Decision Support System for Detecting, Diagnosing and Suggesting Remedial Measures for Building Cracks

Abstract

Decision support system plays very crucial role in aiding decision making when huge abstract data is available. This paper elaborates on a decision support system which can detect, diagnose and suggest remedial measures on building cracks. The system caters to cracks that would appear in ceilings, walls, floors and beams in a building. The knowledge base for the system was collected from building codes, Journals and also by discussions with construction experts. The user is provided with an excellent interface with visual and audio visual guidance. Further, the user needs to answer the queries posed by the system in Yes/No format. Forward chaining is adapted to arrive at detection and to offer suggestions on remedial measures. This system is of immense help to builders, practicing civil engineers and students. The evaluation of the system is carried out in presence of expert and the system has shown satisfactory performance.

References


17. Pooja Nama, Ankush Jain, Rajat Srivastava and Yash Bhatia, Study on Causes of Cracks & its Preventive Measures in Concrete Structures, 2015, proceedings of International
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18. Types of cracks in concrete columns, available at:

19. Types of cracks in concrete beams, available at:


21. How to evaluate cracks in poured concrete slabs & floors, available at:
http://inspectapedia.com/structure/Concrete_Floor_Cracks.php

Index Terms

Computer Science System Architecture

Keywords

Decision support, building cracks, knowledge base, forward chaining, inference, remedial measures.