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(57) Abstract :
The present invention discloses a pool security system that employs motion detection and facial recognition technologies to enhance safety and security within pools and water recreation areas. By utilizing strategically positioned cameras, a processor, and memory with instructions, the system can identify human motion, detect suspicious activities, analyze facial attributes, and compare them against a database of authorized individuals. Upon identifying suspicious motion or unauthorized entities, the system triggers alerts via auditory, visual, or electronic means. The system's comprehensive capabilities include the analysis of facial contours, landmarks, and expressions, generating varied alerts, and incorporating machine learning algorithms for optimized motion identification

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