



Halmstad Colloquium research seminar by Enrique Alba, professor at University of Málaga, Spain.

“Intelligent Systems for Smart Cities”

Thursday June 4, 1:15 p.m., Wigforssalen, House Visionen

Abstract:

The concept of Smart Cities can be understood as a holistic approach to improve the level of development and management of the city in a broad range of services by using information and communication technologies.

It is common to recognize six axes of work in them: i) Smart Economy, ii) Smart People, iii) Smart Governance, iv) Smart Mobility, v) Smart Environment, and vi) Smart Living. In this talk we first focus on a capital issue: smart mobility. European citizens and economic actors need a transport system which provides them with seamless, high-quality door-to-door mobility. At the same time, the adverse effects of transport on the climate, the environment and human health need to be reduced. We will show many new systems based in the use of bio-inspired techniques to ease the road traffic flow in the city, as well as allowing a customized smooth experience for travelers (private and public transport).

This talk will then discuss on potential applications of intelligent systems for energy (like adaptive lighting in streets), environmental applications (like mobile sensors for air pollution), smart building (intelligent design), and several other applications linked to smart living, tourism, and smart municipal governance.

Short bio:

Prof. Enrique Alba had his degree in engineering and PhD in Computer Science in 1992 and 1999, respectively, by the University of Málaga (Spain). He works as a Full Professor in this university with different teaching duties: data communications, distributed programming, software quality, and also evolutionary algorithms, bases for R+D+i and smart cities at graduate and master/doctoral programs. Prof. Alba leads an international team of researchers in the field of complex optimization/learning with applications in smart cities, bioinformatics, software engineering, telecoms, and others.

In addition to the organization of international events (ACM GECCO, IEEE IPDPS-NIDISC, IEEE MSWIM, IEEE DS-RT, ...) Prof. Alba has offered dozens postgraduate courses, multiple seminars in more than 30 international institutions, and has directed several research projects (7 with national funds, 5 in Europe, and numerous bilateral actions). Also, Prof. Alba has directed 7 projects for innovation and transference to the industry (OPTIMI, Tartessos, ACERINOX, ARELANCE, TUO, INDRA, AOP) and presently he also works as invited professor at

INRIA, the Univ. of Luxembourg, and Univ. of Ostrava. He is editor in several international journals and book series of Springer-Verlag and Wiley, as well as he often reviews articles for more than 30 impact journals. He has published 81 articles in journals indexed by Thomson ISI, 17 articles in other journals, 40 papers in LNCS, and more than 250 refereed conferences. Besides that, Prof. Alba has published 11 books, 39 book chapters, and has merited 6 awards to his professional activities. Pr. Alba's H index is 42, with more than 8400 citations to his work.