Abstract

Forensic Odontology is a study dedicated to identifying individuals based on specific characteristics of teeth structural arrangement. Human bite mark analysis is by far the most demanding and complicated part of forensic dentistry. This process generally involves human interaction and hence tends to bias. In this paper a system is tested and implemented that reduces human bias to certain extent. Each person has a unique dental arrangement which is exploited to identify an individual to the exclusion of all others. In this paper diverse approaches have been proposed for human bite mark identification and human dental radiograph identification. The experimental results clearly demonstrate that the approach significantly outperforms the existing ones in terms of execution time. The proposed method is also seen to be effective under a wide variety of imaging conditions.

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Index Terms

Computer Science
Image Processing
Keywords

Bite mark identification  dental radiograph identification  image analysis  forensic dentistry  multidisciplinary approach.