



Human Engineering Through Shared Knowledge

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Human Engineering refers to the research efforts what we, as engineers and scientists, can offer to not only tackle problems of poverty and human development, but also to advance population wellbeing and quality of life. On the other hand, given the current availability of an enormous amount of data that can be tapped into and exploited, it becomes logical that the nexus to human engineering would be the effective and efficient sharing and analysis of the knowledge synthesized out of this big data. With the theme of this Research Congress being Towards Rigorous, Relevant and Socially Responsive Lasallian Research, it becomes fitting for this talk to therefore present a number of research issues which are both timely and of direct relevance to the Philippines. This will be carried out through the projection of four “Mind Maps”, each of which expanding into specific areas of research where we can focus our efforts. The Mind Maps will consider the following topics: Health and Clinical Applications; Environmental and Climate Change Impacts; Water, Sanitation and Hygiene; Crisis and Disaster Management.

About the Speaker:



Raouf Naguib is Director of BIOCORE Research & Consultancy International, UK. He was Professor of Biomedical Computing and Head of the Biomedical Computing and Engineering Technologies Applied Research Group at Coventry University, UK, for 15 years and, prior to this, a Lecturer at Newcastle University, UK. He obtained his BSc from Cairo University in 1979 and his DIC (1982), MSc with Distinction (1983) and PhD (1986) from Imperial College, University of London. Prof Naguib has published over 350 journal and conference papers and reports in many aspects of biomedical computing, including biomedical image processing, applications of artificial intelligence and evolutionary computation in cancer research, environmental health and crisis and disaster management. He has also published a book on digital filtering, and co-edited a second book on the applications of artificial neural networks in cancer diagnosis, prognosis and patient management. He was awarded the Fulbright Cancer Fellowship in 1995-96 when he carried out research in the USA, at the University of Hawaii in Mānoa, on the

applications of artificial neural networks in breast cancer diagnosis and prognosis.

Prof Naguib is a member of several national and international research committees and boards, and has served on the Administrative Committee of the IEEE Engineering in Medicine and Biology Society (EMBS). He was also selected to join the UK EPSRC Peer Review College and is a reviewer for the EU Directorate-General Information Society, eHealth and ICT for Health.

He is actively taking part in a number of collaborative research projects with various partners and consortia across the world and, specifically, in the UK, Europe, South East Asia, the Middle East and Australia.

Prof Naguib is an Adjunct Research Professor at the University of Carleton, Ottawa, Canada, and an Honorary Professor at De La Salle University, Manila, Philippines.