


DEPARTMENT OF INFORMATION TECHNOLOGY

ASSOCIATION OF INFORMATION TECHNOLOGISTS

**One day workshop on "Basics of IOT
Application "
22.04.2021**

A REPORT

Submitted to Principal

21/04/21

K. Praveen
21/04/21

**SRI VENKATESWARA COLLEGE OF ENGINEERING
(AUTONOMOUS – AFFILIATED TO ANNA UNIVERSITY)**

DEPARTMENT OF INFORMATION TECHNOLOGY

ASSOCIATION OF INFORMATION TECHNOLOGISTS

**Report on
One day workshop on "Basics of IOT Application "
22.04.2021**

Chief Guest : Dr. N.Kumarathan, Professor ,ECE Department, SVCE

Target Audience : Technical Staffs Members SVCE

Venue : GoogleMeet(Online platform)

Date & Time : 22.04.2021, 9.30 AM

Objective:

- Provide introduction to Internet of Things (IoT)
- Exposure to various sub-fields and technology stacks of IoT
- Enable people to convert their IoT product idea into a working prototype
- Provide thorough working knowledge of the Raspberry Pi Platform
- Familiarize coding structures in Python Programming

On 22 April 2021, 9.30 am event started with a prayer song followed by welcome address by Dr V. Sumathi Professor/INT

The event had four sessions

**1st Session: Basics of IoT and its application in day-to-day life by Dr N. Kumarathan Professor/
ECE**

2nd Session: Latest Technology in IoT

3rd and 4th Session: Live demo on applications of IoT.



Topics Covered:

- Introduction to IoT, IoT Anatomy
- Introduction to Raspberry Pi
- Basics of C and Python Programming
- Sensor Interfacing
- Configuring Raspberry Pi for Web services and Wireless Application
- Controlling LED, DC Motor, light and fan from Webpage

Workshop Outcome:

- Learn the basics of Internet of Things and its applications.
- What “the Internet of Things” means and how it relates to Cloud computing concepts.
- How open platforms allow you to store your sensor data in the Cloud.
- The basic usage of the Arduino environment for creating your own embedded projects at low cost.
- How to connect your Arduino with your Android phone.
- How to send data to the Internet and talk to the Cloud.
- The participants will be able to develop IoT based applications using Raspberry Pi.

Resource Person

- Dr N.Kumaratharan Professor, ECE
- Ms.R.Saktheeswari AP/INT
- Mr V.Rajaram AP/INT
- Mr.K.Suresh AP/INT

No.of Staffs Participating in the Event: **65 (Technical Staffs)**



Event Coordinators

Ms.R.Saktheeswari AP/INT
Mr V.Rajaram AP/INT



HOD/IT



DEPARTMENT OF INFORMATION TECHNOLOGY

solicit your esteemed presence for the

One day workshop on

**“Basics of IoT & its
Applications”**

For Technical Supporting staff

Registration link: <https://forms.gle/W1tiKLf8uUeifTpy7>



AGENDA

Date: 22 April 2021

TIME : 09.30 AM onwards

VENUE : Online Mode (<https://meet.google.com/agz-bqcf-cyh>)

- Prayer Song
- Welcome address
- Short note by HOD/INT
- Introduction of IoT Basics by Dr N. Kumaratharan
- Online simulator training
- Queries and Feedback
- Vote of thanks

Coordinators

Dr. V. Vidhya HOD/INT

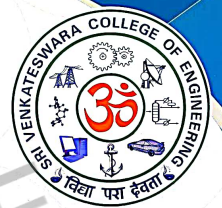
Ms. R.Saktheeswari AP/INT

Mr. K. Suresh AP/INT

Mr. V. Rajaram AP/INT

SVCE | Sri Venkateswara College of Engineering

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Department of Information Technology The Certificate of Participation

This is to certify that Mr./Ms. **S.Manigandan** of **Information technology** has participated in the One day workshop on "Basics of IOT Application" organized by the Department of Information Technology, Sri Venkateswara College of Engineering on 22.04.2021.

R. Sakthi *V. Rajaram*

Ms.R.Saktheeswari AP/INT
Mr V.Rajaram AP/INT
Mr.K.Suresh AP/INT
Program Organizer

Dr V. Vidhya

Dr V.Vidhya
HoD/INT
Convener

Dr.S Ganesh

Dr.S Ganesh Vaidyanathan
Principal



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nirf



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**SMART INDIA
HACKATHON
2020**

