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Biophysical Analysis of Dental Segmentation Using Computational Analysis RICHARD KYUNG, SONHO LEE, KYUYEOL KIM, CRG-Choice Research Group — Biometrics technology plays an important role in identifying the identity of individuals. Among the biometric system, characteristics of dental structures are one of the best biometric identifiers. Specifically, teeth segmentation from dental MRI image films is an essential step to achieve automated postmortem identification. In this paper, we presented a segmentation technique using physical and mathematical methods. Hybrid approach to enhance the quality of segmented image was carried out for the analysis of various cases. To improve the segmentation of the teeth from low contrast MRI films, high pass filter and specific filter(IMFILTER) in MATLAB was used. Also, noise removal of the magnetic resonance image using Fourier transform and mathematical morphology was presented, achieving a good tradeoff between resolution of the dental image and computer running time. Dental MRI images were digitized using computer code for the noise removal.

> Richard Kyung CRG-Choice Research Group

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