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Abstract:

Hazard monitoring system has been an attractive subject for researchers in recent years. Advances in electronics and decreases in the cost of sensors and electrical components have made smart hazard monitoring system into reality. There is no device or precaution notice in the streets of Dhaka city to detect an uncapped manhole under water. Hence, severe accidents happen in the rainy season when streets get flooded and these manholes become death wells. So, the target of our proposed system was to protect people from falling into these accidents. Most of the papers published on manhole detection have only been done by image processing under normal conditions with a camera or satellite images. To our knowledge, this is the first published work for manhole detection in a waterlogged road using RF technology. It provides a smart system which is able to monitor uncapped manhole and easily notify the user as well as nearby municipal corporation. If it finds any unusual condition it shows the message on an OLED display and a buzzer makes noise to notify the user. There is no doubt that, this device can greatly enhance the safety of the people. It is also one of the cheapest and user-friendly solution among all the systems that we have reviewed before.