

# NATIONAL POWER TRAINING INSTITUTE, FARIDABAD

## One Day Workshop on

### Adoption of Big Data & Analytics - Towards Utilities Transformation 11<sup>th</sup> April, 2018



**Venue:**

Conference Hall, NPTI Faridabad, Delhi NCR

**Organized by**

NIPPON ELECTRICITY COMPANY

NATIONAL POWER TRAINING INSTITUTE

ASSETPLUS CONSULTING

**NEC**  
NEC ENERGY SOLUTIONS



**assetplus Consulting**  
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## BACKGROUND

Indian Utilities is heading towards Grid Modernization with introduction of Distribution Automation. This has been facilitated through various programs from Government of India i.e SCADA/GIS system adoption in R-APDRP, technology adoption in RAPDRP, digital platform adoption through Smart Grid Pilot with enhanced overall planning and optimization of utility operation through UDAY. The Load dispatch centers are operating with state-of-the-art technology and have also been introducing electricity markets.

This transformation of utilities has brought them closure to huge pile of data which need to be leveraged for better operation and planning to support our utilities.

In the aforesaid context, NPTI has evolved into a new dimension of technological excellence. NPTI with its in depth Research and focus towards harnessing new development for Indian utilities have paved the path forward for adoption of new technologies like IoT, BIG DATA Analytics, Machine Learning and Artificial Intelligence coupled with open source platform like Hadoop for data storage and creating efficient Disaster Recovery. NPTI is creating Centre of Excellence (CoE) on Analytics. This will help utilities to strategize and achieve large scale success on their Analytical journey, Data Storage, Data Recovery etc.

Today, utilities spend millions of dollars in adopting new solutions to address BUSINESS ISSUES, like below

1. Non technical loss analysis through meter data analysis / analytics identifying hidden pattern w.r.t
  - Customer consumption
  - Non - payment/arrears
  - Power theft
  
2. Consumer load analysis and paving path for long term, mid - term, short term, day ahead forecasting using
  - This create better power procurement plan
  - Power procurement cost optimization by effective analysis of PPA /fixed/variable exposure
  - Price analysis

3. For load despatch centres balancing of grid & making grid smarter, self healing and adoptive with use of

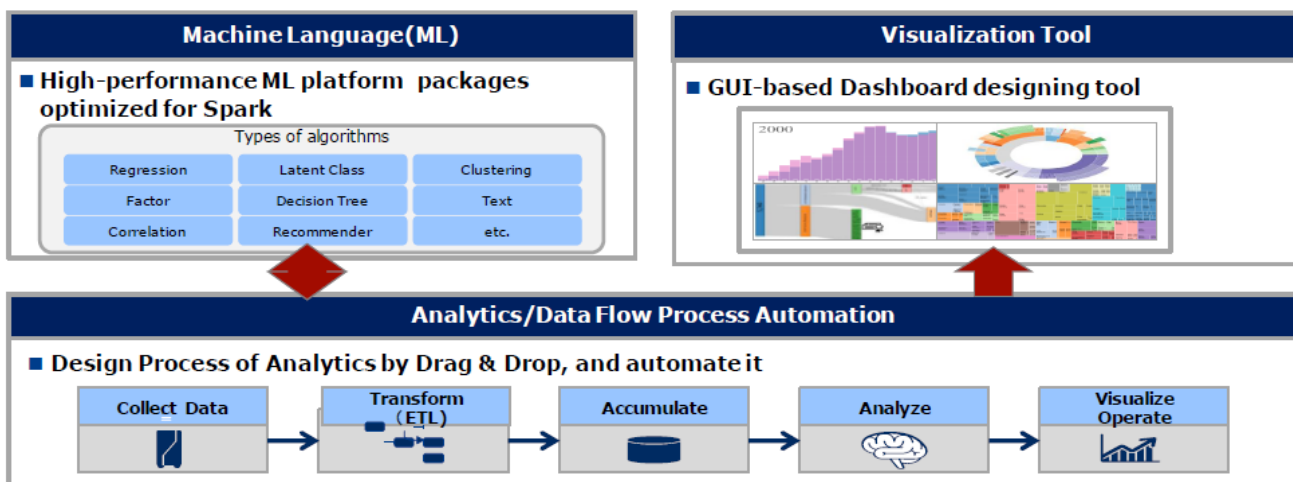
- Motion /steaming data analytics
- Data at rest analytics

All of the above issues can be addressed through machine learning, artificial intelligence and power of Hadoop.

