

# Lesson Plan

Government Polytechnic Kendrapara  
Department of Electronics and Tele-communication Engineering

|         | Discipline:<br>ETC                          | Semester-6th<br>Summer-2026           | Name of the Teaching Faculty:<br>Sri.Rabindra kumar satapathy<br>(Guest faculty ETC Engg.) |
|---------|---|---------------------------------------|--|
| Sl. No. | Subject-Th.4.<br>(Internet Of Things(IOT) ) | No. Of Days/Week<br>class allotted:04 | Semester From date:-22.12.2025 To date: 18.04.2026 (No of weeks: 15)                       |
|         | Weeks/Months                                | Class Day                             | Topic  |
| 1       | 4th week 22dec to 31st dec                  | 1st                                   | 1.1 (Introduction to IoT )1.1 What is IoT.   |
|         |   | 2nd                                   | 1.2 Architectural Overview   |
|         |   | 3rd                                   | 1.3 Design principles and needed capabilities,   |
|         |   | 4th                                   | 1.4 IoT Applications, Sensing, Actuation,  |
| 2       | 1st week 2nd jan To 09th jan                | 1st                                   | 1.5 Basics of Networking, M2M and IoT Technology   |
|         |   | 2nd                                   | 1.5 Fundamentals- Devices and gateways,  |
|         |   | 3rd                                   | 1.6 Everything as a Service(XaaS),   |
|         |   | 4th                                   | 1.7 Role of Cloud in IoT, Security aspects in IoT.   |
| 3       | 2nd week 12th jan To 17th jan               | 1st                                   | 2.Elements of IoT  |
|         |   | 2nd                                   | 2.1 Hardware Components- Computing (Arduino,   |
|         |   | 3rd                                   | 2.2 Raspberry Pi), 2.2 Communication,  |
|         |   | 4th                                   | 2.2 Sensing, Actuation, I/O interfaces.  |
| 4       | 3rd week 19th jan To 22th jan               | 1st                                   | 2.3 Software Components- Programming API's   |
|         |   | 2nd                                   | 2.3(using Python/Node.js/Arduino) or Communication   |
|         |   | 3rd                                   | 2.4 Protocols-MQTT, ZigBee,, Bluetooth, CoAP, UDP, TCP.                                    |
|         |   | 4th                                   | 2.3.IoT Application Development  |
| 5       | 4th week 27th jan To 31th jan               | 1st                                   | 3.1 Solution framework for IoT applications-   |
|         |   | 2nd                                   | 3.2 Implementation of Device integration,  |
|         |   | 3rd                                   | 3.3 Data acquisition and integration,  |
|         |   | 4th                                   | 3.4 Device data storage- Unstructured data storage on cloud/local server,                  |
| 6       | 1st week 2nd feb To 07th feb                | 1st                                   | Authentication, authorization of devices.  |
|         |   | 3rd                                   | 4.Smart Technology   |
|         |   | 3rd                                   | Smart Technology   |
|         |   | 4th                                   | 4.1 Understanding the IoT Big Picture  |
| 7       | 2nd week 9th feb To 13th feb                | 4th                                   | 4.2 Building the Internet of Things  |
|         |   | 1st                                   | 4.3 Understanding Smart Devices,Building Blocks  |
|         |   | 2nd                                   | 4.4 Understanding Network Connections  |
|         |   | 3rd                                   | 4.5 Understanding IP Adresses  |
| 8       | 3rd week 16th feb To 21th feb               | 4th                                   | 4.6 Understanding cellular Network & Mesh Network  |
|         |   | 1st                                   | Smart TVs: Viewing in a Connected World  |
|         |   | 2nd                                   | 5.1 What is Smart TV & its use   |
|         |   | 3rd                                   | 5.1 What is Smart TV & its use   |
|         |   | 4th                                   | 5.1 What is Smart TV & its use   |
|         |   | 1st                                   | 5.2 What is inside Smart TV  |
|         |   | 2nd                                   | 5.2 What is inside Smart TV  |

|    |                                   |     |   |
|----|-----------------------------------|-----|---|
| 9  | 4th week 23th feb To 27th feb     | 3rd | 5.2 What is inside Smart TV                     |
|    |                                   | 4th | 5.2 What is inside Smart TV                     |
|    |                                   | 1st | 5.3 What a Smart TV does                        |
|    |                                   | 2nd | 5.3 What a Smart TV does                        |
| 10 | 1st week 2nd march To 07th march  | 3rd | 5.3 What a Smart TV does                        |
|    |                                   | 4th | 5.4 Smart TV Operating Systems                  |
|    |                                   | 1st | 5.5 What is Smart TV Set-Top Devices            |
|    |                                   | 2nd | 5.5 What is Smart TV Set-Top Devices            |
| 11 | 2nd week 9th march To 13th march  | 3rd | 5.6 Intergrating Smart TV in to IOT             |
|    |                                   | 4th | 5.6 Intergrating Smart TV in to IOT             |
|    |                                   | 1st | 5.6 Intergrating Smart TV in to IOT             |
|    |                                   | 2nd | 6. IoT Case Studies                             |
| 12 | 3rd week 16th march To 20th march | 3rd | 6.1 IoT case studies (any one)                  |
|    |                                   | 4th | 6.1 IoT case studies (any one)                  |
|    |                                   | 1st | 6.1 IoT case studies (any one)                  |
|    |                                   | 2nd | 6.1 IoT case studies (any one)<br>a. Smart Home |
| 13 | 4th week 23th march To 31th march | 3rd | a. Smart Home                                   |
|    |                                   | 4th | a. Smart Home                                   |
|    |                                   | 1st | a. Smart Home                                   |
|    |                                   | 2nd | b. Smart car                                    |
| 14 | 1st week 02th april To 10th april | 3rd | c. Smart Cities                                 |
|    |                                   | 3rd | c. Smart Cities                                 |
|    |                                   | 4th | c. Smart Cities                                 |
|    |                                   | 1st | d. Smart Drones                                 |
| 15 | 2nd week 13th april To 18th april | 2nd | d. Smart Drones                                 |
|    |                                   | 3rd | d. Smart Drones                                 |
|    |                                   | 3rd | 6.2 Industrial automation,                      |
|    |                                   | 4th | 6.2 Industrial automation,                      |

Feb 22, 2025  
Signature of the Teacher

22/12/2024