





Workshop on Innovative Technologies for Energy Transition

Case Study on Digital Utility Manager Course

Presented By

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Introduction





- The Indian electric utilities are undergoing a rapid transformation driven by decentralized energy systems, both on the supply and demand sides of the equation.
- Technology adoption and implementation are taking the center stage under government schemes as the GoI has introduced reforms including the "Revamped Reforms-Linked Results-Based Distribution Sector Scheme (RDSS)" which aims to improve utilities' operational efficiencies and financial sustainability by process improvements.
- RDSS also lays emphasis on training and capacity building to facilitate technology adoption and implementation across various Indian DISCOMs.
- In view of these, the UK-India Technical Assistance Programme on "Accelerating Smart Power and Renewable Energy in India" (ASPIRE) commissioned ED03 work package which involves (i) Development of a Training Program (ii) Course Launch and Physical Session (iii) Online Training (iv) Institutionalization of Training course.
- The "Digital Utility Manager" course has been developed under ASPIRE, supported by leading institutions such as Imperial College London, VJTI Mumbai and IIT Tirupati.
- Facilitated by Power Finance Corporation (PFC), the course has been launched, along with a three-day non-residential training program from 15th-17th March 2023 and online training program from 29th May 16th June 2023.

Key Themes of Digital Utility Manager

Smart Grids, AMI, AI &
 ML, Energy Storage,
 DERs, Blockchain,
 Cybersecurity, Climate
 Resilience,
 Consumers, etc.

Objectives and key Benefits of the DUM Course





Objectives:

- Upskilling of utility employees in emerging areas
- Accelerating adoption of emerging technologies
- Institutionalization of training course

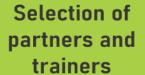
Benefits:

- Enabling adoption of emerging technologies such as Smart Grid, AMI, Grid Flexibilization, Energy Storage,
 Cybersecurity, AI/ML etc.
- Integrated view of technologies, applications, value chain, system integration imperatives, business models and policy aspects, cybersecurity and role in consumer engagement and resilience
- Content development and delivery by national and international experts from leading academic institutions and industry practitioners
- Self-paced learning modules that provide the participants flexibility to learn anytime
- Participation/Completion Certificates endorsed by PFC, FCDO and partner institutions subject to successful
 completion of the course and examination at the end of training

Content Design and Delivery Approach









- International and national academic partners
- Industry professionals

 360 degree coverage of digital technologies, network elements

 International case studies

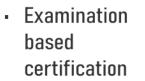


Course content development

Delivery of certificate course



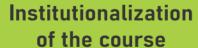
- Physical offline mode
- Live online mode



 Certificates with logo of academic partners



Issuance of certificate





- Course to be hosted on online platform
- Remote access for self paced learning and certification



Course Modules





Module 1: Introduction to Smart Grid Technologies (OT)	Module 5: Introduction to Energy Storage Technologies	Module 9: Introduction to AI, ML and Robotic Process Automation and Applications for Utilities	Module 13: Digital Technologies for Climate Resiliency
Module 2: Introduction to Smart Grids IT Applications	Module 6: Introduction to DER	Module 10: Introduction to RPA and AI Based Automation	Module 14: Additional Revenue Opportunities for DISCOMs
Module 3: Introduction to AMI	Module 7: Introduction to Cyber Security	Module 11: Digital Utility Journey Towards Energy Transition	Module 15: Introduction to Blockchain Technology and Applications in Power Sector
Module 4: Customer Engagement in AMI Projects	Module 8: Introduction to GESI and Initiatives in the Power Sector	Module 12: Introduction to EV and EVSE	Module 16: Changing Role of Consumers

Expert Speakers







Bikash C. Pal Professor, Imperial College London



Amit Gupta Head IT - Enterprise Services, TPDDL

Atanu Sen

Business Head

Pvt, Ltd.



Vikas Kashyap Founder, Lead **Ventures Limited**



Reji Kumar Pillai President, India Smart **Grid Forum**



Vikas Gaba Partner and National Head - P&U, KPMG



Vinod Tiwari Global Head - BD, Powerledger



Ruchika Chawla Associate Partner -P&U, KPMG



Arvind Gujral Consulting Director, AutoGrid



Ramit Malhotra Director – P&U, KPMG Progression Infonet



Faruk Kazi Professor, VJTI Mumbai



Sumit Gupta CEO, Assetplus Consulting



Ananya Ghosh Manager - IGH Infra, KPMG



Shivani Sharma Prin. Tec. Consultant, Hitachi Energy



Vignesh V Professor, **IIT Tirupati**



Reena Suri **Smart Grid Forum**



Payal Mahajan Exec. Director, India GM - Customer Care, BYPL - Delhi

Glimpse of the Course

















Participation Summary





SI No	Type of Course	Schedule	Hours of Training	No of Participants Trained
1	Offline	15th-17th March 2023	17	40+
2	Online	29th May – 16th June 2023	18	300+

Institutionalization of the Course













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Key Takeaways / Recommendations





- The Course was a huge success and was appreciated by all participants as well as guests. Participants also appreciated the open house and knowledge sharing sessions hosted for clearing doubts.
- Most valued themes: (i) AMI (ii) Customer engagement (iii) Cybersecurity (iv) Blockchain and AI/ ML applications (v) Alternate Revenue Streams (vi) Utility resilience
- Recommendations for future programs:
 - Residential program to facilitate enhanced peer-to-peer interaction
 - Field visits for practical learning
 - More sessions on technical problems faced by DISCOMs
 - Global best practices and successful pilot projects
 - More focus on critical themes such as cybersecurity, energy transition, and customer engagement
- The participants also expressed need for scaling up the training program so that a larger employee base of their respective DISCOMs can benefit from it.

Training sessions
enhanced the
opportunities of the
participants to lead
engagements related
to the
implementation of
digital technologies
at their respective
DISCOMs





THANK YOU

For discussions/suggestions/queries email: isuw@isuw.in

visit: www.isuw.in

Links/References (If any)