

Jane You's Profile

1. Personal Information:

Name: Jane YOU (Jia)

Current position: Professor

Department of Computing, The Hong Kong Polytechnic University

Contact details:

Phone: +852 2766 7293

Fax: +852 2774 0842

Email: csyjia@comp.polyu.edu.hk

2. Academic qualifications: Tertiary

- 1982 – 1986: B.Eng, Electronic Engineering, Xi'an Jiaotong University, Xi'an, P.R.China
- 1987: Diploma in English, Beijing Foreign Studies University, Beijing, P.R.China
- 1988 – 1992: Ph.D, Computer Science, La Trobe University, Australia
- 1994: Academic Qualification Certificate issued by French National Education Committee
- 1998: Graduate Certificate in Higher Education, Griffith University, Australia

3. Previous academic positions

- Associate Professor, The Hong Kong Polytechnic University (04/2004 – 06/2010)
- Assistant Professor, The Hong Kong Polytechnic University (09/1999 – 03/2004)
- Senior Lecturer, Griffith University, Australia (01/1996 – 02/2002)
- Research Fellow, Universite Paris XI (12/1993 – 11/1994)
- Lecturer, The University of South Australia, Australia (04/1993 – 12/1995)
- Associate Lecturer, La Trobe University, Australia (08/1989 – 04/1993)

4. Research patents and awards

- **2011: Special Prize and Gold Medal with Jury's Commendation**
The 39th International Exhibition of Innovations of Geneva (Geneva, Switzerland, 6-10 April, 2011)
(Team Leader: *An Innovative Secured Retinal Imaging System for Non-intrusive Diabetic Care*)
- **2011: ICMLC 2011 Lofti Zadeh Best Paper Award**
The 2011 International Conference on Machine Learning and Cybernetics (10-13 July, 2011)
(Co-author of the paper entitled "Sparse representation based spectral regression")
- **2010: 2010 Faculty External Grants Achievement Award, PolyU**
- **2009: The 2nd place in SPIE Medical Imaging' 2009 Retinopathy Online Challenge (ROC' 2009)**
(Team Leader for the international competition ROC' 2009, Florida, USA, 12-17 Feb., 2009)
- **2009: US Patent No. US7,496,214 B2, date of patent: 24 Feb. 2009**
(David Zhang Dapeng, Jane You Jia, Wai Kin Adams Kong, Guangming Lu and Xiangqian Wu
Method of palmprint identification)
- **2009: 2009 Hong Kong Awards for Industries: Machinery and Machine Tools Design Certificate of Merit**
(Team member of the awarded project "High-performance Palmprint-based Security System")
- **2004: The Hong Kong Polytechnic University Outstanding Professional Services and Innovation Award**
(Team member for the "Successful Patent Award" and "Internal Award")
- **2004: Hong Kong Patent No. HK1062117, date of patent: 17 Sept., 2004**
(David Zhang Dapeng, Jane You Jia, Wai Kin Adams Kong, Guangming Lu and Xiangqian Wu
Method of palmprint identification using geometry, line and/or texture features)
- **2003: Special Gold Award and Gold Medal,**
The 14th National Invention Exhibition of China (Xiamen, October, 2003)
(Team member of the awarded project "High Speed and Low Cost Security System Using Palmprint Technology")
- **2003: 2003 Hong Kong Awards for Industries: Consumer Design Certificate of Merit**
(Team member of the awarded project "Palmprint Identification System")
- **1994: French Foreign Ministry International Fellowship**

5. Major competitive external research grants

- **2009: The Hong Kong Government Innovation and Technology Fund (ITF)**
(PI: *The development of a new high performance fundus camera for automated medical diagnosis and monitoring*)
- **2009: The Hong Kong Government General Research Grant (GRF)**
(PI: *A new retinal imaging approach to computer-aided eye care*)
- **2008: The Hong Kong Government General Research Grant (GRF)**
(PI: *A new image processing approach to non-invasive diabetic diagnosis and monitoring*)
- **2007: The Hong Kong Government General Research Grant (GRF)**
(PI: *Computer-aided medical diagnosis by hierarchical retinal image analysis*)
- **2001: France/Hong Kong Joint Research Scheme (PROCORE' 2001)**
(PI: *A web-based intelligent browsing system for e-commerce applications*)

6. Research projects

- **Research interests:**
Computer-aided medical diagnosis, medical imaging, pattern recognition, biometrics computing, content-based image retrieval, LED multimedia display system, data mining and data warehousing
- **On-going projects:**
 - Computer-aided fetus monitoring system
 - The fusion of multi-channel medical features for computer-aided diagnosis (CAD)
 - A new ensemble learning framework for automated detection of diabetic retinopathy
 - A secured medical imaging system with privacy protection by lossless data hiding
- **Selected completed projects:**
 - Astigmatism and eye shape
 - Automated medical diagnosis by adaptive change detection and image understanding
 - Telecare of the elderly by motion detection in a home-based environment
 - eMedicare – A web-based medical information retrieval system
 - eGuard – Automated identity verification and identification using multiple personal features
 - Smart Shopper – An agent based web-mining system for internet shopping
 - Environmental monitoring by image understanding
 - Smart-light LED multimedia display system
 - Hierarchical image query by attribute for large image and video databases
 - Indexing and searching distributed image library
 - A real-time object recognition system for aerial images using multiprocessors
 - A texture analysis system for 2D digital images

