Department of
ELECTRONICS AND COMMUNICATION ENGINEERING

Value Added Course
on
IoT using Arduino and Cloud

Date: 04.01.2023 to 10.01.2023   Class: II ECE

No. of Participants:

Academic year: 2022 – 2023 (EVEN Semester)

2

Guidelines for Value-Added Courses:

	Academic Year	: 2022-23 (EVEN)
	Regulation	: R2021
	Department Name	: Electronics and Communication Engineering
4.	Name of the Value-added course	: IoT using Arduino and Cloud
5.	No. of Credits	: 2
6.	Category	: Theory & Hands-on
7.	Name and Details of the Joint-organization (industry/NGO etc) if any	: Pantech Solutions, Chennai
8.	Resource person details	: Mr. Mohan Shankar
9.	Three Member Committee details	: 1.Dr.R.Suresh Babu, HoD/ECE 2.Mr.S.Alwyn Rajiv, AP/ECE 3.Mr.R.Ashok , AP/ECE
10.	VAC Coordinator Details	: 1.Mr.R.Ashok,AP/ECE 2.Mrs.P.Ramalakshmi, AP/ECE
11.	Duration (30 h mandatory)	: 42
12.	Period (From-To) :	: 04.01.2023 to 10.01.2023
13.	Venue	: Research Lab (ECE Lab I)

Guidelines / Assessment of VAC:

1. Internal 40 Marks. Preferably Assignments such as mini projects, presentations, worksheets, etc.

2. External 60 Marks. MCQs type.

   MCQs Type question paper pattern :

   Part A – 20 x 3 = 60 Marks

   Total (IM + EM): 100 Marks

   Passing Criteria: 50 Marks

   No revaluation and no re-exam will be entertained.

3. Mode of External Exam: Online proctored mode

4. Duration of the Exam: 1 h 30 min

Encl:
1. Syllabus Copy
2. BoS Approval
3. Three Member Committee MoM
4. Geo-Tagged Photos
5. Certificates of all participants
6. Questionnaire
7. Attendance Sheet
8. Evaluated Answer script
9. Test Report
10. Feedback form
11. Feedback analysis
12. Students' oral feedback (recorded video)

Course Code	Course Name	L	T	P	C
Value Added Course	Internet of Things using Arduino and Cloud	20	0	25	2

a. Preamble

Integrated courses are built in a way to provide multidisciplinary knowledge about various fields. Here the core domains must be integrated with each other and ensures a proper understanding of the topic which leads to a great learning experience which is required in industry.

b. Course Outcomes

Upon successful completion of course, the students will be able to

CO. No.	Course Outcome	Knowledge Level
CO1	Understand Embedded system and Arduino architecture	K2
CO2	Design and develop IoT based system connected over internet.	K3
CO3	Build and Interface Cloud with Arduino	K4

Introduction   2 Hours

Introduction to the course module-Importance of Application Development and IoT Sectors-Career Opportunities in this field-Why do we need to learn this?

Embedded System   5 Hours

Introduction to Embedded System & IoT - Architecture of Node MCU-Input Devices & ADC - Communication Protocols, PWM - Sensor Interface with MCU

Internet of Things   2 Hours

Introduction to IoT-Internet Protocol, Communication-Connecting MCU to the Internet -Http request from MCU-Blynk app to control the IoT Device- Monitoring Physical things over Internet - Controlling device State using IoT.

Arduino Architecture & Programming   12 Hours

Introduction to IoT and the overview of its Application, Overview of Arduino Architecture, Arduino IDE and Embedded C Programming, Interface LED with Arduino (Hands On), Interface with Serial communication UART (Hands On), Speed control of dc motor using PWM technique

Data from the Sensors / Interface to Cloud   12 Hours

Introduction & Working Principle of sensors, Working & Interface of Ultrasonic, IR Sensor to Arduino & Programming, Working & Interface of Gas Sensor , LDR and DC Motor & Programming, Install and Use of API Keys for Text Messaging. Mini Project Application

Design - Garbage monitoring: Collect the data using cloud, Send an SMS using ap
notification.

12 Hours

Creating a LOCAL HOST and Control the Appliances

Designing Web Pages: Basics of HTML, Controlling Devices or appliances using webpage
Application: Speed control of dc motor, Speed control of light intensity. Reading Input Statu
from sensor and monitoring on webpage: Temperature, Humidity.

Project & Assessment

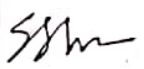|		
Practical 1	:	Blinking of LED.
Practical 2	:	Turn ON / OFF Buzzer at desired delay
Practical 3	:	Transferring data serially from PC to microcontroller
Project 1	:	TRAFFIC LIGHT Management with Delay
Project 2	:	Turn ON/Off appliances with Controller
Project 3	:	People counting using IR sensor

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COLLEGE OF ENGINEERING & TECHNOLOGY

(An Autonomous Institution - AFFILIATED TO ANNA UNIVERSITY, CHENNAI)
S.P.G.Chidambara Nadar - C.Nagammal Campus
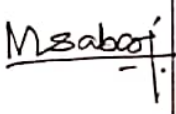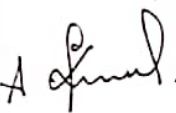S.P.G.C. Nagar, K.Vellakulam – 625 701 (Near VIRUDHUNAGAR).

Department of Electronics and Communication Engineering

Sixth BoS Meeting Minutes

: 11.03.2023

: 02:00PM

: VLSI Laboratory, Department of ECE

Name of the Expert	Designation	Capacity	Signature
Dr.E.S.Gopi, Ph.D.,	Associate Professor/ECE National Institute of Technology, Tiruchirappalli, Tamil Nadu	Anna University Nominee	
Dr. M. Sabarimalai Manikandan Ph.D.,	Associate Professor, Department of Electrical Engineering, Indian Institute of Technology Palakkad	Academic Council Nominee	
Dr A Kannammal, Ph.D.,	Associate Professor/ ECE PSG College of Technology, Avinashi Rd, Peelamedu - 641004, Coimbatore	Academic Council Nominee	
Mr.M.Chinnathambi, M.E.,	Technical Lead Viasat India, Global Infocity, Module 1&2,5th Floor, Block C, No.40, MGR Salai, Perungudi- 600 097, Chennai.	Industrial Expert	
Ms.A.Anto Amala, M.E.,	Associate Staff Engineer, Samsung Semiconductor India Research, Laxmi Sagar Layout, Mahadevapura, Bengaluru, Karnataka 560048	Alumni	

ternal faculty Members of BoS

.No.	Name of the Faculty	Designation	Signature
1.	Dr.R.Suresh Babu	Professor & Head	R.S—Ber
2.	Dr.T.Pandiselvi	Associate Professor	G.P—br
3.	Dr.N.M.Mary Sindhuja	Associate Professor	NuBin
4.	Dr.T.Prathiba	Assistant Professor	T.Prothu
5.	Mrs.C.Nagavani	Assistant Professor	C.Afu
6.	Mrs.S.Nisha Rani	Assistant Professor	curl
7.	Mr.P.Aravind	Assistant Professor	L.
8.	Mr.R.Ashok	Assistant Professor	RA
9.	Mrs.M.Stella Mercy	Assistant Professor	
10.	Mr.S.Alwyn Rajiv	Assistant Professor	SAluy
11.	Mrs.P.Ramalakshmi	Assistant Professor	
12.	Mr.R.Rajprabu	Assistant Professor	

6.01.00 : Welcome address by HoD

> Dr.R.Suresh Babu, Professor & Head welcomed all the BoS members.

6.02.00 : Introduction of BoS members and new Academic Council Nominee

> Dr.R.Suresh Babu, introduced all the BoS Members to the gathering.

