



VENUE:

Pandit Deendayal Upadhyay Auditorium
Near Science College, Great Eastern Road,
Raipur, Chhattisgarh-492010

एनटीपीसी लिमिटेड
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INDIAN POWER STATIONS O&M Conference

IPS 2026

13th to 15th February 2026

RAIPUR, CHHATTISGARH



Technical Session Plan

THEME

*Optimising Thermal Generation
with Quality & Reliability*

MAIN AUDITORIUM

11:30-13:00 | S-13 : TG & Auxiliaries

1. Advanced Vibration Diagnostics for Fluid-Induced Instability in Steam Turbines : NTPC CC OS
2. Reliability Improvement by Eliminating Water Accumulation in ACC Hot Duct : PVUNL Patratu
3. Steam Turbine Operational Issues & Design : MUNPL Meja
4. Steam Turbine Heat Conservation System : GE Power
5. Utility Steam Turbine Valve Servicing & Innovations : Siemens KWU

14:00-15:30 | S-16 : Flexibilization in Thermal Power Plants

1. FlexOps Challenges & Opportunity in Coal TPP : JSW Mahanadi
2. Flexible Operations Challenges & Opportunities in Coal-Based Power Plant of 660 MW Supercritical Units : JPVL
3. Flexibilization Challenges & Opportunity at Mundra : Tata Power
4. Complete Cycle Optimization and Flexibility for CCPPs : Arnold
5. AI-Enhanced Flexibility Health Monitoring Framework using Multi-Index Stress Modelling & Machine Learning : NTPC Solapur

16:00-17:30 | S-19 : Innovative O&M practices

1. Flexibilization Begins Not in the Boiler, but in the Mill : NTPC EOC
2. Design Changes in SWAS Packages for FlexOps : Forbes Marshall
3. Continuous Heat Transfer Mapping & Integration with Intelligent Soot Blowing : Haldia Energy
4. Biomass Blended Coal Flow-Ability in Storage Bunker in Biomass Co-Fired Thermal Power Plants : BHEL
5. Integrated Non-Invasive Diagnostics for TPPs : Chugai Techno's

SANKALP HALL

Day 2 : 14th February 2026 (Continued...)

11:30-13:00 | S-14 : Renewable Energy & Energy Storage

1. Generation Losses in Solar Power Plant O&M : NTPC EOC
2. RE & BESS, Li-ion Thermal Runaway Challenge : Fire Pro
3. Designed to Test - Integrating Performance Verification into Modern PV Project Design and Operation : Mchale & Associate
4. Hydropower Flexibility as a Key Enabler of Transition : NHPC
5. Towards a National CO₂ Pipeline Network : NETRA

13:00-14:00 | Lunch

14:00-15:30 | S-17 : BoP (Balance of Plant)

1. Experiences, Learning and Strategies to Achieve Eco Friendly Generation with Dry Bottom Ash System : PVUNL Patratu
2. Novel Approaches for CW Pumps Failure : NTPC Telangana
3. Underground CW Hot Water Duct Leakage Repair : APCPL
4. Evidence from Robotic Sludge Cleaning : Janyu Technologies
5. Throughput Enhancement in Existing Ash Handling Systems in TPPs with Optimized Ash Feed Control : TIET

15:30-16:00 | Tea

16:00-17:30 | S-20 : Integrating RE, Grid flexibility & Clean Tech.

1. Nuclear coupled H₂ : Pathway to Net Zero : DVC
2. Indigenous Biomimetic CO₂ Capture, Enzyme-MOF-Biopolymer Contactors : JMI
3. Integration of Battery Energy Storage Systems (BESS) : PWC
4. Stability to Flexibility - TPP Adaptations for RE Integration : CII
5. Case Studies of Misoperation of REF and Differential Protection of Transformers : DVC

SIDDHI HALL

11:30-13:00 | S-15 : Climate Change & Environment Mgmt.

