



Webinar

On

“How to select the Internship Topic on Embedded Systems and Internet of Things with Android App Development”

- **Date:** 19th August 2021
- **Resource Person:** Mr. KUSHAL VISHNU NESARKAR, Embedded System Engineer, EdGate Technologies Pvt Ltd, Bangalore.
- **Platform:** ZOOM
: <https://zoom.us/j/97228745653?pwd=K28rRTdmNE9KWFZTWjdscHNxMnEzQT09>
- **Objective:** “Embedded Systems and API Level Programming for ARM Cortex M4F Microcontrollers” and is based on the advanced development tools from Texas Instruments. The Tiva TM4C123GXL Development Kit offers a complete High Performance Embedded solution while integrated with Code Composer Studio IDE which simplifies the application development.
- **No. of participants:** 89
- **Target Participants:** Students of 6th semester of ECE department.
- **Outcome of the event:** The Students gained knowledge on
 - Introduction to Embedded Systems and Code Composer Studio IDE
 - Concepts of different Peripherals and API Level programming
 - Interfacing External Modules to the Microcontroller
 - Introduction to Microcontroller and Energia IDE
 - Introduction to TI-RSLK Max and Android App Development
 - Robotics with IoT
 - Students learned how to write simple programs.

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Heart of Embedded System

Microcontroller

- A microcontroller is a single chip microcomputer made through VLSI fabrication.
- A microcontroller is a self contained system (computer) with a processor, memory, and other peripherals.
- Available in different word lengths.
- Low Cost per unit

The slide includes an image of a microcontroller chip and a list of control icons at the bottom: Join Audio, Start Video, Share, Participants, and More.

The screenshot shows a Zoom meeting grid. The top tile displays the EdGate Technologies logo. The bottom tile shows a participant named Souma R Adiga. The interface includes a 'Leave' button and a 'Participants' list on the right.

The screenshot shows a Zoom meeting slide featuring a diagram of a car with various components highlighted. The interface includes a 'Leave' button and a 'Participants' list at the bottom.

The screenshot shows a Zoom meeting grid with four participants. The top tile features a logo with the text 'KNOWLEDGE IS POWER'. The bottom tiles show participants: RASHMI (1RR19EC406), Navyashree D(1RR18EC058), and Gagana M. The interface includes a 'Leave' button and a 'Participants' list at the bottom.

What Does a Basic Microcontroller Consists Of ?

- Central Processing Unit
- External Oscillators
- On Chip ROM
- On Chip RAM
- I/O Ports
- Interrupt Controller
- Timers and Counters
- Data Bus and Address Bus
- Serial Ports for Communication

The slide includes a block diagram of a microcontroller showing components like CPU, Interrupt Control, 4K byte ROM, 128 byte RAM, OSC, Bus Control, I/O Ports, and Serial Port. The interface includes a 'Leave' button and a 'Participants' list at the bottom.

HOD/ECE