



# Report on the IEEE CAS Distinguished Lecture of Prof. Gerald Sobelman

Title: Machine Learning and Optimization for  
Communications and Deep Network

Date: Feb. 24, 2020, 2:00pm

Venue: EEE Institute, University of the Philippines  
Diliman, Quezon City, Philippines

Rhandley D. Cajote,

IEEE Republic of Philippines Section Chair

The lecture was well attended, a total of 102 participants in the audience. The lecture was also live streamed to the members of the IEEE Community who cannot come to the venue via Zoom App. The lecture was also live streamed to other state-universities and colleges in the Philippines via Polycom c/o the UP PCARI-Prime network team. Prof. Sobelman covered some very interesting topics about Binarized Neural Networks (BNN), Network Architecture Search (NAS) using genetic algorithms and MIMO decoding using Markov Chain Tree Search (MCTS) and showed some results and implementations in VLSI. Some of the interesting questions raised after the lecture are: Can machine learning be used to do the channel equalization of MIMO system? The answer is possibly, but have not been investigated yet. Some photos during the lecture are shown below.

