

The Contribution of Gen Z Engineers in the realization of Power System Transformation

ABSTRACT

In a couple of years, the Generation Z will be joining the job market; raising concerns about their ability to fit into the work culture. The power system has traditionally been a rigid platform with strict policies to ensure reliable and secure supply. The prime behavioural traits of the Generation Z are highlighted as being the first generation of 100% digital natives; being hyper connected; highly reliant on the small screens; ability to work in groups (which maybe virtual) and having a very strong ability to adapt to change. In the meantime, the power system, conventionally believed to be a rigidly bolted infrastructure, is undergoing drastic radical change from all levels.

Indeed, it is poised for being revamped with the occurrence of Distributed Generation, Renewable Energy Integration, Battery Storage, Electric Vehicles and changing consumer needs. The current infrastructure and equipment will not be able to cope with these new realities. Therefore, the solution lies in disruptive and enabling technologies like Big Data, Artificial Intelligence, Virtual Reality, Block chain, Peer to Peer Energy Trading and Geospatial Information Mapping. These infrastructures will occur as a new layer hovering on top of the physical layer comprising of the traditional power system components like generators, transformers, overhead and underground networks. It was demonstrated that the Generation Z of Engineers have these inherent characteristics and the new skills required to set up and manage this new layer which will, in turn, enable realization of the smart grid.

SPEAKER



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Ismaël is a Senior Electrical Engineer with over 15 years of working experience at the Electricity Utility Company in Mauritius where he leads his team in the construction of new transmission networks. He holds an MBA from the Management College of Southern Africa and is a certified Project Management Professional (PMP) from the Project Management Institute (USA). In 2021, he was awarded a PhD in Renewable Energy Integration by the University of Mauritius.

Ismaël is a member of several professional institutions like IEEE, IET, IEM and CI Arb. He has been recognized as a Fellow of the Chartered Management Institute of UK. He has been actively delivering trainings in Engineering, Project Management and Management fields for over a decade. Besides, he is part of the Meta-Coach family and a certified trainer in the Personal Development field where he specialises in assisting people in becoming a better version of themselves and to develop their leadership skills. He is a Certified John C Maxwell Coach, Speaker and Trainer.

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Organising Team

The [IEEE UOM student branch](#) was revitalised in December 2019. Its goal is to help encourage Mauritian students to participate in local and international exchanges, awards and competitions in the field of Science, Technology, Engineering and Mathematics.

IEEE UOM SB has come up with numerous engineering events including: an engineering show, woman in engineering campaigns, occasional talks/workshops, personality building workshops, and the setting up of medical life sustaining ventilator prototype (Maurivent) during covid-19. The student branch is supported by the experience and wisdom of engineers of the industry and lecturers of the faculty of engineering.