1. Wet FGD Performance Considerations & Alternatives : EPRI
2. Plastic Waste into CO₂ Capture Material : NTPC Sipat
3. From VGFs to Profits, MSW Based Green Charcoal : NTPC EOC
4. Carbon Accounting in Green Belt : DVC Meja
5. State-of-the-Art-Sustainability Automation and Intelligence for NTPC using AI and ML : NTPC EOC

14:00-15:30 | S-18 : Hydro & Gas-Based Power Plants

1. MTL for CCGT Operations - Strategies & Challenges : NTPC Auraiya
2. Solar Thermal Integration for Steam Turbine Revival in Gas-Based Power Plants : NTPC ROS WR-1
3. Gas Turbine Performance Improvements : BHEL
4. Cost-Efficient Operation in Shifted Paradigm for Gas Turbines with Grid Security : NTPC Kawas
5. Challenges & Opportunities in FlexOps : NTPC Koldam

16:00-17:30 | S-21 : Asset life extension through Digitalisation

1. Asset Management for Enhanced Reliability In TPPs : SEIL
2. AI Framework for Ash Dyke Safety & Data-Driven R&M Planning in TPPs : IIIT Naya Raipur
3. AI Digital Transformation - Unit Startup Dashboard : NTPC Singrauli
4. ML driven decision support for FlexOps of TPPs : NTPC CC OS
5. Intelligent Methods for Assessing and Maintaining the Integrity of Steel Structures : NTPC Sipat

Day 3 : 15th February 2026

09:30-11:00 Presentation by Techno Galaxy Exhibitors
(Main Auditorium & Siddhi Hall)

11:00-11:30 | Tea

11:30-13:45 Presentation by Techno Galaxy Exhibitors
(Main Auditorium & Siddhi Hall)

13:45-14:30 | Lunch

15:00-16:30 Award Ceremony & Valedictory Function
(Main Auditorium)

