



SRI BHARATHI

ENGINEERING COLLEGE FOR WOMEN

(Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai)
Kaikkurichi, Pudukkottai -622 303

www.sbec.edu.in

NAAC DOCUMENTS



Quality Indicator Frame Work

Criterion – 2

Teaching-Learning and Evaluation

Submitted by

IQAC

Internal Quality Assurance Cell

Sri Bharathi Engineering College for Women



Criteria 2

Teaching-Learning and Evaluation

350

Key Indicator- 2.3. Teaching- Learning Process (40)

2022-2023

**COMPUTER SCIENCE AND
ENGINEERING**

PARTICIPATIVE LEARNING

Activity	Number of Students Attended	Page No.
Value Added Course (VAC)	143	3
Symposium and Conference	60	92
TOTAL STUDENTS ATTENDED	203	-



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Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

Criteria 2

Teaching-Learning and Evaluation

350

Key Indicator- 2.3. Teaching- Learning Process (40)

2022-2023

**COMPUTER SCIENCE AND
ENGINEERING**

PARTICIPATIVE LEARNING

VALUE ADDED COURSE



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Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ACADEMIC YEAR 2022-2023 / ODD SEMESTER

Date: 26 / 07 / 2022

DEPARTMENT CIRCULAR

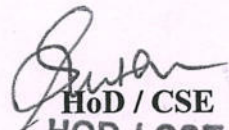
A Value added course on “Internet of Things with Python” will be conducted by MECK TECK Research Foundation, Pudukkottai in the college campus for all Third year and Final year CSE students from 03.08.2022 to 10.08.2022. Certificates will be issued to all the participants at the end of the Course.

S.No.	Name of the Course	Resource Person
1.	Internet of Things With Python	Resource Person: 1. Dr.K.Gurunathan M.E Ph.D Master Trainer MECK TECK Research Foundation

Cc:

- Principal's office
- IQAC Coordinator
- Class In charge-III,IV year
- CSE Students – III,IV year
- Notice Board


Dr. S. THILAGAVATHI M.E., Ph.D.,
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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ACADEMIC YEAR 2022-2023 / ODD SEMESTER

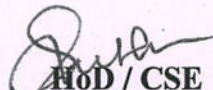
Value Added Course on “INTERNET OF THINGS WITH PYTHON”

SYLLABUS

S.NO	TOPIC COVERED	DURATION (in hours)	DATE FN/AN
1	Understanding IoT fundamentals - IOT Architecture and protocols	3	03.08.2022
2	Various Platforms for IoT - Real time Examples of IoT	3	03.08.2022
3	Arduino Uno Architecture - Setup the IDE, Writing Arduino Software - Arduino Libraries	3	04.08.2022
4	Overview of IoT components and IoT Communication Technologies - Challenges in IOT	3	04.08.2022
5	Basics of Embedded C programming for Arduino	3	05.08.2022
6	Interfacing LED, push button and buzzer with Arduino	3	05.08.2022
7	Interfacing Arduino with LCD	3	08.08.2022
8	Overview of Sensors working - Analog and Digital Sensors	3	08.08.2022
9	Interfacing of Temperature, Humidity, Motion, Light and Gas Sensor with Arduino	3	09.08.2022
10	Interfacing of Actuators with Arduino	3	09.08.2022
11	Interfacing of Relay Switch and Servo Motor with	3	10.08.2022
12	Arduino M2M vs. IOT - Communication Protocols	3	10.08.2022
Total Periods :		36	


VAC Coordinator


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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ACADEMIC YEAR 2022-2023 (ODD SEM)

STUDENTS PARTICIPATION LIST-VAC PROGRAM

INTERNET OF THINGS WITH PYTHON

S.NO	REG.NO	NAME OF THE STUDENT	YEAR/BRANCH
1.	912620104001	AKALYA S	III/CSE
2.	912620104002	HEMA V	III/CSE
3.	912620104003	ISWARYA R	III/CSE
4.	912620104004	KALAIVANI S	III/CSE
5.	912620104005	KALPANA K	III/CSE
6.	912620104007	MEIYYAMMAL M	III/CSE
7.	912620104008	NANDHINI P	III/CSE
8.	912620104009	PRASANNA DEVI P	III/CSE
9.	912620104010	PRISHIYA E	III/CSE
10.	912620104012	ROSAMMAL M	III/CSE
11.	912620104013	ROSHIKA K	III/CSE
12.	912620104014	SABHA AYSHA S	III/CSE
13.	912620104015	SATHIYASRI P	III/CSE
14.	912620104016	SIVAGAMI D	III/CSE
15.	912620104017	SIVAHARINI S	III/CSE
16.	912620104018	SUBASHINI C	III/CSE
17.	912620104019	SUBASHINI M	III/CSE
18.	912620104020	SWETHA D	III/CSE

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19.	912620104021	VANATHI T	III/CSE
20.	912620104022	VINCIYA MARY S	III/CSE
21.	912620104304	VAISHNAVI R	III/CSE
22.	912619104001	ANNAPOORANI M	IV /CSE
23	912619104003	ARUNNAVAMEENA A	IV/CSE
24	912619104004	DAYANA P	IV/CSE
25	912619104005	DHARSHINI D	IV/CSE
26	912619104007	FAHMIDHA B	IV/CSE
27	912619104009	GULNAS FATHIMA S	IV/CSE
28	912619104010	HELAN J	IV/CSE
29	912619104011	KEERTHANA R	IV/CSE
30	912619104012	MUTHULAKSHMI G	IV/CSE
31	912619104013	MUTHU MEENAKSHI M	IV/CSE
32	912619104014	NIROSHIKA R	IV/CSE
33	912619104017	PARAMESHWARI S	IV/CSE
34	912619104019	RANJANI K	IV/CSE
35	912619104020	RILWANA PARVEEN J	IV/CSE
36	912619104021	ROOPINA R	IV/CSE
37	912619104022	SANDHIYA B	IV/CSE
38	912619104023	SANTHI D	IV/CSE
39	912619104024	SARANYA C	IV/CSE
40	912619104027	SNEHA R	IV/CSE
41	912619104029	SURIYA JOTHI S	IV/CSE
42	912619104301	ABINAYA S	IV/CSE

VAC Coordinator

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ACADEMIC YEAR 2022-2023 (ODD SEM)

ATTENDANCE SHEET FOR VALUE ADDED COURSE- INTERNET OF THINGS WITH PYTHON

S.NO	REG.NO	NAME OF THE STUDENT	YEAR/ BRANCH	DATE: 03.08.22		DATE: 04.08.22		DATE: 05.08.22		DATE: 08.08.22		DATE: 09.08.22		DATE: 10.08.22		NO OF SESSIONS ATTENDED	SIGNATURE OF THE STUDENT
				FN	AN	FN	AN	FN	AN	FN	AN	FN	AN	FN	AN		
				1	912620104001	AKALYA S	III/CSE	/	/	/	/	/	/	/	/		
2	912620104002	HEMA V	III/CSE	/	/	/	/	/	/	/	/	/	/	/	12	<i>[Signature]</i>	
3	912620104003	ISWARYA R	III/CSE	/	/	/	/	/	/	/	/	/	/	/	12	<i>[Signature]</i>	
4	912620104004	KALAIVANI S	III/CSE	/	/	/	/	/	/	/	/	/	/	/	12	<i>[Signature]</i>	
5	912620104005	KALPANA K	III/CSE	/	/	/	/	/	/	/	/	/	/	/	12	<i>[Signature]</i>	
6	912620104007	MEIYYAMMAL M	III/CSE	/	/	/	/	/	/	/	/	/	/	/	12	<i>[Signature]</i>	
7	912620104008	NANDHINI P	III/CSE	/	/	/	/	/	/	/	/	/	/	/	12	<i>[Signature]</i>	
8	912620104009	PRASANNA DEVI P	III/CSE	/	/	/	/	/	/	/	/	/	/	/	12	<i>[Signature]</i>	
9	912620104010	PRISHIYA E	III/CSE	/	/	/	/	/	/	/	/	/	/	/	12	<i>[Signature]</i>	
10	912620104012	ROSAMMAL M	III/CSE	/	/	/	/	/	/	/	/	/	/	/	12	<i>[Signature]</i>	

