

NATIONAL UNIVERSITY OF SINGAPORE

School of Computing

C S S E M I N A R

Title: Matrix Algebra in Computer Vision and Signal Processing

Speaker: Yasuyuki Matsushita
Professor
Graduate School of Information Science and Technology
Osaka University

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Venue: MR6, AS6-05-10

Chaired by: Dr Brown, Michael Scott, Associate Professor, School of Computing
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Abstract:

This talk covers simple yet useful matrix algebra that is fundamental to numerical solution methods for various computer vision and signal processing problems. In particular, this talk illustrates some important linear algebraic operations that are crucial for solving optimization, together with their applications to computer vision. The talk begins with reviewing basic linear system and norm approximation, then proceeds to methods for deriving sparse and/or low-rank solutions. The talk is designed for people who are not familiar with matrix operations for optimization in computer vision and kept easy to understand.

Biodata:

Prof. Yasuyuki Matsushita received his B.S., M.S. and Ph.D. degrees in EECS from the University of Tokyo in 1998, 2000, and 2003, respectively. From April 2003 to March 2015, he was with Visual Computing group at Microsoft Research Asia. In April 2015, he joined Osaka University as a professor. His research area includes computer vision, machine learning and optimization. He is on the editorial board of IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI), International Journal of Computer Vision (IJCV) and has served/is serving as a Program co-chair of PSIVT 2010, 3DIMPVT 2011, ACCV 2012, ICCV 2017, and a General co-chair for ACCV 2014. He is a senior member of IEEE.