthey

04. Furnace Tube Analysis by IR Thermography
    Aubin Nicolas, PETROVAL

05. Identifying and Carrying Out Quick Win Strategies that Maximized Refinery Margin by Processing Opportunity Crudes (Condensate)
    Prasad V., Bharat Petroleum Corporation Limited

06. Development of Power Purchase Portal for Open Access Power Purchase through Exchange
    D.D. Sarkar, Bharat Petroleum Corporation Limited

07. Delimit C3 splitter in Off-Gas Cracker by Reducing C3= losses from FCC unit
    Nagashyam Appalra, Reliance Industries Limited

08. Innovative Low Cost Alternative Technique for Vapour Recovery at Retail Outlet during Decantation of Motor Spirit.
    Manjunath Halashi, Mangalore Refinery & Petrochemicals Limited

09. Digital Start up – Gasoline Treatment Unit, using State of Art Business Wi-Fi Network and Mobility Solutions
    Abhishek Pandey, Bharat Petroleum Corporation Limited

10. Modular Approach for Various Recovery Schemes in Refineries and Petrochemical Complex
    Nidhi Sharda, Honey well UOP

11. Topsoe ClearView™ – Meet your Targets every day
    Debi Prasad Das, Haldor Topsoe

12. US Crude Processing: Are Indian Refineries Equipped for the New Challenge?
    Vivek Srinivasan, Dorf Ketal

13. SMART Preventive Maintenance using Asset Management System
    V Muraleedhara Karanth, Mangalore Refinery & Petrochemicals Limited
14. Reliability Initiatives for Sustaining Operation
   Nirmalya Nandi, Bharat Oman Refineries Limited

15. Sustainable Future: Improving the Competitiveness of the Assets
   Manoj Prabhakar, Independent Project Analysis (IPA) Inc.

16. Refinery ETPs Sustainable Operation
   Ajay Tiwari, Indian Oil Corporation Limited

17. First of its Kind PHE in APH of Dual Fired CDU / VDU Heaters at NRL
   Geetali Kalita, Numaligarh Refinery Limited

18. Innovation in Upgradation of HGU Reformer Outlet Pigtail Insulation System to
    Achieve Reliability & Reduce Downtime
   Kaushal Joshi, Bharat Oman Refineries Limited

19. Project Management – the Ecosystem includes Manufacturing and its Supply
    Amit Kaul, Honeywell UOP

20. Production of Environmental Friendly Rubber Process Oils from Lube Extracts
    through Improved Process Scheme
    Srinivasarao Ganagalla, Hindustan Petroleum Corporation Limited

21. Use Thermo compressors to Recover Venting of Low-Pressure Steam
    Manash Kamal Dutta, Numaligarh Refinery Limited

22. Leveraging Industry 4.0 IIoT (Industrial Internet of Things) for Monitoring and
    Mitigation of Crude Column Oversea Corrosion
    N. Vaarthi, Indian Oil Corporation Limited

23. Maximizing Profitability for Hydrotreating Units while Reducing the Carbon
    Footprint by using Excel Rejuvenated Catalysts
    Nirav Shah, Porocel Industries LLC

24. Usage of Statistical Tools in Energy Saving in Petroleum Refinery Sector
    Dipak D. Shukla, Reliance Industries Limited

    Satish Khedekar, Hindustan Petroleum Corporation Limited

26. Improvement of Anode Grade Delayed Coker Unit Profitability through Online
    Process
    Prantik Mondal, Indian Oil Corporation Limited

27. Waste Heat to Power Generation - Case Studies from Refinery and Petrochemical
    Industries
    Balaji N., Engineers India Limited

28. Safety in Petrochemical Project of BPCL Kochi Refinery
    Abhishek Mohanty, Bharat Petroleum Corporation Limited
Technical Session – 12
0900 – 1045 hrs
Venue: Hall Jacaranda

Innovation in Refineries - Profit Improvement

Session Chairpersons: Shri P.V. Ravitej
Executive Director (Mumbai Refinery)
Bharat Petroleum Corporation Limited

Shri S. Bharathan
Head (R&D)
Hindustan Petroleum Corporation Limited

Technical Papers

12.1 FCC Yield and Energy Optimisation
Minaz Makhania, Honeywell UOP

12.2 Unlock Potential of your SDA units
Hemendra Khakhar, Foster Wheeler

12.3 Innovations in UOP Merox Process and its Integration with nViro MET - Environmentally Robust and Sustainable Approach to handle Spent Effluent from Merox
Rakesh Soni, Honeywell UOP

