

**KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE**

Warangal – 506 015, Telangana, INDIA (An AUTONOMOUS INSTITUTE under Kakatiya University, Warangal)

కాకతీయ సాంకేతిక విజ్ఞాన శాస్త్ర విద్యాలయం, వరంగల్ - 506 015.

## **Department of Electronics and Communications**

**HEARTY WELCOME  
TO  
NAAC PEER TEAM**

**Research & Education Centre  
EMBEDDED SYSTEMS & IOT LAB**



# Objective of the Research and Education Center

The main Objective of the research and Education centre at Electronics and Communication Engineering is to carry out

- A broad coverage of challenges and research issues to the design and management of automation.
- The students are exposed to advanced Projects such as IOT protocols, embedded system design, computing, kernel programming, software defined radio and many more.



# About the Research and Education Center

- Our research at Electronics and Communication Engineering discipline brings together the academic and industrial talents from across a range of extents that includes Communication, Signal Processing, VLSI and Embedded Systems.
- Our culture of innovation, strong industrial collaboration and outstanding facilities will help you achieve your research ambitions. Our research focus upon the application-based areas that solve the problems of local, national and global importance. The research is carried out under the research and Education that has state-of-art facilities.
- This Centre plays a vital role in developing the Mini, Major projects for PG and UG students.

# Faculty Incharge



Dr. J. Tarun Kumar  
Associate Professor

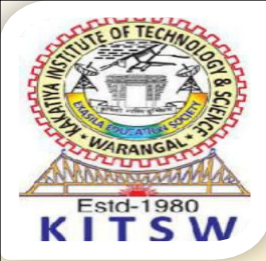


Lab Photo



# Primary functions of the center

- Qualified and experienced academia from top national and international institutes having strong research acumen
- Research staff with experience in real time industrial applications
- State-of-art and fully equipped laboratories
- Highly advanced industrial graded computing facilities with latest simulation software
- National and International research collaborations with reputed Universities
- Mentoring from reputed industry researchers



# Major equipment

## HARD WARE

High end Personal Computers (30)	FPGA Board VLSI Training unit
TMS320C6748 LCDK with XDS100 Emulator	Xilinx Vivado Design Suite
CCD CMOS CAMERA (NTSC/PAL)	Spartan 6 Atlys Boards
DSP EVM BoardAM5728Multicore Processor Board&Camera Module for AM5728 Board	ARM-KIT:ARM Cortex A8
ARM 7 LPC2148 Basic Trainer kit with On-board Peripherals	BeagleBone Development Board with 21-Add-On-Boards
EasyMXProV7-STM-32 Board:	
STM-32 M4 Development Board with Accessories.	ZigBee-Module:ARM Compatible ZigBee Interface Module with Antenna.



