

Conference Program – IPST2021 (Brazilian TIME: UTC/GMT - 3 hours)

Auditorium		
	Opening Ceremony - Local Chairperson: 08:30 - 08:45	
	Keynote Speech (Auditorium): 08:45 - 09:25 A. R. M. Tenório, Brazilian Interconnected Power System - An Overview of a Continental Synchronous Grid	
	Message from the Technical Committee: 09:25 - 09:40	
	Message from the Chairperson: 09:40 - 09:50	
Day	Session: 1A, Transmission Lines and Cables I	Session: 1B, Real-Time Simulators
June 07 - Monday morning (10:00 – 12:00)	15-Vicente Torres (MEXICO), Fault Location on Transmission Lines Based on Travelling Waves Using Correlation and MODWT	13-Renzo Fabián (BRAZIL), Real-Time RMS-EMT Co-Simulation and Its Application in HIL Testing of Protective Relays
	26-Grigoris K. Papagiannis (GREECE), Modal Propagation Characteristics and Transient Analysis of Multiconductor Cable Systems Buried in Lossy Dispersive Soils	23-Boris Bruned (FRANCE), Compensation Method for parallel real-time EMT studies
	31-Jiadai Liu (CANADA), Development of Phase Domain Frequency-dependent Transmission Line Model on FPGA for Real-Time Digital Simulator	44-Juan Villón (BRAZIL), Directional Element Evaluation Applied to Half-wavelength Transmission Lines
	38-Naiara Duarte (BRAZIL), Extension of Vance's Closed-Form Approximation to Calculate the Ground Admittance of Multiconductor Underground Cable Systems	101-Chenghong Zhou (CANADA), Large-scale Hybrid Real Time Simulation Modeling and Benchmark for Nelson River Multi-infeed HVdc System
	86-Jeewantha De Silva (CANADA), An Improved Passivity Enforcement Algorithm for Transmission Line Models using Passive Filters	102-Luis Garcete Alderete (BRAZIL), Hardware Implementation and Real Time Performance Evaluation of CT Saturation Detection and Compensation Algorithms
	116-Mohammad Ghomi (DENMARK), Integrated Model of The Transmission Tower Surge Impedance and Multilayer Grounding System Based on Full-wave Approach	
Day	Session: 2A, Switching and Fault Transients I	Session: 2B, System Protection I
June 07 - Monday afternoon (13:30 - 15:10)	21-Paulo Sergio Pereira Junior (BRAZIL), Performance Assessment of a Line Protection Implemented With Process Bus and GOOSE Through Transient Closed Loop Tests	1-Saswati Mishra (INDIA): A Novel Two-terminal Fault Location Approach Utilizing Traveling-waves for Series Compensated Line Connected to Wind Farms
	33-Gabriel Miguel Gomes Guerreiro (SWEDEN), Cross-Country Faults in Resonant-Grounded Networks: Mathematical Modelling, Simulations and Field Recordings	5-Javier Arturo Santiago Ortega (BRAZIL), Fault Impedance Analysis and Non-Conventional Distance Protection Settings for Half-Wavelength Transmission Line Applications
	92-Jagannath Wijekoon (CANADA), Transient Based Faulted Conductor Selection Method for Double Circuit Lines	22-Jose David Doria-García (COLOMBIA), High Impedance Fault Modeling and Location for Transmission Line
	96-Maxime Berger (CANADA), Modeling of Li-ion Battery Energy Storage Systems (BESSs) for Grid Fault Analysis	41-Sergio Pazzini da Silva Matos (BRAZIL), Protection Philosophy for Distribution Grids with High Penetration of Distributed Generation
	98-Felipe Pretti Pessoa (BRAZIL), Parameter Estimation of DC Black-Box Arc Models using Genetic Algorithms	46-Francis Arody Moreno Vásquez (BRAZIL), Busbar Differential Protection Using an Alternative Generalized Alpha Plane
	110-Kleber Melo Silva (BRAZIL), Impact of DFT-Based Phasor Estimation Errors Due to Commutation Failures of LCC-HVDC Links on the Protection of AC Lines in the Near Vicinity	
Mihajlo Curcic - Presentation by Sponsor (EMTP) - Auditorium: 15:20 – 15:40		