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11	912620104013	ROSHIKA K	III/CSE	1	1	1	1	1	1	1	1	1	1	1	1	1	12	K. Rosika
12	912620104014	SABHA AYSHA S	III/CSE	1	1	1	1	1	1	1	1	1	1	1	1	1	12	S. Sabha
13	912620104015	SATHIYASRI P	III/CSE	1	1	1	1	1	1	1	1	1	1	1	1	1	12	P. Sathiyasri
14	912620104016	SIVAGAMI D	III/CSE	1	1	1	1	1	1	1	1	1	1	1	1	1	12	D. Sivagami
15	912620104017	SIVAHARINI S	III/CSE	1	1	1	1	1	1	1	1	1	1	1	1	1	12	S. Sivaharini
16	912620104018	SUBASHINI C	III/CSE	1	1	1	1	1	1	1	1	1	1	1	1	1	12	C. Subajini
17	912620104019	SUBASHINI M	III/CSE	1	1	1	1	1	1	1	1	1	1	1	1	1	12	M. Subh.
18	912620104020	SWETHA D	III/CSE	1	1	1	1	1	1	1	1	1	1	1	1	1	12	D. Swetha
19	912620104021	VANATHI T	III/CSE	1	1	1	1	1	1	1	1	1	1	1	1	1	12	T. Vanathi
20	912620104022	VINCIYA MARY S	III/CSE	1	1	1	1	1	1	1	1	1	1	1	1	1	12	S. Vinciya Mary
21	912620104304	VAISHNAVI R	III/CSE	1	1	1	1	1	1	1	1	1	1	1	1	1	12	R. Vaishnavi
22	912619104001	ANNAPOORANI M	IV /CSE	1	1	1	1	1	1	1	1	1	1	1	1	1	12	Annapoorani
23	912619104003	ARUNNAVAMEENA A	IV/CSE	1	1	1	1	1	1	1	1	1	1	1	1	1	12	Arunnavameena
24	912619104004	DAYANA P	IV/CSE	1	1	1	1	1	1	1	1	1	1	1	1	1	12	Dayana
25	912619104005	DHARSHINI D	IV/CSE	1	1	1	1	1	1	1	1	1	1	1	1	1	12	Dharshini
26	912619104007	FAHMIDHA B	IV/CSE	1	1	1	1	1	1	1	1	1	1	1	1	1	12	Fahmidha
27	912619104009	GULNAS FATHIMA S	IV/CSE	1	1	1	1	1	1	1	1	1	1	1	1	1	12	Gulnas
28	912619104010	HELAN J	IV/CSE	1	1	1	1	1	1	1	1	1	1	1	1	1	12	Helan

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29	912619104011	KEERTHANA R	IV/CSE	1	1	1	1	1	1	1	1	1	1	1	1	12	Keerthi
30	912619104012	MUTHULAKSHMI G	IV/CSE	1	1	1	1	1	1	1	1	1	1	1	1	12	Mathy
31	912619104013	MUTHU MEENAKSHI M	IV/CSE	1	1	1	1	1	1	1	1	1	1	1	1	12	Mat
32	912619104014	NIROSHIKA R	IV/CSE	1	1	1	1	1	1	1	1	1	1	1	1	12	Nirashika
33	912619104017	PARAMESHWARI S	IV/CSE	1	1	1	1	1	1	1	1	1	1	1	1	12	Prasanthi
34	912619104019	RANJANI K	IV/CSE	1	1	1	1	1	1	1	1	1	1	1	1	12	Rajany
35	912619104020	RILWANA PARVEEN J	IV/CSE	1	1	1	1	1	1	1	1	1	1	1	1	12	Rilwana
36	912619104021	ROOPINA R	IV/CSE	1	1	1	1	1	1	1	1	1	1	1	1	12	Roopina
37	912619104022	SANDHIYA B	IV/CSE	1	1	1	1	1	1	1	1	1	1	1	1	12	Sandhya
38	912619104023	SANTHI D	IV/CSE	1	1	1	1	1	1	1	1	1	1	1	1	12	Santhi
39	912619104024	SARANYA C	IV/CSE	1	1	1	1	1	1	1	1	1	1	1	1	12	Sarany
40	912619104027	SNEHA R	IV/CSE	1	1	1	1	1	1	1	1	1	1	1	1	12	Sneha
41	912619104029	SURIYA JOTHI S	IV/CSE	1	1	1	1	1	1	1	1	1	1	1	1	12	Suriya
42	912619104301	ABINAYA S	IV/CSE	1	1	1	1	1	1	1	1	1	1	1	1	12	Abinaya

VAC Coordinor

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Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

Report on Value Added Course

Title: Internet of Things With Python

Resource Person: Dr.K.Gurunathan M.E Ph.D
Trainer
Meck Teck Research Foundation

Date of conduct from : 03.08.2022 To: 10.08.2022 Duration: 30 Hours

Organized Department : Computer Science and Engineering

Participant Year: 3,4(CSE) Semester: ODD No. of Students Registered : 42

Venue: Auditorium

Outcome of Value Added Course (VAC)

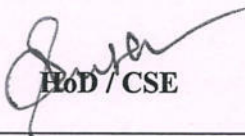
At the end of the VAC course the student can able to

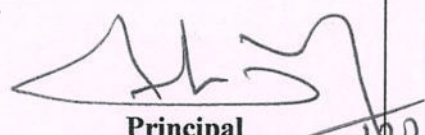
- Explain fundamentals about IoT
- Illustration of IoT Access technologies
- Design methodology and different IoT hardware platforms.
- Identify with the application areas of IOT
- Realize the revolution of Internet in Mobile Devices, Cloud & Sensor Networks
- Describe the building blocks of Internet of Things and characteristics.

Assessment Process

- Students securing more than 60% on total score and secured more than 75% in attendance is eligible to receive the certificate for the VAC course conducted
- Total Score = (0.5 *Attendance in VAC out of 100 percentage + 0.5 *Test mark in VAC out of 100 marks)


VAC Coordinator


HOD / CSE


Principal

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PUDUKKOTTAI DISTRICT


Dr. S.THILAGAVATHI M.E.,Ph.D.,
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MECK TECK
RESEARCH FOUNDATION

(Registered Under Ministry of Micro, Small and Medium Enterprises UDI/2008/TM/07-0910741)

CERTIFICATE OF COMPLETION

This is to certify that **Ms.K.Kalpana** of III CSE has completed 5 days value added course about **"Internet of things with PYTHON"** from 03.08.2022 to 10.08.2022 during the academic year 2022-2023.

CEO
Meck Teck

Dr. S.THILAGAVATHI M.E., Ph.D.,
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MECK TECK
RESEARCH FOUNDATION

(Registered Under Ministry of Micro, Small and Medium Enterprises 127/004-19-07-0919741)

CERTIFICATE OF COMPLETION

This is to certify that **Ms.R.SNEHA** of IV CSE has completed 5 days value added course about **"Internet of things with PYTHON"** from 03.08.2022 to 10.08.2022 during the academic year 2022-2023.

