ASYNC REAL TIME OPERATING SYSTEM FOR Z8F64 MCU

(Sponsored by KSCST, Bangalore)

PROJECT REPORT

Submitted by

CHAITHRA MANDANNA K.

PRASAD A.P.

JISHA JOHN

AKSHATHA K.S.

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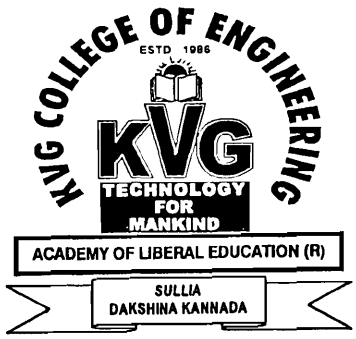
Under the Guidance of

Prof. B.S. KEDILAYA B.E.,M.E,(Ph.D),MIEEE,MISTE

Head of the Department



Department of Electronics and Communication Engineering

K.V.G. College of Engineering

SULLIA, D.K. 574327, KARNATAKA

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ABSTRACT

Real-time response describes the software that produces the correct response to external and internal events at the proper time. A real-time operating system is an operating system with timing constraints, i.e. each task has to be completed before a deadline. An RTOS is usually used for time critical applications such as onboard spacecraft control, GPS receiver, and robotics.

The "**Async RTOS"** is a multi-tasking kernel designed for time-critical embedded applications. It is developed for eZ8 Encore family of microprocessors. A major portion of the "**Async RTOS"** source code is written in ANSI C language.

This project aims to develop a new paradigm for real-time scheduling such that, a more efficient real-time scheduling could be performed both in the software level and in the hardware level. A full fledged Real Time Operating System is developed which can be custom tailored to meet the specific applications.

- The Code will be developed in two layers
    1. Developing the target layer
        a. Target independent OS
        b. Target independent OS
    2. Developing the upper layer (OS)
- Testing it for eZ8 Encore family processors.