Day	Session: 3A, Transformers, Reactors, Inrush currents	Session: 3B, Switching and Fault Transients II
June 07 - Monday afternoon (15:40 -17:00)	89-Paul Akiki (FRANCE), Study of high frequency transient overvoltage caused by cable-transformer quarter-wave resonance	50-Jhair Stivel Acosta Sarmiento (BRAZIL), Optimizing multi-circuit transmission lines for single-phase auto-reclosing
	91-Abolfazl Babaei (CANADA), Transient Characteristics of On-load Tap Changers During Change-over Operation	72-Bozidar Filipovic-Grcic (CROATIA), Effects of autotransformer's stabilizing winding on current-voltage conditions during unsymmetrical faults
	25-Toussaint Canal (FRANCE), Determination of the saturation curve of power transformers by processing transient measurements	95-Felipe Vigolvinho Lopes (BRAZIL), Adaptive Traveling Wave-Based Algorithm for Time Alignment of Transmission Line Fault Records
	109-Matheus Aires (BRAZIL), A Wavelet-Based Restricted Earth-fault Power Transformer Differential Protection	100-Joan Sebastian Chaves Huertas (BRAZIL), Transient Switching Analysis of a Nonconventional Rural Generation System

Day	Session: 4A, Switching and Fault Transients III	Session: 4B, Power Electronics, FACTS, HVDC
June 08 - Tuesday morning (08:00 – 09:40)	69-Mohammad Shafieipour (CANADA), Three-Dimensional Full-Wave Transient Analysis of Switches and Faults using a Method of Moments Solution of the Electric Field Integral Equation	29-Samuel Neves Duarte (BRAZIL), Voltage Compensation in Multi-Grounded Distribution Network with a Three-Phase Five-Wire DSTATCOM
	81-Samuel Simões Brito de Azevedo (BRAZIL), Comprehensive Analysis of the Fault Inception Angle Influence in Fault-Induced Traveling Waves	45-Vinícius Albernaz Lacerda (BRAZIL), Fault Distance Estimation in Multiterminal HVDC Systems using the Lomb-Scargle Periodogram
	84-Vassilis C. Nikolaidis (GREECE), A Voltage-Based Fault Location Algorithm for Medium-Voltage Active Distribution Systems	67-Pablo Gómez (UNITED STATES), Electromagnetic Transient Modeling of Form-Wound Stator Coils with Stress Grading System under PWM excitation
	108-Felipe Vigolvinio Lopes (BRAZIL), Real-World Case Studies on Transmission Line Fault Location Feasibility By Using M-Class Phasor Measurement Units	83-Hani Saad (France), Parameter Sensitivity Analysis on DC Transients between MMC Station and Cable
	113-Younes Seyedi (CANADA), Impact of Fault Impedance and Duration on Transient Response of Hybrid AC/DC Microgrid	
Day	Session: 5A, Lightning Surges and Insulation Coordination I	Session: 5B, Solution Methods and Algorithms I
June 08 - Tuesday morning (10:00 – 12:00)	19-Alberto De Conti (BRAZIL), Evaluation of the Extended Modal-Domain Model in the Calculation of Lightning-Induced Voltages on Parallel and Double-Circuit Distribution Line Configurations	75-Amauri Gutierrez Martins-Britto (BRAZIL), Inductive Interferences Between a 500 kV Power Line and a Pipeline with a Complex Approximation Layout and Multilayered Soil
	34-Rafael Alipio (BRAZIL), An Accurate Analysis of Lightning Overvoltages in Mixed Overhead-Cable Lines	56-Rodrigo Sousa Ferreira (BRAZIL), Transient Model to Study Voltage Distribution in Electrical Machine Windings Considering the Rotor
	39-Frederico Santos Almeida (BRAZIL), Influence of Tower Modeling on the Assessment of Backflashover Occurrence on Transmission Lines due to First Negative Lightning Strokes	59-Javier Tarazona (CANADA), Shifted Frequency Analysis-EMTP Multirate Simulation of Power Systems
	58-Amauri Gutierrez Martins-Britto (BRAZIL), Transient Electromagnetic Interferences Between a Power Line and a Pipeline Due to a Lightning Discharge: An EMTP-based Approach	74-Willem Leterme (Belgium), On the Use of the Frequency Domain in Assessing Resonant Overvoltages during Transformer Energization
