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IFIP was founded in 1960 under the auspices of UNESCO, following the First World Computer Congress held in Paris the previous year. An umbrella organization for societies working in information processing, IFIP's aim is two-fold: to support information processing within its member countries and to encourage technology transfer to developing nations. As its mission statement clearly states,

IFIP's mission is to be the leading, truly international, apolitical organization which encourages and assists in the development, exploitation and application of information technology for the benefit of all people.

IFIP is a non-profitmaking organization, run almost solely by 2500 volunteers. It operates through a number of technical committees, which organize events and publications. IFIP's events range from an international congress to local seminars, but the most important are:

- The IFIP World Computer Congress, held every second year;
- Open conferences;
- Working conferences.

The flagship event is the IFIP World Computer Congress, at which both invited and contributed papers are presented. Contributed papers are rigorously refereed and the rejection rate is high.

As with the Congress, participation in the open conferences is open to all and papers may be invited or submitted. Again, submitted papers are stringently refereed.

The working conferences are structured differently. They are usually run by a working group and attendance is small and by invitation only. Their purpose is to create an atmosphere conducive to innovation and development. Refereeing is less rigorous and papers are subjected to extensive group discussion.

Publications arising from IFIP events vary. The papers presented at the IFIP World Computer Congress and at open conferences are published as conference proceedings, while the results of the working conferences are often published as collections of selected and edited papers.

Any national society whose primary activity is in information may apply to become a full member of IFIP, although full membership is restricted to one society per country. Full members are entitled to vote at the annual General Assembly, National societies preferring a less committed involvement may apply for associate or corresponding membership. Associate members enjoy the same benefits as full members, but without voting rights. Corresponding members are not represented in IFIP bodies. Affiliated membership is open to non-national societies, and individual and honorary membership schemes are also offered.

Ángel Ortiz
Rubén Darío Franco
Pedro Gómez Gasquet (Eds.)

Balanced Automation Systems for Future Manufacturing Networks

9th IFIP WG 5.5 International Conference, BASYS 2010
Valencia, Spain, July 21-23, 2010
Proceedings

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Preface

Manufacturing and operations management paradigms are evolving toward more open and resilient spaces where innovation is driven not only by ever-changing customer needs but also by agile and fast-reacting networked structures. Flexibility, adaptability and responsiveness are properties that the next generation of systems must have in order to successfully support such new emerging trends.

Customers are being attracted to be involved in Co-innovation Networks, as improved responsiveness and agility is expected from industry ecosystems. Renewed production systems needs to be modeled, engineered and deployed in order to achieve cost-effective solutions.

BASYS conferences have been developed and organized as a forum in which to share visions and research findings for innovative sustainable and knowledge-based products-services and manufacturing models.

Thus, the focus of BASYS is to discuss how human actors, emergent technologies and even organizations are integrated in order to redefine the way in which the value-creation process must be conceived and realized.

BASYS 2010, which was held in Valencia, Spain, proposed new approaches in automation where synergies between people, systems and organizations need to be fully exploited in order to create high added-value products and services.

This book contains the selection of the papers which were accepted for presentation at the BASYS 2010 conference, covering consolidated and emerging topics of the conference scope.

The contributions were organized in five sections:

- Co-innovation Networks in Industry
- Industry Ecosystems and Emergent Business Models
- Advanced Production Engineering
- New Trends in Digital Factories
- Agent-Based Simulation and Management of Complex Systems
(Special Session)

The papers selected for this book cover the most relevant topics in the BASYS Conference scope and they may help readers gain a deeper understanding of next-generation systems for innovation and manufacturing.

We would like to express our gratitude to all the authors, presenters, reviewers and the entire Organizing Committee for their enthusiastic work and magnificent support during BASYS 2010.

Ángel Ortiz-Bas
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Pedro Gómez-Gasquet

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