

Preface

This special issue of the Journal of Engineering Science and Technology Review (JESTR) includes selected papers from the 2nd International Conference on Econophysics-ICE2013 which was held between on September 13th – 14th, 2014.

EconoPhysics describes an interdisciplinary research area that applies physics laws, methods and formalism on economic problems and financial models. Physical models and theories from the field of statistical physics, nonlinear dynamics, neural networks even quantum-mechanics, are utilized in order to provide an alternative approach in representing complex economic situations, while effectively describing, analyzing, explaining and solving economic problems. In this fashion, economies and financial systems are regarded as interacting physical systems, thus highlighting their complex nature. It appears as an emerging hot-topic attracting international interest, especially under the prism of the latest worldwide economic crisis.

Today, the economists' world realizes that physical model application in financial modeling, even prediction, has a potential that can help study and practically deal with economic situations. Decision makers are no-longer independent, on the contrary they have to take into account a very complex and networked landscape. The significance of early detection of a possible finance crisis is obvious, taking into account the fact that global capitalization of all finance markets' products is more than 15 times the global GDP.

The ICE2013 Organizing Committee attempted, for the second time, to create a forum for presenting the latest advances in the area of risk prediction and management, by employing physical models; thus, creating an interaction field between physicists, engineers and economists. It is more that evident that this aspiration was fulfilled.

Finally, on behalf of the Organizing Committee, we would like to express our thanks to the Scientific Committee, as well as all those that have contributed to this conference for their support and advice. We are also grateful to all the invited lecturers, top scientists in the field of econophysics: Prof. R.N.Mantegna, Prof. P.Argyris, Prof. J. Mimkes, Prof. Z.Georganda, Dr. D.Kenett and Dr. S. Banerjee..

The Special Issue on Econophysics Guest Editors

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