

Prof. Dr. Enrique Alba



Dr. Enrique Alba is a Professor of Computer Science at the University of Málaga, Spain. He got his Ph.D. degree on designing and analyzing parallel and distributed genetic algorithms. 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.

The main focus of all his work is on 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 networks).

Part of his ongoing research lies in the fields of discrete and continuous optimization, ad hoc metropolitan network optimization, optimal design of GSM networks, 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. Smart mobility is among his deepest interests at present.

New fields like multiobjective techniques, rich Internet platforms, dynamic optimization of problems whose definition change 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 (maybe 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, 98 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 CIRT, INRIA PERFOM and MOID, European projects like CARLINK, COADVISE, ImAppNIO, FIQARE, and Excellence Projects in Andalucía like DIRICOM and MAXCT. Prof. Alba holds active collaborations (join publications, visits, and exchanges) with more than 20 international universities and labs, and his research in Málaga is also provoking industrial transferences to several companies: OPTIMI, ZED, Indra, ACERINOX, VTT, ETRA, VATIA, SEC MOTIC; EMERGYA, ArcelorMittal, etc. holding 4 patents and also two software packages in exploitation by Ericsson.

Most PhD theses directed by Prof. Alba in Málaga have the European mention of quality. He has supervised dozens final degree theses, 20 master theses, 19 PhD theses, and currently works in 8 running new theses around the world. This evidences a large vocation to human training in research, with demonstrable results in terms of highly cited publications (H index 57, more than 15500 cites) and more than 50 international seminars and plenary talks. Included in the list of most prolific DBLP authors.

Finally, Prof. Alba works in the program committee of well-known conferences in several fields, like ACM GECCO, IEEE CEC, PPSN, EvoCOP, IPDPS and many more, as well as he organizes international events like SmartCT, NIDISC, IEEE/ACM MSWiM and the ACM GECCO 2013 (as general chair, top conference in the field). 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>]