6.03.00 : Approval of 5th BoS Meeting Minutes & Action taken

tem No.	Suggestions of BoS Members in 5th BoS Meeting	Action Taken
1.	Dr. D. Sriram Kumar Ph.D. gave suggestions on framing R2020-Optical communication course syllabus. He insisted to remove Unit V- Optical Networks which is a separate course. He suggested to reduce the syllabus in Unit II. He also suggested to give more number of experiments in laboratories & project work.	As per his suggestion, in R2020 and R2021, Unit V is changed as optical communication systems. The contents in Unit II were reduced. As per his suggestions, in R2021 number of experiments is increased by increasing Theory cum Laboratory courses.

2.	Dr. D. Sriram Kumar Ph.D. insisted to connect industry with guest lecture for management related courses.	Many guest lectures were conducted management related courses a. "Supply Chain Management" on 21.01.20 Resource Person: Mr. P.Raju, Former DG BPL Medical Technologies. b."Entrepreneurship and Skill Developm Program" on 23.09.2022. Resource Pers Mr.M.Koushik Venkatraman, Mahatma Gar National Fellow, Under Ministry of S Development and Entrepreneurship. c."Ne Give up ur dream" on 17.9.2022 Reso person Mr.R.K.SureshKumar, AGM, BS Madurai 4." Entrepreneurship Training Program M/ (MAD - Man Against Demand) on 29.08.2(Resource person: JCI. SEN. Binu Ja Provisional National Trainer
3.	Dr. D. Sriram Kumar Ph.D. suggested to include software based experiments for Optical, Microwave and Wireless.	LABVIEW and MATLAB based experim are included in Advanced Communica Laboratory
4.	Dr. D. Sriram Kumar Ph.D. implied to introduce NS3 in Advanced Communication laboratory	Included experiments based on NS3 Advanced Communication Laboratory
5.	Dr. D. Sriram Kumar Ph.D. insisted to remove Microwave Communication course which is suitable for PG course. He suggested to include one more text book in Multimedia Communication course.	Removed Microwave Communication co Included one more text book in Multin Communication course.
6.	Dr. D. Sriram Kumar Ph.D. gave suggestion for Unit V in Wireless Networks. Since the unit titled 4G & Beyond, Introduction to future Wireless Networks topic can be included which may deal with 5G/6G networks.	Introduction to future Wireless Networks has been included in Wireless Netw course.

7.	Dr. D. Sriram Kumar Ph.D. insisted that Intellectual Property Rights course may be included.	Intellectual Property Rights course is
8.	Dr. D. Sriram Kumar Ph.D. insisted in Principles of Cryptography course, include 2 units on Steganography and change the title of the course as Cryptography & Steganography.	Steganography is included and the t course Principles of Cryptography i as Principles of Cryptogra Steganography.
9.	Mr. M. Chinnathambi, M.E., insisted to include topics RSA, EEC, open SSL algorithm in Principles of Cryptography course.	RSA, EEC, open SSL algorithm is i Principles of Cryptography course.
10.	Dr. D. Sriram Kumar Ph.D. suggested to include SDMA in Satellite Communication. He also insisted to include applications in V unit of all the courses. He also insisted to combine the Basics of MEMS and NEMS course and BioMEMS course as a single course.	Included SDMA in Satellite Com course. Applications are included courses. Basics of MEMS and NEM changed as BioMEMS.
11.	Dr. D. Sriram Kumar Ph.D. insisted to remove the course Photonic Networks from open elective courses. Instead of that Electronic Packaging may be included and arrange industry people to teach Electronic Packaging course.	Removed the course Photonic Net open elective courses. Electronic course is included.
12.	Dr. E. S. Gopi, Ph.D., suggested to include prerequisites for open elective courses in Unit I if it is not mentioned.	Basics are included in all the O courses in Unit I
13.	Dr. E. S. Gopi, Ph.D., insisted to include online courses in R2021.	In all the verticals, 2 online cours are included

> BoS members approved the 5th BoS Meeting Minutes and Action taken.

06.04.00 : ITEMS FOR DISCUSSION AND APPROVAL

> The Hod presented the curriculum and syllabi of R2021 and listed the subjects, and VI semester courses including the verticals and minor degree courses offere department of ECE.

006.04.01 : Proposed Curriculum and Syllabi for V and VI semester Verticals and Minor

> Dr.E.S.Gopi, Ph.D., suggested to include prerequisites for each subjects in Professional elective list.

> Dr.E.S.Gopi, Ph.D., insisted to have some of the courses as industry based partially it can be handled by the experts from industry.

> Dr.E.S.Gopi, Ph.D., also suggested to have Data Analytics as a common course all the departments.

> Dr. M. Sabarimalai Manikandan Ph.D., insisted to give Open ended projects ac the departments.

V Semester – Core Courses

Name of the Course	Suggestions from BoS members
Wireless Communication	Approved the course and syllabus
Electromagnetic Fields and Transmission Lines	Approved the course and syllabus
VLSI Design and Technology	Approved the course and syllabus
VLSI Design Laboratory	Approved the course and syllabus
Advanced Communication Laboratory	Approved the course and syllabus

VI Semester – Core Courses

Name of the Course	Suggestions from BoS members
Embedded and Real Time Systems	Dr.E.S.Gopi, Ph.D., and Dr. M. Sabarimalai Manikandan Ph.D., suggested to include Microprocessor as 1 unit in Embedded and modify the course name as Microprocessor and Embedded Systems

Bio-sensors and Instrumentation	Dr.E.S.Gopi, Ph.D., insisted to remove this course. Instead he suggested to include MEMS & Nanoelectronics course.
Internet of Things	Approved the course and syllabus
Data Visualization in IoT	Dr.E.S.Gopi, Ph.D., suggested to change the title of the course as Data Analytics and Visualization.
RFID and Sensor Networks	Dr. M. Sabarimalai Manikandan Ph.D., suggested to remove the course RFID and include the topics of RFID and sensors in Internet of Things Course. Instead, basics of Wireless Technologies course may be included with various wireless technologies used for Sensor Technologies.
Communication Protocol and Network Security for IoT	Dr. M. Sabarimalai Manikandan Ph.D., suggested to rename the course as Device and Data Security
Industrial IoT	Approved the course and syllabus

Minor Degree in ECE

Name of the Course	Suggestions from BoS members
Basic Electronics and its Applications	Dr. M. Sabarimalai Manikandan Ph.D., suggested to rename the course as Analog Devices and Circuits.
Digital Logic Design	Approved the course and syllabus
Principles of Communication	Approved the course and syllabus
Machine Learning and Embedded Systems	Dr.E.S.Gopi, Ph.D., and Dr. M. Sabarimalai Manikandan Ph.D., verified the syllabus and insisted that machine learning and Embedded systems are two different courses and it is a dumped syllabus Focus only on Machine Learning and the course name may be changed as Introduction to Machine Learning.
Sensors and IoT	Approved the course and syllabus
Electronic Product Design using PCB	Dr. M. Sabarimalai Manikandan Ph.D., suggested rename the course as Electronic System Design

006.04.02 : List of Open Elective 1 courses offered

Name of the Course	Offered to	Suggestions from BoS members
IoT Concepts and Applications	EEE, MECH, Civil, MTRE and BT	Approved the course and syllabus

006.04.03 : List of NPTEL Courses (equivalence) offered for the students those who are opting for Honours / Minor degree / alternative to professional elective courses

NPTEL COURSE	Equivalent Professional elective course
Digital Image Processing (12 weeks)	Digital Image Processing
Computer Vision (12 weeks)	Computer Vision
Deep Learning (12 weeks)	Introduction to Deep Learning
Microprocessors and Microcontrollers (12 Weeks)	Microprocessor and Microcontroller
Introduction To Industry 4.0 And Industrial Internet Of Things (12 weeks)	Industrial IoT
Digital Electronic Circuits / Digital System Design (12 weeks)	Digital Logic Design
Introduction to Machine Learning (12 Weeks)	Introduction to Machine Learning

> All the BoS members approved the above mentioned NPTEL courses for equivalent professional elective courses.
> Dr.E.S.Gopi, Ph.D., insisted the following regarding NPTEL
> NPTEL Course must be listed separately.
> In R2020, Online course is a core course. If NPTEL is the online course, then in transcript it may be printed as NPTEL course or the NPTEL course name (Which chosen by the student).
> If a student fails in NPTEL, it should not be considered as arrear if he compens with subjects handled by the department.
> Mentor role is very important in NPTEL course.

