

DEPARTMENT OF ELELCTRONICS COMMUNICATION AND INSTRUMENTATION ENGINEERING

Initiatives and Implementation of Sustainable Development Goals (SDGs)
KITS Warangal

Department Name: Electronics Communication and Instrumentation Engineering (ECIE)

Student Major Projects Linked to SDGs Provide details of major projects related to SDGs.

Academic Year: CAY, CAY-1, CAY-2

CAY 2024-25(As per NBA)

CAY (2024-25)			
Batch Number	Roll Numbers	Major Project Title	SDGs Addressed
1	B21CI022 B21CI019 B21CI053 B21CI001	IOT based water supply chain management system	SDG2- Zero Hunger
2	B21CI025 B21CI042 B21CI012	Computer Assistive decision support system for Knee abnormality detection	SDG3- Good Health and well being
3	B21CI031 B21CI028 B21CI033 B21CI010	VLSI- FinFET Technology: From devices to architectures	SDG8-Decent Work & Economic Growth SDG9-Industry, Innovation & Infrastructure
4	B21CI008 B22CI064L B21CI043 B22CI061L	Design and Development of IOT Based Multi-Parameter Patient Monitoring System	SDG3- Good Health and well being
5	B21CI039 B21CI015 B21CI017 B21CI027	Machine Learning Models for Classification of Human Emotions Using Multivariate Brain Signals	SDG3- Good Health and well being
6	B21CI020 B21CI011 B21CI041 B21CI016	IoT based Smart health monitoring system	SDG3- Good Health and well being

7	B21CI018 B21CI052 B21CI014 B21CI032	Analysis of Machine Learning algorithms for classification of stress levels using PPG signals	SDG3- Good Health and well being
8	B21CI046 B21CI026 B21CI030 B21CI013	Implementation of drone technology for farm monitoring & pesticide spraying	SDG2- Zero Hunger
9	B21CI037 B21CI009 B21CI006 B21CI050	High speed VLSI adder circuit topologies	SDG8-Decent Work & Economic Growth
10	B22CI068L B21CI005 B21CI035 B21CI051	A design of manually optimized (15, 4) parallel counter	SDG8-Decent Work & Economic Growth
11	B21CI002 B21CI048 B21CI045 B21CI029	ML based Interactive Diabetes Prediction Model	SDG3- Good Health and well being
12	B22CI071L B22CI070L B21CI038 B21CI003	A Novel Area-Delay Efficient Carry Select Adder Based on New Add-one Circuit	SDG9-Industry, Innovation & Infrastructure
13	B21CI007 B22CI066L B21CI049 B21CI004	Automation in hydroponics farming	SDG2- Zero Hunger
14	B22CI062L B22CI069L B22CI065L B22CI063L	Noninvasive Blood Glucose Concentration Measurement Based on Conservation of Energy Metabolism and Machine Learning	SDG3- Good Health and well being
15	B22CI067L B21CI024 B21CI023 B21CI040	Machine Learning EEG Data Analysis For eHealth IoT System	SDG3- Good Health and well being

CAY-1(2023-24)			
Batch Number	Roll Numbers	Major Project Title	SDGs Addressed

1	B20CI058 B20CI020 B20CI001 B20CI026	A high speed BCD adder using single 4-bit binary adder and detector circuit	SDG8-Decent Work & Economic Growth
2	B20CI041 B21CI063L B20CI028 B21CI067L	IOT based driver alertness and health monitoring system	SDG3- Good Health and well being
3	B21CI065L B20CI029 B20CI053 B20CI011	MQTT based secure transport layer communication for mutual authentication in IOT Network	SDG9-Industry, Innovation & Infrastructure
4	B20CI007 B20CI056 B20CI024 B20CI022	Performance analysis of Low power high speed 1-bit hydrid full adder	SDG9-Industry, Innovation & Infrastructure
5	B20CI037 B20CI055 B20CI018 B20CI006	Diabetes prediction from ECG & PPG signals using ML algorithms	SDG3- Good Health and well being
6	B20CI003 B20CI014 B20CI008 B20CI034	Emotion recognition using PPG signal	SDG3- Good Health and well being
7	B20CI027 B20CI012 B20CI042 B21CI068L	Home automation system using Smart Mirror	SDG8-Decent Work & Economic Growth SDG9-Industry, Innovation & Infrastructure
8	B20CI009 B20CI004 B20CI051 B20CI039	Design of BCD order using Excess-6 Block at 90nm technology	SDG9-Industry, Innovation & Infrastructure
9	B20CI031 B20CI023 B20CI005 B21CI064L	IoT based Smart Fertilizer Management System	SDG2- Zero Hunger
10	B20CI032 B20CI049 B21CI066L B20CI016	Use of signal Decomposition based adaptive filter for the extraction of respiratory activity from biomedical signal	SDG3- Good Health and well being
11	B21CI062L B20CI002 B20CI015 B20CI010	Time - Frequency Analysis of Vibroarthrographic signals using Empirical Wavelet transform methods for estimation of knee joint disorders	SDG3- Good Health and well being