12.4 KBR Olefins Technologies Provide Key Flexibility with Optimum Design to Ensure Profitability
Partap Vijay Singh, KBR Technology

12.5 Recovery of Anhydrous Ammonia from Refinery Sour Gases: A Case Study
Balaji Lakavath, Engineers India Limited

Tea
1045 – 1115 hrs
Technical Session – 13
0900 – 1045 hrs
Venue: Hall Gulmohar

Environment - Best Operational Practices

Session Chairperson: Shri Bhaskar Phukan
Director (Tech.)
Numaligarh Refinery Limited

Technical Papers

13.1 Benchmarking Insights into Refinery Fresh Water Consumption
Kevin Henke, Solomon Associates

13.2 Water Conservation: The Cradle of Sustainability
Jayant Kumar Joshi, Engineers India Limited

13.3 Durable Superhydrophobic Absorbent for Selective Absorption of Oil in Oil-Water Mixture
Karthick R., Mangalore Refinery & Petrochemicals Limited

13.4 BASF Environmental Friendly Guard Bed
Dr. Lothar Karrer, BASF

13.5 Process for Reducing Odour from Odourous Off-Gas Stream
V. Nandakumar, Mangalore Refinery & Petrochemicals Limited

Tea
1045 – 1115 Hrs
Technical Session – 14
1115 – 1300 hrs
Venue: Hall Jacaranda

Catalysts: Next Generation

Session Chairpersons:
- Dr. Anjan Ray
  Director
  CSIR-IIP
- Dr. M. Sau
  Chief General Manager (R&D Centre)
  Indian Oil Corporation Limited

Technical Papers

14.1 Boosting Margins Through Catalyst Innovations
Junaid Shah, Haldor Topsoe

14.2 Latest Advances in Catalyst and Additives for Maximizing Propylene from the FCC
Mukund Balachandran, GRACE

14.3 Aligning Refineries for Sustainable Future
Bruno Tombolesi, ART LLC

14.4 Completing the Life Cycle of Refining Catalyst: FCC Catalyst as an Example
Tie-Pan Shi, HCPect

14.5 Nano-Engineered Zeolites in Hydrocracking Catalysts – Unlocking Ultimate Performance
Rambabu Raja, Shell

14.6 Innovative Catalyst Technology for Contaminant Metals Management in FCC
Bilge Yilmaz, BASF

Vote of Thanks
1300 - 1330 hrs

Lunch
1330 – 1430 hrs
Venue: Food Court, BIEC
Technical Session – 15
1115 – 1300 hrs
Venue : Hall Gulmohar

Operational Risk Management

**Session Chairperson**: Ms Shukla Mistry
Executive Director (Barauni Refinery)
Indian Oil Corporation Limited

**Technical Papers**

15.1 Revamp of Integrated Hydrocracker and Lube Oil Base Stock Unit by CLG using Innovative Process Scheme
Sanjeev Gangurde, CLG

15.2 Efficient and Cost Effective Amine Purification Process
Venkata Srinu Gollapalli, Engineers India Limited

15.3 Energy Efficiency – High Profitability Achieved
Wivika Laike, Alfa Laval India Private Limited

15.4 Advances in Filtration Technology
1. Molecular Filtration to Protect Mission Critical Electrical Equipment
2. Importance of Good Air Filtration in a Gas Turbine and its Implications
Chris Ecob & Marc Van den Eynde, Camfil Air Filtration India

Vote of Thanks
1300 - 1330 hrs
Venue - Hall Jacaranda

Lunch
1330 – 1430 hrs
Venue : Food Court, BIEC
Poster Session – 3

Time duration for display - 0900 to 1300 hrs

01. In-house Modifications for Increasing the Reliability of Co-planer Manifold Indexer (CMI) in Para Xylene Unit of a Petrochemical Complex
Ashwin Pai G., Mangalore Refinery & Petrochemicals Limited

02. Hand held Asset Management tool for Electrical Equipments in BPCL, Mumbai Refinery
D.D. Sarkar, Bharat Petroleum Corporation Limited

