The 33rd Annual Newfoundland Electrical and Computer Engineering Conference (NECEC)

November 14, 2024
at Holiday Inn St. John's, NL
180 Portugal Cove Rd
St. John's, NL

Time				
8:30 AM	REGISTRATION			
9:00 AM	KEYNOTE SPEAKER (SALON C/D)			
	Software & Computing Room Conception Bay North **Session Chair:** Reza Shahidi	**AI, Data Science & Machine Learning I** Salon B **Session Chair:** Vinicius Prado	**AI, Controls, & Robotics I** Salon A **Session Chair:** Oscar De Silva	**Power and Alternative Energy I** Room Conception Bay South **Session Chair:** Robert Cove
10:00 AM	Sidra Anwar (48)	Wanglong Lu (2)	Kaijie Shi (40)	Fatemeh Kafrashi (9)
10:20 AM	Anahita Nikaien (36)	Thakshila Thilakanayake (19)	Jiaoyang Lu (35)	Lynna J Otabil (34)
10:40 AM	COFFEE BREAK (Poster Presentations Paper # 31, 43)			
	Remote Sensing & Earth Observations I Room Conception Bay North **Session Chair:** Weimin Huang	**AI, Data Science & Machine Learning II** Salon B **Session Chair:** Vinicius Prado	**AI, Controls, & Robotics II** Salon A **Session Chair:** George Mann	**Power and Alternative Energy II** Room Conception Bay South **Session Chair:** Robert Cove
11:00 AM	Michael Royle (37)	Nirasha Herath (18)	Ruslan Masinjila (13)	Khan Awais Khan (15)
11:20 AM	Joe Craig (39)	Ahsan Mustafa (14)	Juan S. Garcia-Hernandez (44)	Syed Nafiz Imtiaz (10)
11:40 AM	Yi Li (12)	Adithya Sudhan (26)	Sachithra H Atapattu (3)	Nnaemeka Nwauzor (22)
12:00 PM	Zahra Jafari (4)	Sondos Omar (23)	Muhammad Adeel Ahsan (46)	
12:20 PM	LUNCHEON SPEAKER (SALON C/D)			
	Remote Sensing & Earth Observations II Room Conception Bay North **Session Chair:** Reza Shahidi	**AI, Data Science & Machine Learning III** Salon B **Session Chair:** Oscar De Silva	**Women In Engineering Event** Salon A **Session Chair:** Jingrong Wang	**Power and Alternative Energy III** Room Conception Bay South **Session Chair:**
2:00 PM	Jesse Chen (5)	Samarasimha Reddy Chittamuru (17)		Asad Mehmood Hassan (24)
2:20 PM	Xin Qiao (7)	Chidiebere S Metu (41)		Salmanur Rahman (27)
2:40 PM	Zhiding Yang (1)	Hassanali Marefat (47)		Muhammad Kashif (33)
3:00 PM	COFFEE BREAK (Poster Presentations Paper # 29, 32, 20)			
	Remote Sensing & Earth Observations III Room Conception Bay North **Session Chair:** Eric Gill	**AI, Data Science & Machine Learning IV** Salon B **Session Chair:** Jonathan Anderson	**AI, Data Science & Machine Learning V** Salon A **Session Chair:** Xianta Jiang	**Power and Alternative Energy IV** Room Conception Bay South **Session Chair:** Sheikh Rabbi
3:20 PM	Ridwanullah Abdulkareem (16)	Benjamin F Stanley (11)	Meysam Shirin Nezhad (45)	Manish Patel (6)
3:40 PM	Masoud Torabi (21)	Kusal B Tennakoon (30)	Chidiebere S Metu (42)	Afzal Ahmed (8)
4:00 PM	Mohammadali Hemati (25)			
4:20 PM	CLOSING REMARKS AND AWARD PRESENTATION IN SALON C/D			

The presentation id is indicated inside brackets next to each presnter. The titles of the talks can be found in the attached presentation title list pdf.

