

Program Schedule of NPSC 2016

Conference Schedule

Day-1: (19.12.2016): Tutorial and inaugural function

Day-2: (20.12.2016): Keynote lectures, oral and poster sessions

Day-3: (21.12.2016): Keynote lectures, oral sessions, Panel Discussion and valedictory

Day-1: (19.12.2016)

Registration and Breakfast: 8:30 – 9:30 AM, Venue- Community Centre

Schedule of Tutorials (with topics and speakers)

Two parallel sessions:

Venue: Lab Complex, IIT permanent Campus

Tutorial-1 : 9:30 AM – 12:30 PM

State Estimation in Power System

Dr N D R Sarma, Texas A & M University

Dr Saikat Chakrabarti, IIT Kanpur

Tea Break- 10:45 AM

Tutorial-2 : 9:30 AM – 12:30 PM

Micro-grid / Renewable Integration

Prof Bhim Singh, IIT Delhi

Prof Mahesh Kumar, IIT Madras

Lunch Break (Near Community Centre): 12:30 PM- 1:30 PM

Two parallel sessions:

Venue: Lab Complex, IIT permanent Campus

Tutorial-3 : 1:30 PM – 4:30 PM

Synchro-Phasor and Wide-Area applications

Prof S A Soman, IIT Bombay

Prof Anil Kulkarni, IIT Bombay)

Tea Break- 2:45 PM

Tutorial-4 : 1:30 PM – 4:30 PM

Smart-grid and Cyber Security in Power System

Ms Kumud Wadhwa, PGCIL

Prof Sandeep Shukla, IIT Kanpur

Tea Break- 4:30 PM

Inaugural Function: 5: 00 PM-6:15 PM

Venue: Community Centre, IIT BBSR permanent Campus

Inaugural Keynote Address: 6:15 PM-7:00 PM

Venue: Community Centre, IIT BBSR permanent Campus

Prof Saifur Rahman, Virginia Tech, USA

“The Design, Development and Use of the Smart Grid”.

Inaugural Tea- 7:00 PM- 7:30 PM

Venue: Community Centre, IIT BBSR permanent Campus

Cultural Program: 7:30- 8:30 PM

Classical dance and music

Venue: Community Centre, IIT BBSR permanent Campus

Inaugural Dinner: 8:30 PM

Venue: Community Centre, IIT BBSR permanent Campus

Day-2: (20.12.2016)

Registration and Breakfast: 8:30 – 9:00 AM, Venue- Community Centre

Keynote:

Venue: Community Centre, IIT BBSR permanent Campus

Keynote-1: 9:00 AM – 9:45 AM

Prof Ani Gole, University of Manitoba, Canada

“Advances in Simulation Technologies for Emerging Power Systems”

Keynote-2: 9:45 AM – 10:30 AM

Prof Anurag Srivastava, Washington State University, USA-

Meeting Synchronphasor Data Quality Requirement for Critical Applications

Oral Sessions (10.45-1.15 PM) (15 mins/paper)

Venue: School of Electrical Sciences, IIT permanent Campus

Session-1A: Smart Grid, Cybersecurity, PMU, and Wide Area Application

1570291635	Simulation and Impact Analysis of Denial-of-Service Attacks on Power SCADA
1570260283	Design and Performance Analysis of Wide Area Controller in the Presence of Multiple Load Types
1570291464	A comparative study on phasor and frequency measurement techniques in power systems
1570292316	A Novel Approach for Calibration of Instrument Transformers using Synchrophasors
1570293940	PMU Based Real Time Power System State Estimation using ePHASORsim
1570294084	Implementation of User Defined Models in a Real-Time Cyber Physical Test-Bed
1570292187	Optimal Infrastructure Planning of Electric Vehicle Charging Stations Using Hybrid Optimization Algorithm
1570307220	Improving Microgrid Voltage Stability through Cyber-Physical Control
1570293222	Multi Agent System Driven SSSC for ATC Enhancement

