

55th Engineers Day: Smart Engineering for a Better World

The 55th Engineers Day celebration on the theme 'Smart Engineering for a Better World' will be celebrated by The Institution of Engineers (India) at its various State & Local Centres to take a stock of various capability and capacity building initiatives undertaken in crucial sectors like road and rail connectivity, drinking water, agriculture, healthcare and nutrition, affordable housing and better governance through induction of smart technologies to achieve Sustainable Development Goals in a phased manner.

The societal engineering aspect will also be delved into for developing a smart infrastructure of inclusive nature as well as creation of newer job openings. The theme 'Smart Engineering for a Better Future' also encompasses issue of environmental sustainability. There can't be a common well-established roadmap towards building a smart infrastructure for the entire world. Localized and Customized solutions shall have to be worked out by collective wisdom of Professional Engineers and the Academia focusing on the varying local needs.

The engineers need to understand that there is tremendous pressure on the existing service infrastructures which are inadequate and not designed to sustain challenges like air pollution, waste management, traffic congestions, effective healthcare and housing for all and so on. This will require finding sustainable and inclusive solutions to provide affordable housing, healthcare, nutrition, mass rapid transportation and drinking water especially to the urban populace which may later be replicated in other areas in a phase wise manner.

An interesting commonality in the nature of these challenges is dealing with massive levels of digitization and generation of data. These perceived challenges are veiled opportunities to leverage data science and analytics and thereby induct smart engineering to deal with major global challenges, such as adverse effects of climate change, water scarcity, mixed energy usage, reducing the digital divide among others. The engineering profession is undergoing a paradigm shift with the induction of digitization and emphasis on man-machine interface. Investing in capacity building to ensure smart delivery of civic services will serve the broad societal interest with ramifications leading to establishment of effective and accountable governance system congruent to our needs.

As engineers it is prudent that we adopt smart engineering to create a better world.
