

Building an Ecosystem for Innovation that Matters



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Abstract :

It is through innovation that nations evolve and economies grow. Naturally, every nation has its own demographic profile, social structures, natural resources, economic sectors dynamics, laws, traditions, etc. Innovation should take into consideration the specific characteristics of a society in order to effectively help its industry build useful products and its businesses (and government)

provide life-enhancing services. It is therefore imperative for a nation to ensure that its domestic Research & Development organizations put appropriate focus on the development of the novel technologies and new business models that would most efficiently enable it to achieve its ambitious national objectives. In Egypt, several attempts to apply this simple principle have been made through the years. Not all institutions have succeeded in delivering the results that they were originally established to achieve. This presentation analyzes this dilemma, especially the notoriously difficult problem of ensuring the efficient collaboration among academia, industry, and government. A recent initiative geared towards tackling this challenge is examined in this presentation. The mission of the Applied Innovation Center at the Ministry of Communications and Information Technology is to explore and promote the use of emerging Information and Communications Technologies (ICT) in analyzing and solving national challenges, while developing human capital and creating an environment for innovative enterprises to form and succeed. The Center uses the most appropriate technologies to develop and pilot innovative solutions in key application domains, such as Healthcare, Agriculture, Digital Transformation, and others. At the same time, the Center uses project settings to train and develop the skills of ICT professionals in advanced technical areas, such as AI, Big Data Analytics, High Performance Computing, Automation and Robotics, Internet of Things, Cybersecurity, Data Privacy, etc. The lessons learned from this experience is discussed.

Bio :

Dr. Ahmed N. Tantawy is a Senior Advisor specializing in the strategic development, planning, and management of complex technology-fueled initiatives and ecosystems. His fact-based analysis benefits from his focused approach, creative thinking, multi-dimensional experience, and interpersonal skills. Over the past eight years, Dr. Tantawy worked with international organizations, multinational corporations, and government agencies. His engagements include serving as the founding leader of the Applied Innovation Center in Egypt, a principal investment advisor at a venture capital fund operating in the US and the Middle East, a senior advisor to four cabinet ministers, and a board member of various national-scale initiatives in the Middle East. He also served on the Board of Directors of an international telecom operator, the Board of Directors of the Egyptian National Telecommunications Regulatory Authority, and the Executive Committee for the Development of the Suez Canal Region. In industry, Dr. Tantawy held several technical and executive positions at IBM Corporation from 1988 to 2013. He was Chief Technical Officer and Senior Executive Consultant in the Growth Markets Region (2008-2013), overseeing mega-projects in Central and Eastern Europe, Central and South America, and all of Africa, Asia, and Australasia. He managed hardware and software products and solutions development labs in the US, UK, Germany, Italy, Japan, Brazil, and Egypt (1996-2008). He built and led the largest Software Services Lab and a Professional Services Delivery Hub, outsourcing services to IBM units and clients across the world (2000-2008). Dr. Tantawy was the CTO of IBM's Internet Division (1998-2000) and the Global Technical Director of Digital Media in the Telecom and Media Industry Solutions Division (1996-1998). From 1988 to 1995, he was a Research Scientist and Department Manager at the IBM Thomas J. Watson Research Center in New York. Between 1980 and 1988, Dr. Tantawy was a University Professor and an independent advanced technology consultant in the USA, France, and Saudi Arabia.

He maintained his involvement in the academic world, serving on Boards of Trustees and Advisory Committees of a number of universities and research

institutes in the USA, Europe, and the Middle East. He also held special oversight assignments with the US National Academy of Sciences. The scientific contributions of Dr. Tantawy include 34 inventions, 18 issued patents, 4 books, 1 book chapter, and over 100 refereed papers published in reputable journals and international conferences. He also served as the Editor-in-Chief of a book series, an Editor of 4 scientific journals, and the General Chair of 14 international IEEE, ACM, and IFIP conferences. His technical interests and practical experience cover a large spectrum: Architecture and Design of Complex Systems, High Performance Networks, Information Privacy, Data Security, Artificial Intelligence Applications in Education and Healthcare, Embedded Systems, Smart and Secure Cities and Buildings, Factory Floor Automation, Nanotechnology Applications, Digital Transformation Strategies, and Tech-fueled Socio-Economic Growth.

Dr. Tantawy received his Ph.D. in Computer Engineering with highest honors from Grenoble, France in 1980. He earned his B.Eng. and M.Sc. degrees in Electrical and Computer Engineering with distinction and highest honors from Alexandria University, Egypt. He also received advanced education in technology management and corporate leadership at IBM (1993-2006), Harvard (1995) and MIT (1999 and 2012).