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Climate Action

221

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6

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Research Projects

NUST Green Campus Initiative

During the last few years, NUST cultivated about 20.1 acres of land and planted 2708 plants to negate the carbon footprint of the campus. The figure rose to 57 more acres in 2012 and 2013 and in 2014, 8.90 acres of land were beautified with 1587 plants. For 2015, about 5.8 acres had been planted with 1628 tree saplings and the figures are set to increase every year. The projects included the beautification of various empty spaces within NUST including cafeterias, squash court, parking spaces, etc. It is amazing to note that there was only one gardener in 2008, but now the number has increased to 79, which shows the commitment of NUST to combat climate change. According to the horticulture team, about 180 acres of land is now green, with the development plan to cultivate more acres within NUST.



Meteorological High Precision Solar / Wind Measuring Station

NUST provides a platform for ground-breaking research to explore new methods for sustainable development. US Pakistan Center for Advanced Studies in Energy (USPCAS-E) at NUST installed a Meteorological High Precision (MPH) Solar/Wind Measuring Station which is a cutting-edge tier-2 station, the second of its kind in Pakistan, to capture real-time data for research and development of sustainable technologies. The MPH is capable of acquiring real-time ground data for both the Solar Thermal and Solar PV applications, which will be crucial in making accurate meteorological predictions and analysis. The station has been installed in NUST by the World Bank through the Alternative Energy Development Board.



Solar Powered Shuttle

Climate changes pose one of the greatest threats to our planet. Of the environmental risks identified by the World Economic Forum in its annual Global Risk Report, four can be linked to climate change: extreme weather events, failure of climate change mitigation and adaptation, natural disasters, and biodiversity loss and ecosystem collapse. NUST is committed to reducing greenhouse gas emissions and cutting down carbon footprint for a sustainable environment.



Students at the School of Mechanical and Manufacturing Engineering (SMME) developed a solar-powered shuttle to provide transport to students traveling inside NUST. The shuttle is eco-friendly, noiseless and uses no fossil fuel, thus ensures zero emission level.



Cykiq

At a campus spread over 700 acres, commuting has been a hectic activity for the students and staff at NUST. Therefore, to facilitate a zero-emission commute within NUST, a team of students came up with an innovative solution to this: Cykiq, a bike-sharing startup for small distances. It reinforces NUST's goal to reduce greenhouse gas emissions and promote eco-friendly modes of transportation.