Session-1B: Power System Protection

1570293954	Cable Fault Location in a DC Microgrid Using Current Injection Technique
1570285642	Positive Sequence Phasor Estimation Based Pilot Relaying Scheme for Shunt Compensated Line
1570287900	Study the Performance of S-transform based Extreme learning Machine for Islanding Detection in Distributed Generation
1570289103	A Novel High Impedance Fault Detection Technique in Distribution Systems With Distributed Generators
1570289130	Hardware Implementation of Enhanced Generator Loss of Excitation Protection Scheme
1570289256	Exposing Zone-2 and Zone-3 Mal-operations in Thyristor-Controlled Series Capacitor Compensated Transmission System
1570290674	A Fast Scheme for Fault Detection in DC Microgrid Based on Voltage Prediction
1570291529	Real Time Simulation of New Adaptive Overcurrent Technique for Microgrid Protection
1570293580	Multi Agent System based Intelligent Fault Diagnosis with Fault Current Limiter for Microgrid

Session-1C: Power Systems Dynamics and Stability Analysis

1570289713	Coherency of Generators for Inter-Area Modes Using Digital Filter Bank and Principal Component Analysis
1570282743	Dynamic Performance of dq0-frame Deadbeat Controller for VSC based HVDC System
1570282919	Waveform Relaxation Based Hybrid Simulation of Power Systems
1570287888	An Efficient Multi Objective Optimization Approach for Robust Tuning of Power System Stabilizers
1570289329	Grey wolf optimization algorithm based dynamic security constrained optimal power flow
1570291061	Discrete model predictive frequency and voltage control of isolated micro-grid in smart grid scenario
1570291192	Load Flow With Time Varying Injections
1570291267	Impact of DFIG based Wind Energy Conversion System on Fault Studies and Power Swings
1570290849	A Study on Grid Connected PV system

Session-1D: Power Quality Issues

1570264477	Switched Capacitor Converter fed SRM Drive with Power Factor Correction
1570264940	SSI Based Control for Single-Stage Single-Phase PV-Grid Tied System with Self-Adjusting Capability to Voltage Fluctuations
1570291711	Three port DC-DC converter for storage integration in Microgrid
1570293044	Harmonics Mitigation and Phase Compensation Technique for 3P4W SPV System
1570293515	Adaptive Reactive Power Injection by Solar PV Inverter to Minimize Tap Changes and Line Losses
1570293937	Discrete SOGI Based Control of Solar Photovoltaic Integrated Unified Power Quality Conditioner
1570291967	An Improved Power Quality Induction Heater Using Zeta Converter
1570294095	Real-Time Simulation of an Islanded Microgrid Using Educational Miniature Full Spectrum Simulator
1570289477	A Probabilistic Approach to Assess the Adequacy of Wind and Solar Energy

Session-1E: Restructuring in Distribution Systems

1570291827	Rural Feeder Segregation Plan in India: A Case Study using Loss Minimization and Power Factor Correction Method
1570294038	Design of MicroGrid Modelled Distribution Feeder through Power Audit Recommendations
1570275300	Evaluation and Improvement of Reliability Indices of Electrical Power Distribution System
1570280589	Implementation of Modified MW-Mile Method for Transmission Cost Allocation by Incorporation of Transmission losses considering Power Factor
1570287455	Unbalanced Load Flow Analysis for Distribution Network with Solar PV Integration
1570288066	Simultaneous capacitor allocation and conductor sizing in unbalanced radial distribution systems using Differential Evolution Algorithm
1570290870	E-FIELDS INSIDE 765 kV SUBSTATION: INFLUENCE OF CONDUCTOR & BAY ARRANGEMENTS
1570290916	Evaluation of Locational Marginal Pricing of Electricity under peak and off-peak load conditions
1570291099	A Scenario-based Transmission Network Expansion Planning in Electricity Markets

Tea Break- 11:15 AM

Lunch- 1:15 – 1:50 PM, Venue- Community Centre

Keynote:

Venue: Community Centre, IIT BBSR permanent Campus

Keynote-3: 2:00 PM – 2:45 PM

Mr S K Sonee, POSOCO

“175 GW Renewables in the Indian Grid - Facilitating the Transformation”

Keynote-4: 2:45 PM – 3:30 PM

Dr Rambabu Adapa, EPRI, USA –

Role of HVDC and FACTS in Future Electric Smart Grid.

