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Event Report

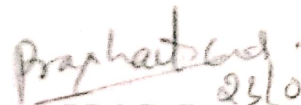--

Department of Electronics and Communication Engineering

Name of the Event	"Building Smart Things by Leveraging IoT Technology using NodeMCU & Raspberry Pi"
Date of the event and venue	28-01-2019 to 01-02-2019 JNNCE,SHIMOGA
Type of the Event & Event Count	STUDENT DELELOPMENT PROGRAM
	Indicate the total number of events conducted in that Sem 6TH Year 2019
Whether the event is organized in association with any institute / research organization / industry /professional society/ JNNCE Dept. (in case of inter-departmental event)	Mention the details **Department of Electronics and Communication Engineering**
Details of the funding received from associating partners	Funding from students and college. Annexure – 1
Beneficiaries	Students from in house and outside Enclosed Annexure – 2
Detailed schedule with the topics covered	Enclosed Annexure – 3
List of Speakers / guests	Enclosed Annexure – 4
Brief Report of the event (not exceeding	Enclosed Annexure – 5

1000 words)	
Outcome of the event	Students able to programme and design IOT related projects
Photos (Max. 5) (with date and time)	Enclosed Annexure – 6
Invitation of Inaugural & Valedictory programme/ Event Brochure / Press Clippings	Enclosed Annexure - 7
Date of Submission of the Report	23/02/2019

Signature with date

Event Coordinator
02/02/19

Pradeepa s c
Asst. Professor
EC Dept.

PRADEEPA S.C. B.E., M.Tech.,
Asst. Professor Dept. of ECE
JNNCE., SHIMOGA.

Dept. IQAC Coordinator
23/02/19

HOD
23-2-19

Annexure – 2

Students list

Sl.no.	NAME	COLLEGE	DATE
1.	Spandana SD	JNNCE	28/01/19
2.	Sheethal H	JNNCE	28/01/19
3.	Shruthi G	JNNCE	28/01/19
4.	Sneha P Vernekar	JNNCE	28/01/19
5.	SHUBHAN H K	JNNCE	28/01/19
6.	Vasuki.H.A	JNNCE	28/01/19
7.	Sahana R	JNNCE	28/01/19
8.	Rashmi C V	JNNCE	28/01/19
9.	Ranjitha.S	JNNCE	28/01/19
10.	Usha H J	JNNCE	28/01/19
11.	Sonali S	JNNCE	28/01/19
12.	Sannidhi M S	JNNCE	28/01/19
13.	Akshay Naik	JNNCE	28/01/19
14.	Amani G	JNNCE	28/01/19
15.	Thejashree I	Jnnce	28/01/19
16.	Nayana R J	Jnnce	28/01/19
17.	VIJAYKUMAR.G.N	JNNCE	28/01/19
18.	Manasa R	JNNCE	28/01/19
19.	Varshini.I	Jnnce	28/01/19

20.	KRUPA C	JNNCE	28/01/19
21.	Rachana S Gara	Jnnce	28/01/19
22.	Pavithra D B	Jnnce	28/01/19
23.	Priyanka N	JNNCE	28/01/19
24.	Mohammed Ayub	JNNCE	28/01/19
25.	Prajwal S yallur	JNNCE	28/01/19
26.	ANUSHA M S	GMIT	28/01/19
27.	Sonal R Raikar	GMIT	28/01/19
28.	Ramya Gangannanavar	GMIT	28/01/19
29.	RAKSHITHA K B	GMIT	28/01/19
30.	Sharath H	GMIT	28/01/19
31.	Sumaiya noorain	GMIT	28/01/19
32.	Priyadarshini R E	KLEIT	28/01/19
33.	Saumya Rane	KLEIT	28/01/19
34.	Vidya Jadar	KLEIT	28/01/19
35.	Sushma M B	KLEIT	28/01/19

Shwetha H.R.
Assistant Professor
Dept. of E&C
JNNCE, Shimoga.