	65-Akifumi Yamanaka (JAPAN), Equivalent Circuit Model of a Transmission Tower Considering a Lightning Struck Point and Cross-arms	90-Jean MAHSEREDJIAN (CANADA), A Parallelization-in-time Approach for Accelerating EMT Simulations
Day	Session: 6A, Fault Transients & Temporary Overvoltages	Session: 6B, System Protection II
June 08 - Tuesday afternoon (13:30 -15:30)	9-Raphael Leite de Andrade Reis (BRAZIL), Effects of CCVT Stray Capacitances on Traveling Wave-Based Applications	7-Renan Morais Furlaneto (BRAZIL), Short Circuit Network Equivalents of Systems with Inverter-based Resources
	20-Rodrigo Sousa Ferreira (BRAZIL), Sensitivity Analysis in the Transient Recovery Voltage in an Industrial Power System	8-Francis Arody Moreno Vásquez (BRAZIL), A New Time Domain-Based Busbar Protection Algorithm
	104-Rodrigo Sousa Ferreira (BRAZIL), Investigation of Cable Influence on the Interturn Transient Voltage Distribution in Rotating Machine Windings using a Three-Phase Model	10-Leticia Almeida Gama (BRAZIL), Mathematical and Experimental Evaluation of an Incremental Differential Protection Function Embedded in a Real Transmission Line Relay
	94-Paolo Marini (ITALY), Effect of Diode Arc-back fault on Short Circuit stress of Power Converter Transformer	35-Frankelene Pinheiro Souza (BRAZIL), High-Impedance Fault Identification Using Cyclostationary Characteristic Analysis
	3-Juan Diego Rios Penalzoza (Italy); Performance Analysis of a Transient-Based Earth Fault Protection System for Unearthed and Compensated Radial Distribution Networks	37-Lucas Simões (BRAZIL), A Power Transformer Differential Protection Based on Support Vector Machine and Wavelet Transform
		80-Rafaella Nascimento Meira (BRAZIL), Practical Assessment of POTT and DCB Teleprotection Schemes Using Computer Environment
Paul Forsyth - Presentation by Sponsor (RTDS Technologies Inc.) - Auditorium: 15:40 – 16:00		
Day	Session: 7A, Renewable Energy Sources	Session: 7B, Power Electronics, FACTS, HVDC II
June 08 - Tuesday afternoon (16:00 -17:40)	4- Ilhan Kocar (Canada), STATCOM Integration into a DFIG-based Wind Park for Reactive Power Compensation and its Impact on Wind Park High Voltage Ride-Through Capability	24-Baimel Dmitry (ISRAEL), New Type of Bridge Fault Current Limiter with Reduced Power Losses for Transient Stability Improvement of DFIG Wind Farm
	14-Andrei Oliveira Almeida (BRAZIL), Series-DC Connection of Offshore Wind Generating Units - Modeling, Control and Galvanic Isolation	42-Kaustav Dey (INDIA), Comparison of Dynamic Phasor, Discrete-Time and Frequency Scanning Based SSR Models of a TCSC
	54-Ali Banitalebi Dehkordi (CANADA), A Multi-Star Synchronous Machine Model for Real-Time Digital Simulation and Its Applications	51-Willy Arnaud Nzale Mimbe (CANADA), Accurate Time-Domain Simulation of Power Electronic Circuits
	82-Rafael Alipio (BRAZIL), Bare versus Insulated Conductors for Improving the Lightning Response of Interconnected Wind Turbine Grounding Systems	106-Anton Stepanov (CANADA), Parallelization of MMC Detailed Equivalent Model
	88-Huilman Sanca Sanca (BRAZIL), Robust Three-Phase Distribution System Frequency Measurement Using a Variable Step-Size LMS	

Day	Session: 8A, Solution Methods and Algorithms I	Session: 8B, System Protection III
June 09 - Wednesday morning (08:00 – 09:40)	2-Ajinkya Sinkar (CANADA), A Comparative Study of Electromagnetic Transient Simulations using Companion Circuits, and Descriptor State-space Equations	73-Rodrigo Andrade Ramos (BRAZIL), A Procedure to Automate the Assessment of Generator Protection