# Major software

## **MATLAB 23.2 (R2023b)**

Code Composer Studio 2.0

NI Multisim Educational Software

NI LAB VIEW SOFTWARE

Tanner Tools version 12.0

VLSI Design suite a bundle of 5 users

Xilinx Vivado Design Suite

Or Cad University Simulation Bundle

Cadence Software

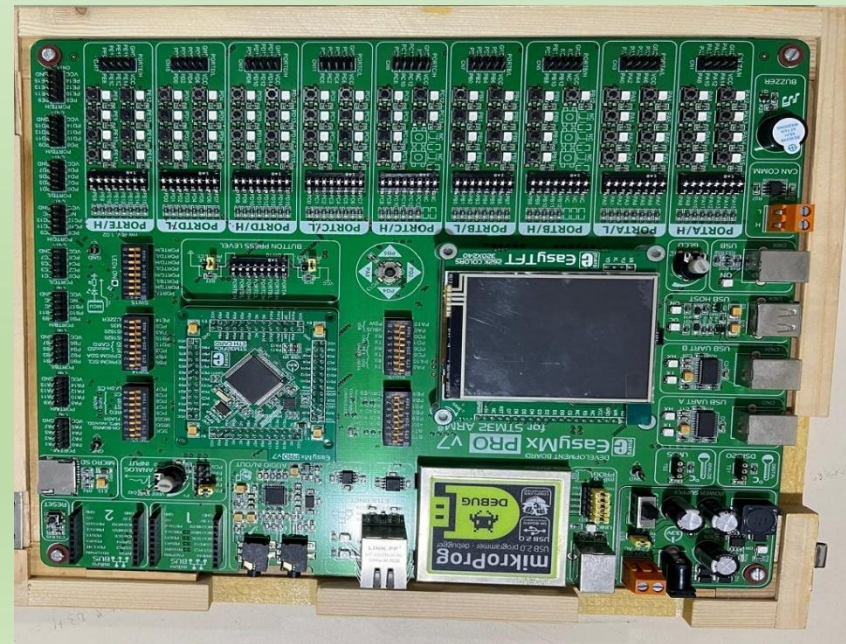
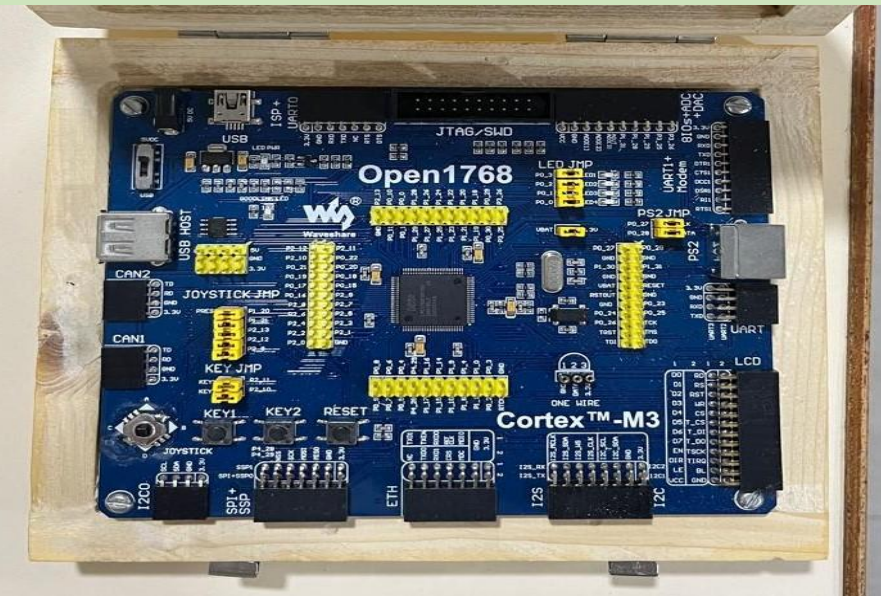
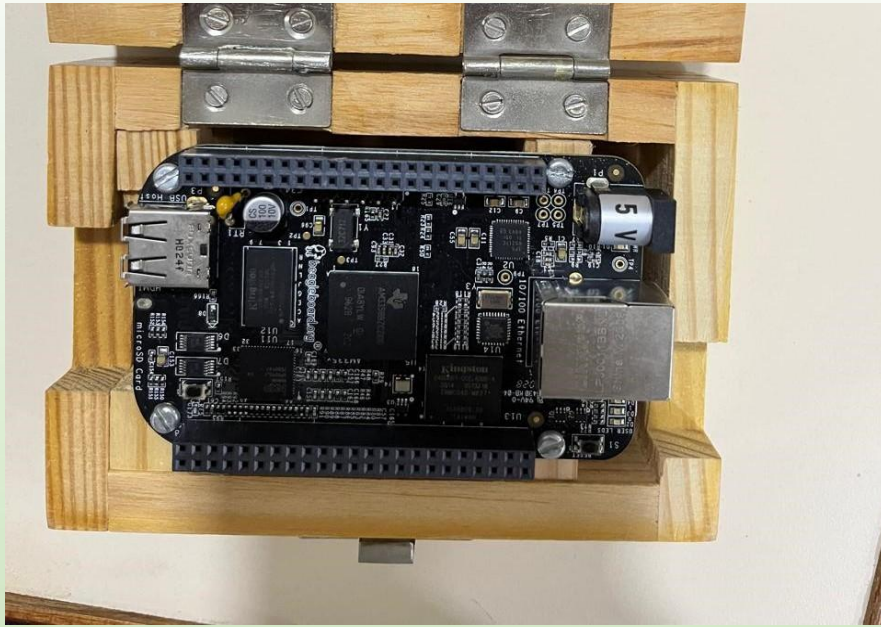


# Projects To be Carried out

**Types of projects / research carried out with description:**

- PG Dissertation work – Embedded, IOT and any Smart System.
- UG Major Projects – IoT, Smart Systems and automation
- Faculty Research Publication preparation with implementation results







**THANK YOU**