H.K.E. SOCIETY'S
POOJYA DODDAPPA APPA COLLEGE OF ENGINEERING
(AUTONOMOUS INSTITUTION)
GULBARGA – 585 102

A
PROJECT REPORT
ON

"A SIMPLE CAPACITIVE SECURITY CARD SYSTEM"

(SPONSORED BY KSCST, BANGALORE)

Submitted to the
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ABSTRACT

A simple and reliable capacitive security card system is designed, fabricated and tested. It consists of capacitive card reader system, an integrator, rectifying circuit, an 8051 microcontroller and LED indicators. Initially rectangular patterns of different lengths are being recognized successfully. The patterns on the security card are scanned with a thin conducting plate, which is the part of the reading system, when card is inserted in the reading system. The variations in the heights of the patterns are being converted into voltages with the help of an integrator. Output of the integrator, after rectification, is converted to digital form and fed to the microcontroller. These data are compared with the data stored in the memory of the microcontroller. The designed system is capable of recognizing up to five columns (patterns) in a single row with a maximum number of 99999.

OBJECTIVE: A very simple but powerful technique is presented for the development of a security card system. Proposed system is designed, fabricated, simulated as well as practically tested for its performance. It can be designed at low cost for use in big organisations. It has much better stability than magnetic cards which may lose data after some time and in hazardous conditions.