CEO
Meck Teck

PRINCIPAL
Dr. S.THILAGAVATHI M.E., Ph.D., SBECW

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ACADEMIC YEAR 2022-2023 / ODD SEMESTER

Name of the Student :

Year/Sem:

AU Register Number:

Value Added Course on “Internet of Things With Python”

MCQ QUESTIONS (25X1 = 25 Marks)

- Which of the following is false about IoT devices?
 - IoT devices use the internet for collecting and sharing data
 - IoT devices need microcontrollers
 - IoT devices use wireless technology
 - IoT devices are completely safe
- Which of the following is not an IoT platform?
 - Amazon Web Services
 - Microsoft Azure
 - Salesforce
 - Flipkart
- Which of the following is not an application of IoT?
 - BMP280
 - Smart home
 - Smart city
 - Self-driven cars
- Which of the following is not a fundamental component of an IoT system?
 - Sensors
 - Connectivity and data processing
 - User interface
 - Transformer
- Which layer is used for wireless connection in IoT devices?
 - Application layer
 - Network layer
 - Data link layer
 - Transport layer
- Which of the following is false about the IoT components?
 - A light sensor (photoresistor) is an analog sensor
 - A microphone is a digital sensor
 - A push button is a digital sensor
 - A keyboard is a digital sensor
- Which of the following is used to capture data from the physical world in IoT devices?
 - Sensors
 - Actuators
 - Microprocessors
 - Microcontrollers
- Which of the following command is used to trigger the Amazon echo IOT device?
 - Hello
 - Suri
 - Alexa
 - Hey

Dr. S. THILAGAVATHI M.E., Ph.D.,

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9. Which of the following is false about the MANET IoT network?
- a) It is a self-configuring network
 b) It has a low data rate
 c) It doesn't have any encryption
 d) Power is readily available for complex security
10. Which of the following is not a sensor in IoT?
- a) BMP280
 b) DHT11
 c) Photoresistor
 d) LED
11. Which of the following is not an actuator in IoT?
- a) Stepper motor
 b) A fan
 c) An LED
 d) Arduino
12. What is the use of PWM signals in IoT development boards?
- a) They are used by sensors to have analog input
 b) They are used by sensors to have digital input
 c) They are used by actuators to have analog input
 d) They are used by actuators to have digital input
13. Which of the following is used to reprogram a Bootloader in IoT devices?
- a) VHDL programming
 b) IDE
 c) ICSP
 d) MANET
14. Which of the following is true about Arduino IoT devices?
- a) They are open-source software
 b) They can only read analog inputs
 c) They have their own operating systems
 d) They don't have pre-programmed firmware
15. How many number of elements in the Open IoT Architecture?
- a) 3 elements
 b) 7 elements
 c) 8 elements
 d) 6 elements
16. IoT-A stands for _____
- a) Internet of Things Area
 b) Industrial of things Architecture
 c) Internet of Things Address
 d) Internet of Things Architecture
17. Which of the following is not a feature of the Raspberry PI model B IoT device?
- a) It has 256 MB SDRAM
 b) It has a single USB connector
 c) It has its own operating system
 d) It has an Ethernet port
18. Which of the following processor is used in the Raspberry PI 3 IoT device?
- a) Broadcom BCM2711
 b) Broadcom BCM2837
 c) Broadcom BCM2838
 d) Intel 8085
19. Which library is used to access I2C in Arduino IoT devices?
- a) EEPROM
 b) Wire
 c) DHT11
 d) ArduinoJson


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20. Which of the following is not related to Arduino IDE IoT software?
- a) Serial monitor
 - b) Verify
 - c) Upload
 - d) Terminate
21. Which of the following is a complete line of home IoT devices that include smart switches?
- a) Belkin's WeMo
 - b) Cinder
 - c) Awaair
 - d) Canary
22. IoT gateway must provide _____
- a) Protocol abstraction
 - b) Data storage
 - c) Security with hardware
 - d) Simple and fast installation
23. What IoT collects?
- a) Device data
 - b) Machine generated data
 - c) Sensor data
 - d) Human generated data
24. Which of the following protocol is used to link all the devices in the IoT?
- a) HTTP
 - b) UDP
 - c) Network
 - d) TCP/IP
25. Which service permits the changes to the IoT services?
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 - c) Enable from suspension
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VAC Coordinator



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Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
ACADEMIC YEAR 2022-2023 / ODD SEMESTER

Value Added Course on “Internet of Things With Python”

ANSWER KEY

1	d	6	b	11	d	16	d	21	a
2	d	7	a	12	c	17	a	22	a
3	a	8	c	13	c	18	b	23	b
4	d	9	d	14	a	19	b	24	d
5	c	10	d	15	b	20	d	25	a

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
ACADEMIC YEAR 2022-2023 / ODD SEMESTER

Name of the Student : R. Vaishnavi

Year/Sem: III / 05

AU Register Number: 912620104304

Value Added Course on "Internet of Things With Python"

23/25

MCQ QUESTIONS (25X1 = 25 Marks)

- Which of the following is false about IoT devices?
a) IoT devices use the internet for collecting and sharing data
b) IoT devices need microcontrollers
c) IoT devices use wireless technology
d) IoT devices are completely safe
- Which of the following is not an IoT platform?
a) Amazon Web Services
b) Microsoft Azure
c) Salesforce
d) Flipkart
- Which of the following is not an application of IoT?
a) BMP280
b) Smart home
c) Smart city
d) Self-driven cars
- Which of the following is not a fundamental component of an IoT system?
a) Sensors
b) Connectivity and data processing
c) User interface
d) Transformer
- Which layer is used for wireless connection in IoT devices?
a) Application layer
b) Network layer
c) Data link layer
d) Transport layer
- Which of the following is false about the IoT components?
a) A light sensor (photoresistor) is an analog sensor
b) A microphone is a digital sensor
c) A push button is a digital sensor
d) A keyboard is a digital sensor
- Which of the following is used to capture data from the physical world in IoT devices?
a) Sensors
b) Actuators
c) Microprocessors
d) Microcontrollers
- Which of the following command is used to trigger the Amazon echo IOT device?
a) Hello
b) Suri
c) Alexa
d) Hey

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9. Which of the following is false about the MANET IoT network?
- a) It is a self-configuring network
 - b) It has a low data rate
 - c) It doesn't have any encryption
 - d) Power is readily available for complex security
10. Which of the following is not a sensor in IoT?
- a) BMP280
 - b) DHT11
 - c) Photoresistor
 - d) LED
11. Which of the following is not an actuator in IoT?
- a) Stepper motor
 - b) A fan
 - c) An LED
 - d) Arduino
12. What is the use of PWM signals in IoT development boards?
- a) They are used by sensors to have analog input
 - b) They are used by sensors to have digital input
 - c) They are used by actuators to have analog input
 - d) They are used by actuators to have digital input
13. Which of the following is used to reprogram a Bootloader in IoT devices?
- a) VHDL programming
 - b) IDE
 - c) ICSP
 - d) MANET
14. Which of the following is true about Arduino IoT devices?
- a) They are open-source software
 - b) They can only read analog inputs
 - c) They have their own operating systems
 - d) They don't have pre-programmed firmware
15. How many number of elements in the Open IoT Architecture?
- a) 3 elements
 - b) 7 elements
 - c) 8 elements
 - d) 6 elements
16. IoT-A stands for _____
- a) Internet of Things Area
 - b) Industrial of things Architecture
 - c) Internet of Things Address
 - d) Internet of Things Architecture
17. Which of the following is not a feature of the Raspberry PI model B IoT device?
- a) It has 256 MB SDRAM
 - b) It has a single USB connector
 - c) It has its own operating system
 - d) It has an Ethernet port
18. Which of the following processor is used in the Raspberry PI 3 IoT device?
- a) Broadcom BCM2711
 - b) Broadcom BCM2837
 - c) Broadcom BCM2838
 - d) Intel 8085
19. Which library is used to access I2C in Arduino IoT devices?
- a) EEPROM
 - b) Wire
 - c) DHT11
 - d) ArduinoJson


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20. Which of the following is not related to Arduino IDE IoT software?

- a) Serial monitor
- b) Verify

- c) Upload
- d) Terminate

21. Which of the following is a complete line of home IoT devices that include smart switches?

- a) Belkin's WeMo
- b) Cinder

- c) Awair
- d) Canary

22. IoT gateway must provide _____

- a) Protocol abstraction
- b) Data storage

- c) Security with hardware
- d) Simple and fast installation

23. What IoT collects?

- a) Device data
- b) Machine generated data

- c) Sensor data
- d) Human generated data

24. Which of the following protocol is used to link all the devices in the IoT?

- a) HTTP
- b) UDP

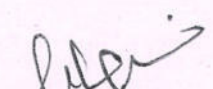
- c) Network
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25. Which service permits the changes to the IoT services?

