4IR technologies Application on KEPCO Power Distribution equipment maintenance

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Abstract

Korean Government is announcing technology development plan for 4th industrial revolution including 3D mapping of national digital maps. KEPCO (Korea Electric Power Corporation) is also conducting research on various technologies, such as IoT, Machine Learning and AR (Augmented Reality), which can build advanced asset management.

Among the various fields, this paper will introduce on KEPRI's (KEPCO Research Institute) projects about Simple 3D scan & modeling, AR and IoT technologies on the distribution equipment maintenance. KEPRI developed communication line monitoring system using IoT technology and also developed Apps visualizing concrete pole Health Index data & underground distribution equipment, which is using AR technology. And we also have developed Apps and a scanner that can easily make 3D model and measure 3D coordinate value. We are expecting that these technologies will provide more reliable and easier maintenance method for field staff.