



**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**

13<sup>th</sup> to 15<sup>th</sup> February 2026

RAIPUR, CHHATTISGARH



**Technical Session Plan**

**THEME**  
Optimising Thermal Generation  
with Quality & Reliability

**MAIN AUDITORIUM**

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

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

**SANKALP HALL**

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

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

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

**SIDDHI HALL**

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

- Wet FGD Performance Considerations & Alternatives : EPRI
- Plastic Waste into CO<sub>2</sub> Capture Material : NTPC Sipat
- From VGFs to Profits, MSW Based Green Charcoal : NTPC EOC
- Carbon Accounting in Green Belt : DVC Mejia
- State-of-the-Art-Sustainability Automation and Intelligence for NTPC using AI and ML : NTPC EOC

**13:00-14:00 | Lunch**

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

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

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

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

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

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

**15:30-16:00 | Tea**

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

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

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

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

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

- Asset Management for Enhanced Reliability In TPPs : SEIL
- AI Framework for Ash Dyke Safety & Data-Driven R&M Planning in TPPs : IIIT Naya Raipur
- AI Digital Transformation - Unit Startup Dashboard : NTPC Singrauli
- ML driven decision support for FlexOps of TPPs : NTPC CC OS
- 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

#### MAIN AUDITORIUM

##### 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

#### SANKALP HALL

##### 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

#### SIDDHI HALL

##### 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 Vindhyaachal
3. From Failures to Frameworks - Standardized Seal Oil System Guidelines for H<sub>2</sub> 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 Gadarwara

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 Gadarwara

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 (Virtual)
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

#### MAIN AUDITORIUM

##### 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. Equip Health Monitoring & Diagnostics for Thermal Generation : EPRI
6. Testing a Novel Chemical Injection Strategy for Reducing Corrosion in ACCs : EPRI

#### SANKALP HALL

##### 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

#### SIDDHI HALL

##### Session - 9

###### Nuclear & Hydrogen: A Pathway to Energy Transition

1. Nuclear Options to Support an Energy Transition : EPRI (Virtual)
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 Vindhyaachal
4. Loop Tuning Initiatives for Stability and Performance Improvement : NTPC Khargone
5. Future-Ready Open Systems for Process Automation : NTPC CC OS

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