

SEPOC 2024 - Schedule of Oral Sessions

1) Please check your full name for the certificates. Doubts or full name corrections send to sepoc@ufsm.br

2) All times are in GMT-3

3) This schedule may be subjected to changes

TECHNICAL SESSION 1

Day 20/10/2024 (Sunday)

Hour 15:00 - 16:30

TECHNICAL SESSION 1 - 20/10/2024 - Sunday

Room A - 1303

Renewable and alternative energy systems

Chair: Prof. Lucas Teixeira

Link: meet.google.com/qpi-tooy-jeh

Hour	ID	Title	Authors
15:00	28	Análise da viabilidade econômica da utilização de baterias LiFePO4 na microgeração distribuída sob vigência da Lei nº 14.300/2022	Maria Teresa Targino Macedo Silveira Carlos, Ednardo Pereira da Rocha, Adriano Aron Freitas de Moura, Sanderson Aron Moura Gurgel Sinedino de Oliveira
15:18	11	An artificial bee colony optimizer-based FOC for PMSG-based wind energy conversion systems	Paulo Jefferson Dias de Oliveira Evald, José Eduardo das Neves da Fonseca, Matheus Schramm Dall'asta, Jéssika Melo de Andrade, Lenon Schmitz, Telles Brunelli Lazzarin
15:36	12	Enhanced PI controllers for wind turbine with direct drive permanent magnet synchronous generators using bat optimizer	Paulo Jefferson Dias de Oliveira Evald, José Eduardo das Neves da Fonseca, Matheus Schramm Dall'asta, Jéssika Melo de Andrade, Lenon Schmitz, Telles Brunelli Lazzarin
15:54	92	Performance Analysis through Merit Indexes of a Carport located in Neoville campus of the Federal University of Technology of Paraná	Mirella Augusto Rodrigues, Jair Urbanetz Junior
16:12	80	The Correlative Study of Diverse Fuel Cell Technologies	HEMA RAJESWARI KOMMURI

TECHNICAL SESSION 1 - 20/10/2024 - Sunday

Room B - 1304

Education and Entrepreneurship in Engineering

Chair: Prof. Rafael Concatto Beltrame

Link: meet.google.com/ntv-efvn-dpp

Hour	ID	Title	Authors
15:00	30	Measuring the Complexity of Electrical Circuits: An Educational Study Based on Systems Engineering	Alisson Oliveira
15:18	25	Dialogues On Renewable Energies: Impacts Of University	Calisto José da Silva Neto, Luiz Henrique Santos Silva, Jairo Cavalcanti Amaral, Consuelo Cristina Gomes Silva, Gabriele Costa Gonçalves Dantas, Roberto José Batista Câmara, Daniel do Carmo Silva Ribeiro, Iago Shiniti Libório Iwassa Aragão

15:36	84	Proposta de um Guia Didático para Ensino de Eletrônica de Potência Voltado para Controle de Conversores Eletrônicos	Ruan Sávio Ferreira Zeferino, Bruna Samille de Jesus Assis Sampaio, Rodrigo Cassio Barros, Renata Oliveira de Sousa, Allan Fagner Cupertino, Heverton Augusto Pereira
15:54	103	Implementation of a research assistant for literature review with Large Language Models	Eugênio Pozzobon, Humberto Pinheiro
16:12	119	Estudo para desenvolvimento de Analisador Eletrocirúrgico	Jorge Richter, Daniel Pinheiro Bernardon
TECHNICAL SESSION 1 - 20/10/2024 - Sunday			
Room C - 1305			
Electrical machines, control and drives			
Chair:	Prof. Lucas Giuliani Scherer		
Link:	meet.google.com/xtt-pdnq-uuq		
Hour	ID	Title	Authors
15:00	124	Uma Investigação das Indutâncias de um Protótipo de Transformador para Desenvolvimento de Modelo de Alta Frequência Através do MEF	João Pedro Pranke Perin, Ingrid Dos Santos Kremer, Leonardo Hautrive Medeiros, Rafael Concatto Beltrame, Vitor Cristiano Bender, Tiago Bandeira Marchesan
15:18	118	Bio-inspired linear quadratic tracker for DC motors speed control	José Carlos Mendes Gomes, Felipe Pontes de Matos, Mateus Santos da Silva, Marlon Soares Sigales, Paulo Jefferson Dias de Oliveira Evald
15:36	122	Controle Preditivo Baseado em Modelo com Estimação Paramétrica para SynRM	PAULO E SILVA, HUBERTO PINHEIRO, Rodrigo Padilha Vieira, Gustavo Xavier Prestes, Dimas Alã Schuetz, Emmanuel Adanski de Moura, Mozer Schunk Lorenzo
15:54	147	Controle de alta performance de PMSMs através de observador adaptativo de torque de carga	Emmanuel Adamski de Moura, Rodrigo Varella Tambara, Paulo Henrique Alves da Silva e Silva, Rodrigo Padilha Vieira
16:12	113	Performance Comparison Between Discrete-time Differentiators for Sensorless PMSM Drives	Emmanuel Adamski de Moura, Pedro Henrique Bulegon Löbler, Cassiano Rech, Luciano Schuch, Carlos Henrique Barriuello, Rodrigo Padilha Vieira
TECHNICAL SESSION 1 - 20/10/2024 - Sunday			
Room D - 1306			
Aerospace, Automotive and Telecommunication applications			
Chair:	Prof. Hamiltom Sartori		
Link:	meet.google.com/vnn-iomq-ezk		
Hour	ID	Title	Authors
15:00	135	Enhancing Aircraft Control: Design and Implementation of an Electromechanical Actuator control System with State Observer	THALES HEDLUND, Miguel Daehn Ribeiro
15:18	151	Implementation of a Visible Light Communication Link	Lucas Costamilan, Luis Felipe Viaro Rosa, Gustavo Zuchetto, Lucas Teixeira
15:36	116	Battery Thermal Management System for Various Electrical Vehicles	Sunil More, Brajesh Gupta, Sri satya Sai
15:54			
16:12			
TECHNICAL SESSION 2			