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ACADEMIC YEAR 2022-2023 (ODD SEM)

MARK SHEET FOR VALUE ADDED COURSE- INTERNET OF THINGS WITH PYTHON

S.NO	REG.NO	NAME OF THE STUDENT	YEAR/ BRANCH	ATTENDANCE DETAILS		VAC-MCQ TEST		OVERALL MARK(100) (50% of A + 50% of B)
				No of Sessions Attended	Attendance Mark(100) (A)	No of Correct Answers	MCQ Mark(100) (B)	
1	912620104001	AKALYA S	III/CSE	12	100	22	88	94
2	912620104002	HEMA V	III/CSE	12	100	23	92	96
3	912620104003	ISWARYA R	III/CSE	12	100	24	96	98
4	912620104004	KALAIVANI S	III/CSE	12	100	20	80	90
5	912620104005	KALPANA K	III/CSE	12	100	18	72	86
6	912620104007	MEIYYAMMAL M	III/CSE	12	100	19	76	88
7	912620104008	NANDHINI P	III/CSE	12	100	21	84	92

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8	912620104009	PRASANNA DEVI P	III/CSE	12	100	20	80	90
9	912620104010	PRISHIYA E	III/CSE	12	100	21	84	92
10	912620104012	ROSAMMAL M	III/CSE	12	100	21	84	92
11	912620104013	ROSHIKA K	III/CSE	12	100	22	88	94
12	912620104014	SABHA AYSHA S	III/CSE	12	100	23	92	96
13	912620104015	SATHIYASRI P	III/CSE	12	100	22	88	94
14	912620104016	SIVAGAMI D	III/CSE	12	100	23	92	96
15	912620104017	SIVAHARINI S	III/CSE	12	100	21	84	92
16	912620104018	SUBASHINI C	III/CSE	12	100	22	88	94
17	912620104019	SUBASHINI M	III/CSE	12	100	23	92	96
18	912620104020	SWETHA D	III/CSE	12	100	23	92	96
19	912620104021	VANATHI T	III/CSE	12	100	22	88	100
20	912620104022	VINCIYA MARY S	III/CSE	12	100	21	84	92
21	912620104304	VAISHNAVI R	III/CSE	12	100	23	92	96

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22	912619104001	ANNAPOORANI M	IV /CSE	12	100	20	80	90
23	912619104003	ARUNNAVAMEENA A	IV/CSE	12	100	18	72	86
24	912619104004	DAYANA P	IV/CSE	12	100	21	84	92
25	912619104005	DHARSHINI D	IV/CSE	12	100	23	92	96
26	912619104007	FAHMIDHA B	IV/CSE	12	100	19	76	88
27	912619104009	GULNAS FATHIMA S	IV/CSE	12	100	19	76	88
28	912619104010	HELAN J	IV/CSE	12	100	24	96	98
29	912619104011	KEERTHANA R	IV/CSE	12	100	21	84	92
30	912619104012	MUTHULAKSHMI G	IV/CSE	12	100	22	88	94
31	912619104013	MUTHU MEENAKSHI M	IV/CSE	12	100	23	92	96
32	912619104014	NIROSHIKA R	IV/CSE	12	100	21	84	92
33	912619104017	PARAMESHWARI S	IV/CSE	12	100	21	84	92
34	912619104019	RANJANI K	IV/CSE	12	100	20	80	90
35	912619104020	RILWANA PARVEEN J	IV/CSE	12	100	23	92	96

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36	912619104021	ROOPINA R	IV/CSE	12	100	22	88	94
37	912619104022	SANDHIYA B	IV/CSE	12	100	21	84	92
38	912619104023	SANTHI D	IV/CSE	12	100	19	76	88
39	912619104024	SARANYA C	IV/CSE	12	100	18	72	86
40	912619104027	SNEHA R	IV/CSE	12	100	19	76	88
41	912619104029	SURIYA JOTHI S	IV/CSE	12	100	23	92	96
42	912619104301	ABINAYA S	IV/CSE	12	100	21	84	92


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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ACADEMIC YEAR 2022-2023 / ODD SEMESTER

Date : 16 / 08 / 2022

DEPARTMENT CIRCULAR

A Value added course on “Internet of Things with Python“ will be conducted by GALWIN Technology, Trichy in the college campus for all Second year from 22.08.2022 to 26.08.2022. Certificates will be issued to all the participants at the end of the Course.

S.No.	Name of the Course	Resource Person
1.	Internet of Things With Python	Resource Person: Mr.Kamalakaran Trainer GALWIN Technology

Cc:

- Principal's office
- IQAC Coordinator
- Class In charge-II year
- CSE Students – II year
- Notice Board.


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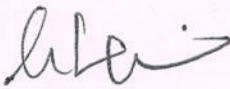
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING


ACADEMIC YEAR 2022-2023 / ODD SEMESTER

Value Added Course on “INTERNET OF THINGS WITH PYTHON”

SYLLABUS

S.NO	TOPIC COVERED	DURATION (in hours)	DATE FN/AN
1	Understanding IoT fundamentals - IOT Architecture and protocols	3	22.08.2022
2	Various Platforms for IoT - Real time Examples of IoT	3	22.08.2022
3	Arduino Uno Architecture - Setup the IDE, Writing Arduino Software - Arduino Libraries	3	23.08.2022
4	Overview of IoT components and IoT Communication Technologies - Challenges in IOT	3	23.08.2022
5	Basics of Embedded C programming for Arduino	3	24.08.2022
6	Interfacing LED, push button and buzzer with Arduino	3	24.08.2022
7	Interfacing Arduino with LCD	3	25.08.2022
8	Overview of Sensors working - Analog and Digital Sensors	3	25.08.2022
9	Interfacing of Temperature, Humidity, Motion, Light and Gas Sensor with Arduino	3	26.08.2022
10	Interfacing of Actuators with Arduino	3	26.08.2022
Total Periods :		30	


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DEPARTMENT OF COMPUTER SCENCE AND ENGINEERING

ACADEMIC YEAR 2022-2023 (ODD SEM)

STUDENTS PARTICIPATION LIST-VAC PROGRAM

INTERNET OF THINGS WITH PYTHON

S.NO	REG.NO	NAME OF THE STUDENT	YEAR/BRANCH
1.	912621104001	ABINAYA K	II /CSE
2.	912621104002	AMEERA N	II /CSE
3.	912621104003	ANJUGAM C	II /CSE
4.	912621104004	ARUNDATHI S	II /CSE
5.	912621104005	ASHIKA B	II /CSE
6.	912621104006	DIVYA T	II /CSE
7.	912621104007	ELACKIYA G	II /CSE
8.	912621104008	GAYATHRI K	II /CSE
9.	912621104009	GEETHA M	II /CSE
10.	912621104010	HARSHITHA P	II /CSE
11.	912621104011	ISHWARYA S	II /CSE
12.	912621104012	JANANI R	II /CSE
13.	912621104015	LAVANYA S	II /CSE
14.	912621104016	MAHASREE P	II /CSE
15.	912621104018	PRIYA M	II /CSE
16.	912621104019	RABIKA R	II /CSE
17.	912621104021	SAHEENA BEGAM A	II /CSE
18.	912621104022	SASIPRIYA R	II /CSE


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19.	912621104023	SHAMIMA P	II /CSE
20.	912621104024	SHEERA BANU A	II /CSE
21.	912621104025	SIVAJOTHIKA S	II /CSE
22.	912621104026	SIVAPRIYA R	II /CSE
23.	912621104027	SUBHA DHARSHINI S	II /CSE
24.	912621104028	SUBIKSHA S	II /CSE
25.	912621104029	VINITHA K	II /CSE
26.	912621104030	VISALATCHI S	II /CSE
27.	912621104301	VISHNAVI B	II /CSE
28.	912621104302	VISHNUPRIYA A	II /CSE
29.	912621104701	AARTHI S	II /CSE
30.	912621104702	SWATHI A.R	II /CSE


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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ACADEMIC YEAR 2022-2023 (ODD SEM)

