



(An Autonomous Institution - AFFILIATED TO ANNA UNIVERSITY, CHENNAI)

S.P.G.Chidambara Nadar - C.Nagammal Campus

S.P.G.C. Nagar, K.Vellakulam - 625 701 (Near VIRUDHUNAGAR).

**Department of Mechatronics Engineering**

Value Added Course

on

**Internet of Things**

22.08.2022 to 27.08.2022 (6 days)

A handwritten signature in blue ink, consisting of stylized initials and a surname.

VAC Coordinator

A handwritten signature in blue ink, consisting of stylized initials and a surname.

HoD/MTRE



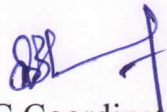
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Department of Mechatronics Engineering

S.No.	Content checklist	Document
1	Academic Year	2022-23 Odd
2	Regulation	KCET R2020
3	Department Name	Mechatronics Engineering
4	Name of the Value-added course	Internet of Things
5	No. of Credits	2
6	Category: Theory/Lab/Hands-on/Skill based etc	Hands-on & Skill based
7	Name and Details of the Joint-organization (industry/NGO etc) if any	Quantanics Techserv Pvt. Ltd., Madurai
8	Resource person details	Mr.A.Kesavan, Director & Mr.V.Ohm Vignesh, Embedded Engineer
9	Three Member Committee details	Dr.K.Kannan HoD/MTRE S.Wesley Moses Samdoss & S.David Blessley AP/MTRE
10	VAC Coordinator Details	S.David Blessley AP/MTRE
11	Duration (30 h mandatory)	42 hours
12	Period (From-To)	22.08.2022 to 27.08.2022
13	Venue	CAD Lab/Mechatronics

  
VAC Coordinator

  
HoD/MTRE

*A.S. — Bca*  
*18/08/2022*  
Dean (Academic Courses)

# KAMARAJ

## COLLEGE OF ENGINEERING & TECHNOLOGY



S.P.G.Chidambara Nadar - C. Nagammal Campus,  
S.P.G.C. Nagar, K. Vellakulam - 625 701, Near VIRUDHUNAGAR, Madurai District.  
Accredited by NAAC with 'A' Grade

Submitted to the SECRETARY for approval through the PRINCIPAL


Book No.

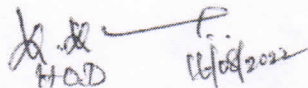
MTRE

SL No. 77

Date 16.08.2022

- 1) Name of the object / item / service : 6 days value Added course
- 2) Purpose (Replacement / upgradation / New) : on "DOT" for Third year  
or (Participation / Presentation) :  
or (Service / Renewal / New) : Mechanic Engineering students.
- 3) Specifications :  
Date : 22.08.2022 to 27.08.2022
- 4) Approx. Value per object / item :  
(Min. Quote / Reasons for Higher Quote) : & Experts from Quantanic  
Techserv Pvt. Ltd., Madurai.
- 5) No. of Quotations Received :
- 6) No. / Type of objects /  
items / service needed :
- 7) Total Value (incl. tax) : 16 x 1000 = 16,000 (Including GST)  
and Tea & Lunch for Resource  
Persons.

  
Signature of Faculty

  
HOD

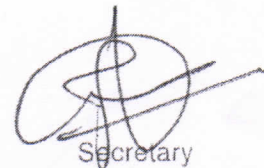
  
PRINCIPAL

### OFFICE USE

- 1) Budget allotted : Value added Course
- 2) Amount committed / Spent sofar : Rs. 1000/- per hour.
- 3) Balance available :

OM

TREASURER

  
Secretary





**QUANTANICS TECHSERV PVT LTD**

*Digitize Your Lives*

PAN: AAACQ5974E | GSTIN : 33AAACQ5974E1ZG | CIN: U72900TN2019PTC127723

**QUOTATION**

Q.No:KCE/Jul/07

Date:27/07/2022

To

The Principal,  
Kamaraj College of Engineering and Technology,  
S.P.G.C.Nagar,  
Virudhunagar-626001.

Dear Sir,

S. No	Description	Unit Cost in Rs	Qty	Total Amount in Rs.
1.	IOT VALUE ADDED COURSE	1000/Head	16	16000
<b>Total cost in Rs.</b>				<b>16,000</b>

We look forward to the pleasure of receiving your valuable order at an early date. Thanking you and assuring you of our best services at all times. If you have any further queries feel free to contact us.

**Terms and conditions:**

1. Validity : 7 Days from the date of quotation
2. GST : 18 % Included

Thanks & Regards

A. Kesavan

A. Kesavan, CEO  
QUANTANICS TECHSERV PVT.LTD  
+91 8681001680



206, Vellaikannu Nagar, Theni Main Road, Madurai - 16.

+91 86810 01680, 70108 97188 support@quantanics.in www.quantanics.in





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**DEPARTMENT OF MECHATRONICS ENGINEERING**  
**CIRCULAR**

**Ref: KCET/MTRE/VAC1/ ODD/ 2022 - 23**

**16.08.2022**

The Department of Mechatronics Engineering is organizing Value added course on “Internet of Things” for III-year Mechatronics Engineering Students. The details of the program are as follows:

- Date** : 22.08.2022 to 27.08.2022  
**Resource Institute** : QuantanicsTechserv Pvt. Ltd,  
Madurai.  
**Topic** : "Internet of Things"  
**Relevance to PO** : PO1, PO2, PO3, PO4, PO5, PO9, PO10, PO11& PO12  
**Relevance to PSO** : PSO1, PSO2  
**Event Outcome** : This program enables the students to enhance knowledge on Internet of Things and apply the same in their academic projects and also to build their career.

Hence all III-year Mechatronics students are instructed to attend the program without fail.

  
**Coordinator**

  
**HoD/MTRE**

Copy to

1. Department Main Notice Board& Circular File
2. To be read in III Year Class Room. -A
3. To all III MTRE students through their official mail Id
4. All MTRE faculty through their official mail Id
5. IQAC



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## **Department of Mechatronics Engineering**

**(Accredited by NBA, New Delhi)**

### **Value Added Course on “Internet of Things”**

#### **Course Outcome**

To explore knowledge on the concepts of Internet of Things and also to build IoT based applications

#### **IoT Introduction**

6 Hours

IoT Introduction - Basics of C Programming - Basic Electronics Setting up Arduino IDE - LED Blinking Traffic Light System Diving deep into C programming (functions) LED control using push button – Motor switching on using relay C pointers - arrays and memory allocation.

#### **Sensors and Types of Arduino Controller**

12 Hours

Temperature sensor to display temperature - ESP 32/ ESP8266 architecture- LED and Switch Control basics using ESP Display Interfacing - 7 segment - LCD display - Keypad.

#### **IoT Protocols and Applications**

12 Hours

ADC Conversion - keypad relay control - USART - USART Communication Timer – Counter Clock - PWM - PWM Example - Project GSM - GPS GSM - GPS data - Microcontroller EEPROM - Storing Wifi Credentials in EEPROM -I2C - RTC time from RTC - NTP - NODEMCU IOT –Raspberry pi, NVIDIA Jetson Nano - Temperature & Humidity - PIR CLOUD – MQTT - Home automation - Robot control.





## Internet of Things (IoT)

### IoT Introduction

8 Hours

IoT Introduction - Basics of C Programming - Basic Electronics Setting up Arduino IDE - LED Blinking Traffic Light System Diving deep into C programming (functions) LED control using push button - Motor switching on using relay C pointers - arrays and memory allocation.