Day	21/10/2024 (Monday)		
Hour	08:30 - 10:00		
TECHNICAL SESSION 2 - 21/10/2024 - Monday			
Wilson Aita			
Power electronics – topologies and design			
Chair:	Prof. Heverton Augusto Pereira		
Link:	meet.google.com/esh-papy-mdi		
Hour	ID	Title	Authors
08:30	89	Técnicas de Redução da Indutância de Dispersão em Indutores Acoplados Utilizados em Conversores Flyback Quase Ressonantes como Drivers de LEDs	João Renato Camara Amado, Renan Rodrigo Duarte, Giulia Grassi, Kalyl Sinhorini Abu Ali, Hentony Lobo, Marco Antonio Dalla Costa
08:48	155	Projeto do Conversor Ressonante LLC Assistido por Simulação em Elementos Finitos	Joshua Rauber Neusser, Cristiano Facco, Maikel Menke, Marco Dalla Costa
09:06	145	Volume Reduction of an Integrated Magnetic in a Two-Stage Street-Lighting LED Driver	Eduarda Fumaco Freitas, Manuela Baccin da Rosa, Anderson Augusto Wittke, Igor Bertoncello Barboza, Marco A. Dalla Costa
09:24	157	Finite Element Analysis of Leakage Inductance in Multi-Winding Coupled Inductors for Flyback-Based LED Drivers	Kalyl Sinhorini Abu Ali, Renan Rodrigo Duarte, João Renato Camara Amado, Marco Antonio Dalla Costa, Hentony Amaral Lobo
09:42	110	Efficiency of a Dual Active Bridge Converter with a Variable Inductor for Battery Charging Applications	Conrado Gomes Marques, João Pedro Scherer Cipriani, Maicon Wellington Dickow, Leandro Roggia, Jonas Roberto Tibola, Álysson Raniere Seidel
TECHNICAL SESSION 2 - 21/10/2024 - Monday			
Room A - 1303			
Identification, control theory and applications/Modeling, simulation and control of power electronics			
Chair:	Prof. Paulo Jefferson Dias de Oliveira Evald		
Link:	meet.google.com/deb-saag-ywc		
Hour	ID	Title	Authors
08:30	149	Robust adaptive control for BLDC motor control: synthesis and experimental validation	Gabriel Hackbardt Morales, Alexandre Silva Lucena, Elmer Alexis Gamboa Peñazola, Carlos Guilherme da Costa Neves, Paulo Jefferson Dias de Oliveira Evald
08:48	50	Estratégias e Técnicas de Controle Empregadas em Soldagem a Arco Elétrico	Rafael Concatto Beltrame, Vitor de Souza Guedes, Fábio Ecke Bisogno, Lucas Vizzotto Bellinaso, Christian Griesang Barbosa, Ezequiel Andrei Mallmann, Luciano Anderson Fricke
09:06	129	Comparison of angular velocity estimation methods for reaction wheel inverted pendulum control	Bruno Moterani Meri, Caio Gabriel Vicentin, Gustavo Rickli, Lucas Vizzotto Bellinaso, Gustavo Stivanin Azzolin, Matheus Klement, José Guilherme Ferreira
09:24	141	Control of a Satellite Antenna Using Servomechanism Controller and State Observer	Gustavo Stivanin Azzolin, Lucas Vizzotto Bellinaso, José Guilherme Ferreira, Matheus Klement, Maria Eduarda Bilibio, Bruno Moterani Meri, Caio Gabriel Vicentin, Gustavo Rickli