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Presentation ID	Presenter	Presentation Title
1	Zhiding Yang	A Hybrid Approach for Wave Height Estimation from Rain-Contaminated Radar Images Based on Segmentation and Iterative Dehazing
2	Wanglong Lu	TextDoctor: Unified Document Image Inpainting via Patch Pyramid Diffusion Models
3	Sachithra H Atapattu	Enhancing the Region of Attraction of a Multi-Rotor UAV Using Neural Network-Based iLQR Control
4	Zahra Jafari	A Novel Method for Estimation of Sea-Surface Wind Speed from SAR Imagery
5	Jesse Chen	An Evaluation of the Effect of Seasonal Evolution on GNSS Reflectometry Based Sea Ice Classification Using Random Forest Classifiers
6	Manish Patel	Optimization-Based Design and Reliability Assessment of a Hybrid Energy System for Natuashish, Labrador
7	Xin Qiao	Ocean Surface Wind Speed Estimation From GNSS-R Data Using CNN-Transformer Network
8	Afzal Ahmed	A Comparative Analysis of Media Players Power Consumption on Windows 11 and Ubuntu 24.04.1
9	Fatemeh Kafrashi	Design and Simulation of a Floating Solar-Powered Reverse Osmosis Drinking Water System for Kish Island
10	Syed Nafiz Imtiaz	Design and Simulation of a 500 MW wind farm for H2 project near Stephenville, Newfoundland.
11	Benjamin F Stanley	Search Ordering for StarCraft Build Order Optimization
12	Yi Li	Improved PCS Algorithm for Ocean Current Retrieval From X-Band Radar Data
13	Ruslan Masinjila	Object Manipulation using Multimodal, Tactile-based Sensing and Reinforcement Learning
14	Ahsan Mustafa	Fine-Tuning Large Language Models for Analog Circuitry
15	Khan Awais Khan	Power Consumption While Using Ad-Blockers on ARM-Based CPU
16	Ridwanullah Abdulkareem	FPGA-Based Real-Time Signal Processing for Ocean Monitoring with GNSS-R Integration
17	Samarasimha Reddy Chittamuru	Machine Learning-Based Power Prediction for the Icebreaker Henry Larsen Using Vessel Motions and Environmental Data in Open Water Conditions
18	Nirasha Herath	A Quality Indicator Module for LiDAR SLAM in Aerial Navigation Using a Regression-Based CNN
19	Thakshila Thilakanayake	Generative Adversarial Network Based Synthetic Radar Image Generation Method for Automotive Perception Datasets
20	Nirasha Herath	Real-Time Video Super-Resolution Using Generative Adversarial Networks
21	Masoud Torabi	Enhanced Radar Cross Section Modeling for Ocean Surface
22	Nnaemeka Nwauzor	Dynamic Simulation of Solar Energy System for A Shop in Nigeria Providing Community Cellphone Charging Service.
23	Sondos Omar	Steep Slopes- Modifying Deep Neural Networks to Mitigate the Vanishing Gradient Problem
24	Asad Mehmood Hassan	Design and Analysis of a Photovoltaic System for a House in Model Town, Lahore, Using HOMER Pro.
25	Mohammadali Hemati	Mapping Carbon Dynamics in Coastal Wetlands: A High-Resolution PlanetScope Expedition
26	Adithya Sudhan	Automated Dialogue Order Processing using Small Large Language Models
27	Salmanur Rahman	Design and Analysis of Hybrid Power System for Rigolet, Labrador
29	Senal Chandrasekara	HsHFNet – An Artificial Neural Network For Significant Wave Height Estimation from High Frequency Radar Data Built from the Ocean Up
30	Kusal B Tennakoon	AutoLD: An Automatic Landmark Detection System for Detecting Salient Landmarks in Aerial Images
31	Asif I Patel	Developing and simulating a separate microgrid in a rural region in India using sustainable sources of energy
32	Bahman Khameneh Pour	Designing Sustainable Energy Systems: The Case of Bell Island's Hybrid Renewable Power
33	Muhammad Kashif	Dynamic Modeling and Simulation of an Isolated Hybrid Power System Designed for Urban Areas in Pakistan
34	Lynna J Otabil	Design and Analysis of a Hybrid Power System for Cartwright, Labrador
35	Jiaoyang Lu	Interaction Force Estimation for Haptic Bilateral Teleoperation via Machine Learning
36	Anahita Nik aien	Light Field Frame Translation
37	Michael Royle	Software Defined Radio Noise Radar for UAS Detection
39	Joe Craig	Design of a surface wave radar receive array element
40	Xianta Jiang	Improve Curricular Learning for Universal Dexterous Grasping
41	Chidiebere S Metu	Deep Learning for Automated Defect Detection in Industrial Infrastructure: Enhancing Accuracy with Diverse Datasets and YOLOv10
42	Chidiebere S Metu	Deep Learning-Based Infrastructure Crack Detection: An Enhanced Approach for Image Recognition
43	Shatadru Bipasha Biswas	A comparative study on the feasibility of wind turbines over conventional fossil fuels in selected coastal Labrador communities
44	Juan S. Garcia-Hernandez	Angular position control of a low-tension quaternion joint
45	Meysam Shirin Nezhad	RAGs for Real-time Data Retrieval in Smart Grid Systems
46	Muhammad Adeel Ahsan	Convex Trajectory Optimization for UAVs using Differential Flatness and Bezier Curves
47	Hassanali Marefat	Signature Extraction for Bank Cheque Images Using an Autoencoder Model
48	Sidra Anwar	Enhancing Security For Low-Powered Medical Wearable Devices Through Optimized Lightweight Encryption