### Sensors and Types of Arduino Controller

14 Hours

Temperature sensor to display temperature - ESP 32/ ESP8266 architecture- LED and Switch Control basics using ESP Display Interfacing - 7 segment - LCD display - Keypad.

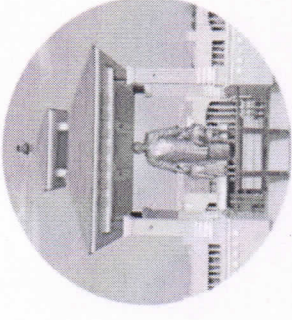
### IoT Protocols and Applications

14 Hours

ADC Conversion - keypad relay control - USART - USART Communication Timer - Counter Clock - PWM - PWM Example - Project GSM - GPS GSM - GPS data - Microcontroller EEPROM - Storing Wifi Credentials in EEPROM - I2C - RTC time from RTC - NTP - NODEMCU IOT - Raspberry pi, NVIDIA Jetson Nano - Temperature & Humidity - PIR CLOUD - MQTT - Home automation - Robot control.



## Value Added Course Conducted



**Name of the Course**

**: Value Added Course on Internet of Things (IoT)**

**Course Duration**

**: 6 days**

**Conducted dates**

**: 22.08.2022 – 27.08.2022**

**No. of Students attended**

**: 16 students from III Year Mechatronics Engineering**

**Name of the External Institute**

**: Quantanics Techserv Pvt. Ltd., Madurai**

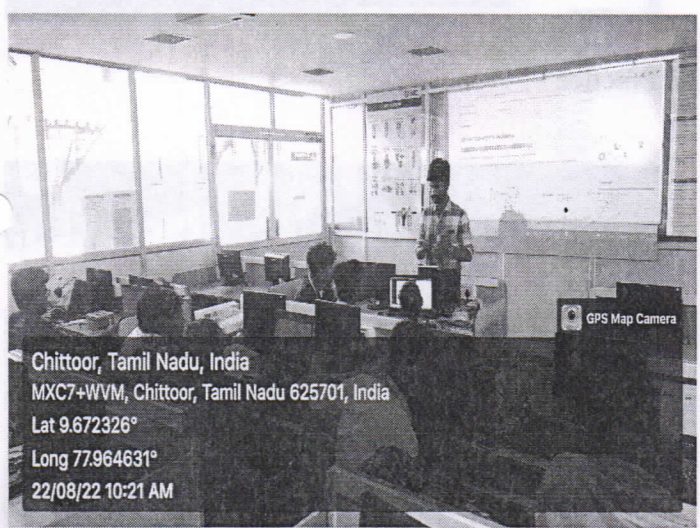


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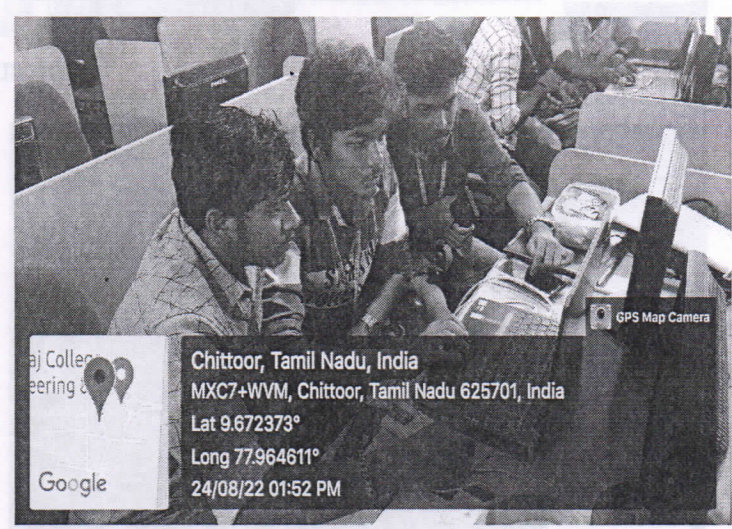
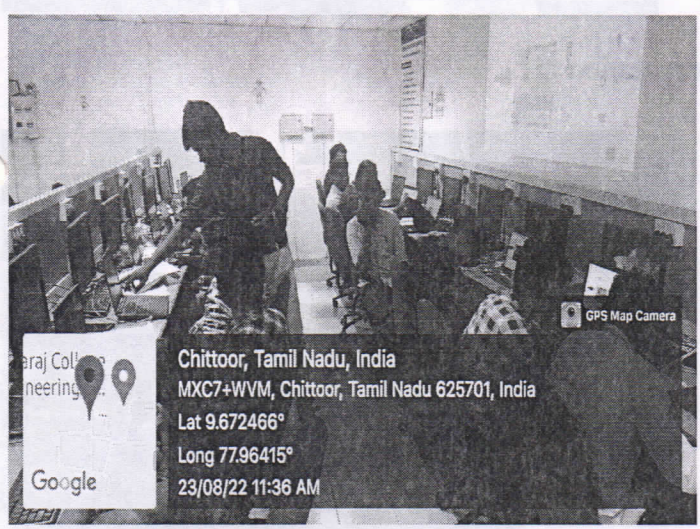
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## DEPARTMENT OF MECHATRONICS ENGINEERING (Accredited by NBA, New Delhi)

### Value Added Course on Internet of Things (for III year Mechatronics Engineering Students)



#### Basics of Internet of Things

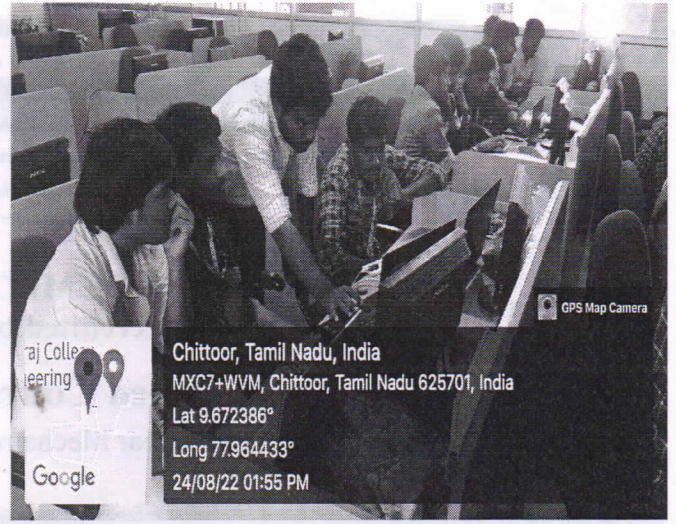
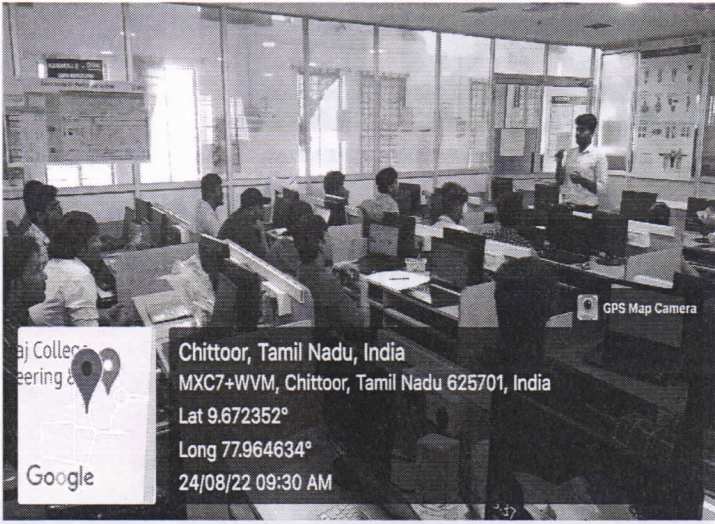