09:42	49	Modelagem de um Conversor CC-CC Ponte-Completa Aplicado a Processos de Soldagem a Arco Elétrico	Rafael Concatto Beltrame, Vitor de Souza Guedes, Fábio Ecke Bisogno, Lucas Vizzotto Bellinaso, Christian Griesang Barbosa, Ezequiel Andrei Mallmann, Luciano Anderson Fricke
TECHNICAL SESSION 2 - 21/10/2024 - Monday			
Room B - 1304			
Electrical machines, control and drives			
Chair:	Dr. Leonardo Hautrive Medeiros		
Link:	meet.google.com/ppy-tjah-joe		
Hour	ID	Title	Authors
08:30	91	Modelling of an Induction Motor and Model Reference Adaptive System (MRAS) for Speed Estimation in Xcos	Rhuan Barbosa da Silva, Raymundo Cordero García, Lucas Maldonado, Tatielle Lima de Souza, Moacyr Aureliano Gomes de Brito
08:48	107	Rotor Speed Observer Based on Extended Stator Current Model of Interior Permanent Magnet Synchronous Motors	Renata Camponogara, Raissa Gomes da Silva, Gustavo Guilherme Koch, Hilton Abílio Gründling, Thieli Smidt Gabbi
09:06	106	Desenvolvimento de uma Metodologia para o Cálculo do Mapa de Eficiência de Máquinas Elétricas: Uma Alternativa em Código Aberto	Oseias de Paula Ferreira, Gabriel Alves Mendonça, Thales Alexandre Carvalho Maia
09:24	111	Numerical Analysis of 2D/3D Flow of Natural Ester Through Power Transformer Windings	Douglas Machado Carvalho, Carlos Eduardo Guex Falcão, Vinicius Peres Bertoldo, Leonardo Hautrive Medeiros, Vitor Cristiano Bender, Tiago Bandeira Marchesan
09:42	117	Enhancing solar photovoltaic systems: a soft-computing optimization of the solar tracker actuator using horned lizard algorithm	Felipe Pontes de Matos, Mateus Santos da Silva, José Carlos Mendes Gomes, Marlon Soares Sigales, Paulo Jefferson Dias de Oliveira Evald
TECHNICAL SESSION 2 - 21/10/2024 - Monday			
Room C - 1305			
Energy efficiency, power quality and electromagnetic compatibility			
Chair:	Prof. Carlos Henrique Barriquello		
Link:	meet.google.com/arv-bpey-jki		
Hour	ID	Title	Authors
08:30	93	Challenges of inverter-based load disaggregation	Marcos Vicente Cruz, Luiz Gustavo Reis Bernardino, Fernando Pinhabel Marafão
08:48	139	Analysis of Shielding Losses Between Transformer Windings Considering Harmonic Components	Ana Paula Bastianello, Joao Pedro Pranke Perin, Leonardo Hautrive Medeiros, Vitor Bende, Tiago Bandeira Marchesan, Patricia Tomalak Liss
09:06	142	Análise da Rede Elétrica e Estudo da Estrutura de Tarifária de Energia da UFSM Campus de Cachoeira do Sul	Jéssica Emilly de Moura Lisboa, Criciéle Castro Martins, Pedro Henrique Aires Luiz, Marcelo Augusto de Lima, Daniel Henrique Stahl
09:24	38	Energy Optimization Framework for University's Residential Halls: Striving for Sustainable Institutions	Muhammad Rehan Arif, Nasir Jamal
09:42	95	State-of-Art Consumer Behavior in Response to Price Signals in Microgrids	Gabriel Rodrigues Moreira, Stéfane Dias Rodrigues, Vinicius Jacques Garcia, Daniel Pinheiro Bernardon
TECHNICAL SESSION 2 - 21/10/2024 - Monday			