ATTENDANCE SHEET FOR VALUE ADDED COURSE- INTERNET OF THINGS WITH PYTHON

S.NO	REG.NO	NAME OF THE STUDENT	YEAR/ BRANCH	DATE: 22.08.22		DATE: 23.08.22		DATE: 24.08.22		DATE: 25.08.22		DATE: 26.08.22		NO OF SESSIONS ATTENDED	SIGNATURE OF THE STUDENT
				FN	AN	FN	AN	FN	AN	FN	AN	FN	AN		
1.	912621104001	ABINAYA K	II /CSE	/	/	/	/	/	/	/	/	/	/	10	<i>A. Binaya</i>
2.	912621104002	AMEERA N	II /CSE	/	/	/	/	/	/	/	/	/	/	10	<i>Ameera</i>
3.	912621104003	ANJUGAM C	II /CSE	/	/	/	/	/	/	/	/	/	/	10	<i>C. Anjugam</i>
4.	912621104004	ARUNDATHI S	II /CSE	/	/	/	/	/	/	/	/	/	/	10	<i>S. Arundathi</i>
5.	912621104005	ASHIKA B	II /CSE	/	/	a	a	/	/	/	/	/	/	08	<i>Ashika</i>
6.	912621104006	DIVYA T	II /CSE	/	/	/	/	/	/	/	/	a	a	08	<i>T. Divya</i>
7.	912621104007	ELACKIYA G	II /CSE	/	/	/	/	/	/	/	/	/	/	10	<i>G. Elackiya</i>
8.	912621104008	GAYATHRI K	II /CSE	/	/	/	/	/	/	/	/	/	/	10	<i>K. Gayathri</i>
9.	912621104009	GEETHA M	II /CSE	/	/	/	/	/	/	/	/	/	/	10	<i>M. Geetha</i>
10.	912621104010	HARSHITHA P	II /CSE	/	/	/	/	/	/	/	/	/	/	10	<i>P. Harshitha</i>
11.	912621104011	ISHWARYA S	II /CSE	/	/	/	/	/	/	/	/	/	/	10	<i>S. Ishwarya</i>

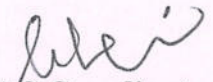
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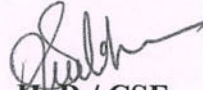
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12.	912621104012	JANANI R	II /CSE	/	/	/	/	/	/	/	/	/	/	10	P. Jansi
13.	912621104015	LAVANYA S	II /CSE	a	a	/	/	/	/	/	/	/	/	08	S. Lavanya
14.	912621104016	MAHASREE P	II /CSE	/	/	/	/	/	/	/	/	/	/	10	P. Mahasree
15.	912621104018	PRIYA M	II /CSE	/	/	/	/	/	/	/	/	/	/	10	M. Priya
16.	912621104019	RABIKA R	II /CSE	/	/	/	/	/	/	/	/	/	/	10	P. Rakhi
17.	912621104021	SAHEENA BEGAM A	II /CSE	/	/	/	/	/	/	/	/	/	/	10	Sahena Begam A
18.	912621104022	SASIPRIYA R	II /CSE	/	/	/	/	/	/	/	/	/	/	10	P. Shanmaja
19.	912621104023	SHAMIMA P	II /CSE	/	/	a	a	/	/	/	/	/	/	08	R. Sasi
20.	912621104024	SHEERA BANU A	II /CSE	/	/	/	/	/	/	/	/	/	/	10	S. Sheera Banu A
21.	912621104025	SIVAJOTHIKA S	II /CSE	/	/	/	/	/	/	/	/	/	/	10	Sivajothika S
22.	912621104026	SIVAPRIYA R	II /CSE	/	/	/	/	/	/	/	/	/	/	10	R. Sripriya
23.	912621104027	SUBHA DHARSHINI S	II /CSE	/	/	/	/	/	/	a	a	/	/	08	S. Subha
24.	912621104028	SUBIKSHA S	II /CSE	/	/	/	/	/	/	/	/	/	/	10	S. Subiksha
25.	912621104029	VINITHA K	II /CSE	/	/	/	/	/	/	/	/	/	/	10	R. Vinitha
26.	912621104030	VISALATCHI S	II /CSE	/	/	/	/	/	/	/	/	/	/	10	S. Visalatchi
27.	912621104301	VISHNAVI B	II /CSE	/	/	/	/	/	/	/	/	/	/	10	P. Vishnavi
28.	912621104302	VISHNUPRIYA A	II /CSE	/	/	/	/	/	/	/	/	/	/	10	A. Vishnupriya
29.	912621104701	AARTHI S	II /CSE	/	/	/	/	/	/	/	/	/	/	10	S. Arthi


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30.	912621104702	SWATHI A.R	II /CSE	/	/	/	/	/	/	/	/	/	/	/	10	SwathiAR
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VAC Coordinator


HOD / CSE
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KAIKKURICHI,
PUDUKKOTTAI - 622 303


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SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN

(Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25)

Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

Report on Value Added Course

Title: Internet of Things with Python

Resource Person: **Resource Person :**
Mr.M.Kamalakaran
Trainer
Galwin Technology

Date of conduct from : 22.08.2022 To: 26.08.2022 Duration: 30 Hours

Organized Department : Computer Science and Engineering

Participant Year: 2 Semester: ODD No. of Students Registered : 30

Venue: Auditorium

Outcome of Value Added Course (VAC)


At the end of the VAC course the student can able to

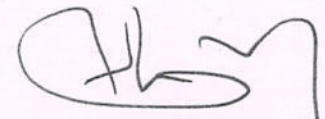
- Explain fundamentals about IoT
- Illustration of IoT Access technologies
- Design methodology and different IoT hardware platforms.
- Identify with the application areas of IOT
- Realize the revolution of Internet in Mobile Devices, Cloud & Sensor Networks
- Describe the building blocks of Internet of Things and characteristics.

Assessment Process

- Students securing more than 60% on total score and secured more than 75% in attendance is eligible to receive the certificate for the VAC course conducted
- Total Score = (0.5 * Attendance in VAC out of 100 percentage + 0.5 * Test mark in VAC out of 100 marks)


VAC Coordinator


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HOD / CSE


Principal
30/08/22

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PUDUKKOTTAI DISTRICT


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KAIKKURICHI, PUDUKKOTTAI-622303



Certificate of completion

VALUE ADDED PROGRAM

This is to Certify that Mr/Ms. AARTHIS of II CSE has successfully completed Value Added Course on "Internet of Things with Python" organized by the Department of Computer Science And Engineering in association with Galwin Technology from 22.08.2022 to 26.08.2022 during the academic year 2022-2023 [5 Days].

Managing Director
Galwin Technology

HoD/CSE
SBECW

PRINCIPAL
SBECW

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Managing Director
Galwin Technology

HoD/CSE
SBECW

PRINCIPAL
SBECW

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ACADEMIC YEAR 2022-2023 / ODD SEMESTER

Name of the Student :

Year/Sem:

AU Register Number:

Value Added Course on “Internet of Things With Python”

MCQ QUESTIONS (25X1 = 25 Marks)

- Which of the following is false about IoT devices?
 - IoT devices use the internet for collecting and sharing data
 - IoT devices need microcontrollers
 - IoT devices use wireless technology
 - IoT devices are completely safe
- Which of the following is not an IoT platform?
 - Amazon Web Services
 - Microsoft Azure
 - Salesforce
 - Flipkart
- Which of the following is not an application of IoT?
 - BMP280
 - Smart home
 - Smart city
 - Self-driven cars
- Which of the following is not a fundamental component of an IoT system?
 - Sensors
 - Connectivity and data processing
 - User interface
 - Transformer
- Which layer is used for wireless connection in IoT devices?
 - Application layer
 - Network layer
 - Data link layer
 - Transport layer
- Which of the following is false about the IoT components?
 - A light sensor (photoresistor) is an analog sensor
 - A microphone is a digital sensor
 - A push button is a digital sensor
 - A keyboard is a digital sensor
- Which of the following is used to capture data from the physical world in IoT devices?
 - Sensors
 - Actuators
 - Microprocessors
 - Microcontrollers
- Which of the following command is used to trigger the Amazon echo IOT device?
 - Hello
 - Suri
 - Alexa
 - Hey


