



**SAINTGITS COLLEGE OF APPLIED SCIENCES**

**VALUE ADDED COURSES 2020—21**

# INTERNET OF THINGS

**PRINCIPAL**  
Saintgits College of Applied Sciences  
Kottukulam Hills, Pathamuttom P. O.,  
Kottayam-686 532, Kerala



## ABOUT THE COURSE

An Introduction to Internet and things enables the participants to understand the basic IoT architecture It also includes the protocols and applications of IoT

## OBJECTIVES

- The learner will understand key terms and concepts in IoT
- Understand the protocols and working
- Understand the applications and challenges of IoT



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THE COURSE IS TO  
EQUIP THE  
STUDENTS WITH  
LATEST  
TECHNOLOGY  
TRENDS IN  
INTERNET OF THINGS

## EXPECTED OUTCOMES

Students will be able to define the various concepts of IoT, architecture and working, and to list different technologies and protocols in IoT

## DURATION

30 Hrs.

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## FEATURES

We provide practical sessions for this course

## RELEVANCE

This course is designed to equip the students with the IoT concepts.

## ADVANTAGES

Internet of Things is a technology where physical devices are interconnected to each other and are given a set of commands to be executed. Students by enrolling in this course will be able to know the architecture of IoT.

## CONTENTS

### Module-1: IoT Introduction –

Definition, Features, Advantages, Disadvantages, standard devices, Sensors- Different types, various forms of sensor data, Introduction to Big Data and cloud Computing.

### Module-2: IoT Architecture and working –

IOT hardware – sensors, wearable electronics and standard devices. Software – data collection, integration, real time analysis

### Module-3: IoT Technology and Protocols –

RFID, NFC, low-energy Bluetooth, low-energy wireless, low-energy radio protocols, LTE-A, and Wi-Fi-Direct.

### Module-4: IoT Applications, Challenges and Security Issues –

Government, Healthcare, Industry, Environmental Monitoring, Transportation, Smart Home, Smart Grid.

Security Issues- Privacy, Authentication, Hardware, Software.



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# SAINTGITS COLLEGE OF APPLIED SCIENCES PATHAMUTTOM, KOTTAYAM

## Internet of Things

**Course Code:VCIOT013**

**Course objective:** The learner will understand key terms and concepts in IoT, IoT sensors and its applications.

**Module-1:** IoT Introduction –

Definition, Features, Advantages, Disadvantages, standard devices, Sensors- Different types, various forms of sensor data, Introduction to Big Data and cloud Computing.

**Module-2:** IoT Architecture and working -

IoT hardware – sensors, wearable electronics and standard devices. Software – data collection, integration, real time analysis

**Module-3:** IoT Technology and Protocols –

RFID, NFC, low-energy Bluetooth, low-energy wireless, low-energy radio protocols, LTE-A, and Wi-Fi-Direct.

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**References:**

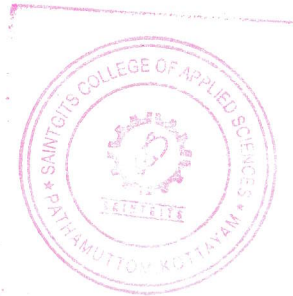
1. Title - Designing the Internet of Things  
Author - Adrian McEwen & Hakim Cassimally  
Publishers - John Wiley and Sons Ltd
2. Title - INTERNET OF THINGS, A Hands-On Approach  
Author - Arshdeep Bahga and Vijay Madisetti  
Publisher - Arshdeep Bahga and Vijay Madisetti

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Roll No	Name of Student	Month	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
		Date	6	6	8	9	13	13	15	15	15	16	17	18	19	20	20	22	23	24	25	26	27	27	27	30	31	31	31	31	31	31	31	31	31	31	31	31
		Hour	1	2	3	4	1	2	3	6	4	6	6	6	6	1	2	6	6	6	6	6	1	2	6	6	5	6	1	2	1	2	1	2	1	2	1	2
31	JOEL SALVIN	X	X	X	A	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
32	KEVIN CHACKO	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
33	LAKSHMI CHANDANA	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
34	LAKSHMI PRASAD	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
35	LIYA K MATHEW	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
36	LIYO LUKO SAM	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
37	LYDIA SOLOMON	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
38	MEERA SALIM	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
39	MITHUN M	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
40	NIVYA NIDHIKUMAR	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
41	PARVATHY TU	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
42	RAHUL RAJ M.A	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
43	RAHUL SURESH	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
44	RAKHI KRISHNAN	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
45	ROBIN ROY	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
46	ROHAN JACOB GEORGE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
47	ROOBEN CHANDY JACOB	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
48	SANJU ABRAHAM VARUGHESE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
49	SAVANATH SAJI	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
50	SEBASTIAN JOSE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
51	SHARON JAMES	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
52	SHERIN P MATHEW	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
53	SHERIN S JACOB	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
54	SHON J. MATHEW	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
55	SINI THOMAS	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
56	SNEHA ANNA THOMASKUTTY	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
57	SNEHA SARA SANTHOSH	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
58	SREELAKSHMI S	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
59	SWETHAMOL V S	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
60	TIJO GEORGE THOMAS	X	A	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
61	VIGNESH G	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
62	ZIYAD NAZEER	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X



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