06.04.04 : Tentative final year curriculum of R2021

Semester VII

S.NO.	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
THEORY							
1	Human Values and Ethics	HSM	2	2	0	0	2
2	Management – Elective	HSM	3	3	0	0	3
3	Statistical Theory of Communication	PC	3	3	0	0	3
4	Open Elective – II	OE	3	3	0	0	3
5	Open Elective – III	OE	3	3	0	0	3
6	Open Elective – IV	OE	3	3	0	0	3
PRACTICAL							
7	Summer internship	EE	0	0	0	0	1
	TOTAL		17	17	0	0	18

Semester VIII

S.NO.	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
PRACTICAL							
1	Project Work	EE	20	0	0	20	10
	TOTAL		20	0	0	20	10

06.05.00 : ITEMS FOR RATIFICATION

06.05.01 : NPTEL Examination results

S. No.	Course Id	Course Title	Offered Institute	No. of Students Registered	No. of Students attended	No. of Students passed	No. of Students failed	Pass Percentage
1	noc22-hs76	Soft Skills	IIT, Roorkee	58	58	48	10	82.75%
2	noc22-cs96	Introduction to Internet of Things	IIT, Kharagpur	10	10	10	--	100%

Students Achievements in NPTEL

NPTEL Course on Introduction to Internet of Things

Elite + Silver	2 Students
Elite	7 Students
Successfully Completed	1 Students

NPTEL Course on Soft Skills

Elite + Silver + 5% Topper	1 Student
Elite + Silver	5 Students
Elite	30 Students
Successfully Completed	12 Students

➤ Action Plan for the students who did not receive certificate
  • 10 students have registered two NPTEL courses- PoM & IoT & 20 students have regis
    any one of the NPTEL courses (POM or IOT) for this semester (2022-2023 EVEN).
  • Three hours are allotted in the regular time table to monitor the assignment submissions
  • Premia II PG student have registered the NPTEL course Communication Networks.
➤ BoS Members gave ratification for the NPTEL courses.

006.05.02 : Value Added Courses offered

The following Value Added courses for II year students (R2021) and III Year stud
(R2020) were conducted.

S. No.	Course Name	Resource Person	Participants	Date
1.	Integrated Full stack web development with IoT Networks	Incrix Techlutions ltd, Kovilpatti	II ECE (2021-2022)	22.02.2022 to 26.02.2022
2.	Embedded Systems Applications in Internet of Things (IoT)	Mr.M.Selvaraju, Director, Hands-on Technologies, Coimbatore	30 III/ECE students, 3 III/EIE students	25.08.2022 to 30.08.2022
3	Machine Learning & AI	Mr.A.Kesavan, CEO, Quantanics Techserv Pvt ltd, Madurai	31 III/ECE Students	25.08.2022 to 30.08.2022
4.	Artificial intelligence using Python	Mr. Naresh, Manish from Pantech E-learning Pvt. Ltd.	29 Students II year ECE students	4.01.2023 to 10.01.2023
5.	Internet of Things Using Arduino and Cloud	Mr. Mohan from Pantech E-learning Pvt Ltd	30 Students II year ECE students	4.01.2023 to 10.01.2023

➤ BoS members gave ratification for the above mentioned Value added courses conducted.

006.05.03 : Curriculum feedback and action taken if any

> Collecting the curriculum feedback from the students and action plan will be taken later.

006.06.00: Information about the (Points Discussed in the following)

Item No.	Description	Suggestions / Comments from the BoS Members
006.06.01	Anna University New Amendment (Honours / Honours in same discipline / Minor)	The HOD Presented the new amendments given by Anna University. i. Honours/Honours with specialization/ Minor Degree ii. Include two Audit courses – Heritage Tamil, Tamils and Technology for R2021. All the BoS members accepted the amendments

i. Honours/Honours with specialization/ Minor Degree

Criteria	Honours with Specialization	Honours	Minor in other specialization
Eligibility	7.5 CGPA upto III Semester	7.5 CGPA upto III Semester	7.5 CGPA upto III Semester
Additional Credit	18 Credits (6 Courses)	18 Credits (6 Courses)	18 Credits (6 Courses)
Semester	5 to 7 Semester	5 to 7 Semester	5 to 7 Semester
Programme	Same Programme	Same Programme	Other Programme or any one of the institution level Verticals
Professional Elective	Same Vertical	Different Vertical	Same Vertical
Eligibility for Honours / Minor	Pass all the courses in the first attempt	Pass all the courses in the first attempt	Pass all the courses with in the time Period

ii. Audit courses – Heritage Tamil, Tamils and Technology

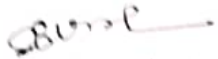| S.No.	Course	Batch 2022-2023 Semester	Batch 2023-2024 onwards Semester	Credit
1	தமிழர் மரபு \ Heritage Tamils	II	I	1
2	தமிழரும் தொழில்நுட்பமும் \ Tamils and Technology	III	II	1

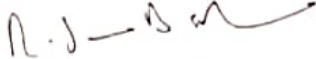| Item No.	Description	Suggestions / Comments from the BoS Members
006.06.02	Pass Percentage of students	The HOD Presented the Pass percentage yearwise a course wise for the Nov/Dec, 2022 End Semes Examination II ECE – 76.67% III ECE – 85.25% IV ECE A – 95% IV ECE B – 95%
006.06.03	Value Added Courses offered/ Planned for the academic year: 2023 - 2024	The HOD Presented the Value added course planned for academic year 2023-2024 1. Integrated Full stack web development with I Networks – 2nd Year 2. Hands on Training in Digital Design using E-Box – Year All the BoS Members approved the Value Added Courses,
006.06.04	NBA eSAR / status and information	The HOD Happily shared the compliance report of EC Department is submitted on 30.01.2023 and the NB Compliance audit is scheduled on 09.04.2023. HOD happily shared the information on increase in intal due to the demand for ECE programme from 60 to 120 fro the academic year 2023-2024. All the BoS members gav approval to increase the intake.
006.06.05	Student Internship details (between 5th and 6th meeting)	The HOD shared the statistical data of the studer internship/ Inplant training details for R2020 & R2021 - In IV ECE 25 students are in Internship with stipend (R2017). - All the 61 students of III ECE have completed (R2020). - All the 60 Students of II ECE have completed (R2021).
006.06.06	Department Achievements	The HOD presented the following - Students' prize winning in various project competition at various institutions like Maulana Azad Nationa Institute of Technology, Bhopal, Tamil Nadu Science Forum, Bannari Amman Institute of Technology, Mepo Schlenk Engineering College, Kalasalingam Academy o Research and Education etc.,. Co-curricula Achievements - Students' prize winning in Extra-curricular activities. - 74% of students got Placement in various core and I companies. - Faculty Achievements in getting awards, Industria visits, DST, TNSCST, SEED Money proposals, funde proposals applied, Journal and conference publications Acted as resource persons in various institutions. - Two Faculty members got promoted as Associa Professor.

06.07.00 : **Any other Item**

> Next BoS Meeting is tentatively scheduled during September 2023.

06.08.00 : **Vote of Thanks**

> The meeting ended with the Vote of Thanks by Dr.T.Prathiba, Assistant Professor, Department of Electronics and Communication Engineering, Kamaraj College of Engineering and Technology, Virudhunagar.