#### Programming using Arduino controllers

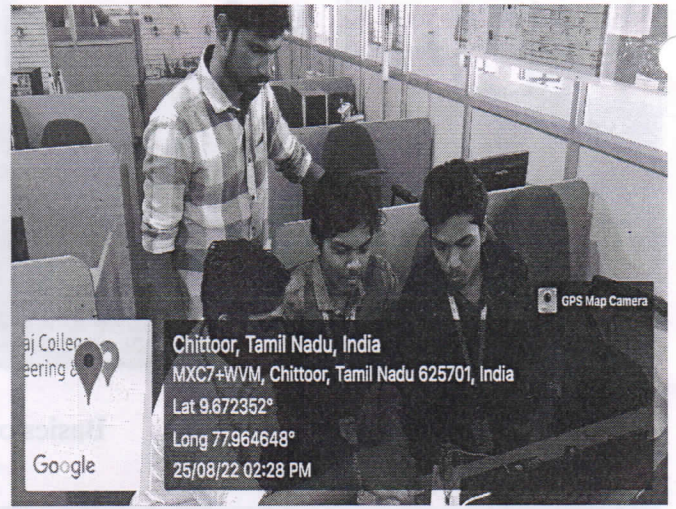
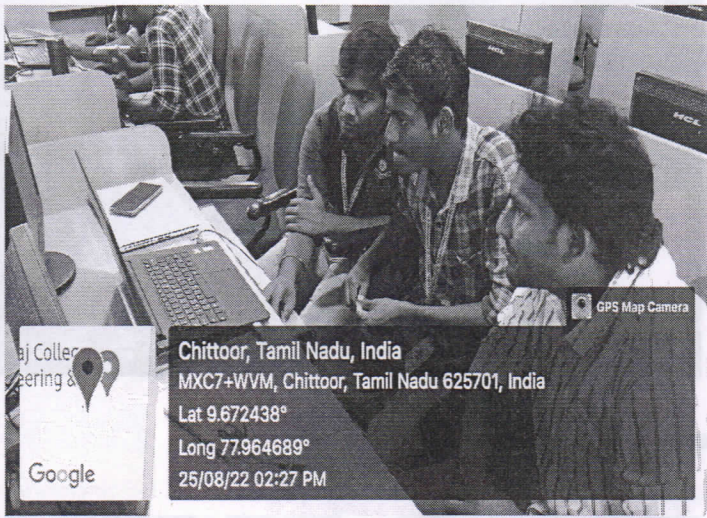
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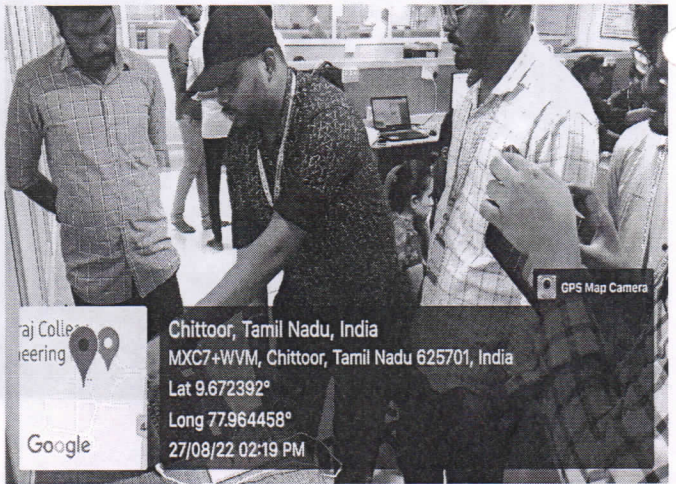
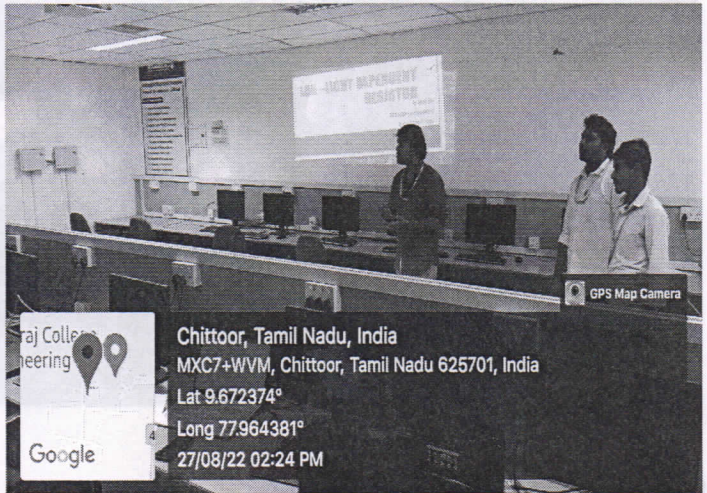





Hands on Practice



Project preparation



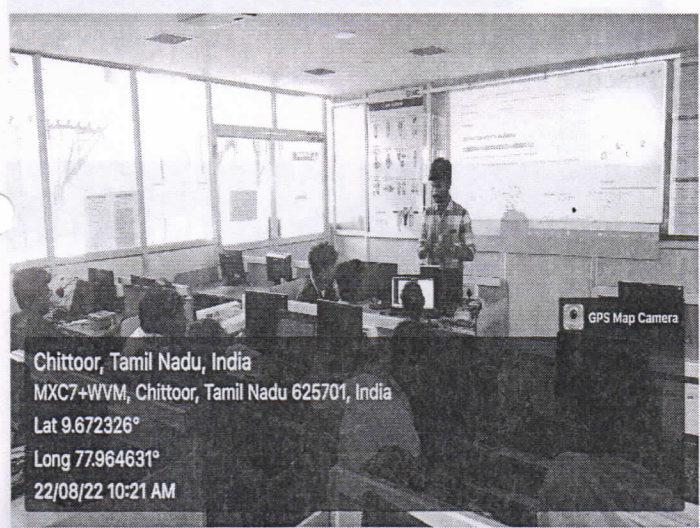
  
Co-Ordinator

  
HoD/MTRE



## DEPARTMENT OF MECHATRONICS ENGINEERING (Accredited by NBA, New Delhi)

### Value Added Course on Internet of Things (for III year Mechatronics Engineering Students)

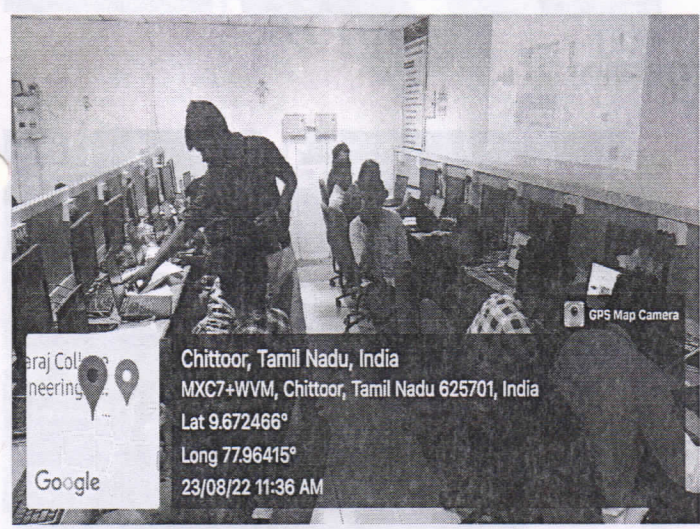


Chittoor, Tamil Nadu, India  
MXC7+WVM, Chittoor, Tamil Nadu 625701, India  
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Long 77.964631°  
22/08/22 10:21 AM

