



VIRTUAL CONFERENCE

DIGITAL POWER PLANTS ASIA

Changing Requirements, New Opportunities and Transformation Strategies

June 3-4, 2021

Organised by:



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MISSION

The power generation industry in Asia has been undergoing significant changes over the past several years. While coal continues to be a dominant fuel in Asia's generation mix (outside of China) with a 54 per cent share, renewable sources such as solar PV and wind are increasingly playing an important role with their combined share increasing up to 4 per cent (compared to less than 2 per cent four years ago) as countries advance their clean energy ambitions.

Even before the outbreak of the pandemic, complex challenges pertaining to financing, volatile market conditions, tighter environmental regulations, constrained budgets, etc., were disrupting the generation industry. Covid-19 intensified these concerns with coal-based generation most affected by demand reductions caused by Covid-19 containment measures in the majority of the Asian power markets.

In order to effectively navigate through these disruptions, digital technologies are being deployed to make traditional power plants more connected, intelligent, efficient, reliable and sustainable.

An increasing number of power companies at the outset of their digital journeys are already seeing promising results. To begin with, the deployment of generation-wide digital dashboards can help track plant performance. Further, machine learning and advanced analytics can deliver heat-rate improvements. IoT services at the data monitoring centre are being used to detect signs of abnormalities at power plants, and achieve improved availability by reducing unplanned shutdowns and forced outages.

Digital tools are becoming an increasingly powerful tool, especially as there is a paradigm shift in the operation of thermal power plants from steady-state base load to intermittent partial load. New digital technologies can support plants operating at partial loads, and optimise operations and asset management. For instance, continuous combustion tuning with artificial intelligence, turbine operational optimisation in real time using analytics and machine learning, predictive maintenance to avoid unplanned downtime using machine learning, etc. are enabling more flexible business operations.

From conventional power to renewables and hydropower plants, digital transformation allows remote monitoring and control of operations, and guarantees short response time to possible incidents. The use of sensors can provide the exact status of various components of the essential equipment in real time, and analytics can compare the actual configuration with the optimal situation. Power plant digital twins are becoming a strategic capability that allows executives to not only improve risk management through simulating worst-case scenarios, but also test contingency plans.

While digitalisation can bring many positive benefits, it can also make energy systems more vulnerable to cyberattacks. Cyberattacks are becoming easier to organise, while digitalised equipment and the growth of the IoT are increasing the potential of cyberattacks.

However, utilities have only scratched the surface in terms of digitisation. The decision to invest in digitalisation is often weighed down by multiple short-term demands on the cashflow, such as aging infrastructure, rising compliance costs and workforce replacement. That said, efficient and resilient digitally enabled operations are expected to be the foundation of the next normal.

THE MISSION OF THIS CONFERENCE IS TO

- Understand the role of digital technologies in addressing the evolving market conditions
- Identify the new and emerging requirements of gencos and power plant operators in Asia
- Discuss the experience with digital technology adoption
- Learn about genco plans in the digital space
- Provide a platform to showcase successful projects, promising and relevant digital technologies, and best practices

TARGET AUDIENCE

The conference is expected to draw participation from executives, managers and decision-makers from:

- Power plant operators (thermal, hydro, gas)
- Technology providers
- Equipment manufacturers (steam boilers, turbines, generators, etc.)
- Renewable energy developers
- IT and software development companies
- Engineering consultants
- Providers of basic power technology, equipment and products
- Cybersecurity firms
- Consultancy organisations engaged by utilities
- Energy managers and auditors
- Certification and inspection companies
- Research and development organisations
- Other power sector professionals

