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Kamaruzzaman Sopian, Jiri Strouhal

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Werner Varnhorn
Kobelev Vladimir

Preface

This year the 11th WSEAS International Conference on Software Engineering, Parallel and Distributed Systems (SEPADS '12) and the 9th WSEAS International Conference on Engineering Education (EDUCATION '12) were held in Cambridge, UK, in February 22-27, 2012. The multiconference provided a platform to discuss component technologies, empirical studies, software design, quality assurance, engineering education reforms, studies in engineering and the needs of the production and market, computers, internet, multimedia in engineering education etc. with participants from all over the world, both from academia and from industry.

Its success is reflected in the papers received, with participants coming from several countries, allowing a real multinational multicultural exchange of experiences and ideas.

The accepted papers of this multiconference are published in this Book that will be sent to international indexes. They will be also available in the E-Library of the WSEAS. Extended versions of the best papers will be promoted to many Journals for further evaluation.

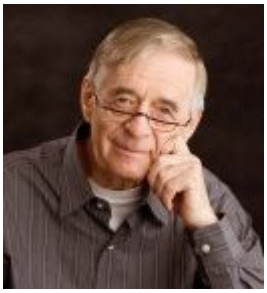
A multiconference such as this can only succeed as a team effort, so the Editors want to thank the International Scientific Committee and the Reviewers for their excellent work in reviewing the papers as well as their invaluable input and advice.

The Editors

Table of Contents

Plenary Lecture 1

One-Way Line System for Transmitting Energy or Information



Professor Michael Bank
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Abstract: There are three well known types of wire lines for transmitting electrical energy or information. The first type is ordinary two wires line (below A-Line). The second type is so-called single-wire line, where ground is in the role of the second wire. Polyphase systems belong to the third type; three phase system is the most popular among them. This article presents a new electric transmission system named B-Line which uses one line only and does not use ground.

Brief Biography of the Speaker: Professor Michael Bank received the B.A and M.Sc. degrees in communicational engineering from the Leningrad Institute of Communications in 1960, received the Ph.D. degree in 1969 in the field of FM signal detection. He received Doctor of Science degree (Russian equivalent of professor) in 1990. Since 1992 he is a consultant in Israel communicational company Bezeq and a professor in the Holon Institute of Technology (HIT). He wrote four books and more than hundred articles. Prof. Bank proposed new mobile communication method which named Frequency Bank Signal (FBS) and new antenna for mobile device named MB antenna. His research interests include mobile communication systems theory and video and audio compression methods.

Plenary Lecture 2

How to Test Accounting Harmonization upon the Globalization of Financial Reporting Systems

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Abstract: Globalization of international accounting offers a highly disputed field for research during the last decades, generating a significant number of studies with corresponding variety and importance of the obtained results. A distinct positioning and importance must be given to those studies focusing on different aspects of the international accounting harmonization process since this research field represents the major objective of research activities being developed by many accounting professionals and universities during the last four decades.
There could be mentioned four following dimensions of accounting harmonization: (i) pre-formal harmonization (i.e. the need for accounting harmonization); (ii) formal harmonization (i.e. the harmonization at the level of accounting regulations); (iii) material harmonization (i.e. degree of harmonization when considering accounting practices); and (iv) post-material harmonization (i.e. the costs of implementing global financial reporting standards).
Studies in the area of international accounting harmonization focusing on measuring accounting harmonization document the fact that different measurement systems have been used over time up until the point where making a clear distinction in nowadays research is no longer possible. It was accounting practices which first represented the object of analysis in terms of quantifying the compatibility degree between accounting systems. It is therefore interesting to observe how material harmonization which actually represents the finish line of the accounting harmonization process was also the bloc start for research on accounting harmonization measurement.
Qu and Zhang (2010) proposed a new method of matching and fuzzy clustering analysis to assess the convergence progress of national accounting standards with international referential. Single standards are clustered according to their convergence level, which may indicate further convergence emphasis. Fuzzy clustering analysis represents a method used in multivariate statistical analysis. Using this method is suited when aiming to divide a data set into groups or clusters that consist of similar data. Close or estranged relationships of cases are classified objectively by the measurements of similarity or distance. Their results reveal that this new method can measure the convergence level of national accounting system with IFRS more clearly and informatively.

Brief Biography of the Speaker: Jiri Strouhal graduated from the University of Economics Prague (Faculty of Finance and Accounting) in 2003. He finished his doctoral studies at the Department of Financial Accounting and Auditing in 2005. In 2006 he became an accounting expect (Czech accounting profession certification scheme based on British ACCA curricula). In the period 2007 – 2009 he was member of the Committee for Education and Certification of Accountants Czech Republic and Executive Board member of the Chamber of Certified Accountants (Union of Accountants CR). From 2010 he is an acting Vice President of Chamber of Certified Accountants Czech Republic and member of Accreditation Committee of this professional organization.
He is reputed academician and practitioner; he published more than 300 research outputs, from which could be stated 15 monographers in the area of accounting and corporate finance, more than 20 research papers published in reputed databases (ISI, SCOPUS – important piece of them in WSEAS/NAUN research journals). His major is corporate financial reporting, partially focused on international accounting harmonization and financial securities reporting. He was a plenary speaker of DEEE 2010 IEEEAM conference in Tenerife and organized sessions at WSEAS conferences in Timisoara (EMT 2010) and Iasi (AEBD 2011).