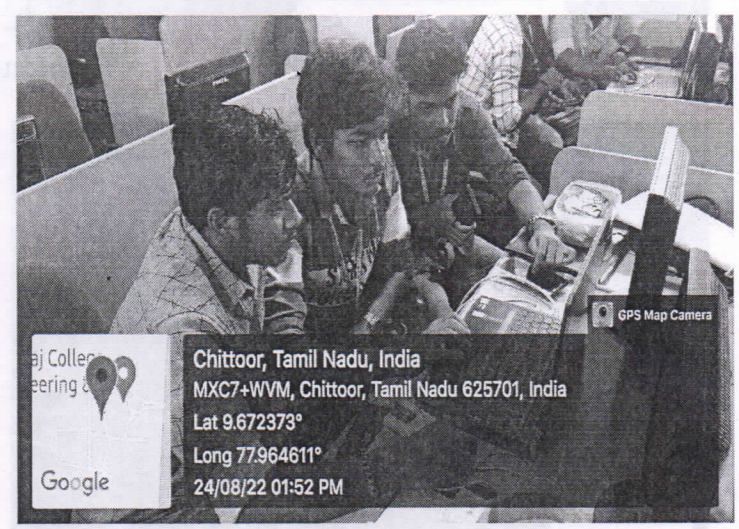


Chittoor, Tamil Nadu, India  
MXC7+WVM, Chittoor, Tamil Nadu 625701, India  
Lat 9.672355°  
Long 77.964321°  
23/08/22 09:28 AM

#### Basics of Internet of Things



Chittoor, Tamil Nadu, India  
MXC7+WVM, Chittoor, Tamil Nadu 625701, India  
Lat 9.672466°  
Long 77.96415°  
23/08/22 11:36 AM



Chittoor, Tamil Nadu, India  
MXC7+WVM, Chittoor, Tamil Nadu 625701, India  
Lat 9.672373°  
Long 77.964611°  
24/08/22 01:52 PM

#### Programming using Arduino controllers

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HOD/MECH

*[Handwritten signature]*  
Co-ordinator





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**Department of Mechatronics Engineering**

**18.08.2022**

**Minutes of Meeting**

As per the current needs in industry, we need to provide the Value added course for 2020 – 2024 Batch III year UG candidates in 2022 – 2023 ODD Semester . In connection with this, the three members committee has been constituted to scrutinize the Value-added course evaluation, meeting has been convened on 16-08-2022 (01.00 PM to 02.00 PM) at SMC Centre for Excellence Lab, Mechatronics Engineering, Kamaraj College of Engineering and Technology, Virudhunagar.

The three member committee has recommended the Value added course “**Internet of Things**” (2022 – 2023 ODD semester) for 2020 – 2024 Batch

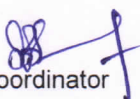
**Members List**


S. No.	Members	Category	Signature
1	Dr. K.Kannan, Prof & Head/MTRE	Head	
2	Mr.S.Wesley Moses Samdoss AP/MTRE	UG Coordinator	
3	Mr.S.David Blessley AP/MTRE	Assistant Professor	



### Program Schedule

S.NO	DATE	THEORY/PRACTICAL	DESCRIPTION
1	22.08.22	THEORY	IoT Introduction
2	22.08.22	THEORY	Basics of C Programming
3	22.08.22	THEORY	Arduino IDE
4	22.08.22	PRACTICAL	System Diving deep into C
5	23.08.22	PRACTICAL	LED control using push button
6	23.08.22	PRACTICAL	pointers
7	23.08.22	THEORY	arrays and memory allocation.
8	23.08.22	PRACTICAL	temperature
9	23.08.22	THEORY	ESP 32/ ESP8266 architecture
10	23.08.22	PRACTICAL	using ESP Display Interfacing
11	24.08.22	PRACTICAL	7 segment
12	24.08.22	PRACTICAL	LCD display
13	24.08.22	PRACTICAL	Keypad.
14	24.08.22	PRACTICAL	control
15	24.08.22	THEORY	USART
16	24.08.22	THEORY	USART Communication Timer
17	25.08.22	THEORY	Counter Clock
18	25.08.22	PRACTICAL	PWM, PWM Example
19	25.08.22	THEORY	data
20	25.08.22	THEORY	Microcontroller EEPROM
21	26.08.22	PRACTICAL	EEPROM,
22	26.08.22	PRACTICAL	I2C
23	26.08.22	PRACTICAL	RTC time from RTC , NTP
24	26.08.22	THEORY	NODEMCU-IOT,Raspberry pi,
25	26.08.22	PRACTICAL	NVIDIA Jetson Nano
26	26.08.22	THEORY	Temperature & Humidity ,PIR
27	26.08.22	PRACTICAL	CLOUD – MQTT
28	26.08.22	PRACTICAL	Home automation - Robot control.
29	27.08.22	Project Presentation	Project GSM ,GPS GSM, GPS data
30	27.08.22	Test (MCQ)	11.00 am to 2.00 p.m 2.15 pm to 3.45 pm

  
VAC Coordinator

  
HoD/MTRE

# IoT Assessment

davidblessley.s@gmail.com [Switch account](#)



\* Required

Email \*

Your email

Name \*

Your answer

Roll No. \*

Your answer

Mention title of project you have done \*

Your answer

VIDEO LINK \*

Your answer

What is sketch in Arduino? \*

1 point

- Drawing
- Paint
- Code
- None of the above



What are the software structure functions? \*

1 point

- Setup() and Loop()
- Void main ()
- Class () and Void main()
- None of the above

Full form of MQTT? \*

1 point

- Message Queuing Telemetry Transport Protocol
- Metadata Que Transport Telementary
- Markup Quality Transverse Transport
- None of the above

Which is not a protocol? \*

1 point

- SPI
- I2C
- PWM
- UART

IoT use which medium? \*

1 point

- Internet
- BLE
- LORA
- None of the above

Which is not a component of IoT? \* 1 point

- Sensors
- Connectivity
- Data Processing
- None of the above

Which is not a IoT board? \* 1 point

- ESP32
- ESP8266
- arduino UNO
- None of the above

What language is a typical Arduino code based on? \* 1 point

- Assembly Code
- Java
- CPP
- Python

What language is the Arduino IDE built on? \* 1 point

- CPP
- Java
- Python
- HTML



What is the correct execution process of an Arduino code? \* 1 point

- Editor->Preprocessor->Compiler
- Preprocessor->Editor->Compiler
- Compiler->Preprocessor->Editor
- All the above

What is the operating voltage of ESP8266? \*

- 3.3V
- 5V
- 9V
- All the above

How many times does the setup() function run on every startup of the Arduino System? \* 1 point

- 1
- 2
- 3
- 4

What is the use of the ESP8266 WiFi Module? \*

- Network Provider
- Switches circuits
- Evaluates air pressure
- None of the above

GPIO Stands for? \* 1 point

- General purpose input output
- General purpose integrated output
- General purpose intra output
- None of the above

Which is not a datatype? \* 1 point

- Int
- Float
- Pinmode
- Long

Sensors convert signals from analog to \_\_\_\_\_ domain. \* 1 point

- electrical
- Digital
- Mechanical
- Both a and b

What is the full form of PWM? \* 1 point

- Pin Wide Modulation
- Pulse Waveform Modulation
- Pulse Width Modulation
- Pulse Wave Modulation

Handwritten notes in blue ink, possibly including "GPIO" and "Pulse Width Modulation".