Oral Sessions (3.45-5.00 PM) (15 mins/paper)

Venue: School of Electrical Sciences, IIT permanent Campus

Session-2A: Smart Grid, Cybersecurity, PMU, and Wide Area Application

1570281340	Feasibility of V2G Ideology in Developing Economy: Operation, Analysis and Impact
1570286241	Cost Based Dynamic Load Dispatch for an Autonomous Parallel Converter Hybrid AC-DC Microgrid
1570290958	Smart Distribution Network Restoration using Multi Agent System
1570291020	Emission Reduction Estimation for Wind Integrated Smart Grids

Session-2B: Smart Grid, Cybersecurity, PMU, and Wide Area Application

1570291074	Very Short Term Prediction of Solar Radiation for Residential Load Scheduling in Smartgrid
1570291501	Planar Electromagnetic Current Sensor for Distribution Transformer Application
1570291504	Solar Photovoltaic Output Smoothing: Using Battery Energy Storage System
1570291679	Matrix Based Univariate And Multivariate Linear Similar Day Approach Towards Short Term Solar Radiation Forecasting

Session-2C: Power Systems Dynamics and Stability Analysis

1570291539	Flexibility in Transmission Switching for Congestion Management
1570291598	Loss allocation based on active power flow tracing
1570291637	Comprehensive modeling of Dry type foil winding transformer to analyse inter turn insulation under Lightning Impulse Voltage
1570291739	Incorporation of Asynchronous Generators as PQ Model in Load Flow Analysis for Power Systems with Wind Generation

Session-2D: Power Electronics and Drives

1570290025	Computation of rotor position of DFIM using Rotor side Phase Locked Loop
1570292176	Degradation detection of PV arrays using Extremum-seeking control based MPPT
1570290981	Modeling of Z-source network for DSTATCOM
1570292542	An EV Battery Charger Based on PFC Sheppard Taylor Converter

Session-2E: Restructuring in Distribution Systems

1570291314	Reliability enhancement in radial distribution system using Fish Electrolocation Optimization
1570291500	Hierarchical Clustering Based Zone Formation in Power Networks
1570291525	A Novel Design to Prevent Electricity Theft from Pole Mounted Distribution Boxes
1570291710	Analyzing the Impacts of Optimally Allocated Distributed Energy Resources on Harmonics in Radial Distribution Networks

Tea Break: 4:15 PM

Poster Session: 5.30 PM- 7.30 PM

1570293178	Cyber Security Threats - Smart Grid Infrastructure
1570291517	PMU Data Based Post Disturbance Analysis for a Large Grid Using Wavelets and Lyapunov Exponent
1570291677	Development of a Micro-Phasor Measurement Unit for Distribution System Applications
1570292306	An Efficient Wavelet based technique for Oscillatory mode identification of Ambient Data via RD and TLS-ESPRIT
1570293712	Prediction of Missing PMU Measurement using Artificial Neural Network
1570290356	Experimental validation of a modular multilevel inverter with less number of switches
1570291833	A Novel Hybrid Wind Generation Scheme Suitable for Varied Speed Grid Isolated Installations
1570287101	A Nested Control Strategy for Single Phase Power Inverter Integrating Renewable Energy Systems in a Microgrid
1570290871	Sign-Error Based Adaptive Control Technique for Single Stage Grid tied SPV System
1570291095	Parallel Operation of Permanent Magnet Synchronous Generator Based Windmills Connected to HVDC-VSC Link
1570293216	Low Voltage Ride-Through of a Grid Connected Doubly Fed Induction Generator with Speed Sensorless Vector Control
1570293377	Composite Severity Contingency Distribution Index based Contingency Management of Power System
1570294022	Central and Micro Inverters for Solar Photovoltaic Integration in AC grid
1570290457	An Overview of Power Harmonic Analysis based on Triangular Self Convolution Window
1570291015	Optimal Allocation of Distributed Generation(DGs) and Static VAR Compensator(SVC) in a power system using Revamp Voltage Stability Indicator
1570291565	Optimal Reactive Power Dispatch Using Hybrid Loop-Genetic Based Algorithm
1570291860	Fault Ride-through Enhancement of Wind Energy Conversion System Adopting a Mechanical Controller
1570293204	Implementation of Sparse LMS Control Algorithm in DSTATCOM
1570288943	Digital Differential Protection of Power Transformer using DFT Algorithm with CT Saturation Consideration
1570291841	Secure Third Zone Operation of Distance Relay using Impedance Prediction Approach
1570290891	Simultaneous AC-DC Transmission Scheme Under Unbalanced Load Condition

