Course: BTech **Semester:** 2

Prerequisite: Basic Computer Knowledge and Physics

Rationale: This course is design to provide basic knowledge of Electronics components and computer components. This course helps in learning problem solving process of Electronics circuits and Computer.

Teaching and Examination Scheme

Teaching Scheme					Examination Scheme					Total
Lecture Hrs/Week	Tutorial Hrs/Week	Lab Hrs/Week	Hrs/Week	Credit	Internal Marks			External Marks		
					T	CE	P	T	P	
0	0	2	0	1	-	-	20	-	30	50

SEE - Semester End Examination, **CIA** - Continuous Internal Assessment (It consists of Assignments/Seminars/Presentations/MCQ Tests, etc.)

Course Outcome

After Learning the Course the students shall be able to:
CO1: Gain ability to understand eh working of Electronics Components CO2: Ability to understand the operating of various testing and measurement instrumentation. CO3: Ability to learn working and use of different IoT sensors CO4: Ability to design electronic circuit for the specific applications.

List of Practical

1.	**Identification and symbolic representation of electronics basic components. (diode,zener diode, LED, transistor)** Identification and symbolic representation of electronics basic components. (diode,zener diode, LED, transistor)
2.	**Verify the circuit analysis (voltage and current) using Digital Multimeter** Verify the circuit analysis (voltage and current) using Digital Multimeter
3.	**Understanding of working and specifications of CRO and Function generator.** Understanding of working and specifications of CRO and Function generator.
4.	**Design 5V power supply using 7805.** Design 5V power supply using 7805.
5.	**Understanding soldering techniques and practicing proper soldering and de-soldering.** Understanding soldering techniques and practicing proper soldering and de-soldering.
6.	**Demonstrate the working of Temperature Sensor** Demonstrate the working of Temperature Sensor
7.	**Verify the functionality of water flow sensor** Verify the functionality of water flow sensor
8.	**Verify the functionality of distance measurement sensor** Verify the functionality of distance measurement sensor
9.	**Demonstrate the working of Rain detector Sensor** Demonstrate the working of Rain detector Sensor
10.	**Group Project based on electronics components and sensors** Group Project based on electronics components and sensors