03. A New Co-Generation in a Post Refinery Expansion (Co-existence of GTG Brayton Cycle + STG Steam Rankine Cycle + Organic Rankine Cycle)
Dinesh Brahma, Numaligarh Refinery Limited

04. APC Implementation in Sulphur Complex
Suresh R., Bharat Petroleum Corporation Limited

05. IR 4.0: Industrial Automation Case Study - Secure Data communication using Unified Architecture (OPC-UA)
George C. Mundackal, Bharat Petroleum Corporation Limited

06. State-of-the-Art Methodology for Determination of Trace Level Hydrogen Sulphide in Hydrocarbon Streams (ATF) using Colorimetric Method by Spectrophotometer
Y.S. Jhala, Indian Oil Corporation Limited

07. Paving the Way for IR 4.0 - Getting More from Field Devices
Ganesh Bhat, Mangalore Refinery & Petrochemicals Limited

08. Thinking Beyond Pinch Analysis – A Real Case Study
Mukesh H. Patel, Reliance Industries Limited

09. Pioneering Approach for Improvement in Recirculating Sea Cooling Water Quality
Biswati Gopi, Hindustan Petroleum Corporation Limited

10. A Statistical Approach towards Multi-Variable Non-Linear Predictive Model for the estimation of Reformate RON
Phanishwar Kumar, Hindustan Petroleum Corporation Limited

11. Revival of once Redundant Visbreaker Unit (VBU) at IOCL, Gujarat Refinery for Marpol grade FO(S<0.5 wt %) Production within Shortest Possible Time through Innovative Process Adequacy Study & Maintenance
Pooja Patel, Indian Oil Corporation Limited

12. Wireless Monitoring of Rotary Equipment in Hazardous, Inaccessible & Remote Areas Safety In Petrochemical Units & IR 4.0
Monish B.S., Bharat Petroleum Corporation Limited, Kochi Refinery
13. FCC Catalysts / Hydrotreating Catalysts  
   Anton Saraev, KNT Group Company

14. UOP High Performance Tubes for Sustainable Future in Refining and Petrochemicals  
   Abhishek Kadam, Honeywell UOP

15. Centralized Emission Monitoring – Case study  
   V. Muraleedharan Karanth, Mangalore Refinery & Petrochemicals Limited

16. Innovative Application of Advanced Techniques for Quick, Safe and Reliable Inspection of Storage Tanks in a Refinery  
   Sukant Dev, Indian Oil Corporation Limited

17. Utilization of Water Reservoirs in Industries for Generation of Electricity with an Added Advantage of Water Conservation  
   Saurabh Bhartiya, Mangalore Refinery & Petrochemicals Limited

18. Production of Drilling Fluid at BPCL - Mumbai Refinery  
   N. Suresh Kumar, Bharat Petroleum Corporation Limited

19. IMO Compliant Bunker Fuel – A Challenge for Refiners and IndianOil’s Approach  
   Thanigai Selvi M., Indian Oil Corporation Limited

20. Dorf Ketal’s Sulphiding Agent – Better & Safer Coke Control for Ethylene Furnaces  
    Naushad Alam, Dorf Ketal

21. PDA Unit Revamp for Improved Energy Efficiency using Pinch Analysis  
    Nandagopal, Chennai Petroleum Corporation Limited

22. Use of Data Processing Techniques in Refinery Process and Network Monitoring  
    Sowmya Challa, Indian Oil Corporation Limited

23. Cloud based Data - Analytics solution for Pre - heat train predictive Maintenance in Multi - tenant Architecture  
    M.S. Miglani, Engineers India Limited
Sponsors for 24th RPTM

**DIAMOND**

NAYARA ENERGY

**GOLD**

Chevron Lummus Global

ART

GRACE

HYDROPROCESSING

Talent | Technology | Trust™

A Chevron and Grace Joint Venture

Solomon Associates

Axens

ALBEMARLE®

Powering integrated solutions

Shell Catalysts & Technologies
Sponsors for 24th RPTM

SILVER

CPCL

Bharat Oman Refineries Limited

Lummus Technology

ExxonMobil

Haldor Topsoe

KBR

Aspentech

TechnipFMC
Other places of attraction in Bengaluru include ISKCON temple, Lalbagh Botanical Gardens, Visvesvaraya Museum, St. Mary’s Basilica, UB City, Cubbon Park, Bannerghatta National Park, Indira Gandhi Musical Fountain, etc.