

IEEE Computer Society Hyderabad Chapter IEEE Hyderabad Section

Report on "Deep Learning-Based Video Analytics for Surveillance IoT Applications"

Hyderabad Chapter Office Bearers

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# **Date:** 6/08/2020 **Time:** 4:00PM-5:30PM

**Speaker:** Assoc. Prof. Dr. Supavadee Aramvith Department of Electrical Engineering Chulalongkorn University, Thailand Candidate, 2021-2022 IEEE Region 10 Director-Elect Member, IEEE Educational Activities Board Communications Chair, IEEE Humanitarian Activities Committee IEEE Consumer Electronics Society Board of Governors

## **Description:**

As surveillance cameras have been widely installed worldwide, although the main purpose of those cameras is for monitoring, but the most important task is to be able to analyze video contents and extract useful information. Deep learning-based computer vision techniques utilizing multi-layer neural network is drastically improving the performance of video analytics to a certain extent. Several on-going researches on deep learning-based video analytics such as image super resolution, real-time multiple face recognition system, video anomaly detection and several implementations of embedded video analytic system on FPGA and Single Board Computers will be discussed. Some possible scenarios of utilizing video analytics, IoT for Industries will also be mentioned.



In this talk, madam presented and discussed the current trends and researches in video analytics. As surveillance cameras have been widely installed worldwide, although the main purpose of those cameras is for monitoring, but the most important task is to be able to analyze video contents and extract useful information. Deep learning-based computer vision techniques utilizing multi-layer neural network is drastically improving the performance of video analytics to a certain extent. Several on-going researches on deep learning-based video analytics such as image super resolution, real-time multiple face recognition system, video anomaly detection and several implementations of embedded video analytic system on FPGA and Single Board Computers will be discussed. Some possible scenarios of utilizing video analytics, IoT for Industries will also be mentioned.

# SOME MORE SNAPS FROM THE WEBINAR



Supavadee Aramvith (host)

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#### My Roles & Experiences CHULA ENGINEERING

- Ph.D. in EE (U. of Weshington, USA, 2001) under The Royal Thai Sovernment Schelarship
- Associate Professor in EE specialised in video technology
- Associate Progen at C-fullogister University!
  Award Outstanding Engineering Faculty Staff (Sak Intenia) Award 2017 from Deam of Chula Engineering and Honorary Award from Chu alongkom University (2019) and IEEE VGA Leadership Award (2019)
  Advision of 9 Ph.D., 27 Master's graduates, 32 Bachelon's graduates and Currently advise 2 PostDoc, 6 Ph.D., 2 Master's and 4 Bache on's students
- Over 135 conference/journal publications and 4 book chapters
- FCA AUN/SEED-Net Secretariat Assistant Executive Director (2007-2009) / AUN/SEED-Net EE Field Coordinator
- CU Focal Point to UN ITU / ITU-D Expert on ICT4SDG

- Technical Ac visor of Commissioner, Committee Chair, Project Leeder, NBTC/MICT/V DES (2007-Present)
  Profess onal Volunteer/Leadership experiences (IEEE, IEICE, APSIPA)
  Visiting Professor (Joska U. (2005, 2018), Hokkeido U. (2015), KDDI R&D Lebs (2015), University of Washington (2017)

















