



WCNPS 2022



Full Program

General Program

Day 1 – November 17, 2022 Power Systems

Schedule	Event
08:30 - 09:00 AM	Opening Session
09:00 - 10:00 AM	Lecture PS1
10:00 - 10:20 AM	Coffee Break
10:20 - 11:20 AM	Technical Session PS1
11:20 - 12:20 AM	Technical Session PS2
02:00 - 03:00 PM	Lecture PS2
03:00 - 04:00 PM	Technical Session PS3
04:00 - 04:20 PM	Coffee Break
04:20 - 05:20 PM	Lecture PS4
05:20 - 06:20 PM	Technical Session PS4

Day 2 – November 18, 2022 Communication Networks

Schedule	Event
08:00 - 09:00 AM	Lecture CN1
09:00 - 10:00 AM	Technical Session CN1
10:00 - 10:20 AM	Coffee Break
10:20 - 11:20 AM	Lecture CN2
11:20 - 12:20 AM	Technical Session CN2
02:00 - 03:00 PM	Lecture CN3
03:00 - 04:00 PM	Technical Session CN3
04:00 - 04:20 PM	Coffee Break
04:20 - 05:00 PM	Closing Session

The program schedule is based on the GMT-3 time zone (Brasilia time)

Day 1 – November 17, 2022

Power Systems

November 17, 2022 – Power Systems



Schedule	Event
08:30 - 09:00 AM	Opening Session
09:00 - 10:00 AM	Lecture PS1 – Modeling and analysis of power systems dynamics using system identification techniques <i>Plenary Speaker: Prof. Dr. Theofilos Papadopoulos (Democritus University of Thrace - Greece)</i> <i>Chair: Prof. Dr. Amauri Gutierrez Martins Britto (UnB - BRA)</i>
10:00 – 10:20 AM	Coffee Break
10:20 - 11:20 AM	Session PS1 – Inverted-Based Resources Integration <i>Chair: Prof. Dr. José Carlos de Melo Vieira Júnior (UNICAMP - BRA)</i>
11:20 - 12:20 AM	Session PS2 – Electromagnetic Transients <i>Chair: Prof. Dr. Amauri Gutierrez Martins Britto (UnB - BRA)</i>
02:00 - 03:00 PM	Lecture PS2 – AC and DC Side Protection of HVDC Systems <i>Plenary Speaker: Prof. Dr. Brian K. Johson (University of Idaho - USA)</i> <i>Chair: Prof. Dr. Felipe Vigolvino Lopes (UFPB - BRA)</i>
03:00 - 04:00 PM	Session PS3 – Power System Protection and Fault Location <i>Chair: Prof. Dr. Kleber Melo e Silva (UnB - BRA)</i>
04:00 – 04:20 PM	Coffee Break
04:20 - 05:20 PM	Lecture PS3 – HVDC and FACTS – Some Basic Concepts <i>Plenary Speaker: Prof. Dr. Edson Hirokazu Watanabe (UFRJ - BRA)</i> <i>Chair: Prof. Dr. Luiz Henrique Silva Colado Barreto (UFC - BRA)</i>
05:20 - 06:20 PM	Session PS4 – Power System Modelling and Analysis <i>Chair: Prof. Dr. Felipe Lopes (UFPB - BRA)</i>

November 17, 2022 – Power Systems



- Session PS1 – Inverted-Based Resources Integration

Chair: Prof. Dr. José Carlos de Melo Vieira Júnior (UNICAMP - BRA)

Schedule	ID	Paper
10:20 - 10:35 AM	4615	Importance of EMT-Type Simulations for Protection Studies in Power Systems with Inverter-Based Resources <i>Felipe Lopes, Moisés Davi, Mário Oleskovicz and Giovanni Fabris</i>
10:35 - 10:50 AM	8425	Impacts of Advances in Standards for Inverter-Based Resources Controls on Distance Protection <i>Moisés Davi, Mário Oleskovicz and Felipe Lopes</i>
10:50 - 11:05 AM	5039	Proposal of an Inverter-based DER Model on OpenDSS Under IEEE 1547-2018 Regulation <i>André Moscon Mendes, Beatriz Lascosck Cardoso de Souza, Murillo Cobe Vargas and Clainer Bravin Donadel</i>
11:05 - 11:20 AM	1945	Methodology for Impact Analysis of Electric Vehicles Charging Stations in Low Voltage Distribution Networks <i>Michel G Oliveira and José Carlos M Vieira Júnior</i>

November 17, 2022 – Power Systems



- Session PS2 – Electromagnetic Transients

Chair: Prof. Dr. Amauri Gutierrez Martins Britto (UnB - BRA)

