

IEEE SSIT DL during IEEE TSYP2019 Tunisia

Prof. Paul M Cunningham (Past President, IEEE SSIT; Past Chair, IEEE HAC, 2020 Director-Elect, IEEE Division VI) was invited to deliver a keynote address on 15 December, and on 16 December contribute as a judge for a Humanitarian Technology Competition and deliver a SSIT Distinguished Lecture (DL) as a 90 minute participatory Sustainable Development Workshop.

IEEE TSYP 2019

[IEEE Tunisia Section Student and Young Professionals Conference 2019](#) was organised by



IEEE Tunisia Section and Student and Young Professional Leadership in Hammamat, Tunisia 15 – 17 December. This conference brought together over 1,000 engineering and technology professionals, staff and students from Tunisian public and private universities, as well as young professionals, to share lessons learnt and good practices, learn more about the technical, professional, and education benefits associated with IEEE

membership, strengthen their skills capacity and discuss how IEEE members can address societal challenges as well as current and future employment opportunities for engineering, technologists and scientists engineering challenges worldwide and in Tunisia.

Keynote Address on Sustainable Development, 15 December 2019

Prof. Paul M Cunningham's keynote on 15 December focused on providing a context for **Sustainable Development** contributions during the remainder of the conference. Social Impact



was the core focus of this keynote – reminding the audience of more than 1,000 delegates of IEEE's commitment to global Sustainable Development and Humanitarian activities at home and abroad.

Having discussed the strategic context which informed the adoption of the UN Sustainable Development Goals (SDGs) by more than 190 countries around the world, Paul shared a preliminary mapping of IEEE volunteer activities addressing SDGs, which highlighted the priority placed by IEEE members and OUs on Quality Education (SDG4), Affordable and Clean Energy (SDG7), Sustainable Cities and Communities (SDG11), Reduced Inequality (SDG10) and Decent Work and Economic Growth (SDG8).

Paul then shared an overview of Sustainable Development related activities carried out across IEEE, including by IEEE Society on Social Implications of Technology (SSIT), IEEE Smart Village, IEEE MOVE, Epics in IEEE and IEEE Empower a Billion Lives, before focusing on the work of IEEE Humanitarian Activities Committee (HAC) and the volunteer opportunities and support offered to IEEE Members and OUs. This included a presentation of the work of IEEE HAC's implementation arm, IEEE SIGHT (Special Interest Group on Humanitarian Technology), and IEEE HAC funding opportunities.

IEEE TSYP Humanitarian Technology Competition, 16 December 2019

The IEEE TSYP Humanitarian Technology Competition was a local initiative to sensitize IEEE volunteers to thinking about how to approach Sustainable Development activities in the real world. 17 teams from different universities across Tunisia presented an interesting mix of project ideas addressing local societal challenges. These ranged from education focused (including digital literacy summer camps for teenagers, robotics for education and National Robotics Week) to health focused (including use of sensors to monitor medical conditions and falls, communications support for the disabled, as well as addressing the needs of diabetics), from transportation (including real-time notifications of timing of public transportation, as well as energy efficient street lighting) to the environment (including reducing urban waste, agricultural support using drones, and home level energy analytics). All presentations were time limited followed by Q&A. Each team did an excellent job of communicating their vision, and some of the best have significant potential for implementation (subject to necessary resources for materials etc).

SSIT DL Participatory Sustainable Development Workshop, 16 December 2019

Following the Humanitarian Technology Competition, Paul moderated a participatory workshop focused on **Co-Designing Ethical Interventions in Resource Constrained Environments** as an SSIT Distinguished Lecture (DL).



Paul started by providing a context of his own experience to explain what informed lessons learnt and recommendations shared during the workshop. This featured the work of the IST-Africa Institute since 2002 across 18 African Member States (collaborating with Ministries and National Councils Responsible for Innovation, Science and Technology), and the work of the mHealth4Afrika Initiative (collaborating with Ministries of Health and

local universities in Ethiopia, Kenya, Malawi and South Africa), complimented by the digital literacy support activities of the IEEE SSIT IST-Africa SIGHT.

The workshop provided an opportunity to discuss different types of innovation and the importance of local ownership and co-design of ethical and impactful sustainable development activities addressing local societal challenges. The potential roles of different stakeholder groups, opportunities provided by multi-stakeholder collaboration and proposed approaches to identifying and qualifying target communities was discussed. This was followed by discussion of issues related to developing an implementation plan and consideration of potential ethical conundrums and ethical research principles that must be considered when engaging in addressing societal challenges. The workshop also provided an opportunity to present support and funding available from IEEE HAC as well as the opportunities presented by establishing a SIGHT Group in much more detail than was possible during the keynote presentation.

The Humanitarian Technology Competition and Sustainable Development Participatory Workshop attracted a high level of interest, with over 150 participants.