Handwritten notes in blue ink, possibly including "Pulse Width Modulation".





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## DEPARTMENT OF MECHATRONICS ENGINEERING

### Attendance Sheet

Value Added Course on "Internet of Things"-22.08.2022 (Day 1)

S.No.	Roll Number	Name	Signature		
			Session I (9.00-10.30)	Session II (11.00-12.40)	Session III (01.30-04.00)
1	20UMT001	R.NAVEEN	<i>R. Naveen</i>	<i>R. Naveen</i>	<i>R. Naveen</i>
2	20UMT002	G.RAHUL	<i>G. Rahul</i>	<i>G. Rahul</i>	<i>G. Rahul</i>
3	20UMT003	R.GEMRELTON	<i>R. Gemrelton</i>	<i>R. Gemrelton</i>	<i>R. Gemrelton</i>
4	20UMT004	C.VEERANAN	<i>C. Veeranan</i>	<i>C. Veeranan</i>	<i>C. Veeranan</i>
5	20UMT005	S.KARTHIKEYAN	<i>S. Karthikeyan</i>	<i>S. Karthikeyan</i>	<i>S. Karthikeyan</i>
6	20UMT006	K.SAKTHIBALA	<i>K. Sakthibala</i>	<i>K. Sakthibala</i>	<i>K. Sakthibala</i>
7	20UMT007	R.RAMANAVEL	<i>R. Ramanavel</i>	<i>R. Ramanavel</i>	<i>R. Ramanavel</i>
8	20UMT008	M.E.NAVEENPRAKASH	<i>M. E. Naveenprakash</i>	<i>M. E. Naveenprakash</i>	<i>M. E. Naveenprakash</i>
9	20UMT009	V.ANANDAKRISHNAN	<i>V. Anandakrishnan</i>	<i>V. Anandakrishnan</i>	<i>V. Anandakrishnan</i>
10	20UMT010	S.BHUVANESHWARAN	<i>S. Bhuvaneshwaran</i>	<i>S. Bhuvaneshwaran</i>	<i>S. Bhuvaneshwaran</i>
11	20UMT011	S.SABARIVASAN	<i>S. Sabarivasan</i>	<i>S. Sabarivasan</i>	<i>S. Sabarivasan</i>
12	20UMT012	R.MANIKANDAN	<i>R. Manikandan</i>	<i>R. Manikandan</i>	<i>R. Manikandan</i>
13	20UMT013	K.HARRISHBABU	<i>K. Harrishbabu</i>	<i>K. Harrishbabu</i>	<i>K. Harrishbabu</i>
14	20UMT014	P. KRISHNA KUMAR	<i>P. Krishna Kumar</i>	<i>P. Krishna Kumar</i>	<i>P. Krishna Kumar</i>
15	20UMT015	V.HARISH RAMACHANDRAN	<i>V. Harish Ramachandran</i>	<i>V. Harish Ramachandran</i>	<i>V. Harish Ramachandran</i>
16	20UMT016	R.ESAKKIANAND	<i>R. Esakkianand</i>	<i>R. Esakkianand</i>	<i>R. Esakkianand</i>

*[Signature]*  
22/8/22  
Coordinator

*[Signature]*  
22/08/22  
HoD/MTRE



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S.P.G.Chidambara Nadar - C.Nagammal Campus  
S.P.G.C. Nagar, K.Vellakulam - 625 701 (Near VIRUDHUNAGAR).

### DEPARTMENT OF MECHATRONICS ENGINEERING

#### Attendance Sheet

Value Added Course on "Internet of Things"-23.08.2022 (Day 2)

S.No.	Roll Number	Name	Signature		
			Session I (9.00-10.30)	Session II (11.00-12.40)	Session III (01.30-04.00)
1	20UMT001	R.NAVEEN	<i>R. Naveen</i>	<i>R. Naveen</i>	<i>R. Naveen</i>
2	20UMT002	G.RAHUL	<i>G. Rahul</i>	<i>G. Rahul</i>	<i>G. Rahul</i>
3	20UMT003	R.GEMRELTON	<i>R. Gemrelton</i>	<i>R. Gemrelton</i>	<i>R. Gemrelton</i>
4	20UMT004	C.VEERANAN	<i>C. Veeranan</i>	<i>C. Veeranan</i>	<i>C. Veeranan</i>
5	20UMT005	S.KARTHIKEYAN	<i>S. Karthikeyan</i>	<i>S. Karthikeyan</i>	<i>S. Karthikeyan</i>
6	20UMT006	K.SAKTHIBALA	<i>K. Sakthibala</i>	<i>K. Sakthibala</i>	<i>K. Sakthibala</i>
7	20UMT007	R.RAMANAVEL	<i>R. Ramanavel</i>	<i>R. Ramanavel</i>	<i>R. Ramanavel</i>
8	20UMT008	M.E.NAVEENPRAKASH	<i>M. E. Naveenprakash</i>	<i>M. E. Naveenprakash</i>	<i>M. E. Naveenprakash</i>
9	20UMT009	V.ANANDAKRISHNAN	<i>V. Anandakrishnan</i>	<i>V. Anandakrishnan</i>	<i>V. Anandakrishnan</i>
10	20UMT010	S.BHUVANESHWARAN	<i>S. Bhuvaneshwaran</i>	<i>S. Bhuvaneshwaran</i>	<i>S. Bhuvaneshwaran</i>
11	20UMT011	S.SABARIVASAN	<i>S. Sabarivasan</i>	<i>S. Sabarivasan</i>	<i>S. Sabarivasan</i>
12	20UMT012	R.MANIKANDAN	<i>R. Manikandan</i>	<i>R. Manikandan</i>	<i>R. Manikandan</i>
13	20UMT013	K.HARRISHBABU	<i>K. Harrishbabu</i>	<i>K. Harrishbabu</i>	<i>K. Harrishbabu</i>
14	20UMT014	P. KRISHNA KUMAR	<i>P. Krishna Kumar</i>	<i>P. Krishna Kumar</i>	<i>P. Krishna Kumar</i>
15	20UMT015	V.HARISH RAMACHANDRAN	<i>V. Harish Ramachandran</i>	<i>V. Harish Ramachandran</i>	<i>V. Harish Ramachandran</i>
16	20UMT016	R.ESAKKIANAND	<i>R. Esakkianand</i>	<i>R. Esakkianand</i>	<i>R. Esakkianand</i>

*[Signature]*  
23/8/22  
Coordinator

*[Signature]*  
23/08/22  
HoD/MTRE



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S.P.G.C. Nagar, K.Vellakulam - 625 701 (Near VIRUDHUNAGAR).