Room D - 1306			
Modeling, simulation and control of power electronics			
Chair:	Prof. Mateus Felzke Schonardie		
Link:	meet.google.com/fgz-wrmc-ezd		
Hour	ID	Title	Authors
08:30	82	Estratégia de Modulação Space Vector para o Conversor Multinível Modular	Jerônimo Dorneles Silva Vilaverde, Felipe Bovolini Grigoletto
08:48	85	Use of Dynamic Simulation for Control Analysis of DC-DC Converters - A Case Study using Buck-Boost Converter	Lidia Martinelli de Oliveira, Brenda Bierhals, Elmer A. Gamboa Peñaloza, Carlos G. Costa Neves, Paulo J. D. Oliveira Evald, Sigmar de Lima
09:06	97	Modelagem de conversor boost integrado a motor e projeto de conversor boost intercalado corretor de fator de potência	Vander Silvio da Silva Júnior
09:24	68	Analysis of Solid-State Transformer Features Through Modeling and Control Simulation	Cristina Schoefer Dessbesel, Sandro Alberto Bock, João Manoel Lenz Vianna da Silva
09:42	130	Carregador VE Aplicado a Nanorredes (c.c.)	Igor Klaus Reichert, Danielle Ferrari dos Santos, Anderson Venzke Backes, Fernando Siqueira Scherer, Lucas Vizzotto Bellinaso, Edivan Laercio Carvalho da Silva
TECHNICAL SESSION 3			
Day	21/10/2024 (Monday)		
Hour	13:30 - 15:00		
TECHNICAL SESSION 3 - 21/10/2024 - Monday			
Wilson Aita			
Renewable and alternative energy systems			
Chair:	Prof. Jorge Rodrigo Massing		
Link:	meet.google.com/ezn-nvob-ukm		
Hour	ID	Title	Authors
13:30	10	An ant lion optimizer-based PI controller with robust ADRC for LLCL filter current regulation	Paulo Jefferson Dias de Oliveira Evald, José Eduardo das Neves da Fonseca, Matheus Schramm Dall'asta, Jéssika Melo de Andrade, Lenon Schmitz, Telles Brunelli Lazzarin
13:48	13	A LQR with adaptive disturbance rejection for grid-tied systems tuned with the cuckoo optimizer	Paulo Jefferson Dias de Oliveira Evald, José Eduardo das Neves da Fonseca, Matheus Schramm Dall'asta, Jéssika Melo de Andrade, Lenon Schmitz, Telles Brunelli Lazzarin
14:06	14	An enhanced RMRAC-based PI for grid-tied voltage source inverters with LLCL filters using the dragonfly optimizer	Paulo Jefferson Dias de Oliveira Evald, José Eduardo das Neves da Fonseca, Matheus Schramm Dall'asta, Jéssika Melo de Andrade, Lenon Schmitz, Telles Brunelli Lazzarin
14:24	15	A robust MPC for grid-following inverters improved with the krill herd optimization algorithm	Paulo Jefferson Dias de Oliveira Evald, José Eduardo das Neves da Fonseca, Matheus Schramm Dall'asta, Jéssika Melo de Andrade, Lenon Schmitz, Telles Brunelli Lazzarin
14:42	47	AVALIAÇÃO DE SISTEMAS DE RESFRIAMENTO PARA PLACAS FOTOVOLTAICAS	Anderson Zini, Vandrei Rubin Steffanello, Paulo César Vargas Luz
TECHNICAL SESSION 3 - 21/10/2024 - Monday			
Room A - 1303			

Power electronics – topologies and design			
Chair:	Dr. Everson Mattos		
Link:	meet.google.com/oat-verc-ukx		
Hour	ID	Title	Authors
13:30	136	Estudo de Conversores Bidirecionais CC-CC Baseados na Topologia Buck-Boost	Lucas Ribeiro Silva, António Manuel Santos Spencer Andrade, Matheus Paixão Cavalheiro
13:48	138	Cost and Efficiency Optimization of Low-frequency Transformers in Uninterruptible Power Supplies	Pedro C. Bolsi, João M. Lenz, Edemar Prado, Talis Piovesan, Hamiltom C. Sartori, José R. Pinheiro
14:06	146	Influence of Modulation on the Current Ripple in Interleaved Multi-Cell Boost Converters	Eder Bridi, Hamiltom Confortin Sartori, José Renes Pinheiro
14:24	33	Switched Control Design for a Modified SEPIC Converter Applied to PEF Generation.	Omar Ruiz-Martinez
14:42	131	Desenvolvimento de conversor híbrido bidirecional com células a capacitor chaveado	Matheus Paixão Cavalheiro, Paulo César Vargas Luz, Lucas Ribeiro Silva, Diogo Ribeiro Vargas, António Manuel Santos Spencer Andrade, Thieli Smidt Gabbi
TECHNICAL SESSION 3 - 21/10/2024 - Monday			
Room B - 1304			
Microgrids			
Chair:	Dr. Edivan Laercio Carvalho		
Link:	meet.google.com/qxt-goia-csj		
Hour	ID	Title	Authors
13:30	45	Computational Optimization of PV Grid for an Intelligent System of Residential Buildings in sub-urban Areas of Punjab, Pakistan	Moazzam Shehzad, Nasir Jamal, Petaling Jaya, Hafiz Abdul Muqet, Noman Sohaib Qureshi
13:48	79	Optimal Phasor Measurement Unit Placement Using Machine Learning Technique	Rajendra Shrestha, Larissa Souto Del Rio, Pedro Eisenkraemer, Rabindra Bhatta, Konrad Schmitt, Manohar Chamana, Stephen Bayne, Argenis Bilbao
14:06	86	Projeto e Implementação do Controle de Inversores Formadores de Rede aplicados a uma Microrrede Monofásica	Vítor Paese De Carli, Ivan Jorge Gabe, Rodrigo Varella Tâmbara, André Pacheco Meurer, Roberto W. M. Viaro, Vinícius Montagner
14:24	87	Model Reference Adaptive Controller for Grid-Forming Inverters applied to Single-Phase Microgrid	Vítor Paese De Carl, Rodrigo Varella Tambara, Vinícius Montagner, Roberto W. M. Viaro
14:42	100	Control of DC-DC converters in DC microgrids: adaptation of virtual DC machine control	Juliano de Santana Borgrs, Cleiton Magalhães Freitas, Luís Fernando Corrêa Monteiro
TECHNICAL SESSION 3 - 21/10/2024 - Monday			
Room C - 1305			
Power systems analysis, operation, control, digitalization and protection			
Chair:	Prof. Fernando Guilherme Kaehler Guarda		
Link:	meet.google.com/jkn-oozj-hqq		
Hour	ID	Title	Authors
13:30	63	Avaliação da Energia Incidente de Arcos Elétricos para Diferentes Configurações de Eletrodos	Pedro de Oliveira Bacin, Vitor Cristiano Bender, Tiago Bandeira Marchesan, Rafael Concatto Beltrame, Daniel Pinheiro Bernardon, Gilnei José Gama dos Santos

