



Marie Curie Actions: Marie Curie Outgoing International Fellowship (OIF)
Participant: Dr. Alain Girault
Project Title: Formal design methods for globally asynchronous/locally synchronous embedded computing systems (DYNAGALS)
Research Area: Information and Communication Technologies (ICT)
Research Programme: FP7
Contract Type: Marie Curie Outgoing International Fellowship
Coordinator: French National Institute for Research in Computer Science and Control
NZ Host: Department of Electrical and Computer Engineering, University of Auckland
Period Covered: 24 months from 01 March 2008 to 28 February 2010
Total Project Funds: €111 667

A Marie Curie Fellowship is a great experience, from all points of view: academic (lots a new exciting research topics, and lots of scientific results), human (the people of New Zealand are very welcoming and friendly), and personal (New Zealand is an amazing country and the whole family enjoyed it).

Dr. Alain Girault holds a senior research fellow position at the French National Institute for Research in Computer Science and Control (INRIA). His research interests include the design of reactive systems, with a special concern for distributed implementation, fault-tolerance, reliability, formal verification, and discrete controller synthesis. He heads the POP ART team at INRIA Grenoble Rhône-Alpes, which focuses on formal methods for embedded systems.

In 2008 he received a Marie Curie Outgoing International Fellowship to work at the University of Auckland in the Department of Electrical and Computer Engineering with Professor Zoran Salcic and Dr. Partha Roop. The DYNAGALS project addresses the issue of dynamic creation of processes in the SystemJ programming language. SystemJ is developed by the University of Auckland and is dedicated to the design of globally asynchronous/locally synchronous embedded systems. Numerous other research problems have been tackled during the fellowship, including the design of multi-core embedded processors, predictive architectures, and adaptor synthesis for components. Five research articles have been written during the fellowship.

Prior to the Fellowship, preliminary contacts already existed between Professor Salcic's group and Dr. Girault. The Fellowship has allowed the strengthening of these links. In particular, two students (one at the Master level and one in PhD) are co-advised by Dr. Roop and Dr. Girault. Short research stays of Dr. Roop and Professor Salcic in INRIA Grenoble are also planned for 2009 and 2010.