	27-Meysam Ahmadi (CANADA), A Guaranteed Passive Model for Multi-port Frequency Dependent Network Equivalents Using Network Synthesis Approach	85- Renzo Fabián (BRAZIL), Application of a robust faulted phase selector to high-resistance and weak-infeed fault conditions on an 1000-kV UHV transmission line
	43-Hans Kristian Høidalen (NORWAY), Analysis of Grey Box Modelling of Transformers	55-Marjan Popov (THE NETHERLANDS), PMU-Voltage Drop Based Fault Locator for Transmission Backup Protection
	49-Xi Shi (CANADA) , A Study on Interpolation and Weighting Function for Numerical Fourier Transform	118-Jacques Julien Deroualle (ITALY), Comparison of Short-Circuit Current Calculations in DC Shipboard Power System for Fuse Protection Designing
	53-Tainá Fernanda Garbelim Pascoalato (BRAZIL) , Analysis of Transient Voltages and Currents in Short Transmission Lines on Frequency-Dependent Soils	112-Johnny José Orozco (BRAZIL), Evaluating Voltage Drop Snapshot and Time Motor Starting Study Methodologies - An Offshore Platform Case Study
Day	Session: 9A, Solution Methods and Algorithms II	Session: 9B, Harmonics & Power Quality
June 09 - Wednesday morning (10:00 – 11:40)	6-Antonio Carlos Siqueira Lima (BRAZIL), Fault Impedance Analysis and Non-Conventional Distance Protection Settings for Half-Wavelength Transmission Line Applications	60-Tarmo Trummal (ESTONIA), Modelling of Distribution Level Coreless Induction Furnace for Rapid Voltage Change Assessment
	11-Gurunath Gurralla (INDIA), Comparison of Vector and Matrix Format Tangential Interpolation for FDNE	62-Vassilis C. Nikolaidis (GREECE), Identifying Weaknesses in AC Shipboard Power Systems Operation during Motor Starts and Reacceleration
	12-Lorenzo de Jesus Castañón Alcalá (MEXICO), Laplace Transform Inversion through the Theta Algorithm for Power-System EMT Analysis	64-Thiago Silva Amorim (BRAZIL), Comparison of Inverter Controllers with Synthetic Inertia and Harmonic Compensation Features
	48-Bamdad Salarieh (CANADA), Review and Comparison of Frequency-Domain Curve-Fitting Techniques: Vector Fitting, Frequency-partitioning Fitting, Matrix Pencil Method, and Loewner Matrix	93-Ram Machlev (ISRAEL) , Open Source Dataset Generator for Power Quality Disturbances with Deep-Learning Reference Classifiers
	32-Alireza MASOOM (CANADA), Modelica-based Simulation of Electromagnetic Transients Using Dynawo: Current Status and Perspectives	
Day	Session: 10A, Solution Methods and Algorithms	Session: 10B, System Protection IV
June 09 - Wednesday afternoon (13:30 -15:30)	99, Pablo Gómez (UNITED STATES), Frequency Domain Approach for Statistical Switching Studies: Computational Efficiency and Effect of Network Equivalents	18- Juan Guillermo Marin Quintero (COLOMBIA), Microgrids Physics Model-based Fault Location Formulation: Analytic-based Distributed Energy Resources Effect Compensation
	117-Shilin Gao (CHINA), Three-Stage Implicit Integration for Large Time-Step Size Electromagnetic Transient Simulation with Shifted Frequency-Based Modeling	30-Pedro Henrique Aquino Barra (BRAZIL), A Hardware-in-the-Loop Testbed for Microgrid Protection Considering Non-standard Curves
	52-Jean René Zuluaga Duque (MEXICO), Parallel Computation of Power System EMTs through Polyphase-QMF Filter Banks	36-Romulo Bainy (UNITED STATES), Dynamic Zone Selection for Busbar Protection Using Graph Theory and Path Analysis
	78-Keyhan Sheshyekani (CANADA), A 3D FDTD Approach for Calculation of Geomagnetically Induced Currents Considering Complex Multilayer Ground Structure	40-Mario Arrieta Paternina (MEXICO), Two effective methods for impedance estimation in distance relays based on the DC offset removal