16:30-17:00 | Tea

Day 1: 13th February 2026		
11:30-12:00	MAIN AUDITORIUM	1. Flexibilisation in Coal Based Plant - Operational & Reliability Challenges : EPRI 2. Strategies for Optimizing Thermal Generation with Quality & Reliability in Emerging Power Scenario : PWC
12:00-12:30 High Tea (after Inaugural Session)		
12:30-13:45 Session - 1 Optimising Thermal Generation with Quality & Reliability 1. Analysis of Co-Firing of Biomass in Coal Based Thermal Power Plant, Case Study and Long Term Implications for India : CEA 2. SBS Injection™ for Flexible Operation : ARVOS Ljungstrom 3. Improving Flexible Operation of Coal Based Supercritical Units using a Dual-Boiler Turbine configuration : BHEL 4. Enabling Flexible Thermal Operations Through Battery Energy Storage Systems : NTPC EOC	12:30-13:45 Session - 2 Safety in Power Plants 1. PTW Tracker: Modernizing Industrial Safety with a Digital Permit-to-Work System : NTPC North Karanpura 2. Smart Shunting - Revolutionizing Locomotive Safety with AI : NTPC Bongaigaon 3. Transforming Maintenance at Heights - a Safer, Smarter Approach : APCPL Jhajjar 4. Integrated Digital Safety Compliance & PTW Platform : NTPC Anta	12:30-13:45 Session - 3 Generator & Electrical Systems 1. Utilizing Data Analytics for Predictive Maintenance of 200MW Generator Rotor Brush Gear Assemblies : NTPC Dadri 2. Generator Transformer Fault Gases Analysis - A Case Study : NTPC Vindhyachal 3. From Failures to Frameworks - Standardized Seal Oil System Guidelines for H ₂ Cooled Generators : NTPC CC OS 4. VM-Based Substation Automation System - Practical Solution for Rapid Restoration and OEM-Independent Operation:NTPC EOC
13:45-14:30 Lunch		
14:30-16:00 Session - 4 Steam Generator & Aux. Systems 1. First Posiflow Benson Boiler got another 20 year new life : Smart Luth Solutions 2. Advanced Monitoring, Diagnostics, and Performance Optimization of Vertical Roller Mill / Pulverizer Using an R&D Test Facility : Schenck Process 3. Applications of Electromagnetic-Based NDE Methods for Inspection of Straight Boiler Tubes and Steel Bends : NETRA 4. Enhancing Boiler Reliability - Maintenance Strategies to Control Boiler Waterwall Failures : NTPC Sipat 5. BTL Reduction by Combustion Optimization : NTPC Gadawara	14:30-16:00 Session - 5 Digital Initiatives/AI/ML for Power Plants 1. Integrated Framework for Flexible Operation Combining Coal Sourcing, Blending, Inventory Analytics and Ancillary Services Optimisation : NTPC Solapur 2. Algorithmic Paradigm in Predicting Motor Health : NTPC Bongaigaon 3. Ash Leakage Detection and Alarm System : NTPC Solapur 4. Application of AI/ML for Quantification of Boiler Health and Delaying/Mitigating Boiler Tube Failures : NTPC CC OS 5. Real-Time Biomass Feed Monitoring System : NTPC Gadawara	14:30-16:00 Session - 6 Power Plant Efficiency 1. Current Status of CFD Analysis in Coal-Fired TPP & Its Contribution to Decarbonization : JCOAL Japan (<i>Virtual</i>) 2. Online Power Plants Performance Analysis in Practice : Chemplant Czech Republic 3. Aerodynamic Efficiency and Structural Reliability of Cooling Tower Fans : V Care Engineering 4. Leveraging Dynamic Heat Balance Diagram for Efficiency Gap Analysis during FlexOps in 500 MW Unit : NTPC CC OS 5. A Case Study on Improvement in Cooling Tower Performance by Installing Helper Cell : NTPC Rihand
16:00-16:30 Tea		
16:30-18:15 Session - 7 Virtual (International) EPRI 1. Digitalization, OPAI and AI Roadmap for Power Utilities : EPRI 2. Battery Energy Storage System : EPRI 3. Hydrogen and Emerging Fuel Technologies for Power Generation and Heavy Transport : EPRI 4. Operational and Maintenance Implications of Electrolyser Cycling under Renewable Power Variability : EPRI 5. Equipt Health Monitoring & Diagnostics for Thermal Generation : EPRI 6. Testing a Novel Chemical Injection Strategy for Reducing Corrosion in ACCs : EPRI	16:30-18:15 Session - 8 Asset Management 1. Innovative Reliability Practices for Coal Based TPPs : SEIL 2. Centralized Asset Mgmt. as Tool for Op. Efficiency : NHPC 3. KBA for Boilers & Associated Piping - a Critical Strategy for Life Extension & Reliability : TCR Adv. Engg. 4. Enhancing Cable Asset Reliability with Online Assessment, Offline Diagnostics and Precise Fault Location: Megger India 5. Integrating SAP Plant Maintenance with Industry 4.0 Technologies - a Framework for Smart O&M in Mining : JSW 6. Computational Fluid Dynamics for Boosting Energy Savings in Thermal Power Plants : MechWell Industries	16:30-18:15 Session - 9 Nuclear & Hydrogen: A Pathway to Energy Transition 1. Nuclear Options to Support an Energy Transition : EPRI (<i>Virtual</i>) 2. Leveraging Thermal Power Expertise on the Secondary Side of Indigenous 700 MWe PHWR Units : BHEL 3. Nuclear Energy - Powering India's Net Zero Future : NTPC CP 4. Water Management in NPPs - Role of Dry Cooling in Energy Transition and Net-Zero : NTPC Nuclear 5. Engg Feasibility Study to Replace LDO with Renewable Methane Synthesized On-site : NTPC Kudgi 6. Evaluation of 20kWe Hydrogen Generation Pilot Plant using High Temperature Steam Electrolyser : NTPC NETRA
Day 2 : 14th February 2026		
09:30-11:00 Session - 10 Control & Automation in Power Plants 1. Design Matrices & Implementation of Cyber Resilient OT Infrastructure : NTPC EOC 2. Leveraging Technologies for Flexibility & Efficiency : BHEL PEM 3. A Study on DTS based Temperature Monitoring and Fire Detection in CHP Conveyors and Bearings : NTPC Vindhyachal 4. Loop Tuning Initiatives for Stability and Performance Improvement : NTPC Khargone 5. Future-Ready Open Systems for Process Automation : NTPC CCOS	09:30-11:00 Session - 11 Fuel Management 1. AI-Powered Optimization of Coal Logistics and Energy Charge Rate for Thermal Power Generation : NTPC CFM 2. Optimization of Stacker - Reclaimer's Bucket Wheel DE Bearing Replacement Time by Shaft and Sleeve Upgradation : SEIL 3. Innovative Approach to Address Design and Other Critical Issues of CHP Equipment : NTPC Mouda 4. Application of Solver Method to Achieve Cost-Effective Blending of Multigrade Coal : DVC 5. Automation & Integration of Coal Supply Chain-Digital Leap : GMR	09:30-11:00 Session - 12 Power Plant Chemistry 1. Enhancing Reliability of Condensate Polishing Systems through m-MRSV Integration : NTPC Korba 2. A Novel High-Performance Thermal Analysis Method for Active Content Determination of CWT Chemicals : NETRA 3. Cooling Tower Effectiveness Improvement by Online Chemical Cleaning using LABSA : Adani Power Tirora 4. Enhanced CPP Design for ACC Based TPPs : NTPC EOC 5. Enhancing Boiler Feedwater Pretreatment Performance through Ceramic Ultrafiltration : Acuriant Technologies
11:00-11:30 Tea		