Tentative Agenda

Live session	Topics
DIGITALISATION NEEDS AND REQUIREMENTS	- What have been the digital trends accelerated by the pandemic? - What have been the lessons learnt and deployment experiences so far? - What will be the future digital technologies and trends for Industry 4.0?
GENCO PERSPECTIVE	- What are the new and emerging requirements for power plant operators? - What are the digital technologies being deployed in the new normal amid the Covid-19 pandemic? - What are their digital plans and priorities going forward?
O&M STRATEGIES	- How can power plants leverage digital solutions for the O&M of power plants? - What has been the uptake so far? - What are the promising tools and solutions in this regard?
STRATEGIES FOR THERMAL POWER PLANTS	- What are some of the new requirements of thermal power plants? - How can digitalisation deliver value to thermal power plants? - What are some of the promising digital solutions and tools to enhance operations?
FLEXIBILISATION	- What are the emerging requirements for power plants with the greater influx of renewables? - How can digitalisation be leveraged for flexible operations? - What has been the experience so far? What are the promising digital tools and solutions?
FOCUS ON HYDROPOWER PLANTS	- What is the potential for digitalisation in hydropower plants? - What are some of the new digital solutions and offerings for hydro projects? - What has been the experience so far?
ASSET MANAGEMENT	- How can digital technologies help in optimising asset management? - What is the potential of technologies like digital twins? - What are the new and promising digital solutions for asset management?
FOCUS ON REMOTE MONITORING AND DIAGNOSTICS	- What are the remote monitoring/diagnostics solutions for power plants? - What are their features? - What has been the experience so far?
FOCUS ON POWER PLANT SAFETY	- What is the potential of digitalisation in improving the safety of power plants? - What are the new and promising digital solutions? - What has been the experience so far? What are the issues and concerns?
FUEL MANAGEMENT	- What are the new and upcoming fuel management-related challenges for gencos? - What are some of the digital solutions available for fuel management? - What has been the experience? What are the limitations?
FIELD FORCE AND WORKFORCE MANAGEMENT	- What has been the field force management strategy of gencos during the pandemic? - What are the digital solutions and tools critical for the optimisation of workforce operations? - What are the post-Covid requirements of gencos?
DIGITALISING RENEWABLE ENERGY PLANTS	- What are the opportunities that digitalisation can bring for renewable energy power plants? - What are some of the barriers for the uptake of digital solutions by the renewable energy industry? - What are the promising solutions?
NEW TECHNOLOGIES – AR, VR, AI and IoT	- How can technologies such as augmented reality (AR) and virtual reality (VR) help in digitalisation? - What will be the drivers for the adoption of these technologies in a post-Covid world? - What will be the key challenges in adoption?
MANAGING CYBERSECURITY RISKS	- What have been some of the key trends in managing cybersecurity-related risks? - What are the best practices and solutions? - What has been the uptake of such solutions by gencos so far? What are the issues and concerns?

ABOUT THE ORGANISER

The conference is being organised by **India Infrastructure Publishing**, the leading provider of information on the infrastructure sectors.

The company publishes **Power Line**, **Power Line South Asia** and **South East Asia Infrastructure** magazines

Power Line (www.powerline.net.in) is a premiere magazine for the Indian power sector. It covers all segments of the sector – generation, transmission and distribution. It tracks key developments, analyses major trends, profiles noteworthy organisations, interviews top managers, features opinions of industry experts, tracks financing, covers technology developments, profiles people of interest and provides key data and statistics.

Power Line South Asia – a special publication from India Infrastructure Publishing aims to provide information on key trends, financing scenario, major developments, and highlight opportunities in the power sector – across the generation, transmission and distribution segments – in the following South Asian countries: Bangladesh, Bhutan, Nepal, Sri Lanka, Afghanistan, Pakistan, Maldives & India.

South East Asia Infrastructure magazine (www.southeastasiainfra.com) is a leading source of information on infrastructure development in Southeast Asia. It tracks key developments, analyses emerging trends, features industry players and perspectives, highlights key initiatives, and profiles exemplary projects.

