

IoT-based unmanned remote EMF measurement and management system

- The "IoT-based, unmanned remote EMF measurement and management system" is the world's first innovative system for managing EMF using ICT technology. For easy installation and mass production, KCA developed EMF measuring equipment that is compact (13cm), lightweight (200g), and inexpensive (USD 300). It has significantly improved the measurement method from manual visiting measurement to unmanned remote measurement and from one-time measurement to constant measurement 24/7/365. To resolve immediately the EMF problem, which is an emergency situation that occurs when the limits for human exposure to EMF are exceeded, KCA has deployed a monitoring system connecting to wireless networks and operating an EMF patrol car.
- 1 IoT-based unmanned remote EMF measuring equipment
 - KCA has installed a compact (13cm), lightweight (200g), and inexpensive (USD300) "IoT-based, unmanned remote EMF measuring equipment" - which it has developed by converging its source technology for EMF measurement with the manufacturing technologies of a small medium enterprise





- The measured data are divided into Green Zone (14v/m or less), Yellow Zone (14~28v/m), and Red Zone (28v/m or higher) based on the limits of human exposure to EMF. When a Red Zone is reported, it can be promptly resolved by dispatching to the scene "EMF patrol cars" (mounted with EMF measurement and analysis equipment) that can precisely measure and analyze EMF again
- ② EMF monitoring system



- EMF data measured 24/7/365 are automatically transmitted through a mobile communication network and analyzed in real time
- ③ EMF patrol car



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④ EMF safety map (https://emf.kca.kr)

- EMF compliance information is disclosed in real time through a GIS-based "EMF Safety Map" (https://emf.kca.kr) that the public can understand easily

2 Collaborations & Partnerships



 KCA have explored the problems, improvement areas and life-oriented management methods from the viewpoint of the citizens and experts together with the EMF Citizens' Group consisting of university professors, school parents, etc. and EMF Advisory Committee composed of EMF specialists. A compact, lightweight, inexpensive EMF measuring equipment that can measure the EMF level