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**Keynote title: Smart and Intelligent Farming: The
Future of Agriculture**

Bio

Abdel-Hamid has over 32 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 70 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.

Smart and Intelligent Farming: The Future of Agriculture

Abstract:

Nowadays food production sustainability is one of the main challenges and is expected to continue in the future with the growing population and having almost a fixed agricultural area. Agriculture and farming are the main areas that contribute to food production sustainability. Smart and intelligent farming is a necessity now to be able to manage and enhance food production. The aim is to harness different technologies such as sensing, image/video processing, Internet of Things (IoT), software, etc to contribute to different agriculture/farming applications such as irrigation management, soil monitoring, diseases diagnosis, harvesting, livestock monitoring and many more to enable farmers to monitor and enhance the efficiency of the food production process.