## DEPARTMENT OF MECHATRONICS ENGINEERING

### Attendance Sheet

Value Added Course on "Internet of Things"-24.08.2022 (Day 3)

S.No.	Roll Number	Name	Signature		
			Session I (9.00-10.30)	Session II (11.00-12.40)	Session III (01.30-04.00)
1	20UMT001	R.NAVEEN	<i>R. Naveen</i>	<i>R. Naveen</i>	<i>R. Naveen</i>
2	20UMT002	G.RAHUL	<i>G. Rahul</i>	<i>G. Rahul</i>	<i>G. Rahul</i>
3	20UMT003	R.GEMRELTON	<i>R. Gemrelton</i>	<i>R. Gemrelton</i>	<i>R. Gemrelton</i>
4	20UMT004	C.VEERANAN	<i>C. Veeranan</i>	<i>C. Veeranan</i>	<i>C. Veeranan</i>
5	20UMT005	S.KARTHIKEYAN	<i>S. Karthikeyan</i>	<i>S. Karthikeyan</i>	<i>S. Karthikeyan</i>
6	20UMT006	K.SAKTHIBALA	<i>K. Sakthibala</i>	<i>K. Sakthibala</i>	<i>K. Sakthibala</i>
7	20UMT007	R.RAMANAVEL	<i>R. Ramanavel</i>	<i>R. Ramanavel</i>	<i>R. Ramanavel</i>
8	20UMT008	M.E.NAVEENPRAKASH	<i>M. E. Naveenprakash</i>	<i>M. E. Naveenprakash</i>	<i>M. E. Naveenprakash</i>
9	20UMT009	V.ANANDAKRISHNAN	<i>V. Anandakrishnan</i>	<i>V. Anandakrishnan</i>	<i>V. Anandakrishnan</i>
10	20UMT010	S.BHUVANESHWARAN	<i>S. Bhuvaneshwaran</i>	<i>S. Bhuvaneshwaran</i>	<i>S. Bhuvaneshwaran</i>
11	20UMT011	S.SABARIVASAN	<i>S. Sabarivasan</i>	<i>S. Sabarivasan</i>	<i>S. Sabarivasan</i>
12	20UMT012	R.MANIKANDAN	<i>R. Manikandan</i>	<i>R. Manikandan</i>	<i>R. Manikandan</i>
13	20UMT013	K.HARRISHBABU	<i>K. Harrishbabu</i>	<i>K. Harrishbabu</i>	<i>K. Harrishbabu</i>
14	20UMT014	P. KRISHNA KUMAR	<i>P. Krishna Kumar</i>	<i>P. Krishna Kumar</i>	<i>P. Krishna Kumar</i>
15	20UMT015	V.HARISH RAMACHANDRAN	<i>V. Harish Ramachandran</i>	<i>V. Harish Ramachandran</i>	<i>V. Harish Ramachandran</i>
16	20UMT016	R.ESAKKIANAND	←	AB	→

*2A/8/22*  
Coordinator.

*24/08/22*  
HoD/MTRE



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S.P.G.Chidambara Nadar - C.Nagammal Campus  
S.P.G.C. Nagar, K.Vellakulam - 625 701 (Near VIRUDHUNAGAR).

## DEPARTMENT OF MECHATRONICS ENGINEERING

### Attendance Sheet

Value Added Course on "Internet of Things"-25.08.2022 (Day 4)

S.No.	Roll Number	Name	Signature		
			Session I (9.00-10.30)	Session II (11.00-12.40)	Session III (01.30-04.00)
1	20UMT001	R.NAVEEN			
2	20UMT002	G.RAHUL			
3	20UMT003	R.GEMRELTON			
4	20UMT004	C.VEERANAN			
5	20UMT005	S.KARTHIKEYAN			
6	20UMT006	K.SAKTHIBALA			
7	20UMT007	R.RAMANAVEL			
8	20UMT008	M.E.NAVEENPRAKASH			
9	20UMT009	V.ANANDAKRISHNAN			
10	20UMT010	S.BHUVANESHWARAN			
11	20UMT011	S.SABARIVASAN			
12	20UMT012	R.MANIKANDAN			
13	20UMT013	K.HARRISHBABU			
14	20UMT014	P. KRISHNA KUMAR			
15	20UMT015	V.HARISH RAMACHANDRAN			
16	20UMT016	R.ESAKKIANAND			

25/8/22  
Coordinator

25/8/22  
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S.P.G.C. Nagar, K.Vellakulam - 625 701 (Near VIRUDHUNAGAR).

## DEPARTMENT OF MECHATRONICS ENGINEERING

### Attendance Sheet

Value Added Course on "Internet of Things"-26.08.2022 (Day 5)

S.No.	Roll Number	Name	Signature		
			Session I (9.00-10.30)	Session II (11.00-12.40)	Session III (01.30-04.00)
1	20UMT001	R.NAVEEN	R. Navin	R. NAVIN	R. Navin
2	20UMT002	G.RAHUL	G. Rahul	G. Rahul	G. Rahul
3	20UMT003	R.GEMRELTON	R. Gemrelton	R. Gemrelton	R. Gemrelton
4	20UMT004	C.VEERANAN	C. Veeranan	C. Veeranan	C. Veeranan
5	20UMT005	S.KARTHIKEYAN	S. K	S. K	S. K
6	20UMT006	K.SAKTHIBALA	K. SakthiBala	K. SakthiBala.	K. SakthiBala
7	20UMT007	R.RAMANAVEL	R. Ramanavel	R. Ramanavel	R. Ramanavel
8	20UMT008	M.E.NAVEENPRAKASH	M. E. Naveen	M. E. Naveen	M. E. Naveen
9	20UMT009	V.ANANDAKRISHNAN	V. Anandakrishnan	V. Anandakrishnan	V. Anandakrishnan
10	20UMT010	S.BHUVANESHWARAN	S. Bhuvaneshwaran	S. Bhuvaneshwaran	S. Bhuvaneshwaran
11	20UMT011	S.SABARIVASAN	S. Sabarivasan	S. Sabarivasan	S. Sabarivasan
12	20UMT012	R.MANIKANDAN	R. Manikandan	R. Manikandan	R. Manikandan
13	20UMT013	K.HARRISHBABU	K. Harishbabu	K. Harishbabu	K. Harishbabu
14	20UMT014	P. KRISHNA KUMAR	P. Krishna Kumar	P. Krishna Kumar	P. Krishna Kumar
15	20UMT015	V.HARISH RAMACHANDRAN	V. Harish Ramachandran	V. Harish Ramachandran	V. Harish Ramachandran
16	20UMT016	R.ESAKKIANAND	R. Esakkianand	R. Esakkianand	R. Esakkianand

26/8/22  
Coordinator

26/08/22  
HoD/MTRE





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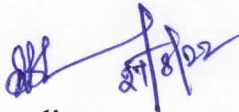
S.P.G.Chidambara Nadar - C.Nagammal Campus  
S.P.G.C. Nagar, K.Vellakulam - 625 701 (Near VIRUDHUNAGAR).