**Top
Performer**



**Recognized
Incubation Center**



**Certified
Organization**

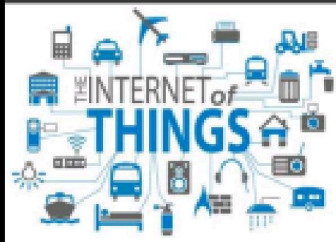


Accreditations

| Name | Department | How satisfied were you with the session? | How satisfied were you with the speaker? | Suggest some topics for the next session? | Any additional comments? |
|---------------------|----------------------------|--|--|---|--------------------------------------|
| G. Sangeetha | Information Technology | 5 | 5 | Security | |
| D VIVEKANANDAN | EEE | 5 | 5 | NO | VERY GOOD |
| Jayasree M | ECE | 5 | 4 | Satellite communication | No |
| Dr.M.Anandan | Marine Engineering | 5 | 5 | Web Designing | no |
| Meenakshi.P | IT | 5 | 5 | Tools related to IOT | Well explained the Basics |
| Mr.S.Premananth | EEE | 5 | 5 | good | |
| padmamala | civil | 5 | 5 | very nice | |
| FRANCIS INIGO RAJ L | INFORMATION TECHNOLOGY | 4 | 4 | Robotics | Nil |
| BALAKRISHNAN N | ELECTRICAL AND ELECTRONICS | 5 | 5 | GOOD | - |
| Ravichandran J | ECE | 5 | 4 | Good | No |
| J.Senthilkumar | cs | 5 | 4 | . | |
| N.Munivelan | Biotechnology | 5 | 5 | Microsoft office | Nil |
| CHIRANJEEVI B | civil | 4 | 4 | yes | thank u |
| BHUVANESWARI S | CIVIL ENGG | 5 | 5 | Internet Applications | well explained. Nice presentation |
| Amirtha Prabha N | BIOTECHNOLOGY | 4 | 4 | Importance of covid vaccines | This session was so good |
| J.Prakash | EEE | 5 | 5 | Good | |
| Kalaimani K | Information Technology | 5 | 5 | Next level Technology of IOT | Good |
| J baskaran | Mech | 4 | 3 | How will iot be? And cost | Good explanation.. Thank you |
| J baskaran | Mech | 4 | 3 | How will iot be? And cost | Good explanation.. Thank you |
| YOGESHWARI | Marine Engineering | 5 | 5 | Going very well | |
| E Kolakumar | Marine | 5 | 5 | Can we do simulation training | Very useful introduction and content |
| V.SEENU | MECHANICAL | 5 | 5 | 00 | VERY GOOD |
| K.GOKULAN | MECHANICAL | 5 | 5 | 00 | GOOD |

| Name | Department | How satisfied were you with the session? | How satisfied were you with the speaker? | Suggest some topics for the next session? | Any additional comments? |
|---------------------|------------------------|--|--|---|------------------------------|
| S Manigandan | Information technology | 5 | 5 | 1 good | |
| padmamala | civil | 5 | 4 | practical usage of IOT | |
| A.Gajalakshmi | chemical Engineering | 5 | 4 | Brief description for IOT | very good |
| J. Kanchana | Administrative Office | 5 | 5 | very much satisfied. continue the same | |
| Naveen Kumar V | Information technology | 5 | 5 | Raspberry pie | |
| J.BALAKRISHNAN | AUTOMOBILE | 5 | 5 | PLEASE EXPLAINED IOT USE | VERY GOOD |
| R RAMESH | Automobile | 4 | 4 | please explained IOT Usage | Very good |
| K.Srividhya | ECE | 5 | 5 | Communication | no |
| Rajkumar S | Cse | 5 | 5 | Nil | |
| Dr.M.Anandan | Marine Engineering | 5 | 5 | Web designing | no |
| J.Prakash | EEE | 5 | 5 | GOOD | |
| Jayasree M | ECE | 5 | 5 | Communication | No |
| D VIVEKANANDAN | EEE | 5 | 5 | Data Science and AI using IOT | very good |
| padmamala | civil engineering | 4 | 5 | brief description about data interpretation | |
| S Manigandan | Information Technology | 5 | 5 | good | 1 |
| Amirtha Prabha N | BIOTECHNOLOGY | 5 | 5 | How to find out if our phone is hacked | It was very greatful to know |
| Ravichandran J | ECE | 5 | 5 | Good | No |
| J Baskaran | Mech | 5 | 5 | Just send link about web design | No |
| Mr.S.Premananth | EEE | 5 | 5 | Good | |
| Kalaimani K | Information Technology | 5 | 5 | detailed IOT used products | good session |
| A.Gajalakshmi | Chemical Engineering | 5 | 5 | very useful | |
| FRANCIS INIGO RAJ L | INFORMATION TECHNOLOGY | 4 | 4 | A.I | Nil |
| SUNDARAVADIVELU E | TRANSPORT | 5 | 5 | A. I | Nil |
| J. Kanchana | Administrative Office | 5 | 5 | Nice Session | |





Internet of Things (IoT)

Plan of Presentation

- What is Internet of Things?
- How IoT Works?
- Current Status & Future Prospect of IoT
- Knowledge Management – From Data to Wisdom
- The Future of IoT
- The Potential of IoT
- Few Applications of IoT
- Technological Challenges of IoT
- Criticisms & Controversies of IoT
- References

What is IoT?

The Internet of Things (IoT) is the network of physical objects or "things" embedded with electronics, software, sensors, and network connectivity, which enables these objects to collect and exchange data.

IoT allows objects to be sensed and controlled remotely across existing network infrastructure, creating opportunities for more direct integration between the physical world and computer-based systems, and resulting in improved efficiency, accuracy and economic benefit.

"Things," in the IoT sense, can refer to a wide variety of devices such as heart monitoring implants, biochip transponders on farm animals, electric dams in coastal waters, automobiles with built-in sensors, DNA analysis devices for environmental/food/pathogen monitoring or field operation devices that assist fire-fighters in search and rescue operations.

These devices collect useful data with the help of various existing technologies and then autonomously flow the data between other devices.

History of IoT

The concept of the Internet of Things first became popular in 1999, through the Auto-ID Center at MIT and related market-analysis publications. R

Radio-frequency identification (RFID) was seen as a prerequisite for the IoT at that point. If all objects and people in daily life were equipped with identifiers, computers could manage and inventory them. Besides using RFID, the tagging of things may be achieved through such technologies as near field communication, barcodes, QR codes, bluetooth, and digital watermarking.

How IoT Works?

Internet of Things is not the result of a single novel technology; instead, several complementary technical developments provide capabilities that taken together help to bridge the gap between the virtual and physical world.

These capabilities include:

- *Communication and cooperation*
- *Addressability*
- *Identification*
- *Sensing*
- *Actuation*
- *Embedded information processing*
- *Localization*
- *User interfaces*