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Saal Auditorium 202, Alon Building for Hi-Tech 37

As part of the Faculty of Natural Sciences Distinguished Scientist Visitors Program
you are invited to:

Tutorials by Professor Michel Raynal
April 2, 2017

Michel Raynal has been a professor of computer science since 1981. At IRISA (CNRS-INRIA-University joint computing research laboratory located in Rennes), he founded a research group on Distributed Algorithms in 1983. His research interests include distributed algorithms, distributed computing systems, networks and dependability. His main interest lies in the fundamental principles that underly the design and the construction of distributed computing systems. He has been Principal Investigator of a number of research grants in these areas, and has been invited by many universities all over the world to give lectures on distributed algorithms and distributed computing. He has supervised more than 45 PhD students and has more than 10.000 citations. His h-index is 54, and his i-10 index is 252 (as computed by Google Scholar). Professor Michel Raynal has published more than 140 papers in many prestigious journals. Michel Raynal is well-known for his numerous books on distributed computing. Since 2010, Michel Raynal is a senior member of the prestigious "Institut Universitaire de France". He is also the recipient of the 2015 Int'l "Prize for Innovation in Distributed Computing" (SIROCCO Award), and a Member of Academia Europaea.

Event details:

10:00 Gathering

10:10 Opening Remarks and Greeting:
Prof. Shlomi Dolev, Ben-Gurion University

10:15 Distributed Universal Constructions
Prof. Michel Raynal, IRISA Rennes

Abstract: The notion of a universal construction is central in computing science: the wheel has not to be reinvented for each new problem. In the context of n-process asynchronous distributed systems, a universal construction is an algorithm that is able to build any object defined by a sequential specification despite the occurrence of up to (n-1) process crash failures. The aim of this tutorial is to present a guided tour of such universal constructions. Its spirit is not to be a catalog of the numerous constructions proposed so far, but a (as simple as possible) presentation of the basic concepts and mechanisms that constitute the basis these constructions rest on.

12:15 End of First Tutorial by Professor Michel Raynal

13:00 Communication and Agreement Despite Byzantine Processes
Prof. Michel Raynal, IRISA Rennes

Abstract: Communication and agreement are fundamental abstractions in any distributed system. (If the computing entities do not need to communicate or agree in one way or another, the system is not a distributed system!) This tutorial is devoted to the design of such abstractions built on top of signature-free asynchronous distributed systems prone to Byzantine process failures. It is made up of three parts, each devoted to an abstraction and algorithms that implement it.

15:00 End of Second Tutorial by Professor Michel Raynal