

FOREWORD

FLINS, an acronym originally for **F**uzzy **L**ogic and **I**ntelligent **T**echnologies in **N**uclear **S**cience (1994), has been launched in line with the Belgian Nuclear Research Centre (SCK•CEN)'s objective to give PhD and Postdoc researchers the opportunity to carry out future-orientated research. Now 16 years later FLINS has been extended to an international forum on *Computational Intelligence: Foundations and Applications* (2010) to advance the theory and applications of computational intelligence for complex systems related research in particular. FLINS'10 is the ninth in a series of conferences on computational intelligence systems. It follows the successful FLINS'94 in Mol, FLINS'96 in Mol, FLINS'98 in Antwerp, FLINS'00 in Bruges, FLINS'02 in Gent, FLINS'04 in Blankenberge, Belgium, FLINS'06 in Genova, Italy, and FLINS'08 in Madrid, Spain. FLINS'10 in Chengdu, China, once again aims at covering state-of-the-art research and development in all aspects related to *Computational Intelligence: Foundations and Applications*.

The principal missions of FLINS are: (1) conducting research on computational intelligence systems for solving intricate problems pertaining to real world complex systems; (2) bridging the gap between machine intelligence and complex systems via joint research with Belgian, European, and international research institutes and universities; and (3) encouraging interdisciplinary research and bringing multi-discipline researchers together via the international FLINS conferences on computational intelligence systems.

FLINS'10, organized by Southwest Jiaotong University, Chengdu, China; co-sponsored by the Belgian Nuclear Research Centre (SCK•CEN), Ghent University (UGent), Belgium; University of Technology, Sydney (UTS), Australia; Tsinghua University, Beijing; Sichuan Normal University, Chengdu; University of Electronic Science and Technology of China, Chengdu; Southwestern University of Finance and Economics, Chengdu; Southwest University for Nationalities, Chengdu; and Xihua University, Chengdu, China, offers a unique international forum to present and discuss techniques that are new and promising for computational intelligence systems and to launch international co-operations.

The FLINS'10 proceedings consists of a series of invited lectures by distinguished professors and individual presentations, in a total of 177 papers

selected out of 263 regular submissions plus 4 invited plenary papers from 32 countries. The 5 invited speakers at FLINS'10 are Zeungnam Z. Bien (Seoul, Korea), Bernadette Bouchon-Meunier (Paris, France), Madan M. Gupta (Saskatchewan, Canada), and Vilem Novak and Irina Perlieva (Ostrava, Czech Republic). The proceedings has six parts (I) Invited Lectures, (II) Foundations of Computational Intelligence, (III) Fuzzy Modeling and Decision Making, (IV) Knowledge Presentation and Learning, (V) Data Analysis and Data Mining, and (VI) Intelligence Information Processing.

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Da Ruan, FLINS'10 General Chair
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