PRADEEPA S.C. B.E., M.Tech.,
Asst. Professor Dept. of ECE
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Annexure – 3

1.   Schedule

National Education Society
Jawaharlal Nehru National College of Engineering Shivamogga-577204
Department of Electronics and Communication Engineering

Schedule for Five Days National Level Workshop on "Building Smart Things by Leveraging IoT Technology using NodeMCU & Raspberry Pi"

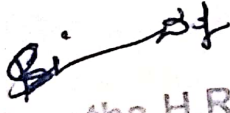| Day and Date	9.00 AM to 10.00AM	10.00AM-11.00 AM		11.15AM-1.30 PM	2.30 PM -3.45 PM		4.00 PM to 5.30 PM
28-01-2019 Monday	Inauguration &Registration	Introduction to IoT (Dr. Manjunatha P)	T E A B R E A K	Introduction to NodeMCU Interfacing Sensors, Actuators with NodeMCU [IR, LDR, PIR, US, LCD, Temp, Servo motor] (Mr. Benak Patel)	Configuring NodeMCU (Server & Client Access point Network scanner, Communication with python server and client, Data login) (Mr. Benak Patel)	T E A B R E A K	Hands-on Session on Linux Operating System (Mr. Chethan K R)
29-01-2019 Tuesday	Configuring NodeMCU (Routing update -E-mail, Twitter,Facebook, SMS, Data parsing, Thingspeak (Sending and retrieving data) Fetching geolocation , weather forecasting) (Mr. Raghudattesh G P & Mr. Raviteja Balekai)	Blynk Mobile IoT Implementation of IoT protocol MQTT on NodeMCU (Mr. Raghudattesh G P & Mr. Raviteja Balekai)		Accessing Electrical appliances from a remote website connected to Node MCU Hosting and accessing a professional website on NodeMCU (Mr. Raghudattesh G P & Mr. Raviteja Balekai)	Voice based device control using Google Assistance, webhooks cloud services (Mr. Raghudattesh G P & Mr. Raviteja Balekai)		Uploading Multiple Analog Sensor values to Adafruit Cloud service from NodeMCU using MUX DEMUX (Mr. Raghudattesh G P & Mr. Raviteja Balekai)
30-01-2019 Wednesday	Introduction to Raspberry Pi (Mr. Raghudattesh G P & Mr. Raviteja Balekai)	Introduction to Python Scripting Language and Hands on session (Mr. Raghudattesh G P & Mr. Raviteja Balekai)		Introduction to Python Scripting Language and Hands on session (Mr. Raghudattesh G P & Mr. Raviteja Balekai)	Interfacing Sensors, Actuators with Raspberry pi (Mr. Raghudattesh G P & Mr. Raviteja Balekai)		Building Amazon Alexa on Raspberry pi Agrisense using RPI and Mosquito Cloud Service (Mr. Raghudattesh G P & Mr. Raviteja Balekai)
31-01-2019 Thursday	Private cloud installation and configuration Introduction to Openstack Private Cloud Installation of Openstack (Mr. Raghudattesh G P)	Set up of Private cloud, Creating Instances, Creating Projects, Users, Roles and Groups, Creating Images, Flavours, Security Groups, Network (Mr. Raghudattesh G P)		Features of openstack, Hosting Web application Standalone Web hosting v/s Hosting Application in Cloud, Highly available and Fault tolerant architecture for Web Application Hosting Bullet proof architecture for low latency Fast (Mr. Raghudattesh G P)	Demo on IoT and Analytics Platform, Introduction to Open source IoT Platform. Installation procedure of Iot platform in private cloud, IoT platform Features (Mr. Raghudattesh G P)		Installation procedure of IoT platform in private cloud, Connecting Devices to IoT (Mr. Raghudattesh G P)
01-02-2019 Friday	Installation procedure of IoTplatform in private cloud Connecting Devices to IoT (Mr. Sreepathi H V)	Installation procedure of IoTplatform in private cloud Connecting Devices to IoT (Mr. Sreepathi H V)		Hackathon on IoT using Sensors and actuators			Valedictory Function

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Asst. Professor Dept. of ECE
JNNCE., SHIMOGA.