BoS Coordinator
S.Nisha Rani, AP/ECE
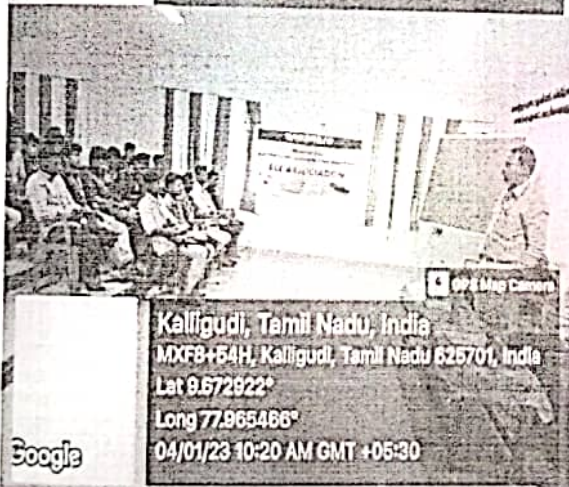
BoS Chairman
Dr.R.Suresh Babu
HoD / ECE

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11/1/2023

Minutes of 3 Member Committee Meeting

Member 1 - Head of the Department - Dr.R.Suresh Babu

Member 2 - Class Chairperson – Mr.S.Alwyn Rajiv

Member 3 - Course Incharge - Mr.R.Ashok

The following points were discussed in the 3 Member Committee meeting held on 22nd Dec 2022.

1. Discussed about the Demo given by Pantech solutions on 23rd Dec 2022.
2. Decided to conduct online pre requirement session to II ECE Students on 2nd January at 2.30P.M
3. The dates of the course were decided in the meeting as 4/1/2023-10/1/2023 (6 days).
4. Discussed to conduct Mini Project contest after the completion of the course.
5. Discussed about the venue of value added program

Course In-charge　　　　**Class Chairperson**　　　　**HOD/ECE**

Snapshot of Value added course-Internet of Things using Arduino and Cloud

Date: 4/1/2023 to 10/1/2023

Coordinator

HOD/ECE

Pantech e Learning
DIGITAL LEARNING SIMPLIFIED

CERTIFICATE

OF COMPLETION

THIS IS TO CERTIFY THAT

S. SRIKANTH

From Kamaraj college of Engineering and Technology has actively participated in the Value Added Course on "*Internet of Things using Arduino and cloud*" organized by Pantech e-learning from 04.01.2023 to 10.01.2023

DIRECTOR, PANTECH E LEARNING

Pantech e Learning
DIGITAL LEARNING SIMPLIFIED

CERTIFICATE
OF COMPLETION

THIS IS TO CERTIFY THAT

R. BHARATH VAJ

From Kamaraj college of Engineering and Technology has actively participated in the Value Added Course on "*Internet of Things using Arduino and cloud*" organized by Pantech e-learning from 04.01.2023 to 10.01.2023

DIRECTOR, PANTECH E LEARNING

Pantech e Learning
DIGITAL LEARNING SIMPLIFIED

CERTIFICATE
OF COMPLETION

THIS IS TO CERTIFY THAT

R.VETRIVEL

From Kamaraj college of Engineering and Technology has actively participated in the Value Added Course on "*Internet of Things using Arduino and cloud*" organized by Pantech e-learning from 04.01.2023 to 10.01.2023

DIRECTOR, PANTECH E LEARNING

Pantech e Learning
DIGITAL LEARNING SIMPLIFIED

CERTIFICATE

OF COMPLETION

THIS IS TO CERTIFY THAT

R. DHANUSH

From Kamaraj college of Engineering and Technology has actively participated in the Value Added Course on "*Internet of Things using Arduino and cloud*" organized by Pantech e-learning from 04.01.2023 to 10.01.2023

DIRECTOR, PANTECH E LEARNING

Pantech e Learning
DIGITAL LEARNING SIMPLIFIED

CERTIFICATE

OF COMPLETION

THIS IS TO CERTIFY THAT

A. G. NIVITHA

From Kamaraj college of Engineering and Technology has actively participated in the Value Added Course on "*Internet of Things using Arduino and cloud*" organized by Pantech e-learning from 04.01.2023 to 10.01.2023

DIRECTOR, PANTECH E LEARNING

Pantech e Learning
DIGITAL LEARNING SIMPLIFIED

CERTIFICATE
OF COMPLETION

THIS IS TO CERTIFY THAT

K. SUREKA

From Kamaraj college of Engineering and Technology has actively participated in the Value Added Course on " *Internet of Things using Arduino and cloud* " organized by Pantech e-learning from 04.01.2023 to 10.01.2023

DIRECTOR, PANTECH E LEARNING

Pantech e Learning
DIGITAL LEARNING SIMPLIFIED

CERTIFICATE
OF COMPLETION

THIS IS TO CERTIFY THAT

S. HASEEM ABU SHEIK

From Kamaraj college of Engineering and Technology has actively participated in the Value Added Course on " *Internet of Things using Arduino and cloud* " organized by Pantech e-learning from 04.01.2023 to 10.01.2023

DIRECTOR, PANTECH E LEARNING

Pantech e Learning
DIGITAL LEARNING SIMPLIFIED

CERTIFICATE
OF COMPLETION

THIS IS TO CERTIFY THAT

T. YUWASRI

From Kamaraj college of Engineering and Technology has actively participated in the Value Added Course on " *Internet of Things using Arduino and cloud* " organized by Pantech e-learning from 04.01.2023 to 10.01.2023

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M. MEENAKSHI

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S. FAIZARASOOL

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R. NAVEEN

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R. RAMPRASATH

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R. SHEEBA ELIZABETH

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M. KEERTHANA

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V. SRIKANTH

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DIRECTOR, PANTECH E LEARNING

Assessment Questions for IOT using Arduino and Cloud

1. What is the full form of DHT11 SENSOR?

- **Digital humidity temperature**
- Analog humidity sensor
- All the Above
- None of these

2. How to connect code to Telegram bot (IoT platform) by using?

- **HTPP Api**
- Token
- Api key
- All the above

3. How to create telegram bot?

- Bot id
- Father BOT
- **Botfather**
- All the above

4. How to link the MQTT by using?

- Client
- Message
- **Subscribe**
- Login

5. How we can see output in thing speaks?

- Numerically
- Bargraph
- Histograph
- **Graph**

6. IoT stands for _____

- internet of technology
- **internet of things**
- none of these
- incorporate of technology

7. Benefits of IoT

- Development of AI through IoT
- easy to access internet
- Improved security
- Minimizing Human effort

8. Arduino IDE is written in which programming language

- Java
- c/c++
- python
- java script

9. What is the use of Ultrasonic sensor?

- Finding object
- **Distance**
- Path finding
- Create data

10. Features of Sensors?

- **Range**
- **Accuracy**
- **Resolution**
- None of these

11. Who coined the term IoT?

- Guido van rossum
- Ross ihaka
- **Kevin ashton**
- Ibm

12. State whether true or false: An IoT network is a collection of interconnected devices.

- **True**
- False

13. Arduino UNO is?

- Protocol
- Network
- Software
- **Hardware**

14. On what is MQTT based upon?

- **Publish-Subscribe architecture**
- Client-server architecture
- Both a & b
- None of the above

15. Full form of IR sensor.

- Integrated reader
- **Infrared sensor**
- Inter reader
- None of the above

16. An IoT network is a collection of _____ devices

- Signal
- Machine to Machine
- **Interconnected**
- Network to Network

17. Which one of the following is not an IoT device?

- Amazon echo voice controller
- Google Home
- Nest Smoke Alarm
- **None of these**

