COURSE DETAIL

MATHEMATICS FOR VISUAL DATA PROCESSING
Country Singapore
Host Institution National University of Singapore
Program(s) National University of Singapore
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Mathematics
UCEAP Course Number 168
UCEAP Course Suffix
UCEAP Official Title MATHEMATICS FOR VISUAL DATA PROCESSING
UCEAP Transcript Title VISUAL DATA PROCESS
UCEAP Quarter Units 6.00
UCEAP Semester Units 4.00

Course Description
This course studies various mathematical concepts and tools which have wide applications in image processing and computer vision. Topics: Hilbert space, least squares and orthonormal basis; continuous and discrete Fourier transform; spectral analysis for image processing; uncertainty principle and Gabor transform; multi-resolution analysis and wavelets; denoising. Emphasis is on the connections between theoretical analysis, computational algorithm, and practical implementation. Topics: transform in continuum space; discrete systems for computational algorithm; digital systems for practical implementation.

Language(s) of Instruction
English

Host Institution Course Number
MA4268

Host Institution Course Title
MATHEMATICS FOR VISUAL DATA PROCESSING

Host Institution Course Details

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department
Mathematics

Course Last Reviewed

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