

CAPSTONE PROJECTS

Advanced Certification in Embedded Systems and IoT

By E&ICT Academy, IIT Guwahati

ABOUT THE

IIT GUWAHATI



Indian Institute of Technology Guwahati, the sixth member of the IIT fraternity, was established in 1994. The academic programme of IIT Guwahati commenced in 1995. At present the Institute has eleven departments and three inter-disciplinary academic centres covering all the major engineering, science and humanities disciplines, offering BTech, BDes, MA, MDes, MTech, MSc and PhD programmes. Within a short period of time, IIT Guwahati has been able to build up world class infrastructure and a reputation for itself.

ABOUT

E&ICT ACADEMY, IIT GUWAHATI



Electronics and ICT Academy aims to provide specialized training to the faculties of Engineering, Arts, Commerce, Science colleges and Polytechnics institutes by developing short term training programmes on fundamental and advanced topics in IT, Electronics & Communication, Product Design, Manufacturing. In addition, the Academy conducts specialized customized training programmes and research promotion workshops for corporate sector & educational institutions.



CAPSTONE & LIVE SESSION PROJECTS

The projects and assignments will help you accumulate real-world experience in different industries.



Automotive Industry



Education Industry



Banking Sector



Entertainment Industry



Healthcare Industry



Manufacturing Segment



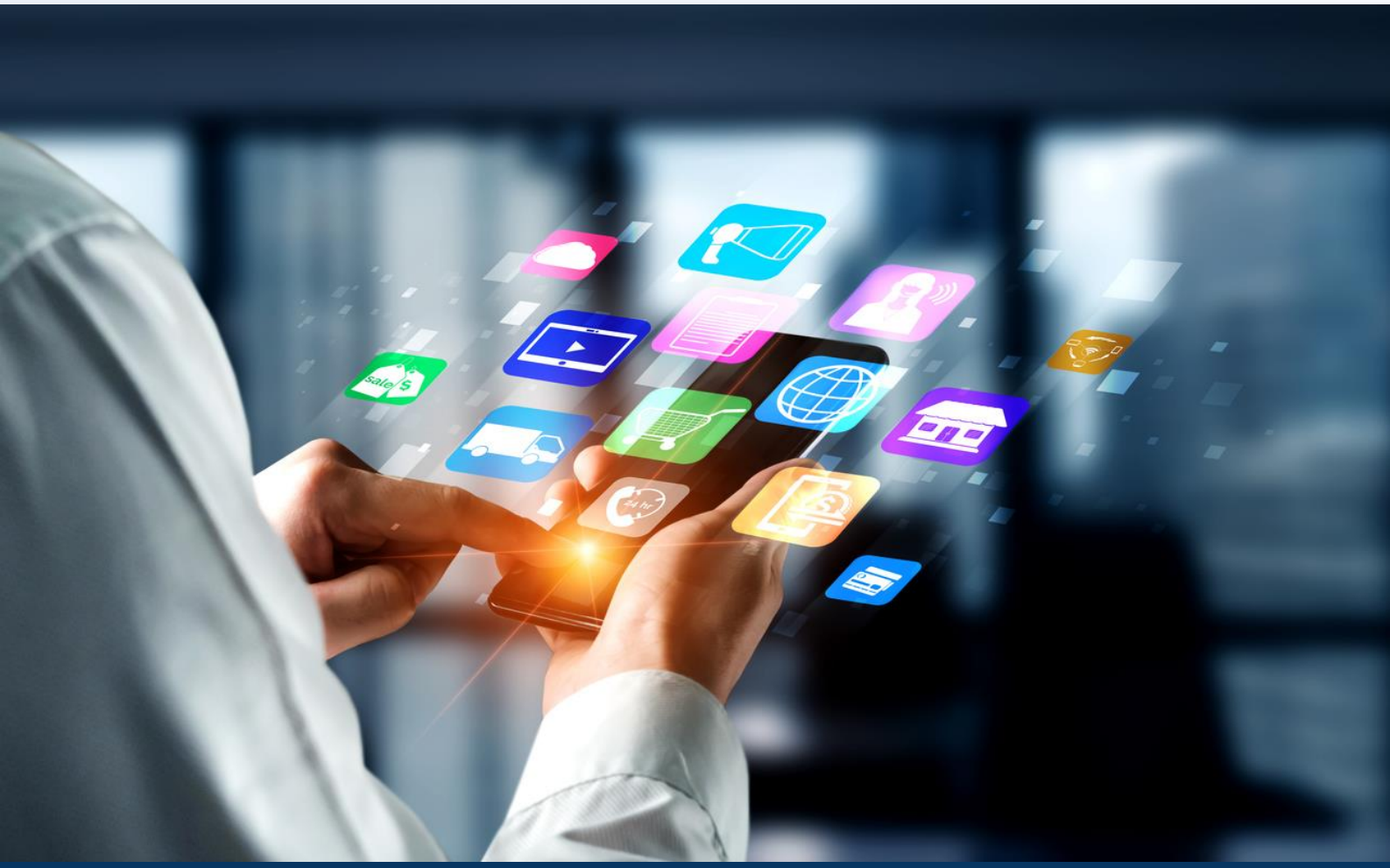
Retail Industry



Production industry



Finance Sector



CAPSTONE PROJECTS

Industry projects will be a part of your Certification Program in **Embedded and IoT System** to consolidate your learning. Industry projects will ensure you have the real-world experience to start your career in ML-IOT.

- 10+ Essential Tools
- Designed by Industry Experts
- Get Real-world Experience

Home Automation

Use of home automation for smart devices taking action on their own

Tools you will be using:

Bluetooth,wifi,Arduino,raspberrypi,alexa,NLP,AWS,Azure,IBMbluemix,Node Red



Smart Healthcare

Use of technology to device-to-data centric solutions in healthcare

Tools you will be using:

ARM,ARDUINO,Bluetooth,Sensors,wifi,Node Red



