Anti-Rain Storm Traffic Risk Detecting, Revealing & Wireless Messaging System

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Extreme and hazardous weather such as hurricane and thunder storm occurs more frequently. To drive safely in heavy rain is challenging and risky. It is especially so in China’s populated cities that are full of overpass whose underpass (con-cave) portion can easily gather and accumulate rain water as deep as over 10 feet in a very short period of time during heavy rain fall. For example, on July 21, 2012, a sudden thunder storm at rush hour had paralyzed the city of Beijing: traffic was completely broken due to deep water gathered at con-cave (underpass) portion of overpass. As a result, more than 2 million cars got stuck on road. For those who accidently drove into deep water, most of them got trapped and submerged and 37 lives were lost in 1.5 hours! Through on-site observation, investigation, survey, and on-line research, I've come up to a conclusion that most of tragedy could have been avoided--if drivers were provided timely information of water depth at each underpass. It would be even better if such information could be obtained in advance of their driving into risky “watered” area of underpass and if excessive water could be drained timely. Prompted and inspired by the design of my “fish tank”, I’ve developed this patented device with following characteristics: : 1) Solar-powered LED panel displaying visible information of water depth detected by dual (floating and ultrasonic) sensory module ; 2) Built-in, automated GSM module sending water depth information to wireless mobile devices of both drivers and city traffic control authority to alert drivers to keep away from the underpass with risk and danger 3) Automated auxiliary pumping and draining system controlled and activated by sensory module for extra drainage handling capacity.

Awards Won: