

## SEMINAR ANNOUNCEMENT

DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING

Faculty of Engineering

Website: <https://www.eng.nus.edu.sg/ece/>

**Area: Signal Analysis & Machine Intelligence**

**Host: Assoc Prof Robby Tantowi Tan**

### Research seminar

<b>TOPIC</b>	:	<b>Deep Learning for Video Understanding: How Far Can We Go?</b>
<b>SPEAKER</b>	:	<b>Dr. Zheng Shou, Research Scientist, Facebook AI, Menlo Park, California, USA</b>
<b>DATE</b>	:	<b>14 January 2020, Tuesday</b>
<b>TIME</b>	:	<b>10am to 11am</b>
<b>VENUE</b>	:	<b>E3-06-08, Engineering Block E3, Faculty of Engineering, NUS</b>

### ABSTRACT

Video understanding, which will be one of the next biggest breakthroughs in realizing true artificial intelligence, can empower many important real-world applications to totally revolutionize our daily life and thus has attracted substantial interest in recent. From static image to dynamic video, the main challenge is that video contains action, activity and event which involve temporal dynamics across multiple frames. In this talk, I will focus on designing deep learning models to improve action recognition and detection in three important dimensions including (1) temporal precision: how to detect action at fine temporal granularities including segment-level and frame-level, (2) required levels of supervision: how to train weakly-supervised model to significantly reduce annotation cost, and (3) efficiency: how to generate discriminative motion representation directly from compressed video. Finally, I will look ahead to future directions such as comprehensive semantic understanding of video contents.

### BIOGRAPHY

Dr. Zheng Shou is a Research Scientist at Facebook AI in Menlo Park, California, USA. He obtained his Ph.D. degree at Columbia University in May 2019 with Prof. Shih-Fu Chang. His research focuses on computer vision and deep learning, with an emphasis on video understanding. He received the best student paper nomination in CVPR'17. He won the first place in ActivityNet challenge's temporal proposal track and localization track in 2017. He has published on CVPR, ICCV, ECCV, ACM MM, AAAI, NeurIPS, etc. and more details can be found at <https://scholar.google.com/citations?user=h1-3ISoAAAAJ&hl=en>

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