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(57) Abstract :  
 Embodiments of the present disclosure relates to a system (100) and method (300) for vulnerability management of a P25 LMR network. In an aspect, the present disclosure discloses a system (102) for vulnerability management of a P25 LMR network by applying real-time interference monitoring and machine learning techniques for the efficient detection, analysis, and mitigation of vulnerabilities and interference in the P25 LMR communication network. The system (102) comprises a processor (202) coupled to a memory (204). The memory (204) stores processor-executable instructions. The processor (202) is configured to detect multiple types of interference signals. Further, the processor (202) is configured to identify vulnerabilities in the detected interference signals. Next, the processor (202) is configured to analyse the identified vulnerabilities in the interference signals. In the end, the processor (202) is configured to generate recommendations for remedying the vulnerabilities.

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