	119-Antonio C. S. Lima, Sensitivity Analysis of Frequency-Dependent Soil Models based on Rational Approximation	47-Nina Stipetic (CROATIA), Earth-fault detection and localization in isolated industrial MV network - comparison of directional overcurrent protection and signal injection method
		61-Romulo Bainy (UNITED STATES), Current Mapping Strategy for Improving Two-Terminal Series-Compensated Line Current Differential Protection
Marcela Ribeiro Gonçalves da Trindade, Presentation by Sponsor (OPAL – RT TECHNOLOGIES) - Auditorium: 15:40 – 16:00		
Day	Session: 11A, Lightning Surges and Insulation Coordination II	Session: 11B, Systems Dynamics I
June 09 - Wednesday afternoon (16:00 -17:20)	76-Alain Xemard (FRANCE), Lightning overvoltages on a DC transmission line, calculated based on measured bipolar lightning strokes	105-Raul Vitor Arantes Monteiro (BRAZIL), Non-Intrusive Load Monitoring Using Artificial Intelligence Classifiers: Performance Analysis of Machine Learning Techniques
	87-Bruno Jurišić (CROATIA), Statistical Analysis of Non-Standard Overvoltage Waveforms Measured at 220 kV Terminals of a Power Transformer	107-Shaahin Filizadeh (CANADA), Assessment of Phasor Extraction Methods for Power System Co-Simulation Applications
	103-Hanchi Zhang (DENMARK), Comparison of Backflashover Performance between a Novel Composite Pylon and Metallic Towers	111-Guilherme Penha (BRAZIL), Synchronverter Coupled to a Lithium-Ion Bank for Grid Frequency and Voltage Supports and Controlled Charge-Discharge
	70-Raphael Batista (BRAZIL), Lightning performance of a critical path from a 230-kV transmission line with grounding composed by deep vertical electrodes	114-Renner Sartório Camargo (BRAZIL), Novel Multilevel STATCOM for Power System Stability Enhancement on DFIG-Based Wind Farms

Day	Session: 12A, Transmission Lines and Cables II	Session: 12B, Systems Dynamics II
June 10 - Thursday morning (08:30 – 10:30)	57-Felipe Zanon (BRAZIL), Implementation of the Universal Line Model in the Alternative Transients Program	16-Maryam Torabi Milani (CANADA), Development and Validation of a New Detailed EMT-type Component-based Load Model
	63-Jesus Morales Rodriguez (CANADA), Modeling of Overhead Transmission Lines for Trapped Charge Discharge Rate Studies	17-Aramis Schwanka Trevisan (GERMANY), Assessment of Interactions Involving Wind Farms in Large-Scale Grids
	71-Luiza Mendonça Aviani Ribeiro (BRAZIL), Impact of Transmission Line Modeling Aspects on TW-Based Fault Location Studies	28-Eleftherios Kontis (GREECE), Estimation of Power System Inertia: A Comparative Assessment of Measurement-Based Techniques
	77-John Liu (CANADA), An Efficient Analytical Based Technique to Numerical Calculation of Extended Earth Return Impedance and Admittance of Overhead Lines	66-Theofilos A Papadopoulos (GREECE), Multi-channel Measurement-based Identification Methods for Mode Estimation in Power Systems
	97-Haoyan Xue (CANADA), Evaluation of External Electromagnetic Fields Generated by A Multi-Phase Underground Cable Based on Transmission Line Approach	68-Wandry Rodrigues Faria (BRAZIL), Service Restoration in Modern Distribution Systems Addressing Grid-Connected and Islanded Operations
	115-Antonio Carlos Siqueira Lima (BRAZIL), Earth Return Admittance Impact on Crossbonded Underground Cables	79-Santosh V Singh (INDIA), Extraction of Open-Loop Frequency Response of Power Apparatus using Transient Data from Multiple Naturally Occurring Disturbances
	Closing Ceremony (Auditorium) 10:30 - 11:00	

Each presentation lasts 20 minutes including 5 minutes for discussions