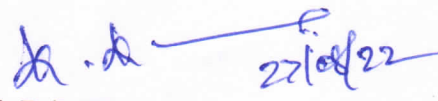
## DEPARTMENT OF MECHATRONICS ENGINEERING

### Attendance Sheet

Value Added Course on "Internet of Things"-27.08.2022 (Day 6)


S.No.	Roll Number	Name	Signature		
			Session I (9.00-10.30)	Session II (11.00-12.40)	Session III (01.30-04.00)
1	20UMT001	R.NAVEEN	R. Navir	R. Navir	R. Navir
2	20UMT002	G.RAHUL	G. Rah	G. Rah	G. Rah
3	20UMT003	R.GEMRELTON	R. Gemrelton	R. Gemrelton	R. Gemrelton
4	20UMT004	C.VEERANAN	C. Veeranan	C. Veeranan	C. Veeranan
5	20UMT005	S.KARTHIKEYAN	S. Karthikeyan	S. Karthikeyan	S. Karthikeyan
6	20UMT006	K.SAKTHIBALA	K. Sakthibala	K. Sakthibala	K. Sakthibala
7	20UMT007	R.RAMANAVEL	R. Ramanavel	R. Ramanavel	R. Ramanavel
8	20UMT008	M.E.NAVEENPRAKASH	M.E. Naveenprakash	M.E. Naveenprakash	M.E. Naveenprakash
9	20UMT009	V.ANANDAKRISHNAN	V. Anandakrishnan	V. Anandakrishnan	V. Anandakrishnan
10	20UMT010	S.BHUVANESHWARAN	S. Bhuvaneshwaran	S. Bhuvaneshwaran	S. Bhuvaneshwaran
11	20UMT011	S.SABARIVASAN	S. Sabarivasan	S. Sabarivasan	S. Sabarivasan
12	20UMT012	R.MANIKANDAN	R. Manikandan	R. Manikandan	R. Manikandan
13	20UMT013	K.HARRISHBABU	K. Harishbabu	K. Harishbabu	K. Harishbabu
14	20UMT014	P. KRISHNA KUMAR	P. Krishna Kumar	P. Krishna Kumar	P. Krishna Kumar
15	20UMT015	V.HARISH RAMACHANDRAN	V. Harish Ramachandran	V. Harish Ramachandran	V. Harish Ramachandran
16	20UMT016	R.ESAKKIANAND	R. Esakkianand	R. Esakkianand	R. Esakkianand

  
Coordinator

  
HoD/MTRE



Timestamp	Email Address	Score	Name	Roll No.	Mention title of project you have done	VIDEO LINK
8-27-2022 12:21:52	20um014@kamarajengg.edu.in	14 / 20	KRISHNA KUMAR P	20um014	Distance detector	<a href="https://drive.google.com/file/d/1_a6keUjUxh4JzIF7IvzeiEU80UPac-view?usp=drivesdk">https://drive.google.com/file/d/1_a6keUjUxh4JzIF7IvzeiEU80UPac-view?usp=drivesdk</a>
8-27-2022 12:28:14	20um005@kamarajengg.edu.in	13 / 20	KARTHIKEYAN S	20UMT005	RFID Entry System	<a href="https://drive.google.com/file/d/1zQXETbR5iQbwSvmtbznm0alNkxAb7_BO/view?usp=drivesdk">https://drive.google.com/file/d/1zQXETbR5iQbwSvmtbznm0alNkxAb7_BO/view?usp=drivesdk</a>
8-27-2022 12:29:31	20um010@kamarajengg.edu.in	19 / 20	BHUVANESHWARAN S	20UMT010	RFID Entry System	<a href="https://drive.google.com/file/d/1_a6keUjUxh4JzIF7IvzeiEU80UPac-view?usp=drivesdk">https://drive.google.com/file/d/1_a6keUjUxh4JzIF7IvzeiEU80UPac-view?usp=drivesdk</a>
8-27-2022 12:30:30	20um003@kamarajengg.edu.in	19 / 20	GEM RELTON R	20UMT003	DISTANCE DETECTOR	<a href="https://drive.google.com/file/d/1_a6keUjUxh4JzIF7IvzeiEU80UPac-view?usp=drivesdk">https://drive.google.com/file/d/1_a6keUjUxh4JzIF7IvzeiEU80UPac-view?usp=drivesdk</a>
8-27-2022 12:31:28	20um013@kamarajengg.edu.in	18 / 20	HARRISH BABU . K	20UMT013	MOTION DETECTION USING PIR SENSOR	<a href="https://drive.google.com/file/d/1_a6keUjUxh4JzIF7IvzeiEU80UPac-view?usp=drivesdk">https://drive.google.com/file/d/1_a6keUjUxh4JzIF7IvzeiEU80UPac-view?usp=drivesdk</a>
8-27-2022 12:33:26	20um016@kamarajengg.edu.in	13 / 20	ESAKKIANAND R	20UMT016	DISTANCE DETECTOR	<a href="https://drive.google.com/file/d/1_a6keUjUxh4JzIF7IvzeiEU80UPac-view?usp=drivesdk">https://drive.google.com/file/d/1_a6keUjUxh4JzIF7IvzeiEU80UPac-view?usp=drivesdk</a>
8-27-2022 12:33:28	20um015@kamarajengg.edu.in	14 / 20	HARISH RAMACHANDRAN V	20UMT015	RFID entry system	<a href="https://drive.google.com/file/d/1G6buuG049CB0bAkLh0RmYq3zmD-_JfBOIvview?usp=drivesdk">https://drive.google.com/file/d/1G6buuG049CB0bAkLh0RmYq3zmD-_JfBOIvview?usp=drivesdk</a>
8-27-2022 12:39:10	20um012@kamarajengg.edu.in	17 / 20	MANIKANDAN R	20UMT012	LDR WITH MQTT PROTOCOL	<a href="https://drive.google.com/file/d/1_a6keUjUxh4JzIF7IvzeiEU80UPac-view?usp=drivesdk">https://drive.google.com/file/d/1_a6keUjUxh4JzIF7IvzeiEU80UPac-view?usp=drivesdk</a>
8-27-2022 12:39:52	20um002@kamarajengg.edu.in	11 / 20	RAHUL G	20UMT002	human detection	<a href="https://drive.google.com/file/d/1_a6keUjUxh4JzIF7IvzeiEU80UPac-view?usp=drivesdk">https://drive.google.com/file/d/1_a6keUjUxh4JzIF7IvzeiEU80UPac-view?usp=drivesdk</a>
8-27-2022 12:40:35	20um007@kamarajengg.edu.in	18 / 20	RAMANAVEL R	20UMT007	Conveyor count using IR sensor	<a href="https://drive.google.com/file/d/1-3MM1Tq_IT-imitorWFNSL4bj1_l6XDUzVview?usp=drivesdk">https://drive.google.com/file/d/1-3MM1Tq_IT-imitorWFNSL4bj1_l6XDUzVview?usp=drivesdk</a>
8-27-2022 12:41:36	20um009@kamarajengg.edu.in	19 / 20	ANANDAKRISHNAN V	20UMT009	conveyor count using IR sensor	<a href="https://drive.google.com/file/d/1-3MM1Tq_IT-imitorWFNSL4bj1_l6XDUzVview?usp=drivesdk">https://drive.google.com/file/d/1-3MM1Tq_IT-imitorWFNSL4bj1_l6XDUzVview?usp=drivesdk</a>
8-27-2022 12:41:52	20um011@kamarajengg.edu.in	17 / 20	SABARIVASAN S	20UMT011	OBJECT DETECTOR	<a href="https://drive.google.com/file/d/1_a6keUjUxh4JzIF7IvzeiEU80UPac-view?usp=drivesdk">https://drive.google.com/file/d/1_a6keUjUxh4JzIF7IvzeiEU80UPac-view?usp=drivesdk</a>
8-27-2022 12:42:15	20um001@kamarajengg.edu.in	16 / 20	NAVEEN R	20UMT001	LDR with MQTT protocol	<a href="https://drive.google.com/file/d/1G6buuG049CB0bAkLh0RmYq3zmD-_JfBOIvview?usp=drivesdk">https://drive.google.com/file/d/1G6buuG049CB0bAkLh0RmYq3zmD-_JfBOIvview?usp=drivesdk</a>
8-27-2022 12:43:24	20um004@kamarajengg.edu.in	16 / 20	VEERANAN C	20um004	Conveyor Count using IR sensor	<a href="https://drive.google.com/file/d/1-3MM1Tq_IT-imitorWFNSL4bj1_l6XDUzVview?usp=drivesdk">https://drive.google.com/file/d/1-3MM1Tq_IT-imitorWFNSL4bj1_l6XDUzVview?usp=drivesdk</a>
8-27-2022 12:43:58	20um008@kamarajengg.edu.in	14 / 20	NAVEEN PRAKASH M.E.	20UMT008	LDR WITH MQTT PROTOCOL	<a href="https://drive.google.com/file/d/1G6buuG049CB0bAkLh0RmYq3zmD-_JfBOIvview?usp=drivesdk">https://drive.google.com/file/d/1G6buuG049CB0bAkLh0RmYq3zmD-_JfBOIvview?usp=drivesdk</a>
8-27-2022 12:44:08	20UMT006@kamarajengg.edu.in	17 / 20	SAKTHI BALA . K.	20UMT006	Motion detection using PIR sensor	<a href="https://drive.google.com/file/d/1SQ8buxn7vrRdnKqKhJ6aepV3y1LMJiQAA/view?usp=drivesdk">https://drive.google.com/file/d/1SQ8buxn7vrRdnKqKhJ6aepV3y1LMJiQAA/view?usp=drivesdk</a>

