

# Mobile Medical Assistant System for Laboratory Report Analysis and Medical Drug Identification

Deshani Warnakulasuriya<sup>1</sup>, Tharushi Dewangi<sup>1</sup>, Navodya Sewwandi<sup>1</sup>, Minoli Rathnayake<sup>1</sup>, Nuwan Kodagoda<sup>1</sup>, and Kushnara Suriyawansha<sup>1</sup>

<sup>1</sup>Department of Computer Science and Software Engineering, Faculty of Computing, Sri Lanka Institute of Information Technology, Sri Lanka.

*it19246024@my.sliit.lk, it19123196@my.sliit.lk, it19159072@my.sliit.lk, it19129518@my.sliit.lk, nuwan.k@sliit.lk, kushnara.s@sliit.lk*

## Abstract

It is quite common for medical drugs and prescriptions to be misidentified by hospitals after drugs are dispensed to the patients. Misidentification of medical drugs is more common among elderly and visually impaired patients. In hospital organizations, the leading medical error is adverse drug events. Another common issue patients face is keeping track of medical lab reports. Our proposed mobile medical assistant system uses image processing to identify drugs with or without packaging, identifying prescriptions and medical lab reports. Furthermore, the mobile application will identify the trends in medical lab reports and predict the next month's results of the medical lab report of the patient using machine learning.

## Keywords

Medicine, Medicine Drugs, Image Processing, Deep Learning, Machine Learning, CNN, Mobile Application