

## **ABSTRACT**

This project concerns LED Matrix interfaced with arduino uno. These LEDs are widely used in our day to day activities; as indicator light in power supply devices, for information and image display in supermarkets, school campuses etc. For this project, these LEDs were used to display information. These 8×8 LED matrix can be driven in two ways (parallel or serial). In this study it was driven in serial manner in order to save interface (needs only three data lines). The serial driven LED matrix actually dynamically displays the LEDs (row by row or column by column).. Maasai Mara University being a public and known university of Kenya experiences some problem on advertising its name in a more modern way rather than using a plain billboard on the modern gates. This project was designed with the purpose to advertise Maasai Mara University in a more modern way to make it a great institution of high learning and attract more students. This was achieved by designing an 8×8 LED matrix system which was programmed with arduino Uno single board microcontroller. Moreover, the arduino Uno is designed around an 8-bit Atmel AVR microcontroller or a 32-bit ATMEL ARM. After the program is run, the 8x8 LED Matrix displays the word " WELCOME TO MAASAI MARA UNIVERSITY" After coding and running the system. This project is vital as it is motivated by professional matrix display seen when these LEDs connected to arduino eye catching, displays information on Maasai Mara University gate.