18. Which of the following is not an application of IoT?

- Wearables
- Smart Grid
- **Arduino**
- Smart City

19. What is the role of Big Data in IoT's Smart Grid architecture?

- Filter the data
- Locked the data
- **Store data**
- None of these

20. Which interface does the fingerprint sensor use?

- **UART interface**
- CoAP interface
- SPI interface
- I2P interface

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S. No.	Roll Number	Name of the Student	FN	AN
1	21UEC003	DHARSHINI.S		
2	21UEC004	ABHIKSHA.G		
3	21UEC005	DHARANIDHARAN.R		
4	21UEC007	SARAVANAKUMAR.V		
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18	21UEC038	NAVEEN.R		
19	21UEC040	FAIZARASOOL.S		
20	21UEC042	MEENAKSHI.M		
21	21UEC043	YUWASRI.T		
22	21UEC048	HASEEM ABU SHEIK.S		
23	21UEC049	SUREKA.K		
24	21UEC050	NIVITHA.A.G		
25	21UEC051	DHANUSH.R		
26	21UEC057	VETRIVEL.B		
27	21UEC058	BHARATH VAJ.R		
28	21UEC059	SRIKANTH.S		
29	21UEC060	MUTHU RAAJ.K		
30	21UEC061	SATHIS KUMAR S		

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2	21UEC004	ABHIKSHA.G		
3	21UEC005	DHARANIDHARAN.R		
4	21UEC007	SARAVANAKUMAR.V		
5	21UEC010	NACHIYAR.S		
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13	21UEC026	SRIKANTH.V		
14	21UEC031	KEERTHANA.M		
15	21UEC032	JAYASURYA.S	AB	AB
16	21UEC033	SHEEBA ELIZABETH.R		
17	21UEC035	RAMPRASATH.R		
18	21UEC038	NAVEEN.R		
19	21UEC040	FAIZARASOOL.S		
20	21UEC042	MEENAKSHI.M		
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22	21UEC048	HASEEM ABU SHEIK.S		
23	21UEC049	SUREKA.K		
24	21UEC050	NIVITHA.A.G		
25	21UEC051	DHANUSH.R		
26	21UEC057	VETRIVEL.B		
27	21UEC058	BHARATH VAJ.R		
28	21UEC059	SRIKANTH.S		
29	21UEC060	MUTHU RAAJ.K		
30	21UEC061	SATHIS KUMAR S		

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ATTENDANCE ON 07 / 01 / 2023

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1	21UEC003	DHARSHINI.S		
2	21UEC004	ABHIKSHA.G	ab	ab
3	21UEC005	DHARANIDHARAN.R	G.Abhiksha	G.Abhiksha
4	21UEC007	SARAVANAKUMAR.V	R.Dwjdh	R.Dwjdh
5	21UEC010	NACHIYAR.S	V. Srv.J	V. Srv.J
6	21UEC011	BALAJI.A	S.nhj	S.nhj
7	21UEC013	PUSHPARATHINA.R	A Bol	A Bol
8	21UEC014	ALAGU SANKARA NARAYANAN.R	R.Pushparathina	R.Pushparathina
9	21UEC016	KIRUTHIYAVAISHNAVI.S	R.Alagu	R.Alagu
10	21UEC020	UVARAJ.A	S.Vaish	S.Vaish
11	21UEC022	YUVASHREE.V	Uraj.A	Uraj.A
12	21UEC023	KARUNESHVAR.M	Yuva V	Yuva V
13	21UEC026	SRIKANTH.V	M.Kcf	M.Kcf
14	21UEC031	KEERTHANA.M	V. Srikanth	V. Srikanth
15	21UEC032	JAYASURYA.S	M.k	M.k
16	21UEC033	SHEEBA ELIZABETH.R	Jayaswarya S	Jayaswarya S
17	21UEC035	RAMPRASATH.R	Shl	Rl
18	21UEC038	NAVEEN.R	R.Ramprasath	R.Ramprasath
19	21UEC040	FAIZARASOOL.S	Naveen R	Naveen R
20	21UEC042	MEENAKSHI.M	S.Faiza Rasol	S.Faiza Rasol
21	21UEC043	YUWASRI.T	Mee M	Mee M
22	21UEC048	HASEEM ABU SHEIK.S	T.Yuwasri	T.Yuwasri
23	21UEC049	SUREKA.K	HASeen	HASeen
24	21UEC050	NIVITHA.A.G	K.Sureka	K.Sureka
25	21UEC051	DHANUSH.R	A.G.Nivitha	A.G.Nivitha
26	21UEC057	VETRIVEL.B	R.Dhanush	R.Dhanush
27	21UEC058	BHARATH VAJ.R	Buthri	B.Vetrivel
28	21UEC059	SRIKANTH.S	B.Bharath	R.Bharath
29	21UEC060	MUTHU RAAJ.K	Srikanth	Srikanth
30	21UEC061	SATHIS KUMAR S	K.Muthu Raj	K.Muthu Raj
			S. Srr	S. Srr

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2	21UEC004	ABHIKSHA.G	G. Abhiksha	G. Abhiksha
3	21UEC005	DHARANIDHARAN.R	R. Dmpch	R. Dmpch
4	21UEC007	SARAVANAKUMAR.V	V. Jmt	V. Jmt
5	21UEC010	NACHIYAR.S	S. Nby	S. Nby
6	21UEC011	BALAJI.A	A. Balji	A. Balji
7	21UEC013	PUSHPARATHINA.R	Pvb	Pvb
8	21UEC014	ALAGU SANKARA NARAYANAN.R	R. Abagu	R. Alagu
9	21UEC016	KIRUTHIYAVAISHNAVI.S	S. Vaish	S. Vaish
10	21UEC020	UVARAJ.A	Usaj. A	Usaj. A
11	21UEC022	YUVASHREE.V	Yuvar	yuvs.
12	21UEC023	KARUNESHVAR.M		
13	21UEC026	SRIKANTH.V	V. Srwkanth	V. Srwkanth
14	21UEC031	KEERTHANA.M	keerth	keer
15	21UEC032	JAYASURYA.S	S. JayaSurya	S. JayaSurya
16	21UEC033	SHEEBA ELIZABETH.R	SRul	SRul
17	21UEC035	RAMPRASATH.R	R. Ramprasath	R. Ramprasath.
18	21UEC038	NAVEEN.R	Naveen. R	Naveen R
19	21UEC040	FAIZARASOOL.S	9 Fdz	Faz
20	21UEC042	MEENAKSHI.M	Meesh	Meer
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2	21UEC004	ABHIKSHA.G	S. Dharshin	S. Dharshan
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29	21UEC060	MUTHU RAAJ.K	S. Srikanth	S. Srikanth
30	21UEC061	SATHIS KUMAR S	K.Muthu Raaj	K.Muthu Raaj
			S. Sri	S. Sri

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29	21UEC060	MUTHU RAAJ.K		
30	21UEC061	SATHIS KUMAR S		

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Review: Evaluation on IOT using Arduino and Cloud