Annexure – 4

Resource persons

Name	DESIGNATION/PLACE
Chethan K R	Asst.Professor. dept. CSE,JNNCE
Dr. P Manjunatha	Professor and HOD. dept. ECE,JNNCE
Benak Patel	Asst.Professor. dept. TCE,JNNCE
Raghudathesh	Asst.Professor. dept. ECE,GMIT,DVG.
Ravitheja balekai	Asst.Professor. dept. ECE,GMIT,DVG.
Sreepathy H V	Asst.Professor. dept. ECE,SOIS,Manipal,DVG.

Shwetha H.R.
Assistant Professor
Dept. of E&C
JNNCE, Shimoga.

PRADEEPA S.C. B.E., M.Tech.,
Asst. Professor Dept. of ECE
JNNCE., SHIMOGA.

Report on

One Week State Level Student development program on "Building Smart Things by Leveraging IoT Technology using NodeMCU and Raspberry Pi" in association with IETE from 28/01/2019 to 01/02/2019

One week Student development program on "Building Smart Things by Leveraging IoT Technology using NodeMCU and Raspberry Pi" was held at JNNCE from 28th January to 1st February 2019. The SDP aimed to provide opportunities to students on enhancing their skills in the area of Internet of Things. The SDP was attended by 40 participants from Engineering Colleges including 11 participants from outside. The organizing chair was Dr. Manjunatha P, HOD, of Dept. of ECE and the event was coordinated Abhijith N, Pradeepa S C and Shwetha H R Asst.Professor, Department of ECE along with Student Co-coordinators.

The esteemed personalities present on the inauguration of the program on 28/01/2019 were,

1. Sri A T Kishore, Senior Member IEEE, CEO Vidya Sangha Bangalore.
2. Sri A S Vishwanatha, President NES.
3. Dr. H R Mahadevasamy Principal, JNNCE
4. Dr. L K Sreepathi, Vice principal JNNCE
5. Dr. Manjunatha P, HOD, of Dept. of ECE

The Chief Guest Sri A T Kishore in inauguration speech pointed out that the technology is expanding rapidly and students with Faculty members need to adapt to the new challenges in this regard.

Technical Sessions

1st Day (28/01/2019)

Dr. Manjunatha P, HOD, of Dept. of ECE took the first session and gave an insight regarding Basics of NodeMCU and its applications followed by hands on session by Mr. Benak Patel M P Asst.Professor, Dept. of TCE, JNNCE Shimoga. The final session was handled by Mr. Chethan KR, Asst.Professor, Dept. of CSE, JNNCE on Linux OS and Its Commands.

2nd Day (29/01/2019)

Mr. Benak Patel M P Asst.Professor, Dept. of TCE, JNNCE, continued with hands-on session on NodeMCU, followed by NodeMCU and Raspberry Pi by Mr. Raghudathesh G P and Raviteja B, Asst.Professors, Dept. of ECE, GMIT Davangere discussed about configeration NODEMCU (posting update: E-mail, twitter, facebook). Blynk mobile IoT, implementation of IoT protocol MQTT on NodeMCU. Accessing electrical appliances from a remote website connected to

NodeMCU hosting and accessing a professional website on NodeMCU, Uploading multiple analog sensor values to adafruit cloud service from NodeMCU.

3rd Day (30/01/2019)

Started by Mr. Raghudathesh G P and Raviteja B, Asst.Professor, Dept. of ECE, GMIT Davangere discussed about Introduction to Raspberry pi and Python Scripting Language followed by post lunch session on Interfacing sensors and Actuators.

