INSCIT 2023 – Program

Tuesday, August 29th

INSCIT 1 -		
14:20		Alignment precision enhancement of side-shifted dual periodic permanent magnets array with an enclosed-case electromagnetic acoustic transducer *Lucas Martinho, Iury Martins, João Pedro Andrade, Lei Kang, Steve Dixon and Alan Kubrusly*
14:40		Temperature Control System for Biological Tissues in Electroporation Studies *Pablo Rodrigo Hoffmann, Roddy Romero, Lucas Bertinetti Lopes and Daniela Hisayasu Suzuki*
15:00		Liquid Detection based on Radar Cross-Section Measurement of Love Wave Sensor *Marlo Andrade Santos, Raimundo Carlos Silvério Freire, Arthur Silva Souza, Hamida Hallil, Ollivier Tamarin and Corinne Dejous*
15:20		Transformer Oil Viscosity Measurements Using Love Wave Sensor *Arthur Souza, Raimundo Carlos Silvério Freire, Luiz Augusto Medeiros Martins Nobrega, Marlo Andrade Santos, Alexandre Jean René Serres, Ollivier TAMARIN and Corinne Dejous*

Wednesday, August 30th

INSCIT 2 -		
14:00		Invited: Simple Offset Elimination Technique for Two-Wire Measurements *Michael Obrecht*
14:20		A simplified automatic impedance matching *João Pedro Andrade, Vivian Suzano Medeiros and Alan Conci Kubrusly*

14:40		Bearing heating open-loop control system to reduce variability in BLDC motor tests *João Machado, Rodolfo C. C. Flesch, Mauricio M. Schaefer and Rafael H. de Santana*
15:00		A relative humidity measurement system tolerant to condensation events applied to apple storage *Tiago Possato, Jean da Costa and Marcelo Teixeira*
15:40		A Simple Model for Dirt Deposition Classification in Insulators Based on Visible Spectrum Images *Christiane Raulino Almeida Molina, Jugurta Montalvão, Raimundo Carlos Silvério Freire, Graziella Bedenik, Ulisses D. E. S. Lebre and Charles A. C. de Araujo*
16:00		Smart Water Management: a Self-Sufficient IoT-Based Application for Pressure and Flow Monitoring in Water Distribution Systems *Lucas Oliveira, José V. S. de Araújo, Jose Helio Bento da Silva, Juan Mauricio Villanueva, Carlos A. de S. Filho and Moises Nuñez Ochoa*
16:20		Performance Analysis of a Differential pair Oscillator with SAW Sensor in Feddback Loop *Sávio Bezerra, Raimundo Carlos Silvério Freire, Jalberth Fernandes de Araujo, Henrique Silva, Maria Natália Freitas Nunes, Maxence Rube, Izadora Cardoso, Eduarda dos Santos and Marcos Bernardo*
16:40		Antoniou Gyrator as a Tuner for Current Transformers *Graziella Bedenik, Stephane Carvalho, Lucas Molina, Elyson Carvalho, Ulisses D. E. S. Lebre and Charles A. C. de Araujo*

Thursday, August 31st		
		INSCIT 4
9:00		Non-Foster Circuit Compensation for Piezoelectric Energy Harvesters *Rodrigo Porto, Lucas Murliky, Fernando Rangel and Valner Brusamarello*
9:20		A 2.4 GHz Wireless Temperature Sensor designed in 130 nm CMOS technology with 0.07 °C precision from -100 °C to 200 °C *Hugo Giló and Francisco Brito-Filho*
9:40		MIS capacitor as portable oxygen detection sensor *Felipe Soares Mendes, Mauro Sergio Braga, Ruth Flavia Vera Villamil Jaimes and Walter Salcedo*
10:00		Development of a small-scale spectrophotometer to monitor microalgae cultures on CubeSats *GIL PINHEIRO, Alenne Moraes, Caio Burlini, Jorge Amaral, Lia Teixeira and André Luís Salomão*
10:20		Current Transformer-Based System for Measuring Leakage Current *Stephane Carvalho, Graziella Bedenik, Lucas Molina, Elyson Carvalho, Ulisses D. E. S. Lebre and Charles A. C. de Araujo*
10:40		Evaluation of Envelope Detection for Partial Discharge Source Localization *Allan David Silva, Raimundo Carlos Silvério Freire, Luiz A. M. Nobrega, George Victor Rocha Xavier, Itaiara Carvalho and Izadora Cardoso*

