ISO 9001:2015 AICTE-CII: GOLD Category Institute NAAC-'A' Grade Institute (CGPA: 3.21)
KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE
Opp : Yerragattu Gutta, Hasanparthy (Mandal), WARANGAL - 506015, TELANGANA, INDIA
काकतीय प्रौद्योगिकी एवं विज्ञान संस्थान, वरंगल - ५०६०१५, तेलंगाना, भारत
కాకతీయ సాంకేతిక విజ్ఞాన శాస్త్ర విద్యాలయం, వరంగల్ - ౫౦౬ ౦౧౫ తెలంగాణ, భారతదేశము
(An Autonomous Institute under Kakatiya University, Warangal)
(Approved by AICTE, New Delhi; Recognised by UGC under 2(f) & 12(B); Sponsored by EKASILA EDUCATION SOCIETY)
Estd: 1980 KITSW
website: www.kitsw.ac.in E-mail: principal@kitsw.ac.in : +91 9392055211, +91 7382564888

Department of Electronics and Communications

Research & Education Center

ADVANCE COMMUNICATIONS

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 us to achieve our research ambitions. Our research focus upon the application-based areas that solve the problems of local, national and global importance. The research centre serves as a hub for hands-on exploration and experimentation in the field of signal processing. This center plays a vital role in developing the Mini, Major projects for PG and UG students. Equipped with state-of-the-art technology and software, the lab facilitates both academic learning and advanced research endeavours.

Facilities and Equipment:

1. **Personal Computers (PCs):** The lab boasts a total of 30 personal computers, each equipped with robust hardware configurations to support computational-intensive tasks and simulations.
2. **MATLAB Software:** A cornerstone of signal processing research, the lab is furnished with licensed MATLAB software, providing students and researchers with a versatile platform for algorithm development, data analysis, and visualization.
3. **CC Studio Software:** Complementing MATLAB, the lab features CC Studio software, tailored specifically for digital signal processing (DSP) applications. This toolset enhances the learning experience by enabling students to delve into real-time signal processing tasks and algorithm implementation on embedded systems.
4. **TMS320C6748 Kits:** Central to practical experimentation, the lab is outfitted with TMS320C6748 kits, empowering users to explore DSP concepts through hands-on projects and prototyping. These kits offer a rich set of features and peripherals, facilitating seamless integration with various interfacing devices for signal acquisition, processing, and output.
5. **Interfacing Devices:** Supporting the TMS320C6748 kits, the lab houses a diverse array of interfacing devices such as sensors, actuators, and communication modules. These devices enable students and researchers to interface real-world signals with the digital domain, bridging theory with practical applications.

The primary functions of the center:

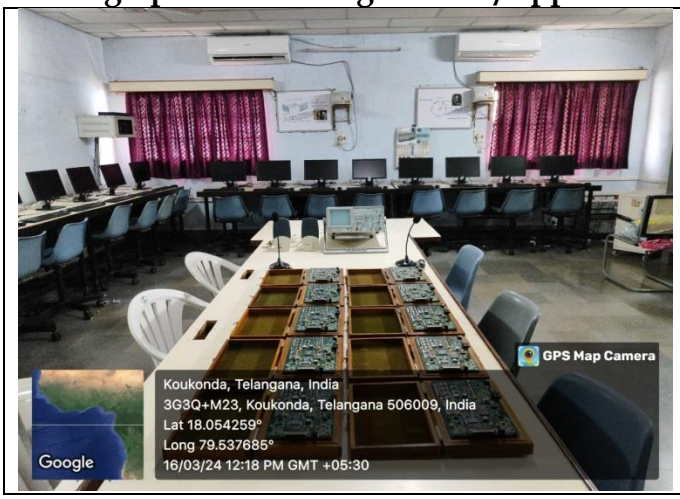
- Qualified and experienced academia from top national and international institutes having strong research acumen
- Research staff with experience in real time industrial applications
- State-of-art and fully equipped laboratories

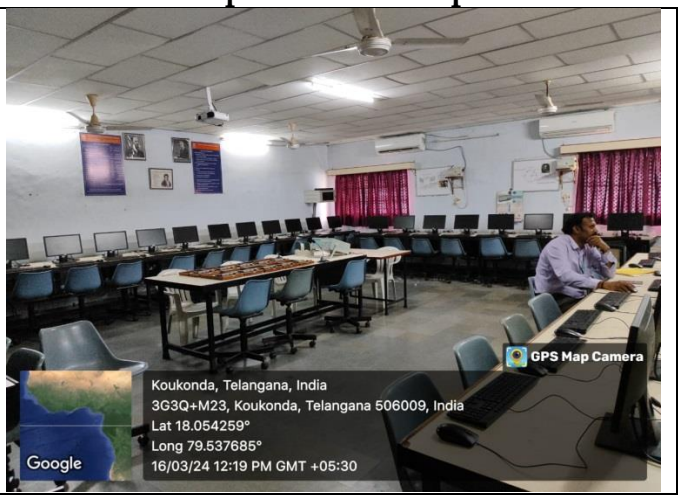
- Highly advanced industrial graded computing facilities with latest simulation software
- National and International research collaborations with reputed Universities
- Mentoring from reputed industry researchers

Research facilities available
Major Hardware Equipment & Softwares
TMS320C6748 LCDK with XDS100 Emulaor
CCD CMOS CAMERA (NTSC/PAL)
DSP EVM BoardAM5728 Multicore Processor Board & Camera Module for AM5728 Board
MATLAB 23.2 (R2023b)
Code Composer Studio 2.0
NI Multisim Educational Software

UG and PG projects/research endeavours exemplify the diverse range of topics and applications within the field of signal processing, showcasing the opportunities for students and researchers to contribute to advancements in this dynamic discipline.

Photographs of working models / application software developed with description:





Details of Faculty in charge for Research and Education Center:
Dr. D. Venu
Assistant Professor
dv.ece@kitsw.ac.in
+919985396483