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| **Abstract:** |  |
| Disasters unsettle the economic and social stability of society. Shortage of skilled rescue workforces, as well as the risks involved in search and rescue operations, are becoming foremost problems during an emergency situation. To solve these problems, we have designed and implemented an Urban Search and Rescue (USAR) robot. The robot is designed and implemented in such a way that includes the application of digital electronics, embedded programming, digital signal processing and digital sensors. This USAR robot uses the microcontroller PIC 16F690 to control its movement by using a radio frequency module and PIC 16F73 to collect the sensor’s data and transmit the data through Bluetooth module. These are low power and costeffective chips. The PIR sensor, Co2 gas sensor, and temperature sensor will collect the data of the disaster area and transmit the data to the service station. Even though, a camera is operated for visual purpose. In this paper not only we have designed and implemented USAR robot but also we tested and analyzed the result. | |