

## Design and Implement a Remote Control Robot Controlled by Zigbee Wireless Network

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**Abstract :** Communication and access systems can be made with many methods in today's world. These systems are such standards as Wifi, Wimax, Bluetooth, GPS and GPRS. Devices which use these standards also use system resources excessively in direct proportion to their transmission speed. However, large-scale data communication is not always needed. In such cases, a technology which will use system resources as little as possible and support smart network topologies has been needed in order to enable the transmissions of such small packet data and provide the control for this kind of devices. IEEE issued 802.15.4 standard upon this necessity and enabled the production of Zigbee protocol which takes these standards as its basis and devices which support this protocol. In our project, this communication protocol was preferred. The aim of this study is to provide the immediate data transmission of our robot from the field within the scope of the project. In addition, making the communication with the robot through Zigbee Protocol has also been aimed. While sitting on the computer, obtaining the desired data from the region where the robot is located has been taken as the basis. Arduino Uno R3 microcontroller which provides the control mechanism, 1298 shield as the motor driver.

**Keywords :** ZigBee, wireless network, remote monitoring, smart home, agricultural industry

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