LIVING LAB. IN EDC: A SCIENTIFIC RESEARCH MESH NETWORK FOR FUTURE DISASTER MANAGEMENT FOR EXTREME WEATHER IN THE CITY

Jaiho Oh, Mo-Ryang Hur, Ji-Won Oh, Hong-Hee Kim, Ji-Han Shim
Nano C&W[1]
jjho2023@gmail.com, morangher@gmail.com, soho0427@gmail.com,
hee8793@nano-weather.com, jhsim0928@gmail.com

Abstract

The Living Lab. project aims to create an urban-scale instrument mesh network for research and development at the EDC smart city in Korea. The concept is to exploit Internet of Things (IoT) technologies to build an instrument analogous to an array telescope, where many identical detectors spread over an area work as a unit, such as "Chicago AoT", then, is an IoT-enabled "telescope" pointed extreme weather events at the city.
The project will install 100 weather monitoring nodes to measure essential variables, such as winds, temperature, precipitation, air pressure, humidity, solar radiation as well as UV-radiation, at the echo-delta city (EDC) by late 2022. The technical improvements have been expected to operate a Living Lab. based on the evaluation of early installation at the testbed in Jeju. This paper describes the initial stages of the project, focusing on lessons learned from the operation of the testbed in areas ranging from resilient technical design to public engagement.

Keywords: Living Lab., IoT, extreme weather, resilient, public engagement

[1] http://www.nano-weather.com, South Korea