Prof. Dr. Abdel Hamid Soliman

Professor of Signal Processing and Telecommunication School of Digital, Technology, Innovation and Business University of Staffordshire, United Kingdom

Keynote title: AI for Sustainable Energy: Towards Net Zero Emissions

Bio

Abdel-Hamid has over 33 years of experience in the academic and industrial fields. He has a multi-disciplinary academic/research experience in digital signal processing including image/video processing, telecommunications, data acquisition systems, wireless sensor networks (WSN), Internet of Things (IoT) and Fibre Optics communication. He is working to harness and integrate different technologies towards implementing smart systems to contribute to smart cities and real-life applications. His research activities are not limited to the national level within the United Kingdom but are internationally extended to many partner Universities in various countries. His research has produced over 80 refereed papers on highly rated journals/conferences.

In addition to his research activities, he is involved in several enterprise projects and consultancy activities for national and international companies. He has secured and been leading and involved in several externally funded projects on national, European and international levels, totalling £19M.

Dr Soliman's work has been recognised through several awards such as: Lord Stafford award "Impact through Innovation", for Designing and developing a smart monitoring and controlling system for diabetic people. The AWM ICT Excellence awards for "Best Knowledge Transfer project" category, for Designing and developing an electronic bladder diary, and UHNS "Clinical Innovation" award, for Designing and developing an online multimedia-based training system for surgeons.

AI for Sustainable Energy: Towards Net Zero Emissions

Abstract:

With an urgent need for a transition to net-zero emissions, the adoption of new technologies to reach this transition is becoming an ever-growing approach.

Artificial Intelligence (AI), with its rapidly evolving (developing) advancements is undoubtedly driving a revolutionary transformative development across a wide range of applications, including sustainable energy, industry and healthcare. AI is an essential factor in various aspects in the field of energy, including, but not limited to optimisation of energy consumption, seamless integration of renewable energy sources, improved grid management and predictive maintenance.

Employing the huge capabilities of AI, we are confident that a future of reliable and sustainable energy can be achieved. This keynote will explore some of the potential AI contributions spanning across the diverse applications, with a specific focus on achieving the desired sustainable net-zero energy environment.