



### rajiv gandhi college of engineering and technology

(Approved by AICTE and Affiliated to Pondicherry University)

(Accredited with 'A' Grade by NAAC)

(Sponsored by Sri Balaji Educational and Charitable Public Trust)

Pondy - Cuddalore Main Road, Kirumampakkam, Puducherry - 607 403.

19.08.2019

From

Mrs.M.Manjula

Department of Information Technology

Rajiv Gandhi College of Engineering and Technology

Kirumampakkam, Puducherry - 607 403.

To

The Principal

Rajiv Gandhi College of Engineering and Technology

Kirumampakkam, Puducherry - 607 403.

Through

The Head of the Department

Department of IT

Rajiv Gandhi College of Engineering and Technology

Kirumampakkam, Puducherry - 607 403.

Respected Sir,

Subject: Requesting permission to conduct Seminar

I hereby request permission to organize a seminar on "Internet of Things (IoT)" for II,III and IV Year students on 28.08.2019. This seminar will greatly benefit our student to understanding of emerging technologies. Kindly do the needful.

Thanking you,

forwarded to the Principal!
R. Ken L

Head of the Department
Department of Information Technology
Rajiv Gandhi College of Engineering and Technology
Pondy-Cuddalore Main Road, Kirumampakkam, Puducherry-607 403.

Yours sincerely,

Coordinator

Dr. E. VIJAYAKRISHNA RAPAKA B.Tech. (Mech.), M.Tech. (Energy), Ph.D. (IIT Madras) M.I.S.T.E., F.I.I.P.E., M.C.S.I M.C.I.I.,

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### DEPARTMENT OF INFORMATION TECHNOLOGY

No: RGCET/IT/Circular/2019-20/SEM O1

20.08.2019

### CIRCULAR

This is to inform you that a seminar entitled "Internet of Things (IoT)" focusing on "Awareness of Trends in Technology" is planned on 28.08.2019. This seminar is offering to II, III and IV-Year students of our department. Students are encouraged to utilize this opportunity to enhance their technical knowledge.

Head of the Department Department of Information Technology Raliv Gandhi College of Engineering and Technology Pondy-Cuddalore Main Road, Kirumampakkam, Puducherry-607 403:

#### Copy to:

- 1. Circulate to all IT students
- 2. File

To circulate:

I year - Agila. D

III year - Kamali. S

IV year - Kaya. V

YAKRISHNA RAPAKA

Dr. E. VIJA B.Tech. (Mech.), M.Tech.(Energy), Ph.D. (IIT Madras) M.I.S.T.E., F.I.I.P.E., M.C.S.I M.C.I.I.,

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RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF INFORMATION TECHNOLOGY

ORGANIZES

AWARENESS OF TRENDS IN TECHNOLOGY ON

# **INTERNET OF THINGS (IoT))**

DATE 28-08-2019 TIME 11:00 AM TO 1.00 PM

RESOURCE PERSON

MR.ARAVINDH,ROADMAP

DR E.VIJAYAKRISHNA RAPAKA
PRINCIPAL
RGCET

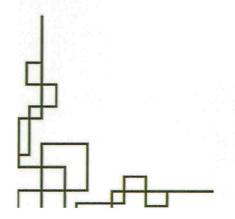
DR.K.AYYAPPAN
VICE PRINCIPAL
RGCET

MR.R VINOTH KUMAR HOD/IT RGCET

CO-ORDINATOR MRS.M.MANJULA

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# DEPARTMENT OF INFORMATION TECHNOLOGY SYLLABUS

Course Name	Internet of Things (IoT)
Resource Person (s)	Mr. ARAVINDH,ROADMAP
Date & Duration	28.08.2019 (11.00AM-1.00PM)
Course Offered to	II/III/IV YEAR

#### Session outline:

The Internet of Things (IoT) is a rapidly evolving technology that connects physical devices to the internet, enabling data collection, exchange, and automation. Applications include smart homes, industrial automation, and healthcare. By integrating sensors, communication technologies, and data analytics, IoT systems enhance insights, automation, and control across various domains, driving innovation and creating new opportunities.