Respondent

11   KIRUTHIYAVAISHNAVI.S

18:07
Time to complete

15/20
Points

1. Name *

Score   / 0 pts

Kiruthiya Vaishnavi S

2. Roll No *

Score   / 0 pts

21uec016

✓ **Correct** 1/1 Points

3. What is the full form of DHT11 sensor *

⦿ Digital humidity temperature ✓

◯ Analog humidity sensor

◯ All the Above

◯ None of these

1   / 1 pt
Auto-graded

✗ **Incorrect** 0/1 Points

4. How to connect code to Telegram bot (IoT platform) by using? *

⦸ HTPP Api ✓

◯ Token

⦿ Api key

◯ All the above

0   / 1 pt
Auto-graded

More options for Respor

✓ **Correct** 1/1 Points

5. How to create telegram bot? *

○ Bot id

○ Father BOT

◉ Botfather ✓

○ All the above

✗ **Incorrect** 0/1 Points

6. How to link the MQTT by using? *

◉ Client

○ Message

○ Subscribe ✓

○ Login

✓ **Correct** 1/1 Points

7. How we can see output in thing speak? *

○ Numerically

○ Bargraph

○ Histo graph

◉ Graph ✓

✓ **Correct** 1/1 Points

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○ internet of technology

◉ internet of things ✓

○ none of these

○ incorporate of technology

✗ **Incorrect** 0/1 Points

0   / 1 pt
Auto-graded

9. Benefits of IoT *

- ☑ Development of AI through IoT ✓

- ☑ easy to access internet ✓

- improved security ✓

- ☑ Minimizing Human effort ✓

✓ **Correct** 1/1 Points

1   / 1 pt
Auto-graded

10. Arduino IDE is written in which programming language *

- java

- ◉ c/c++ ✓

- python

- java script

✓ **Correct** 1/1 Points

1   / 1 pt
Auto-graded

11. What is the use of Ultrasonic sensor? *

- Finding object

- ◉ Distance ✓

- Path finding

- Create data

✓ **Correct** 1/1 Points

1   / 1 pt
Auto-graded

12. Features of Sensors? *

- ☑ Range ✓

- ☑ Accuracy ✓

- ☑ Resolution ✓

- None of these

1 / 1 pt
Auto-graded

✓ **Correct** 1/1 Points

13. Who coined the term IoT? *

    ○ Guido van rossum

    ○ Ross ihaka

    ● Kevin ashton ✓

    ○ Ibm

1 / 1 pt
Auto-graded

✓ **Correct** 1/1 Points

14. State whether True or False: An IoT network is a collection of interconnected devices *

    ● True ✓

    ○ False

1 / 1 pt
Auto-graded

✓ **Correct** 1/1 Points

15. Arduino UNO is? *

    ○ Protocol

    ○ Network

    ○ Software

    ● Hardware ✓

0 / 1 pt
Auto-graded

✗ **Incorrect** 0/1 Points

16. On what is MQTT based upon? *

    ○ Publish-Subscribe architecture ✓

    ● Client-server architecture

    ○ Both a & b

    ○ None of the above

✓ **Correct** 1/1 Points

1   / 1 pt
Auto-graded

17. Full form of IR sensor *

  Integrated reader

  ⊙ Infrared sensor ✓

  Inter reader

  None of the above

✓ **Correct** 1/1 Points

1   / 1 pt
Auto-graded

18. An IoT network is a collection of _____ devices *

  Signal

  Machine to Machine

  ⊙ Interconnected ✓

  Network to Network

✗ **Incorrect** 0/1 Points

0   / 1 pt
Auto-graded

19. Which one of the following is not an IoT device? *

  Amazon echo voice controller

  ⊙ Google Home

  Nest Smoke Alarm

  None of these ✓

✓ **Correct** 1/1 Points

1   / 1 pt
Auto-graded

20. Which of the following is not an application of IoT? *

  Wearables

  Smart Grid

  ⊙ Arduino ✓

  Smart City

3

✓ **Correct** 1/1 Points

21. What is the role of Big Data in IoT's Smart Grid architecture? *

Filter the data

Locked the data

⦿ Store data ✓

None of these

✓ **Correct** 1/1 Points

22. Which interface does the fingerprint sensor use? *

⦿ UART interface ✓

CoAP interface

SPI interface

I2P interface

Review: Evaluation on IOT using Arduino and Cloud

Respondent

1   DHARSHINI.S

03:44
Time to complete

8/20
Points

1. Name *

Score   / 0 pts

S.Dharshini

2. Roll No *

Score   / 0 pts

21uec003

X Incorrect 0/1 Points

0   / 1 pt
Auto-graded

3 What is the full form of DHT11 sensor *

Digital humidity temperature ✓

Analog humidity sensor

⊙ All the Above

None of these

✓ Correct 1/1 Points

1   / 1 pt
Auto-graded

4 How to connect code to Telegram bot (IoT platform) by using? *

⊙ HTPP Api ✓

Token

Api key

All the above

More options for Responses

forms.office.com/pages/designpagev2.aspx?lang=en-US&origin=OfficeDotCom&route=Start&sessionid=be2782e6-0db7-457d-884f-d0da48831...   1/6

3g

0 / 1 p
Auto-graded

✕ **Incorrect** 0/1 Points

5. How to create telegram bot? *

Bot id

Father BOT

Botfather ✓

All the above

0 / 1 p
Auto-graded

✕ **Incorrect** 0/1 Points

6. How to link the MQTT by using? *

Client

Message

Subscribe ✓

Login

0 / 1 pt
Auto-graded

✕ **Incorrect** 0/1 Points

7. How we can see output in thing speak? *

Numerically

Bargraph

Histo graph

Graph ✓

1 / 1 pt
Auto-graded

✓ **Correct** 1/1 Points

8. IoT stands for _____ *

internet of technology

internet of things ✓

none of these

incorporate of technology

12:20 PM

X Incorrect 0/1 Points

9 Benefits of IoT *

Development of AI through IoT ✓

easy to access internet ✓

Improved security ✓

Minimizing Human effort ✓

0 / 1 pt
Auto-graded

✓ Correct 1/1 Points

10 Arduino IDE is written in which programming language *

java

c/c++ ✓

python

java script

1 / 1 pt
Auto-graded

X Incorrect 0/1 Points

11 What is the use of Ultrasonic sensor? *

Finding object

Distance ✓

Path finding

Create data

0 / 1 pt
Auto-graded

X Incorrect 0/1 Points

12 Features of Sensors? *

Range ✓

Accuracy ✓

Resolution ✓

None of these

0 / 1 pt
Auto-graded

X **Incorrect** 0/1 Points

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- ⦿ Guido van rossum
- Ross ihaka
- Kevin ashton ✓
- Ibm

✓ **Correct** 1/1 Points

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- ⦿ True ✓
- False

✓ **Correct** 1/1 Points

15. Arduino UNO is? *

- Protocol
- Network
- Software
- ⦿ Hardware ✓

X **Incorrect** 0/1 Points

16. On what is MQTT based upon? *

- Publish-Subscribe architecture ✓
- Client-server architecture
- ⦿ Both a & b
- None of the above

1   / 1 pt
Auto-graded

✓ Correct 1/1 Points

Full form of IR sensor *

Integrated reader

Infrared sensor ✓

Inter reader

None of the above

0   / 1 pt
Auto-graded

✗ Incorrect 0/1 Points

An IoT network is a collection of _____ devices *

Signal

Machine to Machine

Interconnected ✓

Network to Network

1   / 1 pt
Auto-graded

✓ Correct 1/1 Points

Which one of the following is not an IoT device? *

Amazon echo voice controller

Google Home

Nest Smoke Alarm

None of these ✓

0   / 1 pt
Auto-graded

✗ Incorrect 0/1 Points

Which of the following is not an application of IoT? *

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Smart Grid

Arduino ✓

Smart City

✓ **Correct** 1/1 Points

21. What is the role of Big Data in IoT's Smart Grid architecture? *

○ Filter the data

○ Locked the data

◉ Store data ✓

○ None of these

✕ **Incorrect** 0/1 Points

22. Which interface does the fingerprint sensor use? *

○ UART interface ✓

○ CoAP interface

◉ SPI interface

○ I2P interface

Department of Electronics and Communication Engineering
Value added course on IoT using Arduino and Cloud
ASSESSMENT MARK