1570291545	An Emission Constraint Environment Dispatch Problem Solution with Microgrid using Whale Optimization Algorithm
1570291825	Wide Area Adaptive Neuro Fuzzy STATCOM Controller for Dynamic Stability Enhancement
1570293960	State Estimation at All India Level
1570280800	Impact of Energy Storage Integration On Composite System Reliability
1570281571	An Energy Acquisition Model for DISCOMs with High Renewable Energy Integration
1570287449	Performance analysis and comparison of load flow methods in a practical distribution system
1570288010	Distribution Loss Allocation Technique with Distributed Generations
1570291354	Simultaneous Reconfiguration with DG Placement using Bit-Shift Operator Based TLBO
1570291622	Multi-objective Placement and Sizing of DGs in Distribution Network using Genetic Algorithm
1570293843	Optimal placement and sizing of DG for power loss minimization and VSI improvement using Bat Algorithm
1570290629	Recapitulation of Electric Spring: A Smart Grid Device for Real Time Demand Side Management and Mitigating Power Quality Issues
1570290729	Modernization of Multi Location Live SCADA system-A case Study
1570291123	Agent based Decentralized DC load flow Computation
1570291313	An Improved Islanding Detection Technique and Priority Based Load Shedding for Distribution System with multiple DGs
1570291562	Ancillary Services in India-Evolution, Implementation and Benefits
1570291726	Reliability Improvement Considering Reactive Power Aspects in a Smart Grid with Demand Side Management
1570291849	An Optimally Controlled Charging Scheme Motivating EV Owners for Supporting Grid Stability
1570292879	Effects of Line Parameter and Fault Location Errors on Model Verification of Fixed Series Compensation
1570293794	Automated Demand Response for Residential Consumers
1570294052	Bibliography of Open Data on Indian Power Sector: Part 1: Electrical Systems, Operations and Markets
1570294055	Bibliography of Open Data on Indian Power Sector: Part 2: Regulations, Standards, and Smart Grids
1570297600	Assessing the Feasibility of Large-Scale Adoption of Solar Power in the Residential Sector
1570291668	Effect of Switching Frequency on the breakdown of twisted pairs due to Power Electronic Converters

Conference Dinner: 7:30 PM, Venue- Community Centre

Day-3: (21.12.2016)

Registration and Breakfast: 8:30 – 9:00 AM, Venue- Community Centre

Keynote:

Venue: Community Centre, IIT BBSR permanent Campus

Keynote-5: 9:00 AM – 9:45 AM

Prof Anil Pahwa, Kansas State University, USA

The Next Smart Thing and More

Keynote-6: 9:45 AM – 10:30 AM

Prof V Ajarapu, Iowa State University, USA-

Real Time Voltage Stability Monitoring, Assessment, and Control

Oral Sessions (10.45-1.15 PM) (15 mins/paper)

Venue: School of Electrical Sciences, IIT permanent Campus

Session-3A: Smart Grid, Cybersecurity, PMU, and Wide Area Application

1570291706	Frequency Response Improvement in Microgrid Using Optimized VSG Control
1570291891	Improving Reliability and Quality of Supply(QoS) in Smart Distribution Network
1570292787	Consumer Perspective based Placement of Electric Vehicle Charging Stations by Clustering Techniques
1570290742	Supervisory Control Based Wide Area Back-Up Protection Scheme for Power Transmission Network
1570293763	Energy Savings in Distribution Network With Smart Grid-Enabled CVR and Distributed Generation
1570293841	Study of Consumer Benefit Functions for Demand Response Algorithm
1570293918	An Hour wise device scheduling approach for Demand Side Management in Smart Grid using Particle Swarm Optimization
1570291587	Impact of delayed fault clearance on the load in Indian Power System
1570306471	Optimal Capacity and Placement of Battery Energy Storage Systems for Integrating Renewable Energy Sources in Distribution System