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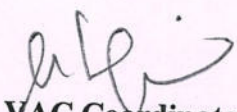
SRI BHARATHI ENGINEERING
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9. Which of the following is false about the MANET IoT network?
- a) It is a self-configuring network
 - b) It has a low data rate
 - c) It doesn't have any encryption
 - d) Power is readily available for complex security
10. Which of the following is not a sensor in IoT?
- a) BMP280
 - b) DHT11
 - c) Photoresistor
 - d) LED
11. Which of the following is not an actuator in IoT?
- a) Stepper motor
 - b) A fan
 - c) An LED
 - d) Arduino
12. What is the use of PWM signals in IoT development boards?
- a) They are used by sensors to have analog input
 - b) They are used by sensors to have digital input
 - c) They are used by actuators to have analog input
 - d) They are used by actuators to have digital input
13. Which of the following is used to reprogram a Bootloader in IoT devices?
- a) VHDL programming
 - b) IDE
 - c) ICSP
 - d) MANET
14. Which of the following is true about Arduino IoT devices?
- a) They are open-source software
 - b) They can only read analog inputs
 - c) They have their own operating systems
 - d) They don't have pre-programmed firmware
15. How many number of elements in the Open IoT Architecture?
- a) 3 elements
 - b) 7 elements
 - c) 8 elements
 - d) 6 elements
16. IoT-A stands for _____
- a) Internet of Things Area
 - b) Industrial of things Architecture
 - c) Internet of Things Address
 - d) Internet of Things Architecture
17. Which of the following is not a feature of the Raspberry PI model B IoT device?
- a) It has 256 MB SDRAM
 - b) It has a single USB connector
 - c) It has its own operating system
 - d) It has an Ethernet port
18. Which of the following processor is used in the Raspberry PI 3 IoT device?
- a) Broadcom BCM2711
 - b) Broadcom BCM2837
 - c) Broadcom BCM2838
 - d) Intel 8085
19. Which library is used to access I2C in Arduino IoT devices?
- a) EEPROM
 - b) Wire
 - c) DHT11
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20. Which of the following is not related to Arduino IDE IoT software?
a) Serial monitor
b) Verify
c) Upload
d) Terminate
21. Which of the following is a complete line of home IoT devices that include smart switches?
a) Belkin's WeMo
b) Cinder
c) Awair
d) Canary
22. IoT gateway must provide _____
a) Protocol abstraction
b) Data storage
c) Security with hardware
d) Simple and fast installation
23. What IoT collects?
a) Device data
b) Machine generated data
c) Sensor data
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24. Which of the following protocol is used to link all the devices in the IoT?
a) HTTP
b) UDP
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d) TCP/IP
25. Which service permits the changes to the IoT services?
a) Update
b) Registered service status
c) Enable from suspension
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VAC Coordinator

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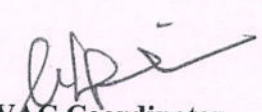
ACADEMIC YEAR 2022-2023 / ODD SEMESTER

Value Added Course on “Internet of Things With Python”

ANSWER KEY

1	d	6	b	11	d	16	d	21	a
2	d	7	a	12	c	17	a	22	a
3	a	8	c	13	c	18	b	23	b
4	d	9	d	14	a	19	b	24	d
5	c	10	d	15	b	20	d	25	a


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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
ACADEMIC YEAR 2022-2023 / ODD SEMESTER

Name of the Student : G. Easwarya Year/Sem: II / 03

AU Register Number: 912621104007

Value Added Course on “Internet of Things With Python”

MCQ QUESTIONS (25X1 = 25 Marks)

- 24/25
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c) Microprocessors
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b) Suri
c) Alexa
d) Hey

[Signature]
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VAC Coordinator


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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ACADEMIC YEAR 2022-2023 (ODD SEM)

MARK SHEET FOR VALUE ADDED COURSE- INTERNET OF THINGS WITH PYTHON

S.NO	REG.NO	NAME OF THE STUDENT	YEAR/ BRANCH	ATTENDANCE DETAILS		VAC-MCQ TEST		OVERALL MARK(100) (50% of A + 50% of B)
				No of Sessions Attended	Attendance Mark(100) (A)	No of Correct Answers	MCQ Mark(100) (B)	
1	912621104001	ABINAYA K	II /CSE	10	100	22	88	94
2	912621104002	AMEERA N	II /CSE	10	100	23	92	96
3	912621104003	ANJUGAM C	II /CSE	10	100	21	84	92
4	912621104004	ARUNDATHI S	II /CSE	10	100	19	76	88
5	912621104005	ASHIKA B	II /CSE	8	80	20	80	80
6	912621104006	DIVYA T	II /CSE	8	80	21	84	82
7	912621104007	ELACKIYA G	II /CSE	10	100	24	96	98

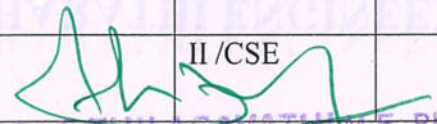
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8	912621104008	GAYATHRI K	II /CSE	10	100	21	84	92
9	912621104009	GEETHA M	II /CSE	10	100	22	88	94
10	912621104010	HARSHITHA P	II /CSE	10	100	21	84	92
11	912621104011	ISHWARYA S	II /CSE	10	100	23	92	96
12	912621104012	JANANI R	II /CSE	10	100	24	96	98
13	912621104015	LAVANYA S	II /CSE	8	80	21	84	82
14	912621104016	MAHASREE P	II /CSE	10	100	22	88	94
15	912621104018	PRIYA M	II /CSE	10	100	24	96	98
16	912621104019	RABIKA R	II /CSE	10	100	19	76	88
17	912621104021	SAHEENA BEGAM A	II /CSE	10	100	24	96	98
18	912621104022	SASIPRIYA R	II /CSE	10	100	19	76	88
19	912621104023	SHAMIMA P	II /CSE	8	80	23	92	86
20	912621104024	SHEERA BANU A	II /CSE	10	100	23	92	96
21	912621104025	SIVAJOTHIKA S	II /CSE	10	100	20	80	90


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22	912621104026	SIVAPRIYA R	II /CSE	10	100	22	88	94
23	912621104027	SUBHA DHARSHINI S	II /CSE	8	80	23	92	86
24	912621104028	SUBIKSHA S	II /CSE	10	100	21	84	92
25	912621104029	VINITHA K	II /CSE	10	100	19	76	88
26	912621104030	VISALATCHI S	II /CSE	10	100	18	72	86
27	912621104301	VISHNAVI B	II /CSE	10	100	19	76	88
28	912621104302	VISHNUPRIYA A	II /CSE	10	100	21	84	92
29	912621104701	AARTHI S	II /CSE	10	100	18	72	86
30	912621104702	SWATHI A.R	II /CSE	10	100	19	76	88


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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ACADEMIC YEAR 2022-2023 / EVEN SEMESTER

Date: 24 / 1 / 2023

DEPARTMENT CIRCULAR

Certificate Course offered by the Department of CSE will be conducted for all final year CSE students on “**Building Scalable Web application using Node JS**” in our College campus. The classes will be held as per the schedule mentioned in the class time table. Certificates will be issued to all the participants at the end of the Course.

S.No.	Name of the Course	Resource Person
1.	Building Scalable Web application using Node JS	Resource Person 1: Mrs.Parveen Banu AP/CSE

CC:

- Principal's office
- IQAC Coordinator
- Class In charges –IV Year
- CSE Students - IV Year
- Notice Board


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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING ACADEMIC YEAR 2022-2023 / EVEN SEMESTER


Certificate Course on "Building scalable web application using Node js"

SYLLABUS

S.NO	TOPIC COVERED	DURATION (in hours)	DATE FN/AN
1	Introduction to web programming-Introduction to HTML	2	03.02.2023
2	HTML Basic Formatting Tags- -HTML Images-HTML	2	10.02.2023
3	Hyperlink-HTML Tables-HTML iFrame- HTML Form	2	17.02.2023
4	HTML Headers-HTML Miscellaneous.	2	24.02.2023
5	Getting Started with Angular - Angular Development Environment Setup	2	03.03.2023
6	Creating Components and Modules - Templates – Directives	2	10.03.2023
7	Data Binding – Pipes - Nested Components – Forms - Services – Routing	2	17.03.2023
8	Node.js: Why and What Node.js - How to use Node.js - Create a web server in Node.js -Node Package Manager	2	24.03.2023
9	Modular programming in Node.js - Restarting Node Application - File Operations	2	31.03.2023
10	Express Development Environment - defining a route - Handling Routes - Route and Query Parameters - How Middleware works	2	15.04.2023
11	Chaining of Middleware's - Types of Middleware's - connecting to MongoDB with Mongoose -	2	21.04.2023
12	Validation Types and Defaults – Models	2	28.04.2023
13	MongoDB: Introduction Module Overview- Document Database Overview- Understanding JSON	2	29.04.2023
14	MongoDB Structure and Architecture- MongoDB Remote Management-	2	05.05.2023
15	Installing MongoDB on the local computer (Mac or Windows)	2	12.05.2023
Total Hours :		30	


