WiFi jammer using NodeMCU (ESP8266)

Abstract:

- This project presents the development of a WiFi jammer utilizing NodeMCU, an open-source IoT platform based on the ESP8266 WiFi module.
- The WiFi jammer disrupts wireless communication by emitting interference signals within the 2.4GHz frequency band commonly used for WiFi networks.
- The hardware setup comprises a NodeMCU board programmed to transmit deauthentication packets to targeted WiFi networks, causing disconnections and disruptions.
- The project explores the technical implementation of packet injection and WiFi jamming techniques using the NodeMCU's capabilities.
- Additionally, the software design involves custom firmware development leveraging the Arduino IDE and ESP8266 libraries to achieve packet manipulation and WiFi jamming functionalities.
- The project's outcomes shed light on the security implications of WiFi networks and demonstrate the feasibility of creating low-cost WiFi jamming devices with readily available IoT platforms.