

TECHNICAL SESSION PLAN : INTERNATIONAL O&M CONFERENCE: IPS-2020

Theme: Optimization of generation cost and integration of Renewables

13th Feb 2020 Pandit Deen Dayal Upadhyay Auditorium, Raipur

Inauguration of IPS- 2020 & “Techno Galaxy- 2020” at 1000-1130 hrs.

High Tea – 1130-1200 hrs.

Venue	Main Auditorium	Sankalp	Siddhi
1200-1330	<u>Session- 1</u> Optimization of generation cost and integration of Renewables <ol style="list-style-type: none"> Theme Paper – NTPC, COS Advanced Ultra-supercritical plants with 760 deg c steam temperature – EPRI, USA Technologies to improve plant efficiency – JCoal, Japan Strategies for Optimization of coal cost – NTPC, CC FM 	<u>Session- 4</u> Power Plant Safety <ol style="list-style-type: none"> NTPC safety analysis and measures taken to ensure safety – NTPC, CC Safety 8P model for zero incident culture – NTPC, Kaniha Safe Practices for effective O&M – JSW Energy, India Impact of Ground & Environmental Radiations on Health & Safety in Power Plants – Environics, India Use of Artificial Intelligence for Plant Safety – NTPC, Dadri 	<u>Session- 7</u> Academics for Power generation <ol style="list-style-type: none"> Estimating potentiality for central receiver tower for concentrated solar power – IIT, Kanpur Herding behavior in financial markets – CSWVTU, Raipur Automatic power factor improvement and fault maintenance system – KIET, Ghaziabad Innovative steps for effective utilization of fly ash – SVNIT, Gujrat Influence of fireworks on air quality - NIT, Raipur Stress analysis of rotating disk made of functionally graded material – NIT, Raipur
1330 -1430 hrs.		Lunch	
	Main Auditorium	Sankalp	Siddhi
1430-1600	<u>Session -2</u> Renewable Energy <ol style="list-style-type: none"> Reduction in Inverter Clipping losses by using battery storage – NTPC, RE-Engg Solar PV Plant – Best Practices – NTPC, Kaniha Offshore wind turbines and hydrogen production using wind farms – NTPC, Simhadri Integrated Solar Thermal Heat exchanger – NTPC, Dadri Rooftop Solar Adoption – NSB, India Solar Thermal Desalination Pilot Plant – NTPC, NETRA 	<u>Session-5</u> Efficiency & Energy Conservation <ol style="list-style-type: none"> NTPC Digital Journey – NTPC, DI group Mathematical modelling of Boilers for performance evaluation – TCE, Bangalore Online performance monitoring of Cooling Tower – NTPC, Kawas Multiple Technology Approach for Condenser Air-in-leak Intrusion detection – NTPC, COS & CenPEEP Ramp rate – a way forward for better ROE – NTPC, Sipat & CenPEEP Improvement of Boiler Efficiency and APC by prevention of Air Ingress – NTPC Kahalgaon & COS 	<u>Session-8</u> Electrical Systems <ol style="list-style-type: none"> Grid fluctuation management by Energy Storage – Jcoal, Japan Augmented Reality – NTPC, Engg Online cleaning of generator winding – NTPC, Singrauli Safety enhancement & operational improvement in Switchgear design – NTPC, Engg Asset management of power transformers – NTPC, NETRA
1600 – 1630 hrs.		Tea Session	

1630-1815	Session -3 Reliability improvement to mitigate Challenges in Power System <ol style="list-style-type: none"> Maintenance & Reliability – A layer approach – OSisoft, USA Reliability improvement by monitoring Ultra Low speed bearings – SKF, S Korea Best practices in Lubrication system – Perma-tec, Germany Innovative tools and techniques and new O&M practices – SKF, Australia Digital retrofit for efficient power production – Uniper, UK THERMACT experience in NTPC – AEL, India 	Session-6 Operation and Commissioning Practices <ol style="list-style-type: none"> Part Load optimization with low VM coal – NTPC, Unchahar Diagnosis and solution of clinkering – NTPC, Vindhyachal Flame stability factor for reducing flame failure – NTPC, CC OS Part load operation – challenges & approach – NTPC, Simhadri Post Synchronization Stabilization issues – NTPC, North Karanpura Fuel oil & CFR optimization during steam blowing – NTPC, NPGCL 	Session-9 Control & Instrumentation <ol style="list-style-type: none"> SMART O&M through digitalization – Singareni Thermal IOT integration for Economizer Ash Flow monitoring – NTPC, Vindhyachal Reliability improvement of vibration measurement – NTPC, Mouda Upgradation of Seawater Pump house Control System – NTPC, Simhadri Condensate throttling for improving FRC – NTPC, Korba Reliable Monitoring of Combustion gases – OPGC, India
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14th FEB 2020 Pandit Deen Dayal Upadhyay Auditorium, Raipur

