Event Category : Student Development Program
Event Name: " Internet of Things Applications"

Date: 06th to 7th March 2020.

National Education Society ®

Jawaharlal Nehru National College of Engineering, Shivamogga, Karnataka

(Approved by AICTE, New Delhi, Certified by UGC 2f & 12B, Accredited by NAAC –'B', Recognized by Govt. of Karnataka and Affiliated to VTU, Belagavi)

Internal Quality Assurance Cell

Technical Student Club - IOT

"Internet of Things (IoT)"

Date : 6th - 7th March 2020.   Venue : ISE 305

Event Report

Department of Information Science & Engineering

Name of the Event	**IOT - Applications**
Date of the event and venue	**6th and 7th March 2020, ISE Room no. 305**
Type of the Event& Event Count	Type: Workshop/ SDP Event Count: 1
Whether the event is organized in association with any institute / research organization / industry /professional society/ JNNCE Dept.	Loginware Softtec Pvt. Ltd. And Computer Society of India – student chapter
Details of the funding received from associating partners	No funding
Beneficiaries	Students
Detailed schedule with the topics covered	From 09: 00 AM to 05:00 PM on 6th & 7th March 2020. Attached Separately
List of Speakers / guests	Mr. Thejesh P, Mr. Yashwanth Kumar T H and Mr. Dhananjaya B P Loginware Softtec Pvt. Ltd. #2/0, Near B.M. Bypass Road, Boovanahalli, Hassan 573201
Brief Report of the event	Attached separately
Outcome of the event	Students got to know about the IOT technical student club, the hands on sessions on Raspberry pi, UBIDOTS etc
Photos (Max. 5) (with date and time)	Attached separately
Invitation of Inaugural & Valedictory	NA

programme/ Event Brochure / Press Clippings	
Date of Submission of the Report	10/03/2020

Signature with date

Event Coordinator **Dept. IQAC Coordinator** **HOD**

DAY 1 MORNING

1) **Roles and Responsibilities of Embedded Engineer (Brainstorming).**
2) **Layered Architecture and Design of embedded systems.**

       a) Hardware

       b) Firmware

       c) System software

       d) Application Software

3) **Microprocessor and Microcontroller Based Design.**
4) **Understanding Operating Systems and Kernel Module.**

    a) Kernel Module , b) Memory Management , c) Process Management . d)File system Management

5) **Working with Linux based Operating System.**
6) **Introduction to Python Programming.**
7) **Introduction to various python packages and modules.**
8) **Working on python programming in Windows and Linux based environment.**
9) **Working on text file, Excel file write and read operations**

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DAY 1 AFTERNOON

1) **Introduction to ARM Architecture and PIN Configuration of Raspberry Pi.**
2) **Installing Raspbian OS on Raspberry Pi.**
3) **Getting familiar with Programming tools like terminal emulator.**
4) **Introduction and Interfacing of various Hardware Peripherals to Raspberry Pi.**

       a) Interfacing LED and Switch.

       b) Experimenting various patterns with number of LED's and switch.

       c) Interfacing Buzzer and Relay

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DAY 2 MORNING

1) Introduction to Sensorsonics.

2) Interfacing following analog and digital sensors to Raspberry Pi.

    a) Temperature sensor

    b) Humidity sensor

    c) Fire sensor

    d) Float Sensor

    e) IR sensor

    f) Ultrasonic sensor

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DAY 2 AFTERNOON

1) Introduction to IOT architecture and various levels.

2) Latest updates in the IOT industry

3) Multiple IOT software and cloud platform, Components of a Platform, Usage, comparison.

4) IOT eco systems build around these platforms.

5) IoT Security - Key aspects for Securing IoT solutions

6) IoT Opportunities - Opportunities based on different expertise areas and future scope

7) Introduction to Cloud and Cloud Services.

8) Establishing Connection between Internal Server and Raspberry Pi.

9) Setting up UBIDOTS Cloud (External Cloud Server).

