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| Title | IoT (Internet of Things) - Based Smart Garbage Management System: A Proposal for major Cities of Bangladesh | | |
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| Abstract |  |
| IoT –internet of things has become a buzzword nowadays. There are many IoT based researches but researches on garbage management system based on IoT are not sufficient. Insufficient and inefficient garbage management system causes  severe environmental problem. It also makes the air toxic. This problem has become a common problem in the world especially in Bangladesh. Dhaka city, the capital of Bangladesh lacks well organized and efficient garbage management system. Maximum roads of Dhaka city are surrounded by garbage. The bad smell of garbage affects people’s mental health, inhaling toxic causes many diseases. Lack of dustbins, throwing of garbage here and there, misuse of dustbins are making city life very unhealthy and also causes a threat to environment. The dustbins are being stolen or damaged which is also a great problem. In this paper, we proposed about an efficient garbage management system based on IoT. This research works aims to provide a minimal solution to this problem using the  IoT technology. We propose for a smart garbage system, which consists of sensors, RFID, IR sensors, admin and user website, Wi-Fi module etc. These smart bins will monitor the level of garbage when it will reach 75% of its capacity, it will give notification to the admin website, so the authority concerned can collect the garbage from the bins timely and there will be no overflow of garbage as the authority will get notified earlier. There will be a feature in user website that  will let the user know about the nearest smart garbage bins current condition, so if there is any condition that the garbage bin of their place is full they can use the nearest bin. This research work also aims to have secured smart garbage bins, as there is chance the bins to be stolen and damaged so in this research we talk about security of the sensors and the bins will have cement body. So this research is for  implementing an efficient garbage management system which will reduce expense on this sector, misuse of bins. Making a clean country, pollution free environment with an efficient and well organized garbage management system can bring a new era. It is highly anticipated that the proposed garbage management system will  be able to reduce financial cost in this sector as well as reduce problems related to waste management. | |