



Personal Heart Monitoring System for the prevention of Sudden Cardiac Death

Alain Mouttham

School of Information Technology and Engineering, University of Ottawa



Jan 27, 2010

admission is free

18:00 – 20:00 pm

ME-3356

Carleton University

Light refreshment will be served

Cardio-vascular diseases are the first cause of mortality worldwide, and more than 20,000 Canadians are struck by Sudden Cardiac Arrest every year. It is caused mainly by Ventricular Arrhythmias, and their genesis is not completely understood yet.

The Personal Heart Monitoring System (PHMS) is a research project undertaken in collaboration with the University of Ottawa Heart Institute. It is based on wireless biomedical sensors, smartphone, and Machine Learning techniques. As a clinical device, the PHMS will be used for the remote monitoring of cardiac patients, support to diagnosis, support to prognosis, and assessment of therapy efficacy. As a medical research equipment, it will help better understand the genesis of Ventricular Fibrillation and post-operative Atrial Fibrillation. Unlike existing ambulatory ECG equipment, the PHMS will be capable of personalized, adaptive, and predictive cardiac monitoring, done on-line and continuously, while the patient is carrying his/her activities of daily living.

Alain Mouttham received a Telecom Engineering degree in France, and a MSc in Computer Science from Stanford University. He started his career at Hewlett-Packard, in the Silicon Valley, then in the European HPLabs in England, and finally in France. Alain then launched his first high-technology startup focused on Network Management software, located in the Silicon Valley. After, he joined Nortel Networks in Ottawa, and was responsible for the management of a software business unit in Telecom Network Management. Later on, Alain co-founded SIPQuest in the areas of IP multimedia conferencing and VoIP for smartphones.. After the startup was acquired, he joined the University of Ottawa doing biomedical engineering research on the Personal Heart Monitoring System, and completing a PhD program.