Timestamp	Email address	Score (60)	Name	Roll .no
17:32:20	21uec003@kamarajengg.edu.in	24	DHARSHINI.S	21UEC003
20:47:25	21uec061@kamarajengg.edu.in	33	SATHIS KUMAR S	21UEC061
17:55:42	21uec020@kamarajengg.edu.in	48	UVARAJ.A	21UEC020
19:04:08	21uec040@kamarajengg.edu.in	36	FAIZARASOOL.S	21UEC040
19:11:02	21uec059@kamarajengg.edu.in	21	SRIKANTH.S	21UEC059
19:12:39	21uec050@kamarajengg.edu.in	36	NIVITHA.A.G	21UEC050
19:18:58	21uec060@kamarajengg.edu.in	36	MUTHU RAAJ.K	21UEC060
19:23:43	21uec005@kamarajengg.edu.in	42	DHARANIDHARAN.R	21UEC005
19:27:53	21uec013@kamarajengg.edu.in	51	PUSHPARATHINA.R	21UEC013
19:28:36	21uec016@kamarajengg.edu.in	45	KIRUTHIYAVAISHNAVI.S	21UEC016
19:31:03	21uec057@kamarajengg.edu.in	51	VETRIVEL.B	21UEC057
19:36:11	21uec058@kamarajengg.edu.in	36	BHARATH VAJ.R	21UEC058
19:36:35	21uec007@kamarajengg.edu.in	48	SARAVANAKUMAR.V	21UEC007
19:38:47	21uec004@kamarajengg.edu.in	42	ABHIKSHA.G	21UEC004
19:47:27	21uec026@kamarajengg.edu.in	45	SRIKANTH.V	21UEC026
19:47:56	21uec042@kamarajengg.edu.in	45	MEENAKSHI.M	21UEC042
19:50:04	21uec035@kamarajengg.edu.in	33	RAMPRASATH.R	21UEC035
19:55:06	21uec010@kamarajengg.edu.in	42	NACHIYAR.S	21UEC010
12:03:50	21uec031@kamarajengg.edu.in	36	KEERTHANA.M	21UEC031
12:06:41	21uec049@kamarajengg.edu.in	42	SUREKA.K	21UEC049
12:09:57	21uec033@kamarajengg.edu.in	45	SHEEBA ELIZABETH.R	21UEC033
12:13:26	21uec043@kamarajengg.edu.in	42	YUWASRI.T	21UEC043
12:13:46	21uec032@kamarajengg.edu.in	30	JAYASURYA.S	21UEC032
12:28:30	21uec048@kamarajengg.edu.in	42	HASEEM ABU SHEIK.S	21UEC048
12:28:32	21uec051@kamarajengg.edu.in	48	DHANUSH.R	21UEC051
17:52:30	21uec011@kamarajengg.edu.in	36	BALAJI.A	21UEC011
18:31:37	21uec022@kamarajengg.edu.in	45	YUVASHREE.V	21UEC022
19:48:41	21uec038@kamarajengg.edu.in	36	NAVEEN.R	21UEC038
19:53:55	21uec023@kamarajengg.edu.in	45	KARUNESHVAR.M	21UEC023
19:54:01	21uec014@kamarajengg.edu.in	42	ALAGU SANKARA NARAYANAN.R	21UEC014

VAC Coordinators

HoD/ECE

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).

Department Electronics and Communication Engineering

Value Added Course: IOT using Arduino and Cloud

Mark Statement

Roll No.	Reg. No.	Student Name	Internal Marks (40)	External Marks (60)	Total (100)
	ECE		**Regulation: 2020**		
	II		**Semester: IV**		
21UEC003	920421106010	DHARSHINI.S	34	24	58
21UEC004	920421106001	ABHIKSHA.G	38	42	80
21UEC005	920421106008	DHARANIDHARAN.R	34	42	76
21UEC007	920421106039	SARAVANAKUMAR.V	34	48	82
21UEC010	920421106024	NACHIYAR.S	38	42	80
21UEC011	920421106005	BALAJI.A	34	36	70
21UEC013	920421106032	PUSHPARATHINA.R	37	51	88
21UEC014	920421106003	ALAGU SANKARA NARAYANAN.R	32	42	74
21UEC016	920421106020	KIRUTHIYAVAISHNAVI.S	38	45	83
21UEC020	920421106051	UVARAJ.A	34	48	82
21UEC022	920421106054	YUVASHREE.V	34	45	79
21UEC023	920421106017	KARUNESHVAR.M	32	45	77
21UEC026	920421106046	SRIKANTH.V	34	45	79
21UEC031	920421106018	KEERTHANA.M	34	36	70
21UEC032	920421106015	JAYASURYA.S	32	30	62
21UEC033	920421106042	SHEEBA ELIZABETH.R	38	45	83
21UEC035	920421106035	RAMPRASATH.R	35	33	68
21UEC038	920421106025	NAVEEN.R	32	36	68
21UEC040	920421106013	FAIZARASOOL.S	37	36	73
21UEC042	920421106021	MEENAKSHI.M	34	45	79
21UEC043	920421106055	YUWASRI.T	34	42	76
21UEC048	920421106014	HASEEM ABU SHEIK.S	32	42	74
21UEC049	920421106048	SUREKA.K	34	42	76
21UEC050	920421106026	NIVITHA.A.G	37	36	73
21UEC051	920421106007	DHANUSH.R	32	48	80
21UEC057	920421106305	VETRIVEL.B	35	51	86
21UEC058	920421106301	BHARATH VAJ.R	35	36	71
21UEC059	920421106304	SRIKANTH.S	30	21	51
21UEC060	920421106302	MUTHU RAAJ.K	34	36	70
21UEC061	920421106303	SATHIS KUMAR S	30	33	63

IAC Coordinator

HoD

Dean (Academic Courses)

30/08/2023

Value Added Course on " IoT using Arduino and Cloud" organized by
Pantech E Learning from 04.01.2023 to 10.01.2023, Herewith mentioned the
students evaluation mark based on MCQ test conducted on 10.01.2023.

No.	Roll Number	Register Number	Name of the Student	Mark(60)
1	21UEC003	920421106010	DHARSHINI.S	24
2	21UEC004	920421106001	ABHIKSHA.G	42
3	21UEC005	920421106008	DHARANIDHARAN.R	42
4	21UEC007	920421106039	SARAVANAKUMAR.V	48
5	21UEC010	920421106024	NACHIYAR.S	42
6	21UEC011	920421106005	BALAJI.A	36
7	21UEC013	920421106032	PUSHPARATHINA.R	51
8	21UEC014	920421106003	ALAGU SANKARA NARAYANAN.R	42
9	21UEC016	920421106020	KIRUTHIYAVAISHNAVI.S	45
10	21UEC020	920421106051	UVARAJ.A	48
11	21UEC022	920421106054	YUVASHREE.V	45
12	21UEC023	920421106017	KARUNESHVAR.M	45
13	21UEC026	920421106046	SRIKANTH.V	45
14	21UEC031	920421106018	KEERTHANA.M	36
15	21UEC032	920421106015	JAYASURYA.S	30
16	21UEC033	920421106042	SHEEBA ELIZABETH.R	45

17	21UEC035	920421106035	RAMPRASATH.R	33
18	21UEC038	920421106025	NAVEEN.R	36
19	21UEC040	920421106013	FAIZARASOOL.S	36
20	21UEC042	920421106021	MEENAKSHI.M	45
21	21UEC043	920421106055	YUWASRI.T	42
22	21UEC048	920421106014	HASEEM ABU SHEIK.S	42
23	21UEC049	920421106048	SUREKA.K	42
24	21UEC050	920421106026	NIVITHA.A.G	36
25	21UEC051	920421106007	DHANUSH.R	48
26	21UEC057	920421106305	VETRIVEL.B	51
27	21UEC058	920421106301	BHARATH VAJ.R	36
28	21UEC059	920421106304	SRIKANTH.S	21
29	21UEC060	920421106302	MUTHU RAAJ.K	36
30	21UEC061	920421106303	SATHIS KUMAR S	33