#### FORENOON SESSION:

### Introduction to Internet of Things

- Definition and scope of IoT
- Key components: Sensors, actuators, communication modules
- Overview of real-world applications and impact

#### Core Concepts and Foundations

- Sensors, actuators, data acquisition, and communication
- Basics of data analysis and signal processing
- Introduction to IoT system architecture: Device, network, application layers

#### Programming and Tools for IoT

- Introduction to Python and C/C++ programming
- · Overview of essential libraries and frameworks: Arduino, Raspberry Pi, Node-RED
- Simple code examples and demonstrations

#### Hands-On Mini Project

- Building an IoT prototype: Example project (e.g., smart thermostat, remote sensor)
- Data collection, communication, and control
- Fine-tuning and optimization

#### Future Trends and Q&A

- Emerging trends in IoT: 5G, edge computing, AI integration
- Interactive Q&A session with open floor for questions

ol. wif I. Co-Ordinator

Dr. E. VIJAYAKRISHNA RAPAKA

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Head of the Department of Information Technology Rajiv Gandhi College of Engineering and Technology Pordy-Cuddalore Main Road, Kirumampakkam, Puduchery-807 483.



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### **DEPARTMENT OF INFORMATION TECHNOLOGY**

#### IOT Seminar Schedule

Time	Session	Topics Covered
	Introduction to Internet of	Definition and scope of IoT,Key components:  Sensors, actuators, communication
11:00-11:20 AM		,
	Things (IoT)	modules,Overview of real-world applications
		and impact
		Sensors, actuators, data acquisition, and
11:20-11:40 AM	Core Consents and Foundations	communication,Basics of data analysis and
11:20-11:40 AW	Core Concepts and Foundations	signal processing,Introduction to IoT system
	p.	architecture: Device, network, application layers
	Programming and Tools for IoT	Introduction to Python and C/C++ programming
11.40.12.00 DM		Overview of essential libraries and frameworks:
11:40-12:00 PM		Arduino, Raspberry Pi, Node-RED
		Simple code examples and demonstrations
		Building an IoT prototype: Example project
12.00 12.20 DM	Hands-On Mini Project	(e.g., smart thermostat, remote sensor),Data
12:00-12:30 PM		collection, communication, and control,Fine-
		tuning and optimization
12:30-1:00 PM		Emerging trends in IoT: 5G, edge computing, AI
	Future Trends and Q&A	integration,Interactive Q&A session with open
		floor for questions

el. wif L. Co-Ordinator

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Head-of the Department

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### DEPARTMENT OF INFORMATION TECHNOLOGY

### SEMINAR REPORT FOR INTERNET OF THINGS

On 28.08.2019, a seminar on the "Internet of Things (IoT)" was conducted from 11:00 AM to 1:00 PM. The seminar aimed to introduce students to IoT technology, its applications, and future trends. The session was designed to enhance students' technical knowledge and practical skills through interactive lectures and a hands-on mini project.

The seminar started with an introduction to the Internet of Things (IoT), explaining its definition and scope. Students learned about the key components of IoT systems, including sensors, actuators, and communication modules. The discussion highlighted the real-world applications and the significant impact IoT has on various sectors, such as smart homes, industrial automation, and healthcare.

Next, the seminar covered the core concepts and foundations of IoT. This included detailed explanations of sensors, actuators, data acquisition, and communication processes.

The programming segment focused on teaching the basics of Python and C/C++ programming for IoT applications. Essential libraries and frameworks, such as Arduino, Raspberry Pi, and Node-RED, were discussed.

A hands-on mini project formed a crucial part of the seminar, allowing participants to build an IoT prototype, such as a smart thermostat or a remote sensor.

The seminar provided valuable insights into the rapidly evolving field of IoT. Students gained a comprehensive understanding of IoT technology, its applications, and future trends. The hands-on project enabled them to apply their knowledge practically. The interactive Q&A session facilitated further learning and clarification of doubts. The seminar was well-received, and students expressed interest in pursuing IoT technology further.

Co-Ordinator

Dr. E. VIJAYAKKISHNA RAFAMA B.Tech. (Mech.), M.Tech.(Energy), Ph.D. (IIT Madras) M.I.S.T.E., F.I.I.P.E., M.C.S.I M.C.I.I.,

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Head of the Department

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### PHOTOGRAPHS FOR SEMINAR IN INTERNET OF THINGS (IOT)





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### LIST OF ENROLLED STUDENTS

Name of the Program

: Internet of Things (IoT)

