



FACULTY BIOGRAPHIES



Amine Bermak (PhD)

Professor and Program Coordinator

Information & Computing Technology
College of Science & Engineering

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Biography

Prof. Amine Bermak received his master's and Ph.D. degrees in electrical and electronic engineering from Paul Sabatier University, France in 1994 and 1998, respectively. He has held various positions in academia and industry in France, the UK, Australia and Hong

Kong. Currently, he is a professor in the Information and Computing Technology Division of Hamad Bin Khalifa University.

For his excellence and outstanding contribution to teaching, he was nominated for the 2013 Hong Kong UGC best teacher award (for all HK Universities). He is the recipient of the 2011 University Michael G. Gale Medal for distinguished teaching. He is also a two-time recipient of the “Engineering Teaching Excellence Award” in HKUST for 2004 and 2009, respectively.

Dr. Bermak has received Six distinguished awards, including the “Best University Design Contest Award” at ASP-DAC 2016; “Best paper award” at IEEE ISCAS 2010; the 2004 “IEEE Chester Sall Award”; and the “Best Paper Award” at the 2005 International Workshop on SOC for Real-Time Applications. He has published over 250 articles, designed over 40 chips and graduated 14 Ph.D. and 16 MPhil students. He has served on many editorial boards and is currently the editor of IEEE Transactions on BioCAS and the IEEE TED. Dr. Bermak is a Fellow of IEEE and an IEEE Distinguished Lecturer.



Research Interests

- 1 IC design and VLSI Systems
- 2 IC design for signal and image processing
- 3 Smart image, olfactory and temperature sensors
- 4 E-Nose Microsystems
- 5 Circuits and systems for energy harvesting
- 6 Sensors for environmental and biomedical applications



Experience

Professor

CSE, Hamad Bin Khalifa University

Sep 2015 to present

Co-director

MIT-HKUST Research Consortium

Jan 2015 - Aug 2015

Professor

Hong Kong University of Science and Technology

July 2011 – Aug 2015

Director

MSc in IC Design Engineering, Hong Kong University of Science and Technology

July 2008 – Aug 2015

Director

Computer Engineering Program, Hong Kong University of Science and Technology

July 2008 – June 2010

Assistant/Associate Professor

Hong Kong University of Science and Technology

July 2002 – June 2011

Lecturer/Senior Lecturer

Edith Cowan University; Australia

Jan 2000 – June 2002

Post-doc

Advanced Computer Architecture Group, The University of York, York, UK

Jan 1998 – Dec 1999

Research Assistant

Laboratory of Automatics and Systems Analysis (LAAS), French National Research Centre (LAAS-CNRS) & Motorola-Toulouse, France

Dec 1994 – Jan 1998



Education

Ph.D. in Microelectronics and Microsystems (Highest distinction)

Paul Sabatier University, LAAS-CNRS, Toulouse, France

1998

MSc in Microelectronics and Microsystems

Paul Sabatier University, LAAS-CNRS, Toulouse, France

1994

National Polytechnics Institute of Algiers, Algeria

1993

**Selected Publications**

Bo Wang, Man Kay Law, Amine Bermak, and Fang Tang, "BJT Process Spread Compensation Utilizing Base Recombination Current in Standard CMOS"

IEEE Electron Devices Letters, Volume: 36, Issue: 11, pp. 1111 - 1113, 2015

2015

Bo Wang; Man Kay Law; Bermak, A.; "A Precision CMOS Voltage Reference Exploiting Silicon Bandgap Narrowing Effect"

IEEE Transactions on Electron Devices, Volume: 62, Issue: 7, pp. 2128 – 2135, 2015.

2015

D. G. Chen, M.-K. Law, L. Yong, and A. Bermak, "Low-power CMOS Laser Doppler Imaging using Non-CDS Pixel Readout and 13.6-bit SAR ADC,"

IEEE Transactions on Biomedical Circuits and Systems, under press, 2015.

2015

Tang, F.; Wang, B.; Bermak, A.; Zhou, X.; Hu, S.; He, X. "A Column-Parallel Inverter-Based Cyclic ADC for CMOS Image Sensor With Capacitance and Clock Scaling"

IEEE Transactions on Electron Devices, Under press, 2015.

2015

D. G. Chen, F. Tang, M-K Law, and A. Bermak, "A 12 pJ/pixel Analog-to-Information Converter based 816 x 640 CMOS Image Sensor,"

IEEE Journal of Solid-State Circuits, Vol 49, Issue 5, pp.1210-1222, May 2014.

2014

**HONORS AND AWARDS**