Signal Processing at Institut für Informationsverarbeitung

- •時間:2023年3月23日(四)10:30~11:30
- •地點:國立陽明交通大學工程三館345室

Abstract

Video coding and machine learning are important research areas in our lab. The combination of the two allows for specialized video codecs. For example, motion pre- and post-processing of videos allows for efficient transmission of video from drones to the ground. The concepts of motion compensation can also be applied to SAR image processing.

Machine learning using neural networks are perhaps the next big step in improving coding efficiency for high resolution generic video as well as specialized video coding applications. A significant problem of machine learning is domain adaptation. Solving this problem will allow the use of synthetic training data for future machine learning applications as demonstrated for a head pose estimation task.

講師簡介

Jörn Ostermann studied Electrical Engineering and Communications Engineering at the University of Hannover and Imperial College London, respectively. He received Dipl.-Ing. and Dr.-Ing. from the University of Hannover in 1988 and 1994, respectively. From 1988 till 1994, he worked as a Research Assistant at the Institut für Theoretische Nachrichtentechnik conducting research in low bit-rate and object-based analysis-synthesis video coding. In 1994 and 1995 he worked in the Visual Communications Research Department at AT&T Bell Labs on video coding. He was a member of Image Processing and Technology Research within AT&T Labs - Research from 1996 to 2003. Since 2003 he is Full Professor and Head of the Institut für Informationsverarbeitung at Leibniz Universität Hannover, Germany.



From 2008 until the reorganization of SC29 in July 2020, he was the Chair of the Requirements Group of MPEG (ISO/IEC JTC1 SC29 WG11). In July 2020 he was appointed Convenor of MPEG Technical Coordination (ISO/IEC JTC1 SC29 AG2) for three years. From 2011 to 2013, he served as Dean of the Faculty of Electrical Engineering and Computer Science at LUH. Since 2020 he is member of the Senat of Leibniz Universität Hannover.

His current research interests are video coding and streaming, computer vision, machine learning, 3D modeling, face animation, and computer-human interfaces.

主 持 人:彭文孝教授(交大資工系教授兼數據科學所所長) 活動洽詢:張采瑮 (03)5131206、tsailichang@nycu.edu.tw 注意事項: (1)請現場參加者配戴口罩。主辦單位有修改活動內容之權利。

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