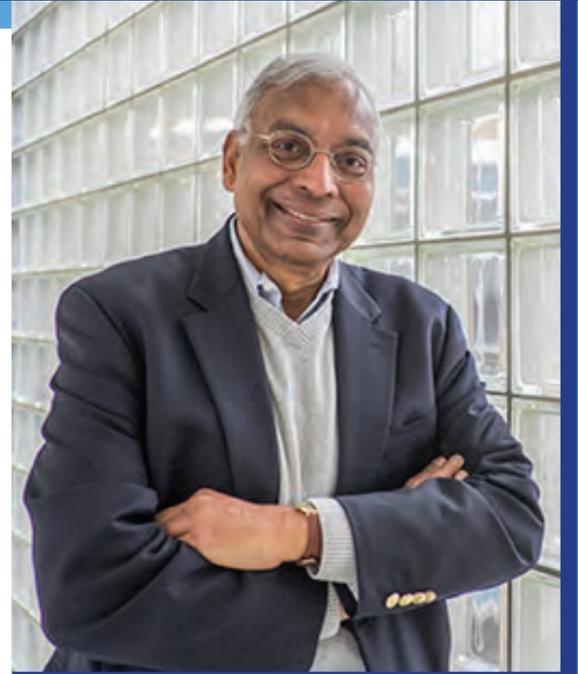




香港浸會大學  
HONG KONG BAPTIST UNIVERSITY  
計算機科學系  
Department of Computer Science

# Department of Computer Science Distinguished Lecture Series 2015/16

## Who Goes There? Applications & Challenges of Face Recognition



**Prof. Anil K. Jain**

University Distinguished Professor  
Department of Computer Science & Engineering  
Michigan State University

**4:30 - 5:30pm | Dec 14, 2015 | Monday**

RRS905, Sir Run Run Shaw Building, Ho Sin Hang Campus

### Abstract

There are two main drivers of face recognition technology: (i) security, namely, access to restricted areas and personal devices, de-duplication of passports and driver licenses and identifying suspects in surveillance videos, and (ii) social media, where face recognition is useful for automatic tagging of photos. These applications and their requirements have generated tremendous interest in face recognition research and development. While the origins of machine face recognition date back 50 years, the general problem of face recognition is incredibly difficult due to large intra-person face variability: pose, illumination, expression, occlusion, and aging. In other words, different face images of the same person acquired at different times and under different imaging conditions can have quite different appearances that are difficult to match by state of the art systems. Hence, the challenge is to design salient feature extractors and robust matchers for face images. For this reason, convolution neural networks, also known as, deep networks, have played a major role in the new generation of face recognition systems. This talk will address a number of ongoing research projects in my laboratory that include (i) face identification at scale (gallery of 80 million faces), (ii) large-scale face clustering (120 million faces), (iii) longitudinal study of face recognition, and (iv) detection of spoof faces.

### Biography

Anil K. Jain is a University Distinguished Professor in the Department of Computer Science & Engineering at Michigan State University. He was appointed an Honorary Professor at Tsinghua University and WCU Distinguished Professor at Korea University. He received B.Tech. from Indian Institute of Technology, Kanpur in 1969 and M.S. and Ph.D. from Ohio State University in 1970 and 1973, respectively. His research interests include pattern recognition, computer vision and biometric recognition. His articles on biometrics have appeared in Scientific American, Nature, IEEE Spectrum, Comm. ACM, IEEE Computer, Proc. IEEE, Encarta, Scholarpedia, and MIT Technology Review.

He is a recipient of Guggenheim fellowship, Humboldt Research award, Fulbright fellowship, IEEE Computer Society Technical Achievement award, IEEE W. Wallace McDowell award, IAPR King-Sun Fu Prize, IEEE ICDM Research Contribution Award, IAPR Senior Biometric Investigator Award, and the MSU Withrow Teaching Excellence Award. He also received the best paper awards from the IEEE Trans. Neural Networks (1996) and the Pattern Recognition journal (1987, 1991 and 2005) and served as the Editor-in-Chief of the IEEE Trans. Pattern Analysis and Machine Intelligence. He is a Fellow of the ACM, IEEE, AAAS, IAPR and SPIE and was felicitated with the MSU 2014 Innovator of the Year Award.

Anil Jain has been assigned six U.S. patents on fingerprint recognition and two Korean patents on surveillance. His research has resulted in technologies for fingerprint recognition, tattoo image matching, facial sketch to photo matching, unconstrained face recognition and fingerprint obfuscation that have been licensed to IBM, Morpho and NEC. He served as an advisor to India's Aadhaar program that provides a 12-digit unique ID number to Indian residents based on their ten fingerprints and both iris images.

He currently serves as a member of the Forensic Science Standards Board (FSSB), co-organizer of program on Forensics (2015-2016) at the NSF Statistical and Mathematical Sciences Institute (SAMSI) and a member of the Latent Fingerprint Working Group of the American Association for the Advancement of Science (AAAS).

Refer to his homepage: <http://www.cse.msu.edu/~jain/>.



### Enquiry

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