13:48	64	Manutenção Preditiva Para Garantir a Operação Segura de Subestações de Energia: Um estudo de Caso em um Laboratório de Arcos Elétricos	Felipe da Silveira Cardoso, Pedro de Oliveira Bacin, Wilerson Alves Chuma, Vitor Cristiano Bender, Tiago Bandeira Marchesan, Adriano Peres de Moraes
14:06	73	Simulação Computacional de Descargas Parciais Internas em Transformadores de Instrumentos por meio do Método dos Elementos Finitos	Juliano Damiani, Vinicius Signori Rahmeier, Kaynan Maresch, Ghendy Cardoso Junior, Aécio de Lima Oliveira, Luiz Fernando Freitas-Gutierrez, Erick Finzi Martins, Herber Fontoura, Cristian Hans Correa
14:24	120	AVALIAÇÃO DE DESEMPENHO DE UM ALGORITMO DE LOCALIZACAO DE FALTAS A UM TERMINAL UTILIZANDO ONDAS VIAJANTES E TRANSFORMADA WAVELET DISCRETA EM UMA LINHA DE TRANSMISSÃO DE 69 KV	Momade Juma Amade, Ghendy Cardoso Jr., Jean Pereira Rossini, Caison R. Ramos
14:42	65	Desenvolvimento de um software para coordenação e seletividade de redes de distribuição	Ingridi dos Santos Kremer, Arthur Cordeiro Andrade, Marcelo de Ramos Grenzel, Guilherme Azevedo Rech, Daniel Pinheiro Bernardon, João Pedro Pranke Perin, Maria Cecília Caldeira Vieira, Cristiane Cauduro Gastaldini, Leonardo Hautrive Medeiros

TECHNICAL SESSION 3 - 21/10/2024 - Monday

Room D - 1306

Modeling, simulation and control of power electronics; Performance and Energy Efficiency in Industrial Processes

Chair:	Prof. Jonas R. Tibola		
Link:	meet.google.com/uds-agmz-cxi		
Hour	ID	Title	Authors
13:30	112	Finite Elements Analysis Applied to the Design of Integrated Magnetics for Power Converters	Anderson Augusto Wittke, Igor Bertoncello Barboza, João Pedro Pranke Perin, Vitor Cristiano Bender, Marco Antônio Dalla Costa
13:48	154	Um método para estimativa de temperatura de junção de dispositivos SiC-Mosfet em inversores de tração	Leonardo Rafael Willers, Eduardo Cattani Silva, Paulo Henrique Alves da Silva e Silva, Lucas Rossato Rocha, Rodrigo Padilha Vieira
14:06	158	Lifetime Analysis of MOSFETs in UPS Application Through Experimental Thermal Characterization	João Manoel Lenz, Edemar Prado, Pedro Bolsi, Hamiltom Sartori, José Renes Pinheiro
14:24	98	PCB Layout Design Using Finite Element Analysis for Parasitic Inductance Reduction	Talis Piovesan, Edemar Prado, Luan Aleixo, Pedro C. Bolsi, Marcio Fontana, Antônio C. C. Lima, Hamiltom C. Sartori, José R. Pinheiro
14:42	101	Temporal Causality Analysis and Energy Efficiency: Impact of the Compressed Air System on Electrical Energy Consumption in an Automotive Metalworking Industry	Ubiratan de Oliveira Pereira, Luciane Neves Canha, Leonardo Barbosa Lazarini Silva Ribeiro, Diego Tolotti de Almeida, Ruan Stapenhorst, Eduardo Gosmann, Gabriela Emanuelle Valeriano Soares, Luciano Lasch dos Santos