10) Experience IOT with External Cloud server and Raspberry Pi with various hardware peripherals.
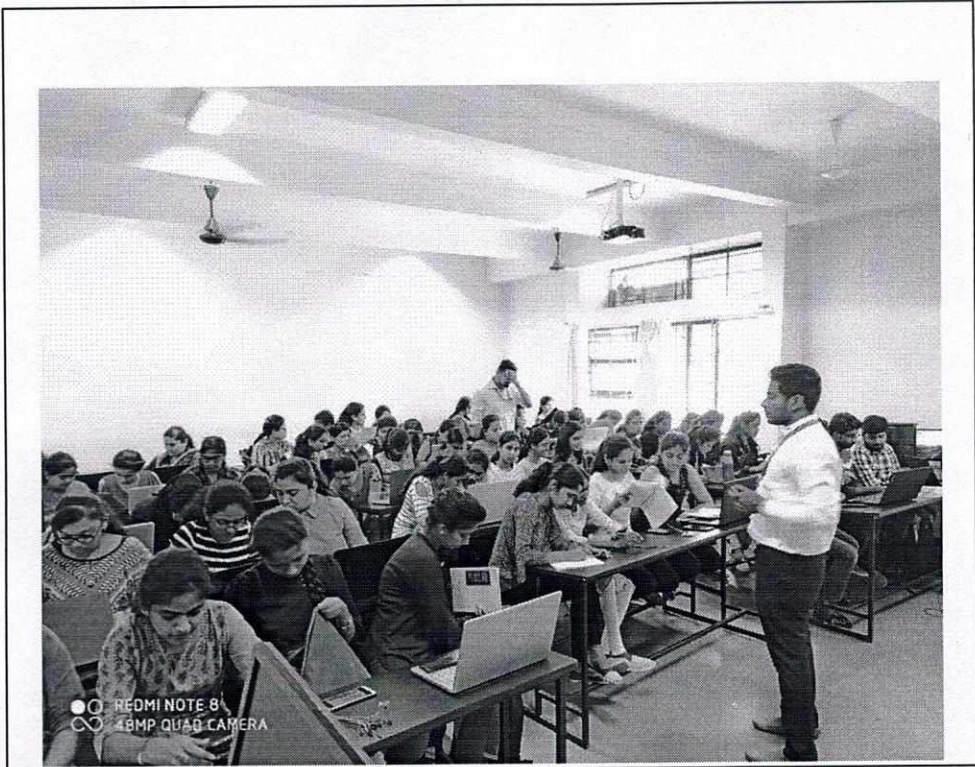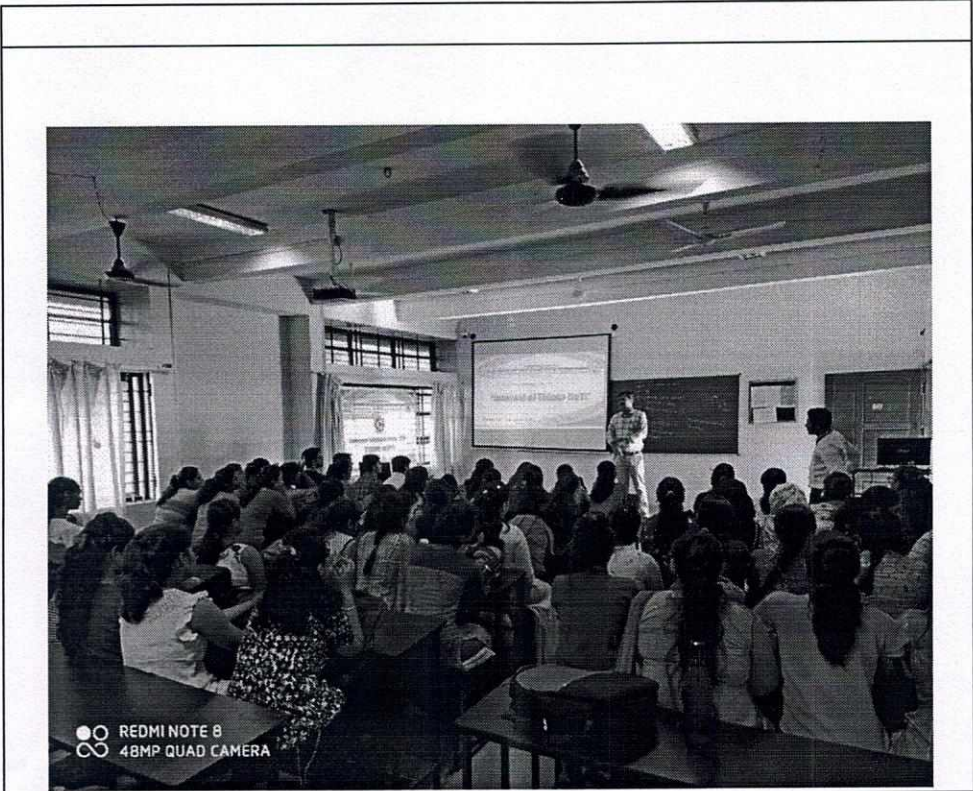
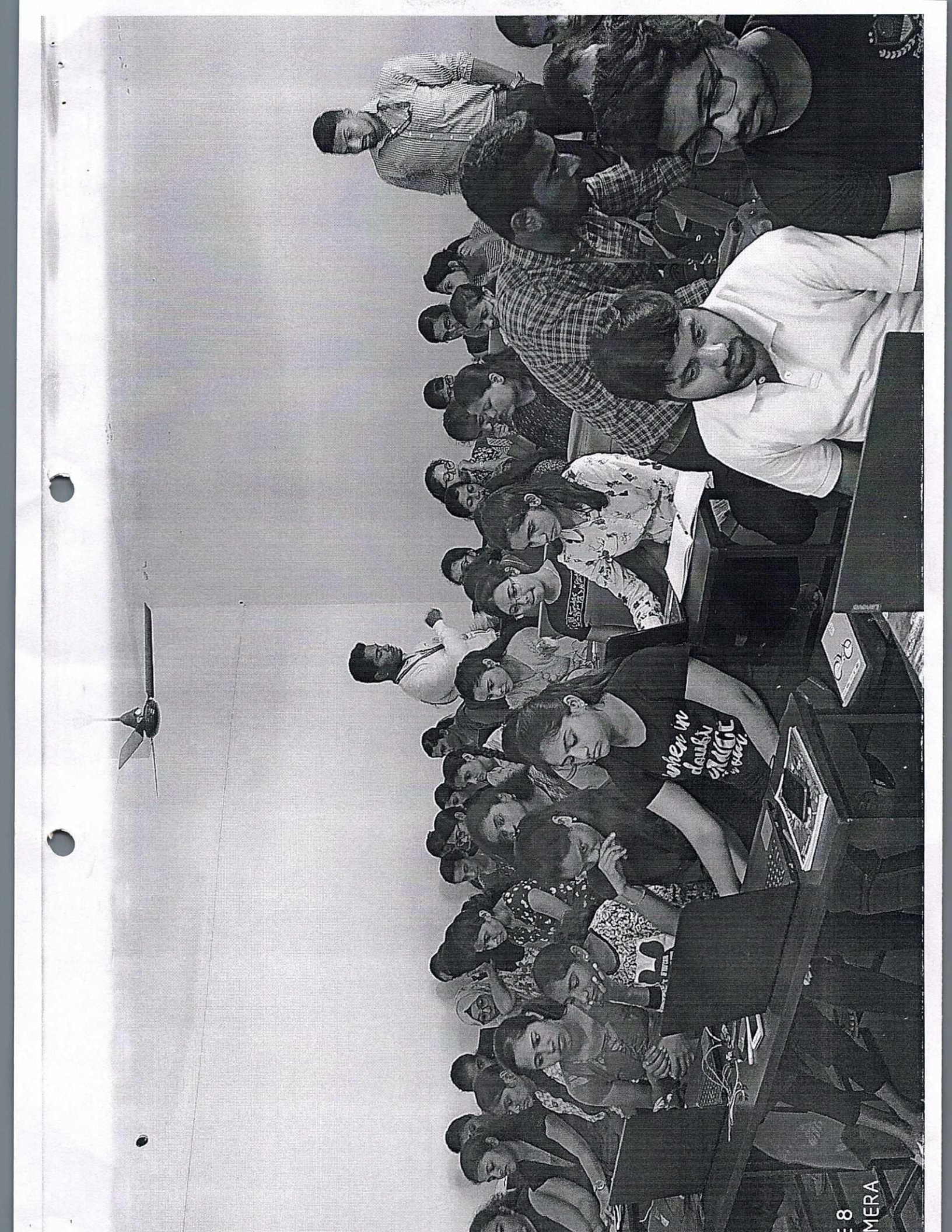## 2 Days SDP / Workshop, Dept of IS & E

