

# Department of Electronics and Communications <u>Research & Education Center</u> EMBEDDED SYSTEMS & IOT LAB

### About the 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 playa a vital role in developing the Mini, Major projects for PG and UG students.

#### The 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

#### **Research facilities available:**

Major Hardware Equipment		
Personal Computers (30)		
TMS320C6748 LCDK with XDS100 Emulaor		
CCD CMOS CAMERA (NTSC/PAL)		
DSP EVM Board AM5728 Multicore Processor Board & Camera Module for AM5728 Board		
ARM 7 LPC2148 Basic Trainer kit with On-board Peripherals		
ARM-KIT:ARM Cortex A8		
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.		
Rasberry Pi 4 model B		

Softwares	
MATLAB 7.14 (R2012a)	
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	
OrCad University Simulation Bundle	
Cadence Software	

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

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

Photographs of working models / application software developed with description:



Embedded Systems Working Model



Computer Lab facility in Research & Education Center

Details of Faculty incharge for Research and Education Center : Dr.J.Tarun Kumar Associate Professor tarunkumar.ece@kitsw.ac.in 9866258045