Nature Inspired Distributed Computing (NIDISC'06)

Preface

This section contains the papers presented at the International Workshop on Nature In-spired Distributed Computing (NIDISC'06) which is held in conjunction with the International Parallel and Distributed Processing Symposium (IPDPS 2006), April, 2006, Rhodes, Greece. NIDISC aims to provide an opportunity for researchers to explore the connection between biology, nature-inspired techniques, metaheuristics and the development of solutions to problems that arise in communications, parallel and distributed processing.

It is well known that techniques inspired by biological phenomena can provide efficient solutions to a wide variety of problems in parallel computing and, more generally, in computer science. A vast literature exists on bio- and nature-inspired approaches for solving a rather impressive array of problems in all key areas of parallel processing and computer science. Rather remarkably, most of the nature-inspired techniques and related paradigms are inherently parallel. Thus, solutions based on such methods can be conveniently implemented on parallel architectures.

In response to the call for papers of this workshop, we have received a variety of papers in these topics from Europe, Asia, Australia and America, hence qualifying NIDISC as an actual international workshop. The workshop chairs have carefully considered the suitability of the topics for the workshop and also ranked the manuscripts on their original contributions. As a result, 23 manuscripts are selected to be presented in the NIDISC workshop and to be included here in these workshop proceedings.

This collection of papers is a good sample of the theoretical and practical aspects of the research in nature inspired techniques and paradigms applied to the area of distributed computing and communications. The papers accepted span across a variety of topics ranging from pattern formation in enzyme inhibition with cellular automata, to evolutionary optimization, security and computer networks.

We would like to take this opportunity to thank all the authors for their submissions and the program committee for making NIDISC a success.

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