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Prof. Ekanayake obtained BScEng (First Class Honours) from Peradeniya University in 1990 and PhD from the University of Manchester Institute of Science and Technology, UK in 1995. He has published over 80 refereed journal papers and 100 conferences papers and co-authored 7 books. He has a Google Scholar h-index of 45 with 11839 number of citations, the highest for engineering in Sri Lanka. He has held research grants in Sri Lanka and UK that total 2 million GBP An article published by researchers from Stanford University and Elsevier BV in 2020 ranked him among the top 2% of researchers in the world (2nd in Sri Lanka).

He obtained the CVCD Excellence Awards in 2018, NSF Research Award for Scientific Excellence in 2018, and 7 Presidential Awards for Research. Prof. Ekanayake is a Fellow of IEEE (USA), IET (UK), and IESL. He a member of the editorial board of IEEE Transaction on Energy Conversion (2007 to 2019), IET Journal of Renewable Energy (2015 to date), Journal of Wind Energy (2013 to date), and Ceylon Journal of Science (2016 to 2018).

Title - ICT infrastructure for Solar Future

Many governments are encouraging an increase in the share of solar PV. One of the barriers to the widespread use of solar power is the mismatch between the daily solar power profile and household demand. Even though energy storage can overcome this barrier, it is an expensive solution. Load shifting is considered a practical solution. Even though volunteer load shifting is facilitated through in-home displays it is not always guaranteed that the required amount of shifting can be achieved that way. Therefore, a smart metering infrastructure utilizing a low-power communication network and ICT infrastructure is a must to accommodate the uptake of solar PV. This keynote highlights the barriers, solutions, and ICT solutions to achieve a solar future.