J.S. University, Shikohabad

Established by UP Govt. Act No. 07 of 2015
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Value Added Course

[VAC-124]
Technical Entrepreneurship Program in Industrial IOT

Faculty of Engineering
Department of Electrical and Electronics Engineering

	J.S. University, Shikohabad Faculty of Engineering	Value Added Course
		AY: 2022-23

Technical Entrepreneurship Program in Industrial IOT

[VAC-124]

Learning Outcome:

This courses will add entrepreneurship skill set in the students also provide Hands on training in practical IOT devices

Duration: 50 Hours. (Theory and Practical)

Course Outcomes: -

Maximum Exposure has to be given on Practical Oriented

After completion of the course the student shall be able to:-

1. Introduction to IOT: Introduction to Various Industrial Sensors, IEEE 801.2 a/b/c/n Protocols
2. Connecting various sensors to sensor hub using NS 2.5
3. Deploy a small sensor network for home automation in NS 2.5
4. Simulate the packet transfer between deployed sensors
5. Adjust and validate deployed sensor network on real word parameters
6. Opportunities for young professional in industrial IOT deployment business.

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Syllabus Outline

1. **Module-1**

   Introduction: Sensing & actuation, Communication-Part I, Part II, Networking-Part I, Part II Industry 4.0: Globalization and Emerging Issues,

2. **Module-2**

   Industrial IoT- Layers: IIoT Communication-Part II, Part III, IIoT Networking-Part I, Part II, Part III. Industrial IoT: Big Data Analytics and Software Defined Networks: IIoT Analytics - Introduction,

3. **Module-3**

   Industrial IoT: Big Data Analytics and Software Defined Networks: SDN in IIoT-Part I, Part II, Data Center Networks, Industrial IoT: Security and Fog Computing: Cloud Computing in IIoT-Part I, Part II.

4. **Module-4**

   Industrial IoT- Application Domains: Healthcare, Power Plants, Inventory Management & Quality Control, Plant Safety and Security (Including AR and VR safety applications), Facility Management.

5. **Module-5**

   Industrial IoT- Application Domains: Oil, chemical and pharmaceutical industry, Applications of UAVs in Industries, Real case studies :

(Name of Faculty)	(Name of Faculty)	(Name of Faculty)
Course Coordinator	Dean Academics	Director/Principle/Dean of Faculty/Department
Dr. Divyanshu Gupta	Dr. Akhilesh	Dr. Adnan Qamar