4th Day (31/01/2019)

Started by Mr.Raghudattesh on interfacing sensors, Actuators with Raspberry pi. Post lunch session was on Building Amazon Alexa on Raspberry pi, Agrisense using R-Pi and Mosquitto Cloud service.
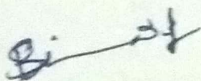
5th Day (01/02/2019)

Mr. Shreepathy H V, Asst. Prof, Department of Embedded Systems, SOIS Manipal was the resource person for the final day, discussed about private cloud installation and configuration, Introduction to open stack private cloud, set up of private cloud, creating projects, security groups, features of open stack, Demo on IoT and Analytics platform followed by connected devices to IoT.
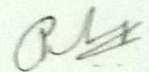
Post lunch session had Hackathon on IoT, where participants build their own miniprojects on the knowledge that they gained during the workshop.

The Valedictory session

The honorable personalities present on this occasion were Sri. S N Nagaraja, Secretary NES, Shivamogga, Dr. H R Mahadevasamy Principal, JNNCE, Dr. L K Sreepathi, Vice principal JNNCE, Dr. Manjunatha P, HOD, Dept. of ECE.

Shwetha H.R.
Assistant Professor
Dept. of E&C
JNNCE, Shimoga.

PRADEEPA S.C. B.E., M.Tech.,
Asst. Professor Dept. of ECE
JNNCE., SHIMOGA.

1. Invitation of Inaugural

National Education Society®
Jawaharlal Nehru National College of Engineering, Shimoga
Department of Electronics & Communication Engg.

Invitation
You are cordially invited for the
Inauguration
of
Five Days State Level Student Development Program on "Building Smart Things by Leveraging IoT Technology using NodeMCU & Raspberry Pi
followed by
Hackathon
on
28ᵗʰ January 2019

Chief Guest: A.T. Kishore
CEO, Vidhya Sangha, Bengaluru.

Honorable Presence:

Ari A.S Vishwanatha. President, NES,Shimoga
Sri. S. N. Nagaraja,   Secretary, NES. Shimoga
Sri T.R.Ashwathnarayana Shetty. Vice - President, NES Shimoga
Sri. C.R.Nagaraj. Treasurer, NES. Shimoga

Presided by: Dr. H. R. Mahadevaswamy
Principal, JNNCE, Shimoga

Presence: Dr.L.K Sreepati
Vice-Principal, JNNCE

VENUE: Sir M V Seminar Hall   Date: 28-01-2019   TIME: 9.30AM

Welcome you all
*****

Dr. Manjunatha P
HOD, Dept. of ECE

Abhijith N, Pradeepa S C, Shwetha H R
Coordinators

Shwetha H.R.
Assistant Professor
Dept. of E&C

PRADEEPA S.C, B.E., M.Tech
Asst. Professor Dept. of ECE

National Education Society®
Jawaharlal Nehru National College of Engineering, Shimoga
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You are cordially invited for the
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followed by

Hackathon

on

01ˢᵗ February 2019

Honorable Presence:

Sri. S. N. Nagaraja, Secretary. NES, Shimoga.

Presided by: Dr. H. R. Mahadevaswamy
Principal, JNNCE, Shimoga

Presence: Dr.L.K Sreepati
Vice-Principal, JNNCE, Shimoga

VENUE: Ad. Block Seminar Hall   Date: 01-02-2019   TIME: 05.00PM

Welcome you all

Dr. Manjunatha P   Abhijith N, Pradeepa S C, Shwetha H R
HOD, Dept. of ECE   Asst. Professor and Coordinators

3. Event Brochure

Registration form

One week
Student Development Program
on
"*Building Smart Things by Leveraging IoT Technology using NodeMCU & Raspberry Pi*"
28th Jan- 1st Feb 2019

Name:

Designation:

Department:

Email ID:

College:

Mobile No:

Accommodation : Yes/No

Date:

Place:

Signature of the Applicant

For Online Registration Scan the QR code:

or

http://bit.ly/jnnce_ece_iot

Chief Patrons:

Dr. H R Mahadevaswamy
Principal, JNNCE

Dr. Manjunatha P
HOD, ECE Department, JNNCE

Resource Persons :

Dr. Manjunatha P
HOD, ECE Department, JNNCE

Mr. Benak Patel ,
Asst. Professor , TCE Dept.
JNNCE, Shivamogga.

