IEEE 16th International Conference on Humanoid, Nanotechnology, Information Technology, Communication and Control, Environment, and Management (IEEE HNICEM 2024)
November 26-29, 2024 | Diamond Grand Ballroom, Hotel Supreme Convention Plaza
Baguio City, Philippines
Theme: "Bridging Social Innovation and Sustainable Future"

Day 1 (November 27, 2024)		
Time	**Activity**	**Speaker and Committee**
07:00 am - 08:00 am	Registration	Registration Team
08:00 am - 08:15 am	Opening Program	Invocation Welcome Address from the President of Benguet State University Welcome Address from IEEE Philippines Section (Online) **Engr. Ian Enoval** President, IEEE Philippines Section Opening Remarks **Acd. Prof. Elmer Dadios, Ph.D.** Honorary General Chair, IEEE HNICEM 2024
8:15 am - 8:55 am	Plenary Session 1	Speaker: **Prof. Oussama Khatib, Ph.D.** Stanford University Moderator: **Prof. Elmer Dadios, Ph.D.** De La Salle University Topic: **"Human-Robot Collaboration: Extreme Environment, Health Care, and the Workplace"**

8:55 am - 9:35 am	Plenary Lecture 2	Speaker: **Prof. Takako Hashimoto, Ph.D.** Director of International Center Chiba University of Commerce Moderator: **Prof. Edwin Sybingco, Ph.D.** De La Salle University Topic: **"Making a 100% Renewable Energy University"**
9:35 am - 10:15 am	Plenary Lecture 3	Speaker: **Prof. Jer-Huan Jang, Ph.D.** Ming Chi University of Technology, Taiwan Moderator: **Prof. Jason Espanola, M.Sc.** De La Salle University Topic: **"Optimization on the Performance of Microbial Fuel Cells with Banana Peel Substrates"**
10:15 am - 10:55 am	Plenary Lecture 4	Speaker: **Prof. Marcelo Ang, Ph.D.** National University of Singapore, Singapore Moderator: **Prof. Ryan Vicerra, Ph.D.** De La Salle University Topic: **"Underwater Robotics – Applications, Opportunities and Challenges"**

10:55 am - 11:35 am	Plenary Lecture 5	Speaker: **Prof. Joel Cuello, Ph.D.** The University of Arizona Moderator: **Prof. Ronnie Concepcion II, Ph.D.** De La Salle University Topic: **"Intelligent Solar Windows (iSoW) for Buildings on the Earth, Moon, Mars and Beyond"**
11:35 am - 12:15 pm	Plenary Lecture 6	Speaker: **Prof. Raouf Naguib, Ph.D.** Liverpool Hope University, UK Moderator: **Prof. Laurence Gan Lim, Ph.D.** De La Salle University Topic: **"Issues In Data-Driven Innovation and AI, and their Impact On The Uk Healthcare Industry"**
12:15 pm - 1:15 pm	Lunch	
1:15 pm - 1:55 pm	Plenary Lecture 7	Speaker: **Prof. Jungho Im, Ph.D.** Ulsan National Institute of Science and Technology, Korea Moderator: **Prof. Ronnel Agulto, Ph.D.** De La Salle University Topic: **"AI for Climate-Environment Prediction and Modeling"**

1:55 pm - 2:35 pm	Plenary Lecture 8	Speaker: **Prof. Anuradha Ranasinghe, Ph.D.** Liverpool Hope University Moderator: **Prof. Argel Bandala, Ph.D.** De La Salle University Topic: **"Virtual Haptics"**
2:35 pm - 2:45 pm	Briefing of Parallel Session	**Prof. Ronnie Concepcion II, Ph.D.** De La Salle University
2:45 pm - 3:00 pm	PM Snacks	

3:00 pm - 5:30 pm	**Special Session**	
	Paper Title	**Authors**
3:00 pm - 3:15 pm	Improving Worker Fall Detection with Two Cameras: A Hybrid Model Integrating Pose Estimation and Fall Classification	Kevin Liu, Tung-Ju Wu, Yu-Cheng Chan and Ssu-Han Chen
3:15 pm - 3:30 pm	Camera-based Approach for Automated Counting Oil Drop in Industrial Lubrication Systems	Hoang-Giang Cao, Kevin Fong-Rey Liu and Ssu-Han Chen
3:30 pm - 3:45 pm	Wafer Defect Inspection with DDPM	Thi Phuong Hoang and Ssu-Han Chen
3:45 pm - 4:00 pm	Optimization on the Performance of Microbial Fuel Cells with Banana Peel Substrates	Niraj Sumatkar, Vasumathi Krishnan, Jer-Huan Jang and Chin-Tsan Wang
4:00 pm - 4:15 pm	Design and Development of a Recognition System for Personnel and Safety Equipment in Construction Sites	Yen-Jen Chen, Jian-He Chen and Ryan Rhay Vicerra

Time	Title	Authors
4:15 pm - 4:30 pm	Hybrid Soft Sensing Model for Accurate COD and DO Prediction: Integrating PLS Regression and Time-Series Forecasting with Kalman Filtering	Hung-I Liu, Kevin Fong-Rey Liu and Ssu-Han Chen
4:30 pm - 4:45 pm	Smoke Detection of Pipeline Gas Leakage through Infrared Images	Kevin Liu, Pei-Yan Chen, Chih-Hsiang Kang and Ssu-Han Chen
4:45 pm - 5:00 pm	One-Shot Face Recognition Using Heuristic-Based Decision	Yen-Jen Chen, Willy Andreas and Ryan Rhay Vicerra
5:00 pm - 5:15 pm	Application of the Unsupervised Machine Learning in the Quality Control of Plastic Samples	Yueh-Feng Liu
5:15 pm - 5:30 pm	Worker Fall Detection Using Two Cameras and YOLOv8	Kevin Liu, Yu-Teng Zhang, Yu-Cheng Chan and Ssu-Han Chen
6:30 pm – 8:30 pm	**Banquet Dinner**	
END OF DAY		