

Towards Net-Zero Targets - Usage of Data Science for Long-Term Sustainability Pathways



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Abstract: The recent years have witnessed many unprecedented natural disasters due to significant changes in the earth's climate. Large sectors such as manufacturing, transportation, energy and utilities, consumer products and retail, etc. have a sizable climate footprint. Their operations add to GreenHouse Gas (GHG) concentration, which seems to be one of the reasons behind global warming and climate change. There have been many discussions around sustainability and climate change solutions to mitigate the negative impact. However, using technology levers to contain the adverse effects of climate change is rarely seen as the most significant catalyst. Recent development in Artificial Intelligence (AI) and Machine Learning (ML) coupled with improved Open Data can offer an exciting new front in the prevention of climate change. It can significantly benefit organizations and nations in reducing GHGs, improving energy efficiency, and reducing waste. Most of the available research in this area is

qualitative in nature, where technology and data have not yet been leveraged. This keynote talk is an attempt to highlight the use of technology and open data for achieving Net-Zero.

Short Profile:

Neha Sharma is a data science crusader who advocates its application for achieving sustainable goals, solving societal, governmental and business problems as well as promotes the use of open data. She has more than 22 years of experience and presently working with Tata Consultancy Services and is a Founder Secretary, Society for Data Science. Prior to this she has worked as Director of premier Institute of Pune, that run post-graduation courses like MCA and MBA. She is an alumna of a premier College of Engineering and Technology, Bhubaneswar and completed her PhD from prestigious Indian Institute of Technology, Dhanbad. She is a Senior IEEE member, Secretary – IEEE Pune Section and ACM Distinguished Speaker. She is an astute academician and has organized several national and international conferences and published several research papers. She is the recipient of “**Best PhD Thesis Award**” and “**Best Paper Presenter at International Conference Award**” at National Level. She is a well-known figure among the IT circle, and well sought over for her sound knowledge and professional skills. Neha Sharma has been instrumental in integrating teaching with the current needs of the Industry and steering students towards their bright future.