CC Coordinator


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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ACADEMIC YEAR 2022-2023 / EVEN SEMESTER

Certificate course on "Building scalable web application using Node js"

STUDENTS PARTICIPATION LIST- CC PROGRAM

S.NO	REG.NO	NAME OF THE STUDENT	YEAR/BRANCH
1.	912619104001	ANNAPOORANI M	IV / CSE
2.	912619104003	ARUNNAVAMEENA A	IV / CSE
3.	912619104004	DAYANA P	IV / CSE
4.	912619104005	DHARSHINI D	IV / CSE
5.	912619104007	FAHMIDHA B	IV / CSE
6.	912619104009	GULNAS FATHIMA S	IV / CSE
7.	912619104010	HELAN J	IV / CSE
8.	912619104011	KEERTHANA R	IV / CSE
9.	912619104012	MUTHULAKSHMI G	IV / CSE
10.	912619104013	MUTHU MEENAKSHI M	IV / CSE
11.	912619104014	NIROSHIKA R	IV / CSE
12.	912619104017	PARAMESHWARI S	IV / CSE
13.	912619104019	RANJANI K	IV / CSE
14.	912619104020	RILWANA PARVEEN J	IV / CSE
15.	912619104021	ROOPINA R	IV / CSE
16.	912619104022	SANDHIYA B	IV / CSE
17.	912619104023	SANTHI D	IV / CSE
18.	912619104024	SARANYA C	IV / CSE


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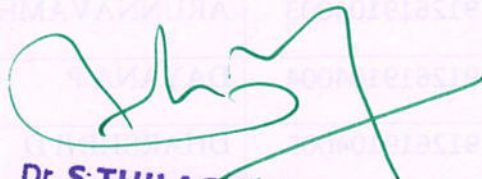
19.	912619104027	SNEHA R	IV / CSE
20.	912619104029	SURIYA JOTHI S	IV / CSE
21.	912619104301	ABINAYA S	IV / CSE


CC Coordinator

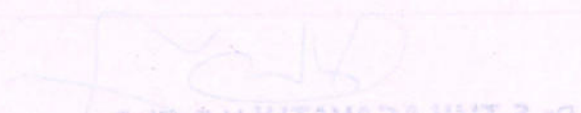

HoD / CSE

HOD / CSE
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COLLEGE FOR WOMEN
KAIKKURICHI,
PUDUKKOTTAI - 622 303

Sl. No.	NAME OF THE STUDENT	YEAR/BRANCH
1		IV / CSE
2		IV / CSE
3		IV / CSE
4		IV / CSE
5		IV / CSE
6		IV / CSE
7		IV / CSE
8		IV / CSE
9		IV / CSE
10		IV / CSE
11		IV / CSE
12		IV / CSE
13		IV / CSE
14		IV / CSE
15		IV / CSE
16		IV / CSE
17		IV / CSE
18		IV / CSE



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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ACADEMIC YEAR 2022-2023 / EVEN SEMESTER

Certificate Course on "Building scalable web application using Node js"

S.NO	REG.NO	NAME OF THE STUDENT	YEAR/ BRANCH	3.2.23	10.2.23	17.2.23	24.2.23	3.3.23	10.3.23	17.3.23	24.3.23	31.3.23	NO OF HRS ATTENDED	SIGNATURE OF THE STUDENT
				2 hrs	2 hrs	2 hrs	2 hrs	2 hrs	2 hrs	2 hrs	2 hrs	2 hrs		
1	912619104001	ANNAPOORANI M	IV / CSE	/	/	/	/	/	/	/	/	/	18	Aaife
2	912619104003	ARUNNAVAMEENA A	IV / CSE	/	/	/	/	/	/	/	/	/	18	Arunya
3	912619104004	DAYANA P	IV / CSE	/	/	/	/	/	/	/	/	/	18	Daya
4	912619104005	DHARSHINI D	IV / CSE	/	/	/	/	/	/	/	/	/	18	Dhru
5	912619104007	FAHMIDHA B	IV / CSE	/	/	/	a	/	a	/	/	a	12	B. Rohya
6	912619104009	GULNAS FATHIMA S	IV / CSE	/	/	/	/	/	/	/	/	/	18	Gul
7	912619104010	HELAN J	IV / CSE	/	/	/	/	/	/	/	/	/	18	Helan
8	912619104011	KEERTHANA R	IV / CSE	/	/	/	/	/	/	/	/	/	18	Keer



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9	912619104012	MUTHULAKSHMI G	IV / CSE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	18	Muf
10	912619104013	MUTHU MEENAKSHI M	IV / CSE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	18	Muthi
11	912619104014	NIROSHIKA R	IV / CSE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	18	Devy
12	912619104017	PARAMESHWARI S	IV / CSE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	18	S. Renuka
13	912619104019	RANJANI K	IV / CSE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	18	K. Remy
14	912619104020	RILWANA PARVEEN J	IV / CSE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	18	Devy
15	912619104021	ROOPINA R	IV / CSE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	18	Remy
16	912619104022	SANDHIYA B	IV / CSE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	18	Devy
17	912619104023	SANTHI D	IV / CSE	a	✓	✓	✓	a	✓	✓	✓	✓	a	12	Devy
18	912619104024	SARANYA C	IV / CSE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	18	Saah
19	912619104027	SNEHA R	IV / CSE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	18	Devy
20	912619104029	SURIYA JOTHI S	IV / CSE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	18	Saah
21	912619104301	ABINAYA S	IV / CSE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	18	Saah


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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING


ACADEMIC YEAR 2022-2023 / EVEN SEMESTER

Certificate Course on "Building scalable web application using Node js"

S.NO	REG.NO	NAME OF THE STUDENT	YEAR/ BRANCH	15.4.23	21.4.23	28.4.23	29.4.23	5.05.23	12.5.23	NO OF SESSION ATTENDED	SIGNATURE OF THE STUDENT
				2 hrs	2 hrs	2 hrs	2 hrs	2 hrs	2 hrs		
1	912619104001	ANNAPOORANI M	IV / CSE	/	/	/	/	/	/	12	<i>Ann</i>
2	912619104003	ARUNNAVAMEENA A	IV / CSE	/	/	/	/	/	/	12	<i>Aranya</i>
3	912619104004	DAYANA P	IV / CSE	/	/	/	/	/	/	12	<i>Dayana</i>
4	912619104005	DHARSHINI D	IV / CSE	/	/	/	/	/	/	12	<i>Dharshini</i>
5	912619104007	FAHMIDHA B	IV / CSE	/	/	/	/	/	/	12	<i>B.Rahya</i>
6	912619104009	GULNAS FATHIMA S	IV / CSE	/	/	/	/	/	/	12	<i>Gulnas</i>
7	912619104010	HELAN J	IV / CSE	/	/	/	/	/	/	12	<i>Helan</i>
8	912619104011	KEERTHANA R	IV / CSE	/	/	/	/	/	/	12	<i>Keerthana</i>

[Signature]
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COLLEGE FOR WOMEN
Kaikkurichi - 622 303, Pudukkottai Dt.

