

Synchronization Waveforms for Modern Radar and Cognitive Radio

Supervisors: Dr. Udaya Paramalli

Dual PhD option:

Project description: In Radar, sensing and communication applications, ideal correlation sequences help to localize a received signal in time, e.g., to estimate the range of a target from radar based on the delay in the radar return or to synchronize a mobile handset with a pilot signal sent from a base station. This project intends to study and construct waveforms which have necessary synchronization features from theory of Golay complementary pairs and their generalizations.

Student performance requirement: GPA of 8.5/10 or better.

Please note: the applicant must discuss with the nominated supervisor before finalizing the project proposal to be submitted to the University of Melbourne. This proposal is dedicated to IIT Kanpur, IIT Madras and I.I.Sc educated students only. The scholarship covers tuition and living expenses to work on the project. Applicants are not required to do any teaching. Duration of the PhD is 3-3.5 years and applicants can be admitted to the PhD candidature after the completion of a Masters degree or 4 year Bachelors degree from IIT Kanpur.

Rankings: The Melbourne School of Engineering is Australia's No. 1 engineering and technology school and No. 25 in the world *

Website: www.eng.unimelb.edu.au

* Times Higher Education World University Rankings 2012-2013.