

## Introduction

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Today, the hybridisation between social sciences and social behaviours with robotics, neurobiology and computing, ethics and neuroprosthetics, cognitive sciences and neurocomputing, neurophysiology and marketing is giving rise to new concepts and tools that can be applied to ICT (information and computing technology) systems, as well as to natural science fields. Through IWINAC international meeting we provide a forum in which research in different fields can converge to create new computational paradigms that are on the frontier between Natural sciences and Information technologies. Building these new bridges give rise to open new frontiers, and lead to true innovations and breakthroughs. This is the vision of Integrated Computer-Aided Engineering journal.

The manuscripts included in this special issue grew out of 5th International Work-Conference on the Interplay Between Natural and Artificial Computation (IWINAC 2015), Elche, Alicante, Spain, June 1–June 5, 2015. The conference received over 190 submissions. 103 papers were accepted for presentation and

publication in the conference proceedings published by Springer series leading to an acceptance rate of less than 55%. The authors of the 20 papers considered to be the most innovative and original in terms of computing and information technologies were invited to submit “substantially extended and updated manuscripts with additional original computational materials based on their most recent research” for possible publication in this issue. Each submitted extended manuscript went through two cycles of the journal’s review process using the journal review form. They received between 4 and 8 reviews. The seven manuscripts included in this issue are those that passed through the journal’s review process successfully.

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