Venue	Main Auditorium	Sankalp	Siddhi
0930-1115	Session – 10 Steam Generator & Auxiliaries <ol style="list-style-type: none"> Remote inspection of air preheaters – LJUNSTROM Inspection of Boiler Internals – OPGC, India New Challenge to Boilers and its mitigation – NTPC, Barh Operational issues and remedial measures of supercritical boilers – NTPC, COS Gypsum utilization and Limestone procurement – NTPC, BRBCL Welding Issues at Gadarwara – NTPC, NI-welding 	<u>Vendor Session</u> Presentation by the participants of “Techno Galaxy – 2020”	Session – 13 Chemistry <ol style="list-style-type: none"> Water quality improvement for better condenser & cooling tower performance – METTLER Silicate scale and colloidal silica problem and remedies – RP-SG Group Remediation of silica in process water through Electrocoagulation – NTPC, NETRA SWAS reliability index/STP to process water – NTPC, OS Chemistry intervention in recycling of plant Effluents – NTPC, Sipat Sewage treatment & reuse in thermal plants – NTPC, Kaniha
1115 -1130 hrs. Tea Session			
1130-1300	Session – 11 Flexibilisation <ol style="list-style-type: none"> Leveraging technology to enhance defense strategy with flexible operation – EPRI, USA Cost effective flexibilisation of fossil power plants - EUtech, Germany Software solutions for flexible operation of power plants – Steag, Germany High temperature semiconductor strain gages for plant life management – EPRI, USA Performance improvement through condition monitoring and advanced control system – Siemens, India 	<u>Vendor Session</u> Presentation by the participants of “Techno Galaxy – 2020	Session – 14 Ash & Environment Management <ol style="list-style-type: none"> Innovative coal ash utilization for roadbed material – Jcoal, Japan Natural radionuclides from coal fired thermal power Station – NTPC, EMG Geopolymer Concrete – NTPC, CMD Sect. ZLD & Waste water management – NTPC, EMG Limestone sourcing and Gypsum Utilization – NTPC, Engg Compliance for 100% Fly Ash Utilization – NTPC, Ash Utilization

1300 -1400 hrs.		Lunch	
1400-1530	Session – 12 Steam Turbine <ol style="list-style-type: none"> 1. Modernization of Steam Turbines with thermal upgrade up to 600 deg c – Siemens, Germany 2. Turbine alignment through digital mapping – Six D 3. Online blade vibration monitoring system – NTPC, Simhadri 4. Retrofitting of Dry Cooling System in thermal Power Plants – NTPC, Engg 5. Fatigue life estimation of gas turbine blades and discs – RVR Projects, India 	Session – 15 Hydro & Combined Cycle Generation <ol style="list-style-type: none"> 1. O&M best practices – NHPC Perspective – NHPC Ltd. 2. Life Cycle Management of Gas Turbines – Life Prediction Technologies Inc., Canada 3. System improvement through continuous learning – NTPC, Koldam 4. High thrust bearing temperature resolution – NHPC, Parbati 5. R&M of Hydro plants – KPCL, Karnataka 6. O&M strategies for cost management – KPCL, Karnataka 	Session – 16 Fuel Management <ol style="list-style-type: none"> 1. Coal transportation issues & way forward – NTPC CC FT 2. Coal source rationalization for reducing ECR – NTPC, Khargone 3. Safe unloading through wagon tippers – NTPC, Simhadri & Mouda 4. Carbon Capture and Utilization – NTPC, Korba 5. Handling of mill rejects in Thermal Power Plants – NTPC, Mouda
1530 – 1600 hrs.		Tea Session	
1600-1730 Valedictory Session and Internal Review Meeting			

Exhibition and presentation by the participants of “Techno Galaxy - 2020” from 9:30 – 13:00 hrs at Sankalp