PREVIOUS PARTICIPANTS

Some of the organisations that have attended our related conferences include: Accenture, ADJ Engineering Pvt Ltd, Aerzen Machines India, AkzoNobel India Ltd, Amines & Plasticizers, Andritz Hydro, ARS Energy Pvt. Ltd, Arudra Engineers, Atha Group, AVEVA Information Technology India Pvt., Balkrishna Industries, Banyan Tree Advisors Pvt. Ltd, BCG, Beijing SPC Environment, Bharat Heavy Electricals, BMW Steels Ltd, Bray Controls, BTL EPC, Busch Vacuum, Bygging India, Centre for Fly Ash Research & Management, Central Electricity Authority, CESC Limited, Chemical Process Equipments, Chemical Process Piping, Chhattisgarh State Power Generation Company, CLP India, Coastal Gujarat Power, Cottagon S.A., CP Piping, CPPE, CSRI NEERI, Damodar Valley Corporation, DB Power, Demech Chemical Products, Druk Green Power Corporation Ltd, GSECL, GSECL-UTPS, EagleBurgmann India, Edelweiss Asset Reconstruction Company, Edwards India Pvt. Ltd, Elara Capital, Emerson, Environnement SA India Pvt. Limited, Ferbeck International, FLSmidth Pvt. Limited, Forbes Marshall, Furnace Fabrica (India), GE Power India Limited, GE South Asia, Greatall Dynamic Co Ltd, GSECL, GSK Powertel Pvt Ltd, H2L-Vedanta, Haryana Power Generation Corporation, HEG, Hexagon, Hindustan Petroleum Corporation, Hindustan Zinc, HPGCL, ICRA, India Uniper Power Services, Indiana Conveyers, Indus Energy Consultants, International College of Financial Planning, IOCL, ION Exchange (India) Ltd, J.K. White Cement Works Division, Jaiprakash Associates, Jaiprakash Power Ventures, Jay Pee Power Projects (Jai Prakash Power Ventures), Jaypee Bina Thermal Power Plant, Jindal Power, JK Cement, SW Energy Limited, Kepco Plant Service & Engg, KSB Pumps, LancoAnpara Power Limited, Lanco Power, Larsen & Toubro, Lubrizol Advanced Materials, Maco Corporation, Maharashtra State Power Generation Co. Ltd, Maithon Power, Mascot Capital & Marketing, MEG, Ministry of Power, MSEB Holding Company, Multi-Act Equity Consultancy, Munters India, Nabha Power Limited, National Fertilizers, National Power Training Institute, Nevco Engineers, NHPC Limited, NLC India Limited, NTPC Limited, Odisha Electricity Regulatory Commission, Organo Corporation, Oriental Nicco Projects Pvt Ltd, Outokumpu, Paramount, Praj Industries, PTPS, RattanIndia Power, Reliance Jamnagar, RRVNL, Rudis LLC Trbovje, Sangir Plastics, Securities Investment Mgt Pvt Ltd, Sembcorp Green Infra Limited, Sick India, Siemens, Simona India, SKI Carbon Black (India) Private, SPC Environment Protection Tech, SRF, Stalwart Advisors, STEAG Energy Services (India) Pvt. Ltd, Sulzer Pumps India, Sunrise Industries (India) Ltd, Sunrise Polymers, Takalkar Power Engineers & Consultants Pvt. Ltd, TANGEDCO, Tata Consulting Engineers, Tata Power, Tata Power Solar Systems Ltd, Tata Steel, Technical Drying Services (Asia), Technofab Systems, TeestaUrja Limited, TenovaDelkor, TERI, The Tata Power Company, Thermax Limited, Thermo Fisher Scientific, TMEIC Industrial Systems, Torrent Power, Toshiba, Toyo Engineering, U.P. RajyaVidyutUtpadan Nigam Ltd, UPRUVNL, Voith Digital Solutions India Pvt. Ltd., Voith Hydro Private Limited, Weir Minerals, West Bengal Power Development Corporation, Yantra Harvest, etc.

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DELEGATE FEE

	Standard price
1 Logins	USD 250
2-3 Logins	USD 400
4-5 Logins	USD 550
6-9 Logins	USD 700
10-20 Logins	USD 850

There is a special fee for power generation organisation (thermal, hydro and gas) - USD 100 for one participant/login, USD 175 for two to three delegates/logins, USD 250 for four to five delegates/logins, USD 325 for six to nine delegates/logins and USD 400 for 10-20 delegates/logins.

REGISTRATION FORM

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☐ Please send me more information

NAME/DESIGNATION _____ COMPANY _____

MAILING ADDRESS _____

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All credit card payments will be subject to standard credit card charges

2. Wire Transfer:

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Bank Name: The Hongkong and Shanghai Banking Corporation Ltd
Bank Address: R-47, Greater Kailash – 1, New Delhi - 110048
Bank Account No: 094179587002
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TERMS AND CONDITIONS

Payment Policy

- Full payment must be received prior to the conference.

Cancellations

- Cancellations received in writing **30 days** before the date of the conference will receive a full refund, minus a service charge/administration fee of USD 30.
- Substitutions/name changes are welcome at no extra charge. Please send these in writing at least two days prior to the conference.
- Powerline shall assume no liability whatsoever in case the event is postponed or cancelled due to a fortuitous event or unforeseen occurrence that renders the performance of this conference impracticable, illegal or impossible. For purpose of this clause, a fortuitous event shall include, but not be limited to: war, fire, labour strike, extreme weather or other emergency. India Infrastructure's responsibility is limited to return of the registration fee only and is not liable for any cost in relation to travel and accommodation.
- Please note that it may become necessary for reasons beyond the control of the organisers to make alterations to the content and timing of the programme or speakers.

CONTACT US

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