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(57) Abstract :
The present invention discloses a wireless blast vibration monitoring system 100 comprising a Sensor Module 101 equipped with a high-precision tri-axis MEMS capacitive sensor (ADXL Model) and it is strategically deployed at multiple locations, capturing ground vibrations concurrently in transverse (X), longitudinal (Y), and vertical (Z) directions. The system monitors vibrations at these multiple locations and Data Collection Module 102 in the system receives the vibration data from Sensor Modules 101 Real-time data processing is executed to determine and analyze the characteristics of the monitored vibrations. The user interface module 104 provides a user-friendly way to access and interpret the data collected by the system and allows operators to monitor blasting operations and make informed decisions based on the data collected. The Wireless Blast Vibration Monitoring System gives a solution for accurate and simultaneous monitoring of ground vibrations at multiple locations, providing valuable insights for various applications, including blast activities and structural assessments.

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