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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. A federation for societies working in information processing, IFIP's aim is two-fold: to support information processing in the countries of its members and to encourage technology transfer to developing nations. As its mission statement clearly states:

> *IFIP is the global non-profit federation of societies of ICT professionals that aims at achieving a worldwide professional and socially responsible development and application of information and communication technologies.*

IFIP is a non-profit-making organization, run almost solely by 2500 volunteers. It operates through a number of technical committees and working groups, which organize events and publications. IFIP's events range from large international open conferences to working conferences and local seminars.

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 generally smaller and occasionally by invitation only. Their purpose is to create an atmosphere conducive to innovation and development. Refereeing is also 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.

IFIP distinguishes three types of institutional membership: Country Representative Members, Members at Large, and Associate Members. The type of organization that can apply for membership is a wide variety and includes national or international societies of individual computer scientists/ICT professionals, associations or federations of such societies, government institutions/government related organizations, national or international research institutes or consortia, universities, academies of sciences, companies, national or international associations or federations of companies.

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Advances in Production Management Systems

Initiatives for a Sustainable World

IFIP WG 5.7 International Conference, APMS 2016
Iguassu Falls, Brazil, September 3–7, 2016
Revised Selected Papers

Springer

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Preface

The APMS has been the official conference of the IFIP Working Group 5.7 on Advances in Production Management Systems, bringing together leading experts from academia, research, and industry.

The first conference was in Helsinki in 1990, and since then the conference has become an important annual event. The conference has been hosted in various parts of the world including Cernobbio (Italy, 2010), Stavanger (Norway, 2011), Rhodes (Greece, 2012), State College (USA, 2013), Ajaccio (France, 2014), and Tokyo (Japan, 2015). For the first time, the conference was held in Latin America at Iguassu Falls (Brazil, 2016). The overall organization was supported by Paulista University/UNIP with the financial grant of Itaipu Binacional. The topics of APMS 2016 were similar to those of the IFIP WG 5.7. They cover all the aspects of the systems of production of goods and services. For the 2016 issue, the theme selected was "Production Management Initiatives for a Sustainable World."

A total of 112 papers from 18 countries were accepted for oral presentation based on blind peer-review. The main review criteria were the paper quality and contributions to science and production management processes. The Scientific Committee consisted of 78 researchers, most of them active members of the IFIP WG 5.7. Accepted papers of registered participants are included in this volume. This year, ten special sessions and one Research Workshop were planned consistent with the main theme of the conference. Following the tradition of past APMS conferences, the 9th APMS Doctoral Workshop offered seven PhD students the opportunity to present, discuss, receive feedback, and exchange comments and views on their doctoral research from the academic and the IFIP WG 5.7 community.

Three honors were awarded during APMS 2016: the Burbidge Award for best paper, the Burbidge Award for best presentation, and the Doctoral Workshop Award.

We hope that the contents of this volume will be of interest to researchers and practitioners alike.

October 2016

Irenilza A. Nääs
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APMS 2016 was organized by the Postgraduate Program in Production Engineering of Paulista University and IFIP workgroup WG5.7.

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