Schedule	ID	Paper
11:20 - 11:35 AM	4992	On the effective length of transmission line grounding conductors and the validity of the point-source model in GPR responses <i>Caio Moraes, Marco de Brito Ribeiro and Amauri Martins-Britto</i>
11:35 - 11:50 AM	9834	Impact of Considering Surger Arresters to Reduce Lightning Induced Voltage: emphasis on the the Grounding Modeling <i>Ícaro Augusto Nobre, Jaimis Leon Colqui, Daniele Mestriner, Renato Procopio, Massimo Brignone, Rodolfo Antonio de Moura, Marco Aurélio De Oliveira Schroeder, Úrsula Resende and José Pissolato Filho</i>
11:50 - 12:05 AM	5825	Impact of Volumetric Water Content and Porosity on Transmission Lines Submitted to Energization and Lightning Strikes <i>Tainá Fernanda Garbelim Pascoalato, Anderson Ricardo Justo de Araujo, Sergio Kurokawa and José Pissolato Filho</i>
12:05 - 12:20 AM	659	Soil Water Content and Porosity on Earth Potential Rise of Vertical Grounding Rods <i>Walter Luiz Manzi de Azevedo, Anderson Ricardo Justo de Araujo and José Pissolato Filho</i>

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- Session PS3 – Power System Protection and Fault Location

Chair: Prof. Dr. Kleber Melo e Silva (UnB - BRA)

Schedule	ID	Paper
03:00 - 03:15 PM	6478	Assesment of Traveling Wave Propagation Velocity on HVDC Transmission Lines <i>Caio Muller Santos Ribeiro, Felipe Lopes and Kleber Melo E Silva</i>
03:15 - 03:30 PM	2778	An Adaptive Protection Scheme for Radial Distribution Networks under Topology Changes <i>Paul Cristian Arroyo Quispe, Antônio Eduardo Ceolin Momesso and Eduardo Nobuhiro Asada</i>
03:30 - 03:45 PM	4304	Proof of concept of Fault Detection and Identification Framework applied in Power Converter based on Digital Twins <i>André Lima, Francisco Souza, Ernande Morais, Dalton Honório and Luiz Barreto</i>
03:45 – 04:00 PM	9177	Evaluation of transfer learning approaches for partial discharge classification in hydrogenerators <i>Frederico Lopes, Ronaldo Zampolo, Rodrigo Oliveira and Victor Dmitriev</i>

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- Session PS4 – Power System Modelling and Analysis

Chair: Prof. Dr. Felipe Vigolvino Lopes (UFPB - BRA)

Schedule	ID	Paper
05:20 - 05:35 PM	808	Wind power curve modeling through data-driven approaches: evaluating piecewise linear fitting and machine learning applications in a real-unit case <i>Danilo P. C. Filho, Arthur L. C. Weyll, Diogo N. S. Ramos, Ricardo C. Medrado, Márcio C. Filho and Tiago R. Maritan</i>
05:35 - 05:50 PM	3882	Assessment of Synchronous Condensers Connected to Extra-High Voltage Substations during Transmission Lines Switching <i>Augusto Tiziano Holz Bartz and Francis Arody Moreno Vásquez</i>
05:50 - 06:05 PM	5835	Non-invasive monitoring system for analysis of energy efficiency of three-phase induction motors <i>Mauri Saraiva, Eduardo Henrique Sousa Paz, Victor Brandão Aguiar and Ricardo Thé Pontes</i>

Day 2 – November 18, 2022

Communication Networks



Schedule	Event
08:00 - 09:00 AM	Lecture CN1 – Enabling Sustainable IoT: A look at RF Wireless Power Transfer Technology <i>Plenary Speaker: Prof. Dr. Onel Luis Alcaraz López (University of Oulu - Finland)</i> <i>Chair: Prof. Dr. Yuri Carvalho Barbosa Silva (UFC - BRA)</i>
09:00 - 10:00 AM	Session CN1 – Information Security <i>Chair: Prof. Dr. Victor Farias (UFC – BRA)</i>
10:00 - 10:20 AM	Coffee Break
10:20 - 11:20 AM	Lecture CN2 – Wireless for Machine Learning: Fundamentals and Applications <i>Plenary Speaker: Prof. Dr. José Mairton B. da Silva Jr. (Princeton University - USA)</i> <i>Chair: Prof. Dr. Tarcisio Maciel (UFC- BRA)</i>
11:20 - 12:20 AM	Session CN2 – 5G performance and Intelligent Surfaces <i>Chair: Prof. Dr. Francisco Rafael Marques Lima (UFC - BRA)</i>
02:00 - 03:00 PM	Lecture CN3 – Making Privacy Preserving Machine Learning Practical <i>Plenary Speaker: Anderson C. A. Nascimento (University of Washington - USA)</i> <i>Chair: Dr. Fazal E-Asim (UFC – BRA)</i>
03:00 - 04:00 PM	Session CN3 – Component Modelling and Signal Processing <i>Chair: Prof. Dr. Yuri Carvalho Barbosa Silva (UFC - BRA)</i>
04:00 - 04:20 PM	Coffee Break
04:20 - 05:00 PM	Closing Session



