

3 Post-Doctoral Research Fellows (Industry) Australian Post-Doctoral Fellow (Industry)

5 Postgraduate Research Scholarships: Australian Postgraduate Award (Industry)

The Department of Electrical and Computer Systems Engineering is offering 3 PDFs and 5 PhD scholarships for R&D in *Radio Frequency Identification (RFID) System* and *Smart Antenna Signal Processing for Partial Discharge Detection from Faulty Power Apparatuses*. The two projects are worth about \$1.4M in three years starting in 2009. The Australian Research Council (ARC) Linkage Grants with prestigious Australian Post-Doctoral Fellow (industry) {APDF(I)} and Australian Postgraduate Award (industry) {APA(I)} stipends are supported by 3 large companies¾ Securency Pty Ltd, SatNet Pty Ltd and SP-AusNet Pty Ltd all based in Melbourne metropolitan areas in Australia. The Salary of the APDF(I)s will be commensurate with the experience and skills of the applicants and the APA(I) stipend is at the fixed rate of \$26,000 per annum (tax free) for three years.

Project 1: Radio Frequency Identification (RFID) System The research involves the development of a chipless RFID system for Australian polymer banknotes, low-cost items and secured documents. The project concerns design and implementation of RF/Microwave active and passive devices design, antennas and their system level integrations, development of smart antenna signal processing algorithms and implementation them in FPGAs and micro-controllers for the RFID reader. High-quality analytical and hands-on skills, a commitment to experimental research, and development of theoretical concepts are essential. The project can recruit up to two PDFs and three APA(I) scholars for three years starting in 2009.

Project 2: Smart Information Management with Smart Antennas for Partial Discharge Detection from Faulty Power Apparatuses The research involves RFID based smart antenna and signal processing for diagnostics of faulty power apparatuses in switchyards. The project concerns the physical layer design of smart antennas; signal classifications of faulty power apparatus and extraneous interferences; signal-to-noise ratio enhancement algorithm and RFID based sensor design. The project can recruit one PDF and two APA(I) scholars for three years starting in 2009.

APDF(I) applicants with earned PhD degree and APA(I) scholar applicants with honours degree in Engineering should apply by **10 August 2009**. Curriculum vitae, references and an academic transcript of results are to be presented on request. For PhD applicants for whom English is not their first language, documentary evidence of English proficiency is required (IELTS 7).

Monash University is located in a vibrant industry belt of South Eastern Melbourne of Australia. Melbourne is ranked the top livable city in the globe. Excellent opportunities to be absorbed in the Australian industry and settlement in the beautiful Australia are the added advantages. The applicant needs not to be an Australian citizen or permanent resident and the application is open to all nationalities.

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