		INSCIT 5
11:20		Investigating Water Contamination with LoRa-Enabled Surface Acoustic Wave Sensors *Haydar JAMMOUL, Maxence RUBE, Martine SEBELOUE, Idris SADLI, Corinne DEJOUS, Clency Perrine, Yannis Pousset and Ollivier TAMARIN*
11:40		Fuzzy Logic Decision Module for LoRa at 2.4 GHz Adaptive Network Deployment *Moises NUNEZ and Juan M. Mauricio Villanueva*

12:00	IoT Sensor Node to Evaluate Indoor Air Quality in Air Conditioner Systems *Rogério Ballestrin, William Garcia, Max Feldman and Ivan Muller*
12:20	Supercapacitor Portable System for Automatic Acquire of Electrical Signals, Characterization and Electrical Schematic Modeling for Microelectronic Device Application *Mariana Campos, Gustavo Dourado, Arnaldo de Brito, Rodrigo Lassarote Laval and Luciana Pedrosa Salles*
12:40	Tuning Key Parameters of Electric Circuit Model for Application in Solid-State Supercapacitors *Paulo Ferreira, Hene Saud, Pedro Candiotto Oliveira, João Paulo Trigueiro, Rodrigo Lavall and Luciana Pedrosa Salles*

Friday, September 1st

INSCIT 6	
12:00	Detection of Small Flaws using the Potential Drop Technique *GIL PINHEIRO, JORGE AMARAL, Thieplo de Benites Bertola Gonçalves, Emanuel Seixas, Williams Canuto Costa and José Ponciano Gomes*
12:20	Evaluation of Envelope Detection for Radiometric Measurements of Partial Discharges in Instrument Transformers *Allan David Silva, Raimundo Carlos Silvério Freire, Luiz A. M. Nobrega, Itaiara Carvalho, George Victor Rocha Xavier, Henrique Silva and Arthur S. Souza*
12:40	Design of a Low-Noise Signal Conditioning Circuit for Analog MEMS Accelerometers *Marcelo Romanssini, Lucas Compassi-Severo, Paulo César Comassetto de Aguirre and Alessandro Girardi*
13:00	Design of a Multiturn RVDT with Flat-Helix Coils *Graziella Bedenik, Paulo Gabriel Barreto Nogueira, Lucas Molina, José Carvalho Filho and Elyson Carvalho*

INSCIT 7	
14:40	MOS Capacitor Modeling and Optimization for Fully Integrated DC-DC Converters *Marcos Bernardo, Arthur Souza, Raimundo Carlos Silvério Freire, Antonio Augusto Lisboa de Souza and Henrique Silva*
15:00	A Thermoelectric Generator Model validated by Different Thermal Patterns *Mariana Ferreira, Maria Paula Medeiros Gomes Miguel, Cleonilson Protasio Souza, Yajun An and Orlando Baiocchi*
15:20	Instrumentation for quantum correlation analysis of polarized Stokes-anti-Stokes photon pairs *Tiago Freitas, Paula D. Machado, Lucas V. Carvalho, Raul C. Silva, Marcelo F. Santos, Carlos H. Monken and Ado J. Vasconcelos*
15:40	Study and Development of a Battery Monitoring System (BMS) for a Formula Electric Vehicle *Pedro Medeiros, Ítalo Sibaldo Santos de Oliveira, Walklis Victor Lima da Penha, Juan Moises Mauricio Villanueva, Moises NUNEZ, Euler Macedo and Nathalia Araújo Araújo da Fonseca Alves*
16:00	Improved Self-Biased Differential Amplifiers Using Multiple-Vt CMOS Transistors *Fabian L. Cabrera*