Course: Design for internet of things

Course Code: noc21-ee85

Session: 2020-21

Duration: 8 Week

Assessment procedures: Weekly Assignment (25%) + proctored certification Exam (75%)

Curriculum of the Course:

Week-1: Introduction to IoT – Definition, Applications, Challenges – Unique ID, Power, Security, Location
Week-2: Addressing the Power challenge – RFID, Energy harvesting, Battery based systems, Power management systems
Week-3: System design for low power – LDO, DC-DC converters, low power software

Week-4: Sensors and actuators – Temperature sensor, Air quality, Solenoid valves

Week-5: Power management algorithms

Week-6: IoT protocols – MQTT, COAP, and Websockets with associated applications
Week-7: Low power wireless technologies – BLE, IEEE 802.15.4e, Wi-Fi

Week-8: Low Power Wide area technologies – NBIoT, CAT – LTE-M1, , LORA

List of students enrolled

1	Aadarsh Singh		12	Rahul Kumar Balai
2	Ananya Tiwari		13	Ritik Khandelwal
3	Ankit Yadav		14	Ruchi Kumari
4	Ashwani Malav		15	Aman Saini
5	Avadhesh Chasta		16	Sangeeta Sharma
6	Shubham Jain		17	Shubhi Samaria
7	Jatin Dhyawana		18	Chatrapal Singh Shaktawat
8	Kashish Sharma		19	Suraj Sharma
9	Mahima Sharma		20	Antima
10	Naman Joshi		21	Poorvaja Verma
11	Dr. Pankaj Dadheech		22	Yash Gupta