  
VAC coordinator

  
HOD IITRE

# KAMARAJ

COLLEGE OF ENGINEERING & TECHNOLOGY

(An Autonomous Institution - AFFILIATED TO ANNA UNIVERSITY, CHENNAI)

S.P.G.Chidambara Nadar - C.Nagammal Campus

S.P.G.C. Nagar, K.Vellakulam - 625 701 (Near VIRUDHUNAGAR).

## Mark Statement

Department : Mechatronics Engineering

Regulation : KCET R20

Year : III

Semester : V

S.No.	Roll No.	Reg. No.	Student Name	Internal Marks (60)	External Marks (40)	Total (100)
1	20UMT001	920420UMT001	R.NAVEEN	48	38	86
2	20UMT002	920420UMT002	G.RAHUL	33	37	70
3	20UMT003	920420UMT003	R.GEMRELTON	57	37	94
4	20UMT004	920420UMT004	C.VEERANAN	48	38	86
5	20UMT005	920420UMT005	S.KARTHIKEYAN	39	38	77
6	20UMT006	920420UMT006	K.SAKTHIBALA	51	37	88
7	20UMT007	920420UMT007	R.RAMANAVEL	54	38	92
8	20UMT008	920420UMT008	M.E.NAVEENPRAKASH	42	38	80
9	20UMT009	920420UMT009	V.ANANDAKRISHNAN	57	38	95
10	20UMT010	920420UMT010	S.BHUVANESHWARAN	57	38	95
11	20UMT011	920420UMT011	S.SABARIVASAN	51	37	88
12	20UMT012	920420UMT012	R.MANIKANDAN	51	38	89
13	20UMT013	920420UMT013	K.HARRISHBABU	54	37	91
14	20UMT014	920420UMT014	P. KRISHNA KUMAR	42	37	79
15	20UMT015	920420UMT015	V.HARISH RAMACHANDRAN	42	38	80
16	20UMT016	920420UMT016	R.ESAKKIANAND	39	37	76

Coordinator

HoD/MTRE

Dean (Academic Courses)



# Feedback for 6 days Value Added Course on "Internet of Things "

Date : 22.08.2022 to 27.08.2022

\* Required

\* This form will record your name, please fill your name.

1. Your name \*

2. Roll Number \*

3. Registration Number \*

4. Department \*

5. Year \*

- II
- III
- IV

6. Were objectives of the Event met? \*

- Completely agree
- Strongly agree
- Agree
- Partly agree
- Disagree

7. Was the program sequence well planned? \*

- Completely agree
- Strongly agree
- Agree
- Partly agree
- Disagree



8. Were the lectures clear and easy to understand? \*

- Completely agree
- strongly agree
- Agree
- Partly agree
- Disagree

9. Whether the instructor encouraged the interaction \*

- Completely agree
- Strongly agree
- Agree
- Partly agree
- Disagree

10. The information presented at this event was highly beneficial \*

- Completely agree
- Strongly agree
- Agree
- Partly agree
- Disagree

# Feedback for 6 days Value Added Course on "Internet of Things "

15

Responses

01:22

Average time to complete

Active

Status

1. Your name

15

Responses

Latest Responses

"GEM RELTON.R"

"K.Sakthi Bala"

"K.Harrish Babu"

3 respondents (20%) answered R for this question.

	<b>KSakthi Bala</b>	<b>Krishna</b>	<b>ANANC</b>
	<b>Ramachandran v</b>	<b>SABARIVASAN S</b>	
<b>Karthikeyan</b>	<b>ESAKKIANAND R</b>	<b>R</b>	<b>Harish</b>
<b>kumar</b>	<b>RAMANA VEL R</b>	<b>Naveen R</b>	<b>KHarrish</b>
	<b>VEERANAN C</b>	<b>P</b>	<b>MENAVEEN PRAI</b>
	<b>S Bhuvaneshwaran</b>		





**DEPARTMENT OF MECHATRONICS ENGINEERING**

(Accredited by NBA, New Delhi)

**Report on “Value Added Course on Internet of Things”**

29.08.2022

Department of Mechatronics Engineering, Kamaraj College of Engineering & Technology organized 6-day Value added course on “Internet of Things” for III year Mechatronics Engineering students from 22.08.2022 to 27.08.2022. Mr. Kesavan & Mr. Ohm Vignesh from Quantanics Techserv Pvt. Ltd., handled the sessions and trained our students during the entire program. The main purpose of this event is to equip our budding Mechatronics engineers with the knowledge of Industrial automation, home automation, Microcontroller programming through hands on sessions and make them industry ready. The program began with a formal welcome address by Dr.K.Kannan HoD/MTRE. The Trainers provided hands on training on programming using Arduino controllers and integrate them in real time applications.

**Topics Covered**

1. Basic Electronics Setting up
2. Arrays and Memory
3. ESP 32/ESP8266 Architecture
4. CLOUD-MQTT
5. Home Automation-Robot control
6. Hands on practice using Arduino microcontroller

At the end of the course, students presented their projects and an assessment test was conducted to evaluate the performance of the individuals. A total of 16 participants were attended the program. Finally the program ends with a formal vote of thanks by Mr.S.David Blessley.

  
Co-Ordinator

  
HoD/MTRE