Systems Engineering and Software Development Centre

The Systems Engineering and Software Development (SESD) Centre was founded in 1972, two years after the establishment of the Royal Scientific Society. Today our centre has four main divisions: Academic Management Systems; Decision Support and Process Automation Systems; Lab Automation; and ICT for Sustainability. It is also certified by Lloyds according to ISO 9001:2015.

Our centre specialises in designing, engineering, developing and testing comprehensive information and communication technology (ICT) systems, and solutions by utilising cutting edge technologies and proven methodologies and standards.

What we do:

— Design and implement information solutions for local, national and international institutions
— Maintain well-performed applied research and specialised technical consultations and services based on approved national and international standards
— Support decisions by developing artificial intelligence (AI), data science and process automation projects
— Enrich the educational experience of students, academic and administrational staff by designing systems that enhance the quality of learning, access to learning, and predictive analytics of academic data, amongst other services

We provide:

— High quality software development
— Advanced and high–level ICT solutions that support the development of national priorities
— Consultations and data analysis
— Support to all RSS activities through prompt and sustainable ICT systems
— Capacity building, training courses, seminars and workshops
Examples of our recent projects:

— Multi-level integrated monitoring, reporting and verification (MRV) system for the Jordan MRV project. The MRV system is an integrated, multi-level system focusing on greenhouse gas emissions and climate change mitigation in Jordan.

— Adapt electronic system and mobile application: This project aims to strengthen the capacities of poor and remote communities to better adapt to climate change using ICT as an enabling tool for more effective adaptation and development.

— Integrated Hazardous Material Management System (IHMMS): This automated system was implemented in Jordan by the RSS in close cooperation with all concerned ministries and governmental organizations to serve as a tool for managing and controlling exported and imported hazardous materials. It includes an electronic database for the management of those hazardous materials in the country as well as many other functions.

— E-Licensing System of the Federal Agency for Nuclear Regulations (FANR): The e-licensing system was developed to assist the Federal Agency for Nuclear Regulations (FANR) in managing the regulations of nuclear materials, the sources of radiation used in the medical field as well as to research and control all nuclear-related institutions in the United Arab Emirates.

Facts about our centre:

— We developed the ‘RSS Laboratory Information Management System (RSS LIMS),’ a dynamic and fully automated system that enables the tracking of samples from the moment they enter the RSS laboratories up until customers receive their results.

— Our MRV system is the first of its kind worldwide.

— We address several sustainable development goals (SDGs) including SDG 2: Zero Hunger, SDG 3: Good Health and Well-being, SDG 6: Clean Water and Sanitation, SDG 7: Affordable and Clean Energy, SDG 13: Climate Action and SDG 15: Life on Land.

— The ‘Vcamps Academic Management System’ that was developed by our centre, serves more than 3000 students in the Princess Sumaya University for Technology through an interactive on-line portal and a mobile application.