Date of the Program : 28.08.2019

ne Program : 28.08.2019			
S.no	Reg.no	Name of the Student	Year
1	18TC0311	HEMALATHA.A	II
2	18TD0324	KARAN KRISHNA KANTH K.G	II
3	18TH0301	ABDUL NASAR AH	II
4	18TH0302	AGILA D	II
5	18TH0303	ARAVIND M	II
6	18TH0304	ARSHA V	II
7	18TH0305	BHARATH KUMAR K	II
8	18TH0306	FARHAANAH F	II
9	18TH0308	JAYAPRAKASH S	II
10	18TH0309	JEEVITHA M	II
11	18TH0310	JOSEPHRAJ A	II
12	18TH0312	KALIVELA KARL AMARTHYA	II
13	18TH0313	KARTHIK SELVAN S	II
14	18TH0314	KARTHIKEYAN M	II
15	18TH0315	KAVIPRIYA A	II
16	18TH0316	MOHAMED THOFITH C	II
17	18TH0317	MUHAMAD SAJITH M	II
18	18TH0319	PRAVEEN RAJA K	II
19	18TH0320	PRAVEENA M	II
20	18TH0321	PREETHI V	II
21	18TH0322	PRIYANGA K	II
22 -	18TH0323	- RAKSHANA R	II
23	18TH0325	SACHUTHA D	II
24	18TH0326	SANGEETHA G	II
25	18TH0327	SARUMATHI M	II
h.D. (IIT26adras)	18TH0328	SASIKUMAR R	II

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27	18TH0329	SAVITHA S	II
28	18TH0330	SIVAKALAI K	II
29	18TH0331	SOWNDARYA A	II
30	16TH0418	MARAN R	III
31	17TD0477	VENKATESHWARAN R	III
32	17 TH0254	JOSHUA JASMINE .N	III
33	17TH0401	AKASH S	III
34	17TH0402	ALEXANDER S	III
35	17TH0403	ARCHANA S	III
36	17TH0404	ARTHI KT	III
37	17TH0405	BALAJI R	III
38	17TH0406	BUDDHI PRASATH SHARMA P	III
39	17TH0407	DHIVYA DHARSHINI B	III
40	17TH0408	JEROLD A	III
41	17TH0409	KAMALI B	III
42	17TH0410	KAMALI S	III
43	17TH0411	KANMANI T	III
44	17TH0412	KARTHIK B	III
45	17TH0414	NANDHINI M	III
46	17TH0415	NATARAJAN A	III
47	17TH0416	NIRMALADEVI G	III
48	17TH0417	PRAVEEN P	III
49	17TH0418	PRAVEENA V	III
50	17TH0419	RAMYA H	III
51	17TH0420	RAVITHA V	III
52	17TH0423	SWETHA V	III
53	17TH0424	SYED JUNAIDH AHAMED A	III
54	17TH0425	TAMIL PONNI R	III
55	17TH0426	THIRUMARAN N	III
A RAGAR	17TH0427	VENKATRAMAN P	III

Br. E. VIJAVAKRISHTA RAGAHA B. Tech. (Mech.), M.Tech. (Energy), Ph.D. (IIT Madras) M.J.S.T.E., F.I.L.P.E., M.C.S.I.M.C.I.I., PRINCEPAL

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57	17TH0428	VIGNESH K	III
58	17TH0429	VIGNESHWARAN D	III
59	17TH0430	VISHNU V	III
60	17TH0431	VIVEK V	III
61	16TC0503	AKSHAYA M	IV
62	16TD0458	SADEESHKUMAR V	IV
63	16TH0321	SARAVANAN V	IV
64	16TH0401	ABARNA S	IV
65	16TH0402	ANANYAA V	IV
66	16TH0404	BALAKRISHNAN M	IV
67	16TH0405	BHARATHI S	IV
68	16TH0406	CATHERINE VIRASSE A	IV
69	16TH0408	GLORIA SHARMILA M	IV
70	16TH0409	HABIBA SAGRIN KM	IV
71	16TH0410	HARIGARAN S	IV
72	16TH0412	JAYASRI R	IV
73	16TH0413	KIRUTHIGA T	IV
74	16TH0414	KOWSALYA K	IV
75	16TH0415	KUPPUSAMY S	IV
76	16TH0416	LOBAMUTHRA S	IV
77	16TH0417	MAGESWARI N	IV
78	16TH0419	MUKTHAIR BASHA S	IV
79	16TH0420	NAWAB SHERIF K	IV
80	16TH0421	NIVETHA JAYAKUMARI G	IV
81	16TH0422	NIVETHITHA S	IV
82	16TH0423	PRAVEENKUMAR S	IV
83	16TH0424	PREETHA V	IV
84	16TH0425	PUSHPARAJ R	IV
85	16TH0426	RAJA V	IV
A RASGAKA	16TH0427	SAJITH MS	IV

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87	16TH0428	SHYMALASREE A	IV
88	16TH0429	SYED AFRIDHA SUHAINA M	IV
89	16TH0430	VISHVA MARK G	IV
90	16TH0431	YUGAPRIYANGA P	IV
91	16THL001	JEGAN D	IV

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Head of the Department

Head of the Department
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