- Session CN1 – Information Security

Chair: Prof. Dr. XXXX (UnB - XXXX)

Schedule	ID	Paper
09:00 - 09:15 AM	447	A security model for DNS tunnel detection on cloud platform <i>Lorena de Souza Bezerra Borges, Robson de O. Albuquerque and Rafael T. de Sousa Jr.</i>
09:15 - 09:30 AM	8538	Proposed Security Measures for Code Injection for CubeSats <i>Alexandre Radis, João Gondim and Daniel Café</i>
09:30 - 09:45 AM	3029	Quantum-resistant Cryptography in FPGA <i>Renata C. Policarpo, Alexandre S. Nery and Robson de O. Albuquerque</i>
09:45 - 10:00 AM	713	An Algorithm to Decrease the Key Distribution Error Rate Using Pulsars <i>Bruno Sampaio Rocha, Fábio Alencar Mendonça and Rubens Viana Ramos</i>

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- Session CN2 – 5G performance and Intelligent Surfaces

Chair: Prof. Dr. Francisco Rafael Marques Lima (UFC - BRA)

Schedule	ID	Paper
11:20 - 11:35 AM	1619	Battery consumption analysis for 5G NSA networks <i>Livia Teles, Iury Batalha, Wirlan Gomes, Matheus Nery and Tarcisio Maciel</i>
11:35 - 11:50 AM	8946	Performance Analysis 5G Standalone Network: an Approach Focused on Throughput <i>Iury Batalha, Bruno Silva, Maykon Silva, Millena Campos and Livia Teles</i>
11:50 - 12:05 AM	2479	Tensor-Based Channel Estimation for RIS-Assisted Communications With Non-Ideal Phase Shift Responses <i>Paulo Gomes, Gilderlan de Araújo, Bruno Sokal, André de Almeida, Behrooz Makki and Gábor Fodor</i>
12:05 - 12:20 AM	8884	Rate maximization with QoS guarantees in IRS-assisted WPCN-NOMA systems <i>Carlos Augusto Melo de Pinho Carlos Augusto and Francisco Rafael Marques Lima Rafael Lima</i>



- Session CN3 – Making Privacy Preserving Machine Learning Practical

Chair: Prof. Dr. Yuri Carvalho Barbosa Silva (UFC - BRA)

Schedule	ID	Paper
11:20 - 11:35 AM	7225	Characterization of Large-Scale Parameters in Indoor THz Channels Applying the Ray Tracing Method <i>Higo Thaian Pereira da Silva, Hugerles Sales Silva, Marcelo Sampaio de Alencar, Wamberto José Lira Queiroz and Ugo Silva Dias</i>
11:35 - 11:50 AM	7489	Design and Optimization of a Compact 10 × 10 Ku-band Reflectarray Antenna <i>Daniel Sousa, Guilherme Andrade and Sébastien Rondineau</i>
11:50 - 12:05 AM	7764	Statistical and Performance Analysis of Compressive Sensing in Solar Corona Tomography <i>Daniele Dias, Cristiano Miosso, Giancarlo Santilli and Ugo Dias</i>
12:05 - 12:20 AM	6030	Leveraging BERT's Power to Classify TTP from Unstructured Text <i>Paulo Magno M. M. R. Alves, Vinícius P. Gonçalves and Geraldo P. R. Filho</i>

General Chairs

Prof. Dr.-Ing. Tarcisio Ferreira Maciel (UFC)
Prof. Dr. Kleber Melo e Silva (UnB)

TPC Members – CN

Prof. Dr. André Lima Férrer de Almeida (UFC)
Prof. Dr. Hugerles Sales Silva (UnB)
Prof. Dr. Rafael Rabelo (UnB)
Prof. Dr. Yuri Carvalho Barbosa Silva (UFC)

TPC Members – PS

Prof. Dr. Amauri Gutierrez Martins Britto (UnB)
Prof. Dr. Felipe Vigolvino Lopes (UFPB)
Prof. Dr. José Carlos de Melo Vieira Júnior (USP/EESC)
Prof. Dr. Luiz Henrique Silva Colado Barreto (UFC)

Publication Chairs

MSc. Bruno Praciano (UnB)

IT Chair

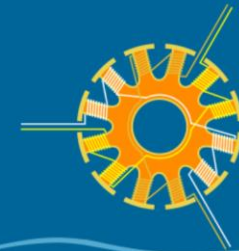
Prof. Dr. Diego Aguiar Sousa (IFCE)



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