### Centre of Excellence on BIG DATA Analytics at NPTI

NPTI an ISO 9001 & ISO 14001 organization, is a National Apex body for Training and HRD in Power Sector with its Corporate Office at Faridabad which also includes Centre for Advanced Management and Power Studies (CAMPS) and Centre for Excellence in GIS and Remote Sensing. NPTI operates on an all India basis through its Units in different power zones of the country located at Faridabad, Neyveli(1965), Durgapur (1968), Badarpur- New Delhi (1974), Nagpur (1975), Bengaluru, Guwahati and Nangal. NPTI is establishing two new institutes at Alappuzha (Kerala) and Shivpuri (MP) which would be operational by 2018.

Centre of Excellence on BIG DATA Analytics at NPTI, will help to pilot these business need, help create economics, convert pilot into successful model which will help in creating larger RFP for successful implementation of such business need catering platform.



Moreover, as NPTI is a nodal body, the effort and outcome from CoE can be replicated to other utilities which will safe guard the time, manpower and infrastructure and help transition to newer platform in much more structured manner.

Emphasis of NPTI is to bring in participative action from all the utilities through this one day workshop, which then will be taken in broader perspective discussing with each utilities in detail.

**Focused Areas** This workshop would be centered on the capabilities of the Micro modular servers that are an ideal solution for creating cluster with hundreds or thousands of data/compute nodes. The workshop will focus on demonstrating how a combination of micro modular server and Hadoop (Big data platform) can offer a solution for utilities right from generation to consumption and how Big data analytics can help in transforming the utilities to Utility 2.0 and beyond.

- Current Challenges for Utilities
- BIG Data for Utilities transformation
- Demo on the platform – show case of business issue demonstration
- Leverage power of open source for utilities
- Role of NPTI Centre of Excellence

### **Speakers**

Eminent experts from NPTI and Industry will be addressing the participants. Emphasis will be to make Utilities realize potential of cost saving and working towards their transformation by bringing quicker adoption.

### **Target Audience**

Senior Management Utilities Professionals / DISCOMs - MD, Director –IT, RAPDRP Head, Load Dispatch Centre (SLDC/RLDC/NLDC), Finance, Data Centre / Disaster Recovery program Head from Utilities. Power sector Professionals managing the IT setup of Utilities, Process Owners, Researchers and Professionals from academic and R&D institutions.

### **Program Delivery**

Program is a Joint Initiative of NPTI, Japanese Leading Electricity Player- Nippon Electricity Company (NEC) and Assetplus Consulting.

### **Program Fee**

There is no Participation Fee. Program is Free of cost.

### **Important Date**

Last Date of Registration is 10<sup>th</sup> April, 2018

**All correspondence should be addressed to:**

The Director (MS)  
National Power Training Institute  
NPTI Complex, Sector-33, Faridabad - 121 003, Delhi NCR, Near NHPC Metro, Haryana State  
Tel: 0129 -2257131 Fax: 0129 - 2277412  
Email: [manju.npti@gov.in](mailto:manju.npti@gov.in)  
Website: [www.npti.in](http://www.npti.in)

**For further Information please contact:**

Ms. Indu Maheshwari, Deputy Director (MS)  
Email: [indu.npti@gov.in](mailto:indu.npti@gov.in)  
Mobile: 9818283269

Ms. bhawana Choudhary, Assistant Director (MS)  
Email: [bhawana.npti@gov.in](mailto:bhawana.npti@gov.in)  
Mobile:9311622338