TECHNICAL SESSION 4

Day	22/10/2024 (Tuesday)		
Hour	08:30 - 10:00		
TECHNICAL SESSION 4 - 22/10/2024 - Tuesday			
Wilson Aita			
Renewable and alternative energy systems			
Chair:	Prof. Rafael Concatto Beltrame		
Link:	meet.google.com/crg-tkca-bpv		
Hour	ID	Title	Authors
08:30	19	Metodologia para análise de geração compartilhada: Uma abordagem para investidores em diferentes regiões do Brasil	Lucas Cancio, Daniel Pinheiro Bernardon, Luiz Alberto Wagner Pinto Junior, Junior Garcia, João Alberto Machiavelli
08:48	27	Comparative Analysis of Parameters Extraction Models for Photovoltaic Modules Using Single Diode Model	João Frederico Souza de Paula, João Lucas de Souza Silva, João Pedro Costa Barnabé, Marcel Veloso Campos, Tarcio André dos Santos Barros, Gustavo Fraidenraich
09:06	55	Automatic Control of Electric Vehicle Charging Stations Using a Novel Application Programming Interface	Marcelo Oliveira Godinho, Lucas Gabriel Coliadio Bandeira, Eduardo Rodrigues de Abreu, Wagner Coelho Leal, Rodrigo Antonio Sbardeloto Kraemer, Beatriz Batista Cardoso, Durval da Silva Neto, Maurício Ibarra Dobes
09:24	102	Metodologia inteligente para otimização de O&M em instalações fotovoltaicas: redução de custos e eficiência	Vinicius Alfredo Schwalbe
09:42	152	Testes de Proteção contra Corrente Residual para Estação de Recarga em Corrente Alternada	Pedro Henrique Scherer, Valdemir Nunes de Miranda, Germano Giazzon Cavalli, Cassiano Rech
TECHNICAL SESSION 4 - 22/10/2024 - Tuesday			
Room A - 1303			
Power electronics – topologies and design			
Chair:	Prof. Álysson Raniere Seidel		
Link:	meet.google.com/yau-cugq-fsy		
Hour	ID	Title	Authors
08:30	36	Energy measurement based on self-calibration and non-self-calibration	Guilherme Buriol , Guilherme Ribeiro Silveira, Lucas Teixeira, Marco Antônio Dalla Costa
08:48	81	Design of a Wireless Charging Hub for Smart and IoT Devices Using Magnetic Resonance	Samirul Haque, Jahidul Islam, Biptob Sarker, Md.Jamil Uddin, Md Naeem Reza, Kallol Paul, Mohammad Abdul Mannan
09:06	83	An Eight-Switch Nine-Level Common-Ground Inverter with Four-fold Voltage Gain	Felipe Bovolini Grigoletto, Sound Cedieu, Sze Sing Lee, Yam P. Siwakoti
09:24	46	Microinverter Topology using Isolated Interleaved Boost with 3-Level T-Type Inverter	Rafael Dias Heydt, Leandro Leysdian Oro Carralero, Stefânia de Oliveira Silva
09:42	74	Implementation of an FPGA Driven Single-phase Multilevel Inverter	Taymeson Furtado Chaves, André Cavalcante do Nascimento, ALEXANDRE EVANGELISTA DA COSTA
TECHNICAL SESSION 4 - 22/10/2024 - Tuesday			
Room B - 1304			

Microgrids/Modeling, simulation and control of power electronics			
Chair:	Prof. João Lenz		
Link:	meet.google.com/gyz-ehqv-obc		
Hour	ID	Title	Authors
08:30	5	DESPACHO ECONÔMICO DE UMA MICRORREDE ISOLADA A PARTIR DE PROGRAMAÇÃO LINEAR.	Tiago Mroginski, Caison Ramos, Igor Luiz Dal Forno, Gustavo Marchesan, Ghendy Cardoso Junior
08:48	94	Analysis of Renewable-Based Microgrid Energy Management with and without Energy Storage	Anurag Sharma, Renata Rodrigues Lautert, Luciane Neves Canha, Eric Glende, Martin Wolter
09:06	18	Implementation Positive Feedback of Voltage and Frequency for Islanding Detection of Distributed Generations	Calisto José da Silva Neto, Luiz Henrique Santos Silva, Jairo Cavalcanti Amaral, Consuelo Cristina Gomes Silva, Gabriele Costa Gonçalves Dantas, Roberto José Batista Câmera, Daniel do Carmo Silva Ribeiro
09:24			
09:42			
TECHNICAL SESSION 4 - 22/10/2024 - Tuesday			
Room C - 1305			
Power systems analysis, operation, control, digitalization and protection			
Chair:	Prof. Gustavo Marchesan		
Link:	meet.google.com/sdz-brnc-zsb		
Hour	ID	Title	Authors
08:30	24	METODOLOGIA DE ESTIMAÇÃO DE DADOS DE TEMPERATURA AMBIENTE PARA APLICAÇÕES NO SISTEMA ELÉTRICO DE POTÊNCIA	João Augusto Beladona Menezes, Laura Lisiane Callai dos Santos
08:48	54	Ajustes do ERAC para assegurar a estabilidade do sistema elétrico em cenários de desequilíbrio de frequência	Gabriel Quevedo dos Santos, Gabriela Curin, Gustavo Marchesan
09:06	69	Minimizing Losses and Optimizing Energy Flow in Power Distribution Systems Using the Transportation Problem	Gabriel Danielsson, Gabriela Curin, Cristiano Czyzeski, Alzenira da Rosa Abaide, Daniel Pinheiro Bernadon
09:24	76	Implementação de gêmeos digitais aplicado a um sistema de distribuição de energia elétrica subterrâneo	Henrique Fischer, Maurício de Campos, Cristina Schoefer Dessbesell, Paulo Sérgio Sausen
09:42	144	Avaliação de Funções Inteligentes de Controle Volt/Var e Volt/Watt Combinados em Redes de Distribuição de Energia	Larissa Neuenschwander, Guilherme Sebastião da Silva, Ana Paula Carboni de Mello
TECHNICAL SESSION 4 - 22/10/2024 - Tuesday			
Room D - 1306			
Modeling, simulation and control of power electronics			
Chair:	Prof. Robinson Figueiredo de Camargo		
Link:	meet.google.com/yuv-zpbi-bpy		
Hour	ID	Title	Authors
08:30	59	Controle Preditivo Baseado em Modelo para Conversores Buck com Erro Nulo de Regime Permanente e Análise de Estabilidade	Robert Uiliam Marin Viaro, Everson Mattos, Vinicius Foletto Montagner
08:48	66	A Hybrid Voltage Control Strategy for UPS: MRAC and Resonant Control Integration	Maicon de Miranda, Rodrigo Varella Tambara, Fábio Ecke Bisogno

