



**Course Title:**Internet of Everything

**Course Credit:**

L	T	P/S	SW/F W	TOTAL CREDIT UNITS
3	1		-	4

**Course Level:** PGDip/PG

**Course Code:**

**Course Objectives:**

The **Introduction to the Internet of Everything (IoE)** course provides an overview of the concepts and challenges of the IoE economy. The course discusses the Internet and its evolution to the interconnection of people, processes, data, and things that forms the Internet of Everything.

- Learn how the IoE turns information into action, creating unprecedented economic opportunity.
- Understand how the IoE brings together operational technology and information technology systems.
- Discover how business processes for evaluating and solving problems are being transformed.
- Learn the security concerns that must be considered when implementing IoE solutions.
- Practice what you learn using Cisco Packet Tracer, a network configuration simulation tool.
- Connect to the global Cisco Networking Academy community.

**Pre-requisites:** Fundamental of Computer Science

**CourseContents/Syllabus:**

	<b>Weightage(%)</b>
<b>Module I: What Is the IoE</b>	
Internet and its evolution to the Internet of Everything. IoE benefits to individuals and organizations Concept of a network foundation connecting billions of things and trillions of gigabytes of data to enhance decision-making processes and interactions.	15%
<b>Module II:Pillars of the IoE</b>	
Interconnection of people, process, data, and things that forms the Internet of Everything.	15%
<b>Module III:Connecting the Unconnected</b>	
IoT application in the home and industry ,Protocol suite and its necessity for communication across a network,IoE and its affects to the evolution of data storage and access , Example of a Home IoE implementation environment.	20%
<b>Module IV:Transitioning to the IoE</b>	
Internet of Everything (IoE) drivers for the convergence between an organization’s operational technology (OT) and information technology (IT) systems , M2M, M2P, and P2P interactions in an IoE , Business processes for evaluating a problem that can be solved with IoE, Necessary architectural structure to implement an IoE solution,Security concerns that must be considered when implementing IoE solutions.	25%
<b>Module V:Bringing It All Together</b>	
“what if” scenarios that can help a business understand the benefits and impediments to implementing a new solution ,Physical topology and logical topology of an IoE Healthcare solution model , M2M, M2P and P2P interactions of an IoE Healthcare solution model ,Concept of prototyping and why this is critical in the nascent IoE market.	25%

## Student Learning Outcomes:

This program will provide the skill sets needed to handle and troubleshoot the day-to-day computer hardware and operating system problems of various natures. After completion of this course, students will be able to:

- Describe the Evolution of IOE and its benefits
- Explain the process of interconnection of people, process and data.
- Implementation of IOE and connection of IOE
- Describe the process of transition to the IOE
- Demonstration of different types of IOE Model.
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**Pedagogy for Course Delivery:** This course will be taught on the basis of class room teaching in form of lectures, tutorials, questionnaire sessions and group discussions and covering different modules of the course. Packet Tracer provides simulation, visualization, authoring, assessment, and collaboration capabilities and facilitates the teaching and learning of complex technology concepts.

## Assessment/ Examination Scheme:

<b>Theory L/T(%)</b>	<b>Total</b>
<b>100</b>	<b>100</b>

## Theory Assessment(L&T):

Components (Dropdown)	Continuous Assessment/Internal Assessment					End Term Examination
	Attendance	Class Test	Case Study/Project	Assignment / Self Work	Viva-Voce	
Weightage(%)	5	10	5	5	5	70

## Text Book:

- Adrian McEwen and Hakim Cassimally, "Internet of Things", Wiley, 2013
- Arshdeep Bhaga " Internet of Things, A hands on approach" VPT, first edition, 2014
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## Web Reference/Article/Journal:

- [https:// cisco.netacad.net](https://cisco.netacad.net)
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