




The 32nd Annual Newfoundland Electrical and Computer Engineering Conference

November 14, 2023
 Emera Innovation Exchange, Signal Hill Campus, Memorial University
 St. John's, Newfoundland and Labrador

Time	REGISTRATION			
8:30 AM	REGISTRATION			
9:00 AM	KEYNOTE SPEAKER (B2007) - Wenwen Pei - Marine Thinking			
	Power and Alternate Energy 1 (B2007) - Limit 100	Computer vision and AI 1 (B2007A) - Limit 50	Power and Alternate Energy 2 (B2007B)- Limit 30	Remote Sensing 1 - B1003- Limit 35
10:00 AM	Chamila J. Liyanage (13)	Thakshila Thilakanayake (69)	Hafiz Muhammad Fahim Younis (40)	Murilo T. Silva (1) * CORE
10:20 AM	Mohammad Sajid Akhter (55)	Xiaohang Zhao (50)	Abu Mr Sufyan (38)	Hamid Jafarzadeh (28)
10:40 AM	COFFEE BREAK - Morning Poster session (10 am to 1pm) (Ids : 6, 14, 25, 30, 65, 71)			
	Power and Alternate Energy 3 (B2007) - Limit 100	Computer vision and AI 2 (B2007A) - Limit 50	Power and Alternate Energy 4 (B2007B)- Limit 30	Remote Sensing 2 - B1003- Limit 35 Session Chair: Weimin Huang
11:00 AM	Jamil Muhammad Khan (36)	Madison L. Hayley (16)* NRC/MUN	Micheal Olajide (10)	Zhiding Yang (3)
11:20 AM	Wei He (7)	Nicholas Wells (34)	Meysam Shirin Nezhad (35)	Xin Qiao (5)
11:40 AM	Emmanuel Dela Akabuah (33)	Caitlin E. Piercey (53)	Mohammad Assareh (51)	Yi Li (17)
12:00 PM		Kusal B. Tennakoon (57)	Muhammad Waqas (67)	Michael Royle (21)
12:20 PM	LUNCHEON SPEAKER (B2007) - Marie-Chantal Ross - National Research Council Canada			
	Power and Alternate Energy 5 (B2007) - Limit 100	Computer vision and AI 3 (B2007A) - Limit 50	Circuits and Systems 1 (B2007B)- Limit 30	Remote Sensing 3 - B1003- Limit 35
2:00 PM	Papa K. Afful (9)	Theodore S. Norvell (12) * MUN CS	Laith Issam Qunnis (22)	Joe Craig (64) * DFO
2:20 PM	Mohammad Sajid Akhter (56)	Nirasha Herath (70)	Omar Qunees (23)	Jesse Chen (24)
2:40 PM	Osilama T. Isah-Orbih (11)	Syed Zeeshan Haider Rizvi (41)	Bashu Kumar Das (61)	Masoud Torabi (46)
3:00 PM	COFFEE BREAK - Afternoon Poster session (1:30 pm to 4:30 pm) (Ids : 39, 44, 45, 49, 8, 54)			
	Power and Alternate Energy 6 (B2007) - Limit 100	Computer vision and AI 4 (B2007A) - Limit 50	Other ECE topics 1 (B2007B)- Limit 30	Robotics and Control 1 - B1003- Limit 35
3:20 PM	Sahil Kumar Abhinav (32)	Hassanali Marefat (63)	Dipak Timalisina (60)	Eranga Fernando (58) * NRC/MUN
3:40 PM	Burak Muhammetoglu (66)	Sondos Omar (68)	Muhammad Nadeem Asgher (15)	Mohammad Al Saaideh (74)
4:00 PM	Sahil Kumar Abhinav (31)	Yuhui Song (18)	Muhammad Kashif (62)	Salaheldin Bilila (59)
4:20 PM		Zahra Jafari (20)		Mohammad Al Saaideh (75)
4:40 PM	CLOSING REMARKS AND AWARD PRESENTATION IN (B2007)			

The presentation id is indicated inside brackets next to each presenter. The titles of the talks can be found in the attached presentation title list pdf. Speakers from industry and the faculty are denoted by *. The person limit (seating capacity) of each room is indicated for each session, please kindly adhere to seating limits to ensure comfort and safety of attendees.



