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(57) Abstract :

The present invention relates to a Building Information Modeling (BIM) integrated road accident document management system (100) for highway operations and maintenance (O&M). The system comprises a processor, a memory, and a plurality of modules including a safety event module (102), a register events module (103), a rectification module (104), and a verification module (105). The safety event module enables authorized personnel to record accident data and initiate safety inspections, while the register events module organizes and stores the recorded accident data and safety inspection data in a centralized, traceable database linked to specific 3D road elements. The rectification module (104) enables stakeholders to initiate corrective measures and document remedial actions, while the verification module facilitates client review and approval of rectification measures, thereby enhancing transparency, accountability, and efficiency in highway accident documentation and safety management. (to be published with figure 4)

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