Smart Farming

Monitoring crop field through sensors and automation

Tools you will be using:

LoraWan,ARM,Soil sensor,Moisture sensor,Cellular IOT,Temperature and humidity sensor

Smart Logistics

Increase in the real-time decision-making process in supply chain management

Tools you will be using: Nbiot,GPS,gas sensor,vibration sensor,ARM,Arduino



Smart Grids

Use of smart grids for energy efficiency on a real-time basis.

Tools you will be using:
DLMS,LORAWan,Bluetooth,4g,
Arm,nodemcu,google
cloud,aws

Wireless Metering

Smart metering to provide better connectivity and wireless solutions

Tools you will be using:
LORAWAN,NBIOT,DLMS,rs232,rs485,
Arduino,arm,AWS,ibm bluemix,nodered



Smart Street light

Smart Street light for automatic light sensing via controller system

Tools you will be using:
LORAWAN,XBEE,ARM,
NODERED

Predictive Maintenance

To monitor, optimize & maintenance of assets on a real-time basis

Tools you will be using:

Accelerometer,arm,nodemcu,Edge impulse,Neural network,IBM Watson,wifi



Condition Monitoring

Help in reducing damage and maintenance costs with IoT solutions

Tools you will be using: Current sensing,wifi,ble,xbee,lorawan,nodered,aws



Smart Building Automation

Simplifying tasks such as control building, security, temperature, etc via devices.

Tools you will be using:

Bacnet,Modbus,Ethernet,arm,nodemcu,nodered,ibm bluemix



Environment Monitoring

Remote environment monitoring connected virtually via different devices

Tools you will be using:PM2.5 sensor,air quality sensor,ARM,ble mesh,lorawan,nbiot,

Waste management

Reduces fuel consumption while dumping waste in the city

Tools you will be using: wifi, nbiot, ph sensor, moisture sensor, gas sensor.



Connected SupplyChain

Easier to track where goods are stored

Tools you will be using:
temperature and humidity sensor, accelerometer, lte, nbiot, gps, gas sensor, pressure sensor

Industry 4.0

Automation such as split decisions based on real time data.

Tools you will be using:
ETHERNET, Modbus, wifi, ble, arm, node, emcu, rs485, aws, nodered.



CONTACT DETAILS



Program Information:

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