IEEE Systems Council Coastal Los Angeles Section Chapter
2023 Chapter Activity Report

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Picture provided by Dr. Hen-Geul (Henry) Yeh

<u>Activity Summary</u>

Tours and workshops

- EVOLECTRIC TOUR, 07 Dec 2023, 06:30 PM to 08:30 PM
Evolectric is a local Electric Vehicle (EV) company located in Long Beach that offered an hour-long tour after work at their facilities with EV testing equipment. It was followed up with a one-hour Q&A session. Two faculty members and 15 students are in the picture at Evolectric.

IEEE Distinguished Lecture Series and Seminars

- Dr. Nick Panagiotacopulos, "Cooperative Research Program Between Universities Worldwide Dealing with Diet and Its Effects," April 7, 2023, 12PM-1PM, Virtual.
- Mr. Samnangdona An, "Into the Signal Processing World," April 24, 2023, 5PM-6PM, Virtual
- Dr. Jim Burns, "*EV Battery and electrical safety training- a flash introduction,*" May 4, 2023, ET 113, CSULB
- Dr. Yu Yang, "Reinforcement Learning for Nonlinear Process Control and Optimization Under Uncertainties," May 26, 2023, 1:00 PM to 2:00 PM, Virtual.

- Dr. Jianxin Chen, "PET/CT-Based Radiomic Research with Machine Learning (Deep Learning) For Diffuse Large B Cell Lymph Patients," Sep 1, 2023, 12:00 PM to 01:00 PM, Virtual
- Flyer for 11-9-2023 Dr. Neha Sardesai, "Machine Learning with Matlab," Nov 9, 2023, 10:30 AM to 11:30 AM, Virtual

Note

EV Battery and electrical safety training- a flash introduction, is a one-hour seminar to provide the audience with fruit knowledge. It is very helpful in the working place, specifically for safely and productively with high-voltage batteries and charging equipment used in EVs.

The 14th Annual IEEE Green Energy and Systems Conference (IGESSC) was held on Nov. 13-14, 2023, Virtual, CSULB.

Theme: Data-driven science in and engineering in smart grid and smart systems, Internet of Things, Sustainable and Secured Systems, Optimized Power Grids with Battery, Smart Transportation Systems.

Keynote Speaker:
Dr. Amir Aghdam, President, Professor with the Department of Electrical and Computer Engineering, Concordia University, Montreal, QC, Canada, and an Associate Dean of Graduate Studies at Gina Cody School of Engineering and Computer Science.

Topic: Characterization of Connectivity in Asymmetric Networks with Application to Data Aggregation in Underwater Sensor Networks

Workshop Speakers:

1. Exploring the Current Challenges and Opportunities in EVSEs from Industrial and Research Perspectives: A Brief on Equipment Hardware, Managing Platform, and EV Planning, Dr. Boyang Hu, Research Fellow of The University of New South Wales (Australia), co-founder EV Charging Companies: EVSE-TECH (Australia) and CPEE (China).
2. The Evolution of Vehicle E/E Architecture and the Rise of Software-Defined Vehicle, Dr. Shugang Jiang, Director, Electrical Systems and Software Council, VINFAST.
3. MOEV AI™ – Artificial Intelligence Software for Management of Transit Electric Bus Fleets, Dr. Rajit Gadh, Prof. Mechanical and Aerospace Engineering, UCLA, Director of Smart Grid Energy Research Center (SMEC), UCLA,

4. AI-Enabled Proactive Resilience Enhancement of Electric Infrastructure Against Wildfire, Dr. Hamid Nazaripouya, Assistant Prof. of Oklahoma State University, Electrical & Computer Engineering.
5. Towards Carbon-Free Electricity: A Comprehensive Flow-Based Framework for Power Grid Carbon Accounting and Decarbonization, Dr. Wenbo Shi, CEO and Founder at Singularity Energy, Harvard University.
6. Adventures in Rapid Controls Prototyping, Dr. James Burns, Chief Science Officer, Transportation Power, Inc.

There were more than 19 professional papers presented in the Technical Session. A total of 50 papers were submitted (6 from International, 28 from USA, 9 from CSULB, 16 paper withdrawal – most are international submissions, only 2-paper from US withdrawal).

Student Post Session and Competition (A total 2 papers submitted, 2 accepted, 2 presented)
"Thermal Modeling of Solid-State Drives in Cluster Systems Using Machine Learning," Christopher J Pishaki (California State University Northridge, USA) and Xunfei Jiang (California State University, Northridge, USA),

Best Poster Award:
"*Energy-efficient Geo-Information Visualization and User Interaction*," Bhumil Kukadiya (California State University, Northridge, USA); David J Castrejon (California State University Sacramento, USA); Connor Y Wang (University of California, Los Angeles, USA); Denys V Osmak (University of Texas at Austin, USA); Li Liu and Mario Giraldo (California State University, Northridge, USA)

Best Paper Award in Smart Systems
"*Performance Analysis of Virtual Machine Monitoring System,*" Nikhil Vepuri and Xunfei Jiang (California State University, Northridge, USA)

Best Paper Award in Green Energy and Power
"*Harmonics Analysis of a Photovoltaic Plant with a Reduced Number of Solar Central Inverters,*" Loai Al-Adim, Mehrdad Aliasgari, Mohammad Mozumdar, Saleh Al Jufout (California State University, Long Beach, USA)

Faculty, Students, and Engineers, from international, such as Canada, Austria, Singapore, China, South Africa, and domestic, such as Cal Poly Pomona, Caltech, UCLA, USC, University of Oviedo, UCI, etc., have being participated the paper presentation/publication and Students paper contest since 2010.
The lasting impact of these efforts on engineering education is very significant. Based on a survey of IGESC attendees conducted by the IEEE CSULB Student Branch, 93% of respondents agreed that the Conference had a positive impact on their career.

Celebration Party on 12/02/2023 at Long Beach.

All activities are co-sponsored by IEEE CSULB Student Branch

Call For Papers: IGESSC 2024
http://sites.ieee.org/clas-sysc/call-for-papers/

All past (2010 – 2023) IGESSC records are available at Website:
https://site.ieee.org/clas-sysc/past-conferences/

All past (2013 – 2023) IEEE Distinguished Lecture Series of IEEE CLAS System Council Chapter at Website:
https://site.ieee.org/clas-sysc/clas-sysc/

*Thanks to all officers, volunteer helpers, and CSULB IEEE student branch for their help on Registration, posting flyers, emailing, etc., for each meeting.