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ID	Paper Title
1	Magnetic Anomaly-Based Marine Mammal Detection in Challenging Ocean Environments
3	RainViT: Rain Detection From X-band Shipborne Radar Images With Vision Transformer
5	Hyperspectral Image Classification Using Multi-scale Neighborhood Attention Transformer
7	Energy use analysis and simulation of MUN CSF Building using BEopt
9	DESIGN AND ANALYSIS OF A HYBRID POWER SYSTEM FOR ST. BRENDAN'S, NL.
10	Design and Analysis of a Hybrid Power System for Port Hope Simpson, Labrador
11	Design and Analysis of a Hybrid Power System for Black Tickle, Labrador
12	Cogent: Code generation from statecharts for real-time reactive code
13	CSF Building Energy Consumption Analysis and Cost Estimate of Electric Resistive Heating System
15	Dynamic Modelling and Analysis of a Hybrid Power system of Floating Solar PV System for an Offshore Aquaculture Site in Newfoundland
16	Creating ground truth datasets for computer vision using fiducial markers - a case study on artificial ice using AprilTags
17	Assessment of Factors Influencing the Accuracy of Ocean Current Measurement by Shipborne Marine X-Band Radar
18	Inversion-Free Sparse Bayesian Learning for Compressed Sensing
20	A Novel Feature Extraction and Selection Approach for Discrimination of Ships and Icebergs in SAR Imagery
21	HF Radar Cross Sections of Surface Targets with Linear Velocity on the Ocean Surface
22	Design and analysis of heatsink for EV Chargers
23	The Design of Advanced Charger for Electric Scooters
24	The Effect of Rain on Global Navigation Satellite System Reflectometry (GNSS-R) in Ocean Remote Sensing: A Review
28	A Country-wide Wetland Benchmark Dataset for Canadian Ecozones using Sentinel-2 Imagery
31	Integrative Optimal Framework for Hybrid Power Systems: Design, Analysis, and Sustainable Solutions for Pilley's Island, Newfoundland
32	Design and Simulation a Solar Golf Cart for use in St. John's, Newfoundland
33	HVDC system for high energy storage system using St. John's, Newfoundland and Labrador as a case study
34	Improved Simulated Viewing of Holographic Imagery
35	Evaluating Wind Power Outputs for Alternative Energy Prospects Across Canada
36	Bidirectional Couple Inductor Based Buck Converter for Renewable Energy Applications
38	Super-Twisting Double Integral Sliding Mode Control For a Grid-Connected Three-Phase Inverter
40	Switched-Inductor A-source Converter
41	Defect Detection on Wind Turbine Blades Using Binary Segmentation Masks
46	Ocean Wave Parameter Estimation Using Microwave Scattering
50	Ultrasound-Based Gesture Recognition
51	4E analysis of a novel compressed air energy storage based integrated energy system
53	Data analytics for greener marine operations: towards a fuel optimization decision support system
55	Soft Charging as a Black Start Strategies for Power Outage Restoration: Ensuring Grid Resilience
56	Fuzzy-Based Power Management of Wind Power Plants
57	A Unified CNN Approach for Visual Place Recognition and Loop Closure Detection
58	Variable Sampling Time Model Predictive Controller for Obstacle Avoidance in Trajectory Tracking of Autonomous Surface Vessels
59	Improving Visual Inertial Lidar Odometry and Mapping using Object Detection
60	Mathematical Formulation to Maximize Renewable Energy Plants under the Feed-in Tariff (FIT) and Renewable Energy ...
61	Optimization of In-motion Wireless Charging System of Electric Vehicles and its future prospect
62	A Case Study: Design, Analysis, and Cost-Effectiveness of a Residential 20kW Grid-Connected Photovoltaic System
63	Analysis of Machine-Learning Facilitated LES for Flow Past a Sphere
64	On Radio Oceanography in Placentia Bay
66	Optimizing Grid Stability and Peak Demand Reduction through Vehicle-to-Grid Services: Energy Lend-Lease Approach
67	Design and Analysis of a Hybrid Power System for a Remote Natural Gas Pipeline Control Station
68	Physics Informed Neural Network for Modelling of Drones
69	Artificial Intelligence Based Method For Radar Image Super Resolution
70	Improved Projection-based Point Cloud Semantic Segmentation Approach
74	Tracking Control of a Four-joint Robotic Manipulator with Unknown Varying Load
75	Design and Characterization of a Variable Air-Gap Low-Energy based Reluctance Actuator Motion System

ID	Poster Title
6	Fault Prediction on Newfoundland's Wind turbines and Power grids
8	Energy Management System of EV Chargers
14	GRIG: Data-Efficient Generative Residual Image Inpainting
25	Human grasp forecasting using exocentric video classification
30	DSP Based Digital Controller Design and Implementation for Energy Systems
39	Learning to Pick Objects with a Compliant Tactile Module and Reinforcement Learning
44	New Techniques for charging EV batteries from PV Panel with Maximum power point Tacking (MPPT)
45	Advancements in Brushless DC Motor Control Systems for Sustainable Electric Vehicle Manufacturing
49	A comparative study of Asymmetrical inverters with contrast to Symmetrical
54	Investigating The Effectiveness of Simple Heuristic Features in Solving Sensor Orientation and Sensor Placement Problems ...
65	Prediction of Multiple Sclerosis using Brain Activation Patterns During Motor Tasks from fNIRS in Machine Learning Framework
71	Design Architecture for Autonomous Surface Vehicles