

Prof. Enrique Alba



Dr. Enrique Alba works as a Professor of Computer Science at the University of Málaga, Spain. He got his Ph.D. degree on parallel neuroevolution in 1999. His current research interests involve the design and application of metaheuristics and bio-inspired systems to real problems in telecommunications, combinatorial optimization, software engineering, and smart cities. He is the fifth most influential researcher in Computer Science of Spain (JCR), the first of his university in Engineering, and a prolific author according to DBLP, with an H-index of 59 and more than 17,000 citations to his works.

A main part of his research deals with parallelism, having long experience in cluster computing, grid/cloud algorithms, P2P techniques, multi/many-core systems, GPU developments, Myrinet/Gigabit Ethernet analysis and Wi-Fi ad-hoc networks in MANET and VANET (vehicular ad hoc networks).

His ongoing research deals with discrete and continuous optimization, used for solving problems in smart mobility, smart cities, logistics, vehicle routing, DNA fragment assembly, gene microarrays, software testing and validation, automatic software quality assessment, and in general hard problems lying in the base of real world problems.

New fields like multiobjective techniques, rich Internet platforms, dynamic optimization (problem definition changes in time), self-adaptive efficient techniques, and heterogeneous algorithms are dealt with, both in theory and applications.

As to the techniques, Prof. Alba and his group are experts in metaheuristics, either bio-inspired or not, and hybridization with other (possibly exact) methods. In concrete, evolutionary algorithms, particle swarm, ant colonies, simulated annealing, variable neighborhood search, branch and bound, and related solvers are investigated.

Prof. Alba has published 12 monographs on metaheuristics and bio-inspired techniques, 125 papers in ISI indexed journals, and more than 300 conference papers. He has coordinated several national and international research projects in the past. Some of these projects are TRACER, OPLINK, M*, roadME, moveON, the Spanish network on smart cities CIRTI, INRIA PERFOM and MOID, European projects like CARLINK, COADVISE, ImAppNIO, FIQARE, TAILOR, and Excellence Projects in Andalucía like DIRICOM and MAXCT. Prof. Alba holds active collaborations with more than 20 international universities and labs, and his research in Málaga is also worth of industrial transferences to many companies: OPTIMI, ZED, Indra, ACERINOX, VTT, ETRA, VATIA, SECMOTIC; EMERGYA, ArcelorMittal, etc. holding 4 patents and also two software packages in exploitation by Ericsson.

Prof. Alba has supervised dozens final degree theses, 20 master theses, 19 PhD theses presented and 8 running new theses (most of them with the international mention). This evidences a large vocation to human training in research and knowledge dissemination, with more than 50 international seminars and plenary talks given (ACM Distinguished Speaker).

Finally, Prof. Alba is deeply involved with ACM through the SIGEVO chapter, organizing (as general chair and now as an officer) conferences like GECCO and FOGA. He works in the program committee of conferences like ACM GECCO, IEEE CEC, PPSN, EvoCOP, IPDPS and many more, as well as he organizes international events like SmartCT, NIDISC, IEEE/ACM MSWiM. He also works as reviewer for IEEE Transactions (on EC, PDS, Education, SMC), JPDC, PARCO, Journal of Heuristics, JMMA, EJOR, Computer Communications, and many others.

[For more details see <http://neo.lcc.uma.es>]