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(57) Abstract :

The Autonomous Mobile Robot System for IN-SITU Inspection & Repair of Large-scale Structures is a revolutionary invention that transforms the landscape of structural maintenance. This system combines state-of-the-art robotics, autonomous navigation, and advanced sensing technologies to streamline the inspection and repair of large-scale structures, eliminating the need for costly dismantling or transportation. Its autonomous capabilities, versatile adaptability, data-driven approach, and positive environmental impact make it a game-changer across various industries, enhancing efficiency, safety, and sustainability.

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