



Design and Development of Remote Alarm System for Detecting Weak Radio Frequency Signals at Deserts and Mountains to Alert Admin Users for location tracking

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One of the major problem faced by Communication Engineers group is when configuring cell phone towers in remotely areas such as mountains and hills as most of the times they lose communication with the control station and unable to track the location of vehicles. The proposed work aims to develop remote alarm system to detect and track vehicles before entering no coverage areas. Remote Alarm Systems are also called as Security or dual alarm systems useful to track the location of vehicles when they enter in to weak/no coverage areas. They are used to detect weak RF signals when the vehicles enter in to weak/no coverage areas such as valleys, Hills, Mountains, Forests and where the range is limited and poor signal strength. Arduino is used to process the RF signals received from RF detector by evaluating the signal strengths falling below or above -95dB and through GPS and GSM , the location and messages are sent to the admin users of control station to update the status of field engineers. Hence the location of vehicles in remote areas can be detected before entering no coverage areas and hence the vehicles can be traced easily. The simulation results are obtained using proteus ISIS, the programming is done using C++ and finally, hardware prototype is demonstrated.
