

# IMAGE IDENTIFIER FOR INTI UNIVERSITY FOEAT STAFF MEMBERS (IMAGE TO SOUND CONVERSION)

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## ABSTRACT

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The basic principle behind his project is on image processing using Adaptive Filter Algorithm that can read signal from a camera and reduce the noise before being fed into the next algorithm for comparison. This project detects and recognizes 2D digital input images of INTI university FOEAT staffs and displays their outputs on a GUI. The programming environment used in this project design is MATLAB 7.7. Coupled with the development of an image to sound conversion system as a sign language application that display an audio authorization voice via a speaker at each clock-in and clock-out periods. The main concept behind this project is to build a simple user-friendly attendance system for INTI University FOEAT staff members by using face (2D digital image) detection and recognition technique.

The project design is deemed valid because after being tested, the system worked properly by allowing FOEAT staff members to clock-in and clock-out and their results were displayed on the GUI window. The recorded time per entry/exit were used as an attendance record. After authenticating an image, the speakers were also triggered to give an audio authorization voice command to the user.

**Keywords:** Adaptive Filtering, Face Area Extraction, Skin Recognition, Image to Sound Conversion, Image Detection, Image Recognition, Boundary detection, Segmentation and MATLAB 7.7.