

9th International Conference Interdisciplinarity in Engineering, INTER-ENG 2015, 8-9 October 2015, Tîrgu-Mureș, Romania

Foreword

Technological Development as Basis for Future Governance of Innovation

Liviu Moldovan^{a,*}

^a“Petru Maior” University of Tîrgu Mureș, 1 Nicolae Iorga street, Tîrgu Mureș 540088, Romania

© 2016 Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Peer-review under responsibility of the “Petru Maior” University of Tîrgu Mureș, Faculty of Engineering

These proceedings contain research papers that were accepted for presentation at the 9th International Conference Inter-Eng 2015 “*Interdisciplinarity in Engineering*”, which was held on October 8-9, 2015, in the city of Tîrgu-Mureș, Romania. It is leading international professional and scientific forum for engineers and scientists to present research works, contributions and recent developments as well as current practices in engineering, that is falling into a tradition of important scientific events taking place at Faculty of Engineering in the “Petru Maior” University of Tîrgu-Mureș, Romania.

Inter-Eng marks this year twelve years of existence, the first edition taking place in 2003. Meanwhile the conference prestige grew primarily organizational aspect of arousing the interest of national and international institutions in the country and abroad to become conference partners. So this year's edition is organized in cooperation with the Romanian Academy of Technical Sciences and Egypt-Japan University of Science and Technology. Conference partners from Romania are Romanian General Association of Engineers in Romania, Tîrgu-Mureș City Hall, Mureș County Council, Chamber of Commerce and Industry Mureș but also industrial partners.

The international visibility of the conference results is an outstanding increase, the conference proceedings in the previous two editions Inter-Eng 2013 and Inter-Eng 2014 respectively being published as dedicated issues, the volumes 12 and 19, in

* Corresponding author. Tel.: +4-074-049-8427; fax: +4-026-521-1838.

E-mail address: liviu.moldovan@ing.upm.ro

Elsevier's Procedia Technology Journal that are made available in open access on Elsevier's ScienceDirect for researchers worldwide. The two volumes are indexed in the Thomson Reuters Conference Proceedings Citations Index.

The conference slogan in this year is "The powers of technology appear to be unlimited" which demonstrates that the emergence and development of technologies is important in shaping our lives in contemporary society. Technology is involving capacities to develop new ways of doing things: often in a reproducible manner. That is, finding ways to better reproduce things in an easier, quicker and cheaper manner.

Technology that is concentrated in industrialized nations to date is a proof to demonstrate the majority of its benefits. Thus technology has a large role to play in developing regions and there is a need for technological research in order to develop regions.

Technological advances have been the principle drivers of globalisation beginning in the middle of the 20th century. Technological advancements are promoting a global economy, rendering national border meaningless, exceeding national states and national economies that have become essentially obsolete and leading to a worldwide global market.

Technology cannot be stopped it will continue to shape society for the better, being seen as a good thing. Globalization accelerates the change of technology. Every day it seems that a new technological innovation is being created. Rapid changes in technology generate in society a technological enthusiasm, by embracing it and looking forward to more and more developments.

Technology is now the forefront of the modern world creating new jobs, innovations, and networking that allow individuals, nations and regions to connect globally.

Access to technology has a beneficial economic impact. Alongside good governance, technology is considered among the greatest enablers for improved quality of life. Technology is usually associated with productivity, both generating international competitiveness.

There are two important related trends in the world economy: first, technological innovations are an important factor for economic welfare and secondly the nations become more open and interdependent. Rapid communications and networking between scientists worldwide facilitate the development of inventions and the spread of innovative ideas.

Industrial innovation increasingly occurs within international networks. Public research, technology and innovation policies are dominated by transnational programmes and regional innovation policies, leading to future governance of innovation policies.

The InterEng 2015 conference had distinguished keynote speakers:

- Prof. Dr. Eng. Abdelazim Negm - Chair of Environmental Engineering Department in the Egypt-Japan University of Science and Technology, Egypt
- Prof. Dr. Eng. Khalil Khalili- President of the University of Birjand, Iran
- Prof. Dr. Eng. Thomas Zimmer- University of Bordeaux, Laboratory for the integration of materials into systems, France
- Dr. habil. László KOVÁCS, University of Miskolc, Department of Information Technology, Hungary
- Dr. Eng. Bogdan Robu, University of Grenoble, Control Systems Department, France

They are researchers with outstanding results in their field of activity, giving the scientific weight to the conference. On behalf of the Scientific Committee I thank them for attending the InterEng 2015 conference.

The collection of 167 research papers in this volume was selected out of the manuscripts that were submitted for review by authors from 12 different countries: Algeria, Egypt, Hungary, India, Iran, Malaysia, Morocco, Poland, Romania, Serbia, Turkey, Ukraine. The presentation of papers was done in 14 technical sessions.

According to the theme of the conference "Technological development as basis for future governance of innovation", submissions were accepted under the following main tracks and topics: Technology and innovation policy; Emerging technology; Innovative technology; Technological innovation systems; Technology-based new ventures; Technology and knowledge transfer; Advanced manufacturing technology; Innovative product development; Virtual manufacturing design technology; Manufacturing process control; Emerging materials technology; Innovative design technology; Manufacturing systems and automation; High-tech tools and systems; Nano and microtechnology; Control systems technology; Advances transmission technology; Cold forming technology; Non-conventional technology; Information systems technology; CAD/CAM/CAE integrated systems; Advanced software technology; Intelligent systems and technologies; Parallel and distributed computing technology; Power and energy systems; Signal and image processing; Electronics and electrotechnology; Optimization techniques; Sustainable development technology; Renewable energy management and technologies; Environmental pollution and treatment technologies; Geohazards and environmental technology; Green buildings technology; Innovation for green technologies; Biomedical technology; Quality control technology; Quality assurance; Economics of technology; Innovative mobile education, Educational technology.

The Inter-Eng 2015 Conference submissions have been anonymously reviewed by two independent reviewers, to ensure the final standard of the accepted submissions. On behalf of the scientific committee of Inter-Eng 2015, we thank all reviewers for their hard work.

We are especially grateful to the authors who submitted their papers to this conference and to the presenters who provided the substance of the meeting.

These Proceedings book contain a rich experience of the academic & research institutions and the industry on diverse themes related to advances and innovation in technology. We do hope that researchers, knowledge workers and innovators both in academia and industry will find it a valuable reference material.

The conference becomes a tradition and we are optimistic that it will be maintained in future, contributing to the development of emerging technologies in various fields.

Last but not least, we hope that everybody had a good time in Tîrgu-Mureş and we invite participants for the next year's edition of the Inter-Eng Conference.

Liviu Moldovan,

President of Scientific Committee

Tîrgu-Mureş, Romania

11 October 2015

References

<http://www.inter-eng.upm.ro/2015/>