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(57) Abstract :

Disclosed herein is a mammogram analysis and breast cancer localization system and method thereof (100) that comprises a mammogram acquisition unit (102) configured to input digital mammograms in standardized formats, a communication network (104) linking a plurality of system components for real-time data exchange and remote accessibility, a processing unit (106) operatively connected to the mammogram acquisition unit (102) via the communication network (104), the processing unit (106) comprising: a preprocessing module (108), a segmentation module (110), a quadrant labelling module (112), a clock position detection module (114), a machine learning module (116), a user interface (120) integrated into a user device (118), communicatively connected to the processing unit (106) via the communication network (104), configured to display quadrant and clock position labels along with detected abnormalities, enabling user interaction.

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