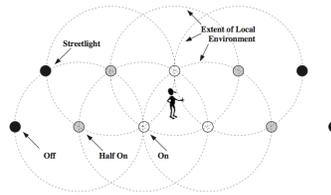# PERVASIVE COMPUTING TALKS
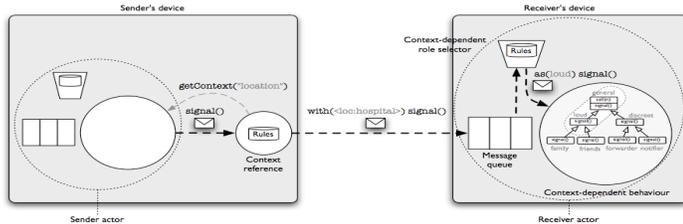## DEPTO DE CS DE LA COMPUTACIÓN (DCC) / U.CHILE / CENTRO DE INVESTIGACION DE LA WEB (CIW)

STIGMERGY

AUTONOMOUS CONCURRENT DEVICES

CONTEXT AWARENESS

CICLO DE CHARLAS / MIERCOLES 12:00-13:30 / AUDITORIO

Aprovechando la presencia de varios investigadores extranjeros en el área de Pervasive Computing, el Centro de Investigación de la Web y el Departamento de Ciencias de la Computación de la Universidad de Chile tienen el agrado de invitar estudiantes y académicos a un ciclo de charlas sobre programación de software para Pervasive Computing.

CONTEXT DEPENDENT ADAPTATION
JORGE VALLEJOS (VRIJE UNIVERSITEIT BRUSSEL)
18 DE ABRIL

Implementing **context-dependent behavior** of pervasive computing applications puts a great burden on programmers: Devices need to continuously adapt not only to their own context, but also to the context of other devices they interact with. We present an approach that modularizes behavioral adaptations into **roles**. Role selection takes the context of all the devices involved in an interaction into account, ensures an **unambiguous scope of adaptation** even in the presence of concurrency, and protects the **privacy** of the devices.

PERVASIVE COMPUTING:
APPLICATIONS AND PERSPECTIVES
PETER BARRON (TRINITY COLLEGE DUBLIN)
JESSIE DEDECKER (VRIJE UNIVERSITEIT BRUSSEL)
25 DE ABRIL

Pervasive computing is the idea of embedding technology and connectivity into everyday objects in such a way that it adds functionality to the environment in a useful and unobtrusive manner. We provide a general overview of the concept of pervasive computing (also known as ubiquitous computing or ambient intelligence), exploring the original **motivations** and **technologies** that have enabled it. We then focus on the broader issues facing pervasive computing in particular in **middleware** and **application development**. The talk will also explore the different application areas for pervasive computing.

AMBIENT-ORIENTED PROGRAMMING
JESSIE DEDECKER (VRIJE UNIVERSITEIT BRUSSEL)
2 DE MAYO

Ambient-Oriented programming is a programming paradigm whose properties are derived from the characteristics of hardware platforms for **mobile computing**. Mobile hardware devices are often provided with wireless networks facilities, allowing them to engage in collaboration with their environment. However, the **autonomous** nature of these devices as well as the **volatile connections** over their wireless infrastructure has its repercussions on the software that employs them. This talk will also present **AmbientTalk**, a distributed programming language developed specifically for writing programs to be deployed on mobile ad hoc networks.

STIGMERGY FOR PERVASIVE COMPUTING
PETER BARRON (TRINITY COLLEGE DUBLIN)
9 DE MAYO

This talk explores how a **biologically-inspired** approach can be used to develop pervasive computing environments. In particular, we look at how the natural phenomenon of **stigmergy** can be applied to pervasive computing to accomplish a highly **decentralized** method of organizing the components of such an environment.

| 18-04 | 25-04 | 02-05 | 09-05 | Auditorio del DCC U.Chile | Blanco Encalada 2120, 3er piso |