12	B20CI045 B20CI019 B20CI013	Diabetic retinopathy disease identification using Segmentation of blood vessels in retinal images	SDG3- Good Health and well being
13	B20CI017 B20CI033 B21CI069L	Machine learning based respiratory rate and Blood oxygen saturation estimation using PPG signal	SDG3- Good Health and well being
14	B20CI038 B21CI070L B21CI061L	Time - Frequency Analysis of Vibroarthrographic signals using Empirical Mode Decomposition methods for estimation of knee joint disorders	SDG3- Good Health and well being

CAY-2 (2022-23)			
Batch Number	Roll No. of the students	Major Project Title	SDGs Addressed
1	B19CI018 B19CI036 B19CI053 B19CI060	IoT based Smart waste management system	SDG2- Zero Hunger
2	B19CI007 B20CI067L B19CI035 B19CI052	IoT based Healthcare monitoring system	SDG3- Good Health and well being
3	B19CI017 B19CI026 B19CI043 B20CI064L	IoT based Smart farming system	SDG2- Zero Hunger
4	B19CI014 B19CI033 B19CI024 B19CI037	Design of Low Power Magnitude Comparator	SDG9-Industry, Innovation & Infrastructure
5	B19CI034 B19CI049 B19CI025 B19CI004	A novel IoT-based smart parking (SP) solution	SDG9-Industry, Innovation & Infrastructure
6	B19CI009 B20CI061L B19CI045 B20CI062L	Energy Consumption of a Sub-threshold Analog Signed Multiplier Compared to a Digital Implementation	SDG9-Industry, Innovation & Infrastructure
7	B19CI028 B19CI050 B19CI032	A machine learning technique for ECG signal enhancement using DWT algorithm	SDG3- Good Health and well being

	B19CI042		
8	B19CI046 B19CI054 B19CI041 B19CI057	Skin disease detection using image processing and machine learning	SDG3- Good Health and well being
9	B19CI027 B19CI008 B19CI051 B19CI020	Performance analysis of Multirate Bandstop filter (notch filter)	SDG9-Industry, Innovation & Infrastructure
10	B19CI003 B19CI005 B19CI010 B19CI006	Design of Area-Power-Delay optimized Modified Square root carry select adder	SDG9-Industry, Innovation & Infrastructure
11	B19CI013 B19CI056 B19CI019 B19CI023	Analysis of Various Machine Learning Techniques for Intrusion Detection using NSL-KDD Dataset	SDG9-Industry, Innovation & Infrastructure
12	B19CI048 B19CI040 B19CI001 B19CI011	Implementation of Text-to-Speech System using ARM Cortex-M Microcontroller	SDG9-Industry, Innovation & Infrastructure
13	B20CI065L B19CI058 B19CI015 B19CI012	A Novel FPGA-based LFSR PUF Design for IoT and Smart Applications	SDG9-Industry, Innovation & Infrastructure
14	B19CI022 B19CI016 B19CI002 B19CI021	Design and Implementation of Spy Robot	SDG9-Industry, Innovation & Infrastructure
15	B19CI047 B20CI066L B20CI063L B19CI029	Obesity prediction using Machine Learning algorithms	SDG3- Good Health and well being