# Graphical user interface for the detection of microcalcifications by analysis of digitized mammography

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## Abstract

The information technologies are advancing and are increasingly involved in more and more productive sectors. more and more productive sectors. In the health sector it has a great influence, because it automates certain tasks that require processing for analysis. processing for analysis, which has directly helped the health of many people. health of many people. CAD systems (Computer Aided Diagnostic Systems) are the type of technology applied in the health sector, in order to automate diagnostic processes. One of the most frequent health problems is breast cancer, which is a reason for the intervention of technology. This project covers the design and implementation of a graphical user interface using the software development model as a basis, the interface has been developed with MATLAB software.

## Introduction

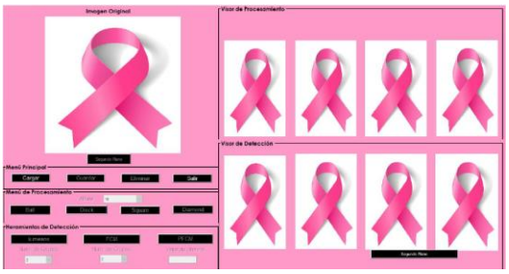

**Figure 1** Graphical user interface

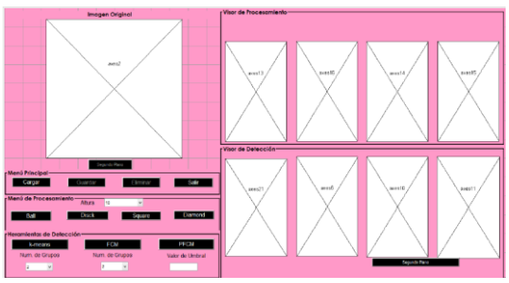

**Figure 2** Graphical user interface design

## Materials and methods

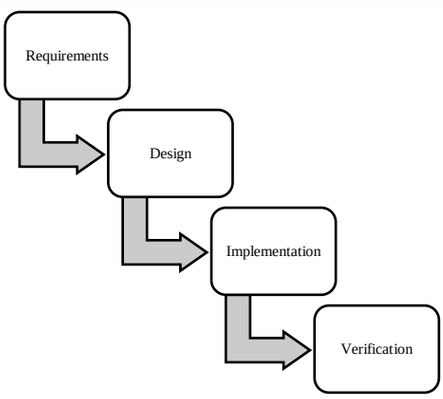


**Figure 3** Software development model

## Results

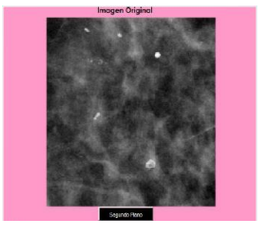


**Figure 4** Main image upload


**Figure 5** Main menu buttons

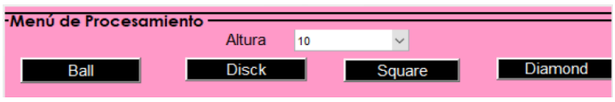


**Figure 6** Menu with the contrast enhancement buttons

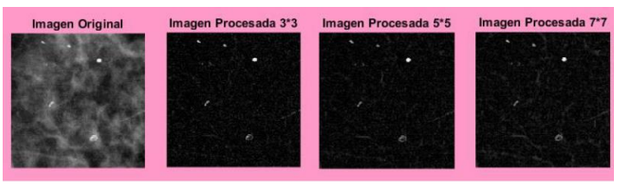


**Figure 7** Display of results with contrast enhancement

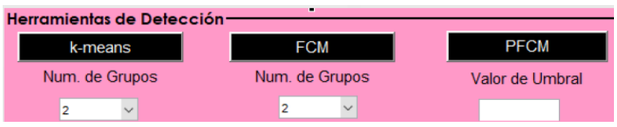


**Figure 8** Microcalcification detection tools menu

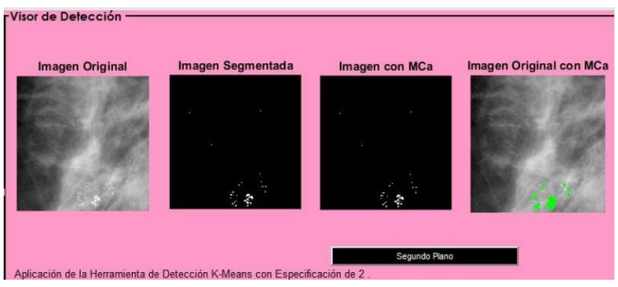


**Figure 9** Display of microcalcification detection results

## Conclusions

The layout of the interface elements makes the navigability understandable, this provides smooth interaction with the user.

## References

Fernández de Córdoba Martos, G. (2019). Creación de Interfaces Gráficas de Usuario con MatLab.

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