Session-3B: Power System Protection

1570291602	Localisation of Single and Multiple Partial Discharge Sources based on Sequence of Arrival and Levels of Peak Amplitude of Acoustic Emissions
1570291630	Impact on Superconducting Fault Current Limiters on Circuit Breaker Capability
1570291649	Identification and Localization of Series and Shunt Faults along a Transformer Winding using a Rough Set Classifier aided with S-transform
1570291703	Differential Protection of Mutually Coupled Lines in Modal Domain Using Synchronized Measurements
1570291708	Power Transformer Differential Protection using S-transform and Support Vector Machine
1570291792	Statistical Analysis of Power System Events In Indian Grid
1570291834	Model Predictive Control for Power System Dynamic Security Enhancement
1570293807	Enhanced Alpha Plane Line Protection
1570290652	Voltage Current based Time Inverse Relay Coordination for PV feed distribution Systems

Session-3C: Power Systems Dynamics and Stability Analysis

1570291756	Efficient Holomorphic Based Approach for Unit Commitment Problem
1570291812	An Efficient Hybrid Technique for Correlated Probabilistic Load Flow Study With Photovoltaic Generations
1570291828	Weak Bus-oriented Optimal Var planning based on Grey wolf optimization
1570291832	Enhanced Parametric STATCOM Decoupled Current Control Scheme for Voltage Regulation
1570293815	Small-Signal Stability Enhancement of Multimachine Power System using Bio-inspired Algorithms
1570293957	Analysing the Electricity Demand Pattern
1570294078	Modeling and Investigation of Small-Signal Stability of DFIG-based Wind Energy System using Linear Quadratic Integral Controller
1570292920	Black Start Experiences for 400 kV Hydro Power Plant In Western Regional Grid of India

Session-3D: Power Electronics Applications to Power Systems

1570291438	A New Classification Model based on SVM for Single and Combined Power Quality Disturbances
1570291502	Real Time Implementation of MAD Technique for Single-Phase SPV Grid Interfaced System
1570291638	Effect of Temperature on Condition Assessment of Oil-Paper Insulation using Polarization-Depolarization Current
1570291856	Adaptive Control Scheme for Three-Phase Four Wire Grid Tied SPV System with DSTATCOM Capabilities
1570291612	A Comparative Study of Control Theories for Realizing APFs in Distribution Power Systems
1570290032	An Implicit Rotor Speed Computation Algorithm for Squirrel Cage Induction Motor
1570262945	State Estimation Performance Monitoring at ERCOT
1570294069	Aggregated Rooftop PV Sizing in Distribution Feeder Considering Harmonic Distortion Limit

Session-3E: Restructuring in Distribution Systems

1570291742	Effect of Load Models on Energy Loss Reduction using Volt-VAr Optimization
1570291813	Impact of Short Term Electricity Procurement of an Open Access Consumer on Indian Grid
1570291957	Reliability Constrained Distribution Feeder Reconfiguration for Power Loss Minimization
1570292728	Capacitor allocation in radial distribution system for maximal energy savings
1570293586	Estimating the lost real-time measurements under communication failure for distribution system state estimation
1570294003	Uncertainty and Risk Management in Electricity Market: Challenges and Opportunities
1570294053	Local Energy Markets: Concept, Design and Operation
1570297669	Predictive Short-Term ORPD in Large Wind Farms for Minimization of Losses and OLTC Tap Movements

Tea Break- 11:15 AM

Lunch- 1:15 – 1:50 PM, Venue- Community Centre

Keynote:

Venue: Community Centre, IIT BBSR permanent Campus

Keynote-7: 2:00 PM – 2:45 PM

Dr Ratan Das, icaPower, USA

Looking into the Future Protection, Automation and Control Systems

Keynote-8: 2:45 PM – 3:30 PM

Prof. Chanan Singh, Texas A & M University, USA-

Wind farm diversification as a means to smooth Intermittency and improve reliability”

Panel Discussion (Academic + Industry): 3.30-4.30PM

Venue: Community Centre, IIT BBSR permanent Campus

Tentative Theme: **“Need and Roadmap for Enhancing Industry-Academia Interaction in Indian Power Sector”**

Members in the panel: Prof M Ramamoorthy, Prof. S. C. Srivastava, Prof P K Dash, Prof A K Tripathy, Dr M Arunachalam, Mr B C Jena

Valedictory Function: 4.30 PM

High Tea: 5:30 PM