09:06	71	Cascaded Adaptive Predictive Controller: An Essential Approach to Face the New Challenges in Sustainable Energy System Applications	Fabiano Gonzales Nimitti, António Manuel Santos Spencer Andrade, Guilherme Vieira Hollweg
09:24	32	Stability Analysis of Interconnected Power Systems using the Lyapunov Criterion	Omar Ruiz-Martinez, José Manuel López Cruz
09:42	60	Controle Preditivo Baseado em Modelo para Fontes Ininterruptas de Energia: Estabilidade e Desempenho	Robert Uiliam Marin Viaro, Everson Mattos, Vinicius Foletto Montagner

TECHNICAL SESSION 5

Day 23/10/2024 (Wednesday)

Hour 08:30 - 10:00

TECHNICAL SESSION 5 - 23/10/2024 - Wednesday

Wilson Aita

Modeling, simulation and control of power electronics

Chair: Prof. Jorge Rodrigo Massing

Link: meet.google.com/bua-qbdf-qmn

Hour	ID	Title	Authors
08:30	43	Adaptive Proportional-Resonant Current Control applied to Grid-Connected Converters using L Filter	João Vitor Merlo, Rodrigo Varella Tambara, Hilton Abilio Grundling, Vinícius Descovi Rodrigues, Rafael Maestrelli
08:48	52	Co-design of Plant and Controller Parameters for Grid-Tied Inverters: Metaheuristics based Approach	Lucas Cielo Borin, Guilherme Vieira Hollweg, Everson Mattos, Robert Uiliam Marin Viaro, Ricardo Coração de Leão Fontoura de Oliveira, Caio Ruviaro Dantas Osório, Vinicius Foletto Montagner
09:06	153	Controle Proporcional-Ressonante e Amortecimento Ativo Aplicado a um Filtro Ativo de Potência Série-Paralelo	Cristiano Martins Nunes, Rodrigo Varella Tambara, Lucas Gonçalves Pintos, Victor Matheus Pereira Santos
09:24	72	Adaptive Control Applied to Half-Bridge Synchronous Buck Converter using LCL Filter for Charging Batteries	Vinicius Descovi Rodrigues, Rodrigo Varella Tambara, Jonas Roberto Tibola, João Vitor Merlo
09:42	143	Adaptive control methodology applied to converters boost photovoltaics with input capacitance reduction	Andrei da Cunha Lima, Lucas Vizotto Bellinaso, Leandro Michels

TECHNICAL SESSION 5 - 23/10/2024 - Wednesday

Room A - 1303

Renewable and alternative energy systems

Chair: Profa. Thieli Smidt Gabbi

Link: meet.google.com/mjt-rvhp-zhz

Hour	ID	Title	Authors
08:30	39	Optimal vector control of a DFIG-based wind energy conversion energy system using bald eagle search algorithm	Joab Tavares Fagundes, Marlon Soares Sigales, Thiago Carvalho Bittencourt, Paulo Jefferson Dias de Oliveira Evald
08:48	40	Control Optimization of a 2 MW DFIG-based Wind Turbine using Sparrow Search Algorithm	Joab Tavares Fagundes, Marlon Soares Sigales, Thiago Carvalho Bittencourt, Paulo Jefferson Dias de Oliveira Evald
09:06	41	A soft-computing parametrization procedure for DFIG-based wind turbines using Seagull optimization algorithm	Joab Tavares Fagundes, Marlon Soares Sigales, Thiago Carvalho Bittencourt, Paulo Jefferson Dias de Oliveira Evald