For Pantech e learning.,

Department of Electronics and Communication Engineering

MINIPROJECT – VALUE ADDED COURSE

IoT using Arduino and Cloud

SCORE SHEET

Roll No	Name	Title	PPT Presentation (10)	Coding Explanation (10)	Viva (5)	Total Mark (25)
EC035	RAMPRASATH.R	Smoke detecting sensor using Arduino IoT	10	10	2	22
EC036	RITHISH ARUN VARUNA.M					
EC037	VISHVA.S					
EC023	KARUNESHVAR.M	Ultrasonic detector	9	9	2	20
EC024	PREMA.E					
EC025	BOOBALAN.S					
EC014	ALAGU SANKARA NARAYANAN.R	Ultrasonic detector	9	9	2	20
EC015	SWETHA.R.U					
EC016	KIRUTHIYAVAISHNAVI.S					
EC059	SRIKANTH.S	Ultrasonic detector	9	9	2	20
EC061	SATHISH KUMAR.S					
EC007	SARAVANAKUMAR.V	Laser security system using IoT	9	9	3	21
EC008	KAMALI.M					
EC059	SRIKANTH.S					
EC003	DHARSHINI.S	Fire alarm security system using Flame sensor	10	9	2	21
EC043	YUWASRI.T					
EC049	SUREKA.K					
EC020	UVARAJ.A	Object counting system using IR sensor	9	10	2	21
EC005	DHARANIDHARAN.R					
EC060	MUTHU RAAJ.K					
EC022	YUVASHREE.V	Object detection using IR Sensor	9	9	3	21
EC031	KEERTHANA.M					
EC042	MEENAKSHI.M					
EC050	NIVITHA.A.G	Home Automation	10	10	3	23
EC040	FA ZARASOOL.S					
EC013	PUSHPARATHINA.R					
EC016	KIRUTHIYAVAISHNAVI.S	LPG Gas detection using IoT	10	10	4	24
EC004	ABHIKSHA.G					
EC010	NACHIYAR.S					
EC033	SHEEBA ELIZABETH.R					

Event In-charge

HoD/ECE

Scanned with OKEN Scanner

Timestamp	Student name	Email	Feedback for the Technical Session [Technical Content of the Seminar]	Feedback for the Technical Session [Communication of the Presenter]	Feedback for the Technical Session [Information Shared during the Seminar]	Feedback for the Technical Session [Hands on Training - Practical Sessions]	Additional feedback
2023/01/10 10:35:12 AM GMT+5:30	K.sureka	surekasabari92@gmail.com	Excellent	Good	Excellent	Good	Good and useful
2023/01/10 10:36:07 AM GMT+5:30	Faiza Rasool S	faizarasool448@gmail.com	Excellent	Excellent	Excellent	Excellent	Effective and Good
2023/01/10 10:38:09 AM GMT+5:30	VETRIVEL.B	vetrivel14042002@gmail.com	Excellent	Excellent	Excellent	Excellent	Excellent
2023/01/10 10:39:46 AM GMT+5:30	Balaji.A	sribalaji531211@gmail.com	Excellent	Excellent	Excellent	Excellent	Valuable course
2023/01/10 10:39:57 AM GMT+5:30	Kiruthiya Vaishnavi S	21uec016@kamarajengg.edu.in	Excellent	Excellent	Excellent	Excellent	Learning to handle the hardware devices
2023/01/10 10:40:41 AM GMT+5:30	SARAVANA KUMAR.V	sk9341748@gmail.com	Good	Good	Good	Excellent	valuable

AM GMT+5:30 2023/01/10 10:41:01 AM GMT+5:30	R. Sheeba Elizabeth UVARAJ.A	21uec011@kamarajengg.edu.in uvaraj240203@gmail.com	Excellent Good	Excellent OK	Excellent OK	Excellent Good	Useful course for us !!!!!!
2023/01/10 10:41:15 AM GMT+5:30	BHARATH VAJ.R	bharathvaj318794@gmail.com	Excellent	Excellent	Excellent	Excellent	Excellent
2023/01/10 10:42:04 AM GMT+5:30	R.DHARANIDHARAN	dharanibharath4@gmail.com	Excellent	Excellent	Excellent	Excellent	Useful
2023/01/10 10:42:16 AM GMT+5:30	S.Nachiyar	21uec010@kamarajengg.edu.in	Good	Excellent	Good	Excellent	This session will teach the sensor and nodemcu
2023/01/10 10:42:35 AM GMT+5:30	G.ABHIKSHA	21uec004@Kamarajengg.edu.in	Excellent	Excellent	Excellent	Excellent	Good
2023/01/10 10:43:37 AM GMT+5:30	Nivitha.A.G	nivithaag2003@gmail.com	Excellent	Good	Good	Excellent	Excellent
2023/01/10 10:45:09 AM GMT+5:30	R.Pushpa rathina	pushparathina075@gmail.com	Excellent	Good	Excellent	Excellent	Excellent

Timestamp	Name	Email					Comments
GMT+5:30 2023/01/10 10:48:23 AM GMT+5:30	SRIKANTH V	srisrikanth@gmail.com	Good	Good	Good	Excellent	are present
	S.Dharshini	21uec003@kamarajengg.edu.in	Excellent	Good	Excellent	Good	Learning well
2023/01/10 10:48:30 AM GMT+5:30	K Muthu Raaj	muthuraaj1711@gmail.com	Excellent	Excellent	Excellent	Excellent	Valuable session and knowledge improved by the session
2023/01/10 11:20:34 AM GMT+5:30	Keerthana.M	21uec031@kamarajengg.edu.in	Excellent	Excellent	Excellent	Excellent	Learnt and gathered many informations related to IOT. Very Useful
2023/01/10 12:11:47 PM GMT+5:30	T.Yuwasri thangaraj	yuwasriyuwasri@gmail.com	Excellent	Excellent	Excellent	Excellent	Good
2023/01/10 12:53:13 PM GMT+5:30	R.RAMPRASATH	royalram961@gmail.com	Excellent	Excellent	Excellent	Excellent	Good
2023/01/11 6:45:25 AM GMT+5:30	Karuneshvar.M	Karunesh2003m@gmail.com	Good	Good	Good	Good	Good

Department of Electronics and Communication Engineering

Value Added Course on IoT using Arduino and Cloud

Oral Feedback Video Link

https://kcetvnrorg-
my.sharepoint.com/personal/ashokece_kamarajengg_edu_in/_layouts/15/onedri
ve.aspx?id=%2Fpersonal%2Fashokece%5Fkamarajengg%5Fedu%5Fin%2FDo
cuments%2FIot%20using%20arduino%20and%20cloud%2FOral%20Video%2
Feedback%20for%20VAC%20on%20IOT%20using%20arduino%20and%20cl
oud&view=0

Coordinators

HoD/ECE

KAMARAJ/AO/2022-23/   03-01-2023

CIRCULAR

Department of Electronics and Communication Engineering of Kamaraj College of Engineering and Technology organizes 5 days Value added course for II ECE from **04.01.2023** to **10.01.2023** (except 08.01.2023). The details of course are given below.

Name of value added course	Conducted by	Venue
Internet of Things using Arduino and Cloud	Pantech eLearning Private Ltd., Chennai	ECE Lab I (Research Lab)

Course Outcome: Make use of Internet of Things to solve real time problems using Arduino and Cloud.

PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
3	3	3	3	3	2	2	2	2	2	2	2	3	3

PRINCIPAL

Copy to:

1. To be read in all II year ECE Dept. Class Rooms
2. Circulated to all the ECE Dept. Teaching Staff Members through their email ID
3. Dean (Academics)
4. Superintendent /Administrative Office
5. HOD/ECE
6. File

Submitted to the SECRETARY for approval through the PRINCIPAL

Book No.

SL.No. **75**

ECE

Date 19/12/2022

An Approval may please be granted
Conduct Value Added Course on "Internet
things Using Arduino and cloud" for II -
E - 30 students from 1/1/2023 to 10/1/20
- Course will be handled by Pantoch
Learning Pvt. Ltd. The Professional traini
urges for conducting the above course too
ays as Rs. 52,000/- (Rs. 1,750/Participant × 30
dents). Accommodation & Food are required
Resource Person in Campus.
ed: Quotation Statement & Syllabus

Signature of Faculty

R. Ashok, T. Ramalakshmi

HOD   20/12/20

PRINCIPAL

OFFICE USE

1) Account Head

2) Budget allotted

3) Amount committed / Spent sofar

4) Balance available

OM

Value Added Course Expen

Treasurer

Secretary