Raghudathesh G. P
&
Mr. Raviteja Balekai
Asst. Professor , ECE Dept.
GMIT, Davangere

Mr. Sreepathy H V
Asst. Professor ,Embedded Dept.
SOIS, Manipal

Jawaharlal Nehru National College of Engineering
Shivamogga 577204, Karnataka

Department of Electronics & Communication Engineering
Organizing one week

National Level

Student Development Program
on
"*Building Smart Things by Leveraging IoT Technology using NodeMCU & Raspberry Pi*"

28-01-2019 to 01-02-2019
In association with
The Institution of Electronics and Telecommunication Engineers,
Shivamogga Center

About the College:

JNNCE was established in the year 1980 by the National Education Society. The college is affiliated to Visvesvaraya Technological University (VTU), Belgaum and recognized by AICTE, New Delhi. It offers 7 UG and 7 M.Tech Program besides MBA and MCA. It has 7 Research centers recognized by VTU. Spread over 38 acres, the campus has all the amenities to cater to the needs of about 3500 students and 400 faculty and staff. The college is regarded as one of the excellent centers for technical education and research. J. N. N. C. E is ranked 47th among top 75 engineering colleges in India and 8th in Karnataka as per OUT Look –MDRA ranking survey 2017 consecutively .

About the Department:

The Department of Electronics & Communication Engineering was started in the year 1980.

About the Programme:

This Student Development Program "Building Smart Things by Leveraging IoT Technology" is being organized for five days to provide complete hands on Raspberry pi and Node MCU microcontroller , platform for to seek the knowledge in IoT .

Topics to be Covered:

- Introduction about main concepts, components, technologies involved in Internet of Things (IoT).
- The Hardware Aspects of NodeMCU (ESP8266) Embedded Developmental Environment.
- About Various Types of Sensors, Actuators used in DIY Projects and hands on interfacing with NodeMCU and raspberry Pi.
- Basics of Python Scripting.
- The Hardware and Software Aspects of popular micro-computer SOC board Raspberry Pi.
- About Cloud Analytical tools like Blynk Application (Mobile IoT), Math Work's Thing speak Cloud Engine,Google Assistance.
- Web hooks like IFTTT, Adafruit I/O Cloud Services.
- About IoT Protocol: MQTT.
- Communication between Raspberry-Pi, NodeMCU and Cloud Server.

Participation:

Students from any department of various Engineering colleges can attend the workshop.

Registration details:

Fees: 1500/- per Participant

Advance Registration Fees to be paid online while submitting application : Rs.500.
Remaining Rs.1000 Can be paid on-spot during On-spot registration

Google-Pay / Phone-Pe Number: 9945032799.

Net Banking::
Bank Name: VIJAYA BANK.
Acc Holder name: SHREYAS B.
Acc No: 143301011003976.
IFSC CODE: VIJB0001433

Address for Communication:

Faculty Coordinator:

Mrs. Shwetha H R.
Mr. Abhijith N
&
Mr. Pradeepa S C
Asst. Prof.
Dept. of ECE,
J NN College of Engineering,
Ph No: 7204443963
Email: shwethahr@jnnce.ac.in

Student Coordinators:

Koushik R Udupa
Shreyas B
Sowjanya Jain
Athreya S R

Contact:

99450-32799
94800-39849
E-mail: shreyasbsmg@gmail.com

Important Dates:

Last Date for registration: 10th Jan 2019.
Workshop Dates: 28th Jan - 1st Feb 2019.
Venue: ECE Dept, JNNCE, Shivamogga
Timing: 9.00 AM to 5.00 PM