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Internship Opening

Reference.:	2011.2.020
Division/Dept:	**Land Defence & C4I - Innovation, Research & Technology**
Discipline:	**Electrical Engineering/Computer Science**
Level:	MSc. Thesis assignment
Background:	Thales Defence & Security C4I Systems is part of Thales Nederland and member of the international Thales Group. Thales is a global technology leader for the Aerospace, Space, Defence, Security and Transportation markets and has approximately 68,000 employees in 50 countries. With its 25,000 engineers and researchers, Thales has a unique capability to design, develop and deploy equipment, systems and services that meet the most complex security requirements. Thales develops and manufactures high quality integrated communication systems for both commercial organisations and defence and has approximately 330 employees including 150 engineers working in Research and Development. The Innovation, Research & Technology department offers many opportunities for internships in the area of communication systems, navigation systems (Inertial/GPS), video and audio processing, and energy optimization. Applications for internships in these and related fields are welcomed.
Title:	**Disruption Tolerant Networking**
Assignment:	Contemporary communication networks consist of a wide variety of wireless access technologies, ranging from commercial standards (e.g. Wireless LAN, WiMAX) to specific long range VHF communication equipment. The availability of these networks may vary widely between having no connectivity at all to having a large number of networks available. Typically one may take advantage of information that is present at lower functional layer to decide upon effective measures at the higher protocol layers of communication system as part of a cross layer approach. But also to benefit as much as possible from networks that are susceptible to interrupts and widely varying delay/availability characteristics by using novel Disruption Tolerant Networking (DTN) approaches. The goal of this assignment is to devise new concepts for cross layer and DTN optimizations to address the challenges in achieving high performances over constrained wireless networks. This includes conceptual and experimental work that should result in a demonstrator that is capable of showing the merits of the approach taken.
Affinity:	Programming in C/C++, Linux, TCP, IP, Communication Networks
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