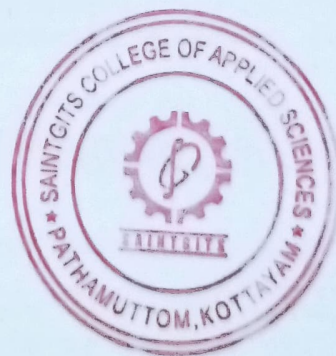# SAINTGITS COLLEGE OF APPLIED SCIENCES

VALUE ADDED COURSES 2020—21

INTERNET OF THINGS

LEARN . GROW . EXCEL

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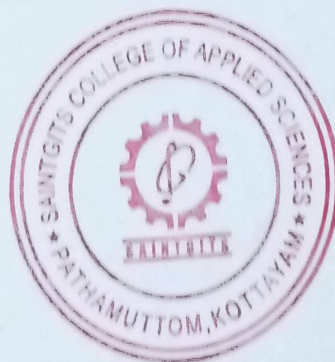
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THE COURSE IS TO EQUP THE STUDENTS WITH LATEST TECHNOLOGY TRENDS IN INTERNET OF THINGS

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.

LEARN   GROVV. EXCEL

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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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 -

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

Security Issues- Privacy, Authentication, Hardware, Software.

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

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	4	4	4	4
		Date	6	6	8	9	13	13	15	15	16	16	17	18	19	20	20	22	23	24	25	26	27	27	27	30	31	3)	3	3	10	10
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1	ABHILASH MATHEW		x	x	x	x	x	x	x	x	a	x	x	x	x	x	x	x	x	x	a	x	x	x	x	x	x	x	x			
2	ADITHYAN 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			
3	AJAI JOSE JACOB		x	a	x	x	x	x	x	x	x	x	x	x	x	x	x	a	x	x	x	x	x	x	a	x	x	x	x			
4	AKSHARA RAJ		x	x	x	x	a	x	x	x	x	a	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	a	a		
5	ALAN 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			
6	ALEENA 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			
7	ALVIYA BABU K		x	x	x	x	a	x	x	x	x	a	x	x	x	a	x	x	x	x	a	x	x	x	x	x	x	x	x			
8	AMBADY SATHYAN		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
9	ANJANA 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			
10	ANSA KURIAKOSE		x	x	a	x	x	x	x	x	x	x	x	a	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x			
11	ANSU SUSAN BIJU		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x			
12	ANSUMOL MATHEW		x	x	x	a	x	x	x	x	x	a	x	x	x	x	x	a	x	a	x	x	x	x	x	x	x	x	x			
13	AROMAL P SHAJI		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x			
14	AROMAL SEN		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	a	a	
15	ARYA S		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	a	x	x	x	x			
16	ASHWIN PHILIP OOMMEN		x	x	x	a	x	x	x	x	x	x	x	x	x	x	a	x	x	x	x	x	x	x	x	x	x	x	x			
17	ASWIN A JACOB		x	x	x	x	x	x	x	x	x	x	x	x	x	a	x	x	x	x	x	x	x	x	x	x	x	x	x			
18	ASWIN BABU		x	x	x	x	x	x	a	x	x	x	a	x	x	x	x	x	x	x	x	x	x	x	x	x	x					
19	BIBIN JOHN 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	a	x			
20	CHRIS SOSA JACOB		x	x	a	x	x	x	x	x	a	x	x	x	x	x	x	x	x	x	x	x	a	x	x	x	x	x	x			
21	CHRISTY BABY THOMAS		x	x	x	x	x	x	x	x	x	x	x	x	a	x	x	x	x	x	x	x	x	x	x	x	x	x	x			
22	DONAL BABU		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	a	a	
23	FLAVYA SHAIBY		x	x	x	x	a	x	x	x	x	x	x	x	x	x	x	x	x	a	x	x	x	x	x	x	x	x	x			
24	GAUTHAM KRISHNA 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					
25	GOUTHAM RAJ		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	a					
26	GREVIN SAM 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					
27	JACINTA JOJI ANCHANATTU		a	x	x	x	x	x	x	x	x	a	x	x	x	x	x	x	x	x	x	x	x	x	x	a	x					
28	JIJO VARGHESE		x	x	x	x	x	x	x	x	x	x	x	x	a	x	x	x	x	x	x	x	x									
29	JISHNU P. S		x	x	x	x	x	x	x	a	x	x	x	x	a	x	x	x	x	x	x	x	x	x	a	x	x					
30	JITHIN SEBASTIAN		x	x	x	x	x	x	x	x	x	x	x	x	x	a	x	x	x	x	x	x	x	a	x	x						

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	4	4	4	4
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		Hour 1	2	3	4	1	2	3	6	4	6	6	6	1	2	6	6	6	1	2	6	5	6	1	2
31	JOEL SALVIN	x	x	x	a	x	x	x	x	x	a	x	x	x	x	x	x	x	a	x	x	x	x	x	x	x	x	x	a
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
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
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
35	LIYA K MATHEW	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
36	LIYO LUKO SAM	x	x	x	x	x	a	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	a	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
38	MEERA SALIM	x	x	x	x	x	x	x	x	x	x	x	a	x	x	x	x	x	x	a	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
40	NIVYA NIDHIKUMAR	x	x	x	a	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
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	a
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
44	RAKHI KRISHNAN	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
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
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
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
48	SANJU ABRAHAM VARUGHESE	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	a	x	x	x
49	SAVANTH 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
50	SEBASTIAN JOSE	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
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
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
53	SHERIN S JACOB	x	x	a	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	a	x	x	x
54	SHON J. MATHEW	x	x	x	x	x	x	x	x	x	x	x	x	a	x	x	x	x	x	x	x	x	x	x	x
55	SINI THOMAS	x	x	x	a	x	x	x	x	x	x	x	x	x	x	x	x	x	a	x	x	x	x	x	a
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
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
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
59	SWETHAMOL V S	x	x	x	x	x	x	x	x	a	x	x	x	x	x	x	x	x	x	x	x	x	x	x	a
60	TIJO GEORGE THOMAS	x	a	x	x	x	x	x	x	x	x	x	a	x	x	x	x	x	x	x	a	x	x	x
61	VIGNESH G	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	a	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	a