Development of a Recognition Algorithm for Newborn and Infant Fingerprints

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Abstract— This research seeks to develop a fingerprint recognition algorithm with emphasis on feature extraction for the automatic recognition of newborns and infants. The feature extraction algorithm will extract the salient features required for identification/verification of the identity of newborns and infants from the fingerprint images captured with the ubiquitous 500ppi fingerprint scanners. It is expected to produce a database of fingerprints acquired from newborns and infants and an automated fingerprint recognition system for the identification of newborns and infants with improved speed and accuracy, cost reduction and the least possible vulnerability to spoofing.

Keywords—digital identity, fingerprint, newborn, infant