7. Teaching activities

- **Supervision:**
 - 3 Ph.D students graduated, 2 Ph.D in progress (chief-supervisor)
 - many MSc/FYP students
- **Postgraduate course taught:**
 - Information Systems Acquisition and Integration
 - Customer Relationship Management and Technology
 - Computer Image Generation and Applications
 - IT and Logistics
 - Information Security: Systems and Applications
 - Biometrics Authentication: Systems and Technology
 - Information System Development with OO Method
 - Database Systems and Management
 - Data Mining and Data Warehousing
 - Advanced Topics in Computer Graphics
 - Advanced Object-Oriented Design and Programming
 - Information System Integration – IT Case Studies

- **Undergraduate course taught:**
 - Computer Graphics
 - Biometrics and Information Security
 - Information Systems and Management
 - Software Engineering and User Interface
 - Internet Computing
 - Human Factors and User Interface
 - Introduction to Operating System
 - Computer System Architecture
 - Operating System and System Programming
 - Computer Communication Networks

8. Professional Service

- **International Journal Editorial Board**
 - *Pattern Recognition* (Associate Editor since March 2011)
 - *The International Journal of Image Processing (IJIP)* (Associate Editor-in-Chief, since July 2009)
 - *The International Journal of Image Processing and Graphics (IJIG)* (since 2001)
- **Refereeing and Reviewing Experience**
 - Assessor for Hong Kong GRF, ITF grant applications
 - External Examiner for many Ph.D theses
 - Refereeing for many journals including *IEEE Trans. PAMI, Fuzzy Systems, CSVT, SMC-A, SMC-B, Pattern Recognition, CVPR, etc.*,
 - Reviewer for many international conferences including ICPR, ICMB, ICIP, IPCV etc.
- **Conference Organization**
 - Program Chair for *IEEE ICDIM' 2011, ICMB2010, ICMB2008*
 - PC member of many international conferences

9. Selected Publications

- **Book**
 - [1] J. You, Q. Li and P. Bhattacharya, *Super Eye Guard -- Automated Iris and Retina Image Analysis for Security and Medical Application*, to be published by Springer Verlag in 2011.
- **Accepted journal articles**
 - [1] Z.W. Yu, H.S. Wong, J. You, Q.M. Yang and H.Y. Liao, "Knowledge based cluster ensemble for cancer discovery from bio-molecular data," accepted for publication in *IEEE Trans. on Nanobioscience*, 2011.
 - [2] J.H. Wang, Q. Li, J. You and Q.J. Zhao, "Fast kernel Fisher discriminant analysis via approximating the kernel principal component analysis," accepted for publication in *NeuroComputing*, 2011.
 - [3] Z.H. Guo and J. You, "Local directional derivative pattern," accepted for publication in *NeuroComputing*, 2011.
- **Selected 10 most representative publications in recent years**
 - [1] M. Niemeijer, B. Zhang, X.Q. Wu, J. You, Q. Li, F. Karray and M.D. Abramoff, *et. al*, "Retinopathy On-line Challenge: Automatic detection of microaneurysms in digital color fundus photographs", *IEEE Trans. on Medical Imaging*, vol. 29, no. 1, pp. 185-195, 2010.
 - [2] B. Zhang, X.Q. Wu, J. You, Q. Li and F. Karray, "Detection of microaneurysms using multi-scale correlation coefficients", *Pattern Recognition*, vol. 43, no. 6, pp. 2237-2248, 2010.
 - [3] L. Zhang, Q. Li, J. You and D. Zhang, "Modified matched filter with double-side thresholding and its application to proliferative diabetic retinopathy screening", *IEEE Trans. on Information Technology in Biomedicine*, vol. 13, no. 4, pp. 528-534, 2009.
 - [4] L. Liu, D. Zhang and J. You, "Detecting wide lines using isotropic nonlinear filtering", *IEEE Trans. Image Processing*, vol. 16, no. 6, pp. 1584-1595, 2007.
 - [5] W.K. Kong, K.H. Cheung, D. Zhang, M. Kamel and J. You, "An analysis of biohashing and its variants", *Pattern Recognition*, vol. 39, pp. 1359-1368, 2006.

- [6] W.X. Li, J. You and D. Zhang, "Texture-based palmprint retrieval using a layered search scheme for personal identification", *IEEE Trans. Multimedia*, vol. 7, no. 5, pp. 891-898, 2005.
- [7] J. You, W.K. Kong, D. Zhang and K.H. Cheung, "On hierarchical palmprint coding with multi-features for personal identification in large databases", *IEEE Trans. Circuits and Systems for Video Technology*, vol. 14, no. 2, pp. 234-243, 2004.
- [8] D. Zhang, W.K. Kong, J. You and M. Wong, "On-line palmprint identification", *IEEE Trans. PAMI*, vol. 25, no. 9, pp. 1041-1050, 2003.
- [9] J. You, W.X. Li and D. Zhang, "Hierarchical palmprint identification via multiple feature extraction", *Pattern Recognition*, vol. 35, no. 4, pp. 847-859, 2002.
- [10] J. You and P. Bhattacharya, "A wavelet-based coarse-to-fine image matching scheme in a parallel virtual machine environment", *IEEE Trans. Image Processing*, vol. 9, pp. 1547-1559, 2000.