09:24	42	Input filter capacitance design method for DC-DC converters in PV systems applications	Mateus J. Tiburski, Edemar O. Prado, Pedro C. Bolsi, Hamiltom C. Sartori, José R. Pinheiro
09:42	48	Performance Assessment of Fixed-Tilt, Single-Axis, and Dual-Axis Sun Tracking Photovoltaic Systems: A Comparative Analysis Based on POA Irradiance	Eslam Mahmoudi, João Lucas de Souza Silva, Gustavo Fraidenraich, Denis G. Fantinato, Fábio Andr é dos Santos Barros
TECHNICAL SESSION 5 - 23/10/2024 - Wednesday			
Room B - 1304			
Aerospace, Automotive and Telecommunication applications			
Chair:	Prof. Lucas Teixeira		
Link:	meet.google.com/mvr-gvqj-amz		
Hour	ID	Title	Authors
08:30	57	Optimizing PID Controllers of Drone-based Wind Turbine Inspection Systems using the African Vulture Algorithm	José Eduardo das Neves da Fonseca, Lorenzo Conceição Lima Valente, Paulo Jefferson Dias de Oliveira Evald
08:48	58	Swarm Intelligence-Based PID Tuning for Drone Control in Photovoltaic Panel Monitoring using Fire Hawk Algorithm	José Eduardo das Neves da Fonseca, Lorenzo Conceição Lima Valente, Paulo Jefferson Dias de Oliveira Evald
09:06	109	Enhancing quarter car active suspension performance using walrus optimization algorithm-based PID controller	Thiago Carvalho Bittencourt, Joab Tavares Fagundes , Paulo Jefferson Dias de Oliveira Evald
09:24	127	Development and Analysis of a Control System for Yaw Damper	José Luiz Vieira, Júlia Azeredo dos Santos, Kays Walid Abur, Lucas Gomes de Carvalho de Souza, Lucas Vizzotto Bellinaso, Gustavo Stivanin Azzolin
09:42	108	High-performance quarter car active suspension system using PID controller tuned by the dingo optimization algorithm	Thiago Carvalho Bittencourt, Joab Tavares Fagundes, Paulo Jefferson Dias de Oliveira Evald
TECHNICAL SESSION 5 - 23/10/2024 - Wednesday			
Room C - 1305			
Power systems analysis, operation, control, digitalization and protection			
Chair:	Prof. Luiz Fernando De Freitas Gutierrez		
Link:	meet.google.com/pym-aeju-pci		
Hour	ID	Title	Authors
08:30	56	Biweight Midcorrelation and Dynamic Time Warping-Based Pilot Protection Applied to a Line Connecting a DFIG-Based Wind Turbine	Giovanni Manassero Jr., Rodrigo Rozenblit Tiferes
08:48	114	Steady State and Dynamic Tests of Overcurrent Protection through Real-Time Digital Simulation	Jhonatan Antônio Cassol, Adriano Peres de Moraes, Bruna Rafaela dos Santos Diana, Simiša Simić, Dušan Kostić
09:06	128	Comportamento da Função de Proteção 21 frente a Mensagens Sampled Values Corrompidos	Juliana Veloso, Adriano Peres de Moraes, Ângelo Felipe Sartori
09:24	156	Análise de vida útil de transformadores de potência sob diferentes condições operativas de carregamento	Thiago Nunes
09:42	104	Aplicação de Teoria de Jogos no Mercado de Energia	RAYMUNDO CORDERO, Juliana Gonzales Fernandes

TECHNICAL SESSION 5 - 23/10/2024 - Wednesday

Room D - 1306

Reliability and Power Quality in Electrical Systems

Chair: Prof. Fernando Guilherme Kaehler Guarda

Link: meet.google.com/hox-ykdb-grw

Hour	ID	Title	Authors
08:30	67	Analysis of Feature Selection in Self Organizing Map Model Performance for Energy Theft Areas Identification.	Alexandre Berger Richter, Natalia Bastos de Sousa, Leonardo Nogueira F. da Silva, Vinicius Jacques Garcia, Kamila Stromm, Daniel Pinheiro Bernardon, Otacílio O. Carneiro Filho
08:48	90	Dynamic Pricing-Driven Framework for Optimizing Energy Consumption	Gustavo Horta, Douglas A. G. Vieira, Gustavo R. L. Silva, Leonardo D. Tavares
09:06	133	A Confiabilidade em Usina Fotovoltaica Centralizada de 0,5MWp Utilizando a Topologia de String	WILSON OMAR RAMOS PARQUI, Leonardo Ramires Vargas, Mauricio Sperandio
09:24	137	Análise de Perdas Técnicas em Sistemas de Distribuição Rurais Não Convencionais Trifásicos a Dois Fios	Eduardo de Oliveira, Renata Mota Martins, Gustavo Marchesan, Ghendy Cardoso Junior
09:42	140	Reliability-Based Design of a 5 MWp Centralized Solar Photovoltaic Power Plant with Multi-String Inverters	Kamila Cassol Stromm, Gabriel Henrique Danielsson, Wilson Omar Ramos Parqui, Daniel Pinheiro Bernardon, Alzenira da Rosa Abaide, Mauricio Sperandio