Department of IS & E, JNNCE organized 2 days workshop on "Internet of Things- Applications "on -6th and 7th March 2020.

A total of 66 participants registered. The student participants from Technical Student Club- IOT (4th & 6th sem) and interested 8th sem students from IS & E, JNNCE, participated.

Following experts from industry Loginware Softtec Pvt. Ltd. delivered the sessions:
Mr. Thejesh P, Yashwanth Kumar T H and Dhananjaya B P were the resource persons.
The sessions covered IOT architecture, Python Programming, Pin configuration of Raspberry pi, UBIDOTS IOT platform, Interfacing analog and digital sensors to Raspberry pi.

National Education Society ®
JSS Academy of Technical Education, Bengaluru, Karnataka

Technical Student Club – IOT

"Internet of Things (IoT)"

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JAWAHARLAL NEHRU NATIONAL COLLEGE OF ENGINEERING

Shivamogga - 577204

Department of Information Science & Engineering
Technical Student Club - IOT

Two Day Workshop on

" Internet of Things-Applications"

on 6* and 7* March 2020
In association with

Computer Society of India - Student Chapter

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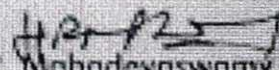
#2/0, Near B.M. Bypass Road, Boovanahalli, Hassan - 573201

Certificate of Participation

is to certify that _____ Sahana . S.M.

attended Two day workshop on "Internet of Things-Applications" held at Jawaharlal Nehru National

of Engineering, Shivamogga from 6th to 7th March 2020.

Dr. Jyothi .K
& Head Dept of IS&E
JNCE, Shivamogga

Mr. Thejesh .P
Founder / CTO
Loginware Softtec Pvt. Ltd

Dr. H.R. Mahadevaswamy
Principal, JNNCE Shivamogga