



The Climate Connection

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Green careers guide

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What did you study?

I did my MS in Mobile Broadband Communications systems with distinction and PhD in Communications systems from Lancaster University, UK in 2013 and 2017 respectively.

What inspired you to study your subject at university and to work in the green industries?

Ever since I finished my Bachelors in Telecommunication Engineering, my interest in mobile and wireless communication pushed me to look for opportunities in relevant research areas. I remember going through university websites and looking through research group profiles for funding opportunity. Being in Pakistan, energy consumption has always been a biggest problem, finding a relevant research topic in Green communication networks made me apply for this. I am happy to opt a topic for my research which indeed is high demand and importance to solve world's biggest problem including power and energy consumption.

Why does climate change matter?

According to the latest reports from United Nation Environment Programme (UNEP), the outgrowing problem of climate change will not only affect our health and lifestyles but also adds to the devastating consequences. "A 2°C increase could mean more heat waves, a ten-fold increase in Arctic ice-free summers and a complete wipe-out of the world's coral reefs, home to millions of species"

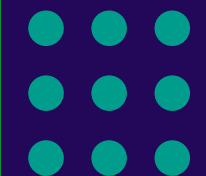
So, from a research point of view we need to revisit our lifestyles and think of ways to contribute towards green energy and methods that are environmentally friendly.

How did your studies help you get into the career you're in today?

The reason to opt for this research was to help in contributing towards growth and development of providing environmentally friendly solutions for domestic and commercial customers specially people living in developing countries. My research has also helped to pathways for implementing green energy solutions, new engineering processes, product design including green buildings and re-usable energy resources which will deal with the need of current situation of large populated countries.

What other experiences and support have you had along the way?

I have been lucky enough to get fully funded opportunity for my PhD which helped me financially and gave me strong grounds to focus fully on my research problem. I managed to work for EPSRC Horizon 20-20 project. This project aimed to work in collaboration with big research groups from other countries which made my work and data collection easier. Also saving energy and providing green-eco friendly solutions is the requirement for all over the globe. My experience has been very promising and that made me get into implementing 5G communication system products. I also got a wonderful opportunity to continue my research for improving capacity and power resources for Satellite communication during my post doctorate in 6G Innovation centre, (previously called 5GIC), University of Surrey, UK.





What do you do now – what does your role involve?

Currently I am working as an Assistant Professor (Lecturer) in Nottingham Trent University. Prior to that I worked as Assistant Professor in COMSATS University Islamabad, Pakistan. I am also contributing towards academic and industrial projects. My role involves design and implementation of 5G based green solution for new wireless technologies.

What exciting projects have you been involved in?

One of the recent projects is working for Smart Wireless Innovation Facility (Swift), facility in Nottingham Trent university, UK, which includes 5G implementation to improve energy efficiency and create an opportunity for local market in Nottingham to add towards technological growth.

Prior to that I managed to get funding from Higher Education Commission (HEC) Pakistan for “Modelling and Performance Analysis of Energy Harvesting based Internet of Things (IoT) networks”.

Do you have any tips for people looking to pursue a career in your sector?

I would like people to join this sector if they are passionate to make any difference in society. Through my own experience passion and hard work is key to get into business. Also, if you plan for an academic career it is highly important to make sound decisions and work towards real life problems. Its time for all of us to work together as a community to make this planet Green again.



Figure 1: My PhD graduation. One of the biggest days in my life, Lancaster university, UK, 2017.



Presenting my contribution towards Green technologies: Picture from IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC), Istanbul Turkey. 2019