9	912619104012	MUTHULAKSHMI G	IV / CSE	/	/	/	/	/	/	12	Muthu
10	912619104013	MUTHU MEENAKSHI M	IV / CSE	/	/	/	/	/	/	12	Muthu
11	912619104014	NIROSHIKA R	IV / CSE	/	/	/	/	/	/	12	Niroshika
12	912619104017	PARAMESHWARI S	IV / CSE	/	/	/	/	/	/	12	Parameshwari
13	912619104019	RANJANI K	IV / CSE	/	/	/	/	/	/	12	S. Ranjani
14	912619104020	RILWANA PARVEEN J	IV / CSE	/	/	/	/	/	/	12	Rilwana
15	912619104021	ROOPINA R	IV / CSE	/	/	/	/	/	/	12	Roopina
16	912619104022	SANDHIYA B	IV / CSE	/	/	/	/	/	/	12	Sandhiya
17	912619104023	SANTHI D	IV / CSE	/	/	/	/	/	/	12	Santhi
18	912619104024	SARANYA C	IV / CSE	/	/	/	/	/	/	12	Saranya
19	912619104027	SNEHA R	IV / CSE	/	/	/	/	/	/	12	Sneha
20	912619104029	SURIYA JOTHI S	IV / CSE	/	/	/	/	/	/	12	Suriya
21	912619104301	ABINAYA S	IV / CSE	/	/	/	/	/	/	12	S. Abinaya


CC Coordinator


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Report on Certificate Course

Title:	Building scalable web application using Node js''				
Resource Person:	Resource Person : Mrs.Parveen Banu AP/CSE				
Date of conduct from :	03.02.2023	To:	12.05.2023	Duration:	30 Hours
Organized Department :	COMPUTER SCIENCE AND ENGINEERING				
Participant Year:	4 (CSE)	Semester:	EVEN	No. of Students Registered :	21
Venue:	Lecture Hall 65				

Outcome of Certificate Course (CC)

At the end of the CC course the student can able to

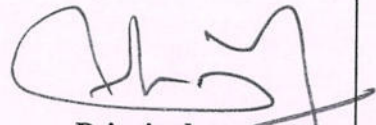
- Develop algorithmic solutions to simple computational problems.
- Develop and execute simple Full stack framework.
- Write simple Python programs using conditionals and loops for solving problems.
- Decompose a Python program into functions.

Assessment Process

- Students securing more than 60% on total score and secured more than 75% in attendance is eligible to receive the certificate for the CC course conducted
- Total Score = (0.5 * Attendance in CC out of 100 percentage + 0.5 * Test mark in CC out of 100 marks)


CC Coordinator


HoD / CSE


Principal

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KAIKKURICHI,
PUDUKKOTTAI - 622 303

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KAIKKURICHI - 622 303.
PUDUKKOTTAI DISTRICT


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Kaikkurichi, Pudukkottai, Tamil Nadu - 622 303, India



Certificate of Completion

This certificate is awarded to Ms.R.ROOPINA of IV CSE in recognition of their successful completion of certificate course on **BUILDING SCALABLE WEB APPLICATION USING NODE JS** during the academic year 2022-2023 even semester.

Course Coordinator

HoD / CSE

Principal

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Certificate of Completion

This certificate is awarded to Ms.S.ABINAYA of IV CSE in recognition of their successful completion of certificate course on **BUILDING SCALABLE WEB APPLICATION USING NODE JS** during the academic year 2022-2023 even semester.

Course Coordinator

HoD / CSE

Principal

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Certificate of Completion

This certificate is awarded to **Ms.D.SANTHI** of **IV CSE** in recognition of their successful completion of certificate course on **BUILDING SCALABLE WEB APPLICATION USING NODE JS** during the academic year **2022-2023** even semester.

Course Coordinator

HoD / CSE

Principal

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ACADEMIC YEAR 2022-2023 / EVEN SEMESTER

Certificate Course on “Building Scalable Web application using Node JS”

Name of the Student :

Year/Sem:

AU Register Number:

MCQ QUESTIONS (25X1 = 25 Marks)

1. Node.js is written in

A. JavaScript

B. C

C. C++

D. All of the above

2. Which of the following statement is correct?

A. js is Server Side Language.

B. js is the Client Side Language.

C. js is both Server Side and Client Side Language.

D. None of the above

3. What does the REPL stand for?

A. REPL stands for "Read Eval Print Loop."

B. REPL stands for "Research Eval Program Learn."

C. REPL stands for "Read Earn Point Learn."

D. REPL stands for "Read Eval Point Loop."

4. How modules in Node.js can be connected from one component to another ?

A.Expose

B.Module

C.Exports

D.All of the above

5. Which of the below modules is not a built-in module in Node.js ?

A.zlib

B.HTTPS

C.dgram

D.fsread

6 Which of the below command will show all the modules installed locally ?

A. npm ls -g

B .npm ls

C .node ls -g

D .node ls


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7. Which of the below fs module is used to truncate a file ?

- A. fs.delete(fd, len, callback)
- B. fs.remove(fd, len, callback)
- C. fs.ftruncate(fd, len, callback)
- D. None of the above.

8. How do we return a path string from the given path object in Node.js ?

- A. path.get()
- B. path.set()
- C. path.format()
- D. path.return()

9. What is the default scope in the Node.js application ?

- A. Global
- B. Local
- C. Global Function
- D. Local to object

10. Which of the below method is used to return the current working directory of the process ?

- A. cwd();
- B. .cmd();
- C. pwd();
- D. None of the above

11. What does the fs module stand for?

- A. FileStore
- B. .FileService
- C. File System
- D. None of the above

12. Which of the below options is correct about package.json in the node.js application?

- A. It is present in the root directory of any Node application.
- B. It is used to define the properties of a package.
- C. It is used to update the dependencies of an application.
- D. All of the above.

13. Which of the below is the correct syntax for installing the Nodemon in the Node.js application ?

- A. npm install -g nodemon
- B. node install -g nodemon
- C. node install node
- D. node install -l nodemon

14. Which of the following command is used to start a REPL session?

- A. \$ node
- B. \$ node start
- C. \$ node repl
- D. \$ node console

15. In which language is Node.js written?

- A. JavaScript
- B. C
- C. C++
- D. CoffeeScript



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E. All of the above

16 Which of the following command is used to install the Node.js express module?

A. \$ npm install express

B. \$ node install express

C. \$ install express

D. None of the above

17. What is Callback?

A. The callback is a technique in which a method calls back the caller method.

B. The callback is an asynchronous equivalent for a function.

C. Both of the above.

D. None of the above.

18. Which of the following extension is used to save the Node.js files?

A. .js

B. .node

C. .java

D. .txt

19 The Node.js modules can be exposed using:

A. expose

B. module

C. exports

D. All of the above

20. Which of the following module is not a built-in node module?

A. zlib

B. https

C. dgram

D. fsread

21. Which node module is used to handle binary data?

A. binary

B. buffer

C. Crypto

D. dgram

22. How many node objects methods are available?

A. 21

B. 18

C. 19

D. 20


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23. Which of the following operations can we do with the NodeJS events module?

- A. Create
- B. Listen for
- C. Fire
- D. All of the above

24. Which of the following is a valid HTTP method?

- A. get
- B. put
- C. post
- D. All of the above

25. Which of the following NodeJS modules is used for file uploads?

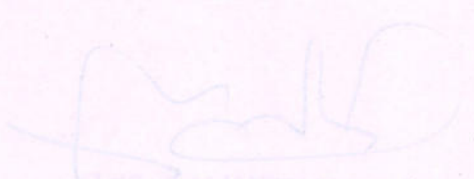
- A. formidable
- B. fs
- C. express
- D. files



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CC Coordinator



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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ACADEMIC YEAR 2022-2023 / EVEN SEMESTER

Certificate course on "Building scalable web application using Node js"

ANSWER KEY

1	d	6	b	11	c	16	a	21	b
2	a	7	c	12	d	17	b	22	b
3	a	8	c	13	a	18	a	23	d
4	c	9	b	14	a	19	c	24	d
5	d	10	a	15	c	20	d	25	b


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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ACADEMIC YEAR 2022-2023 / EVEN SEMESTER

Certificate course on "Building scalable web application using Node js"

Name of the Student : D. Dhasshini Year/Sem: IV / 08

AU Register Number: 912619104005

MCQ QUESTIONS (25X1 = 25 Marks)

24/25

1. Node.js is written in

- a) JavaScript
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- c) C++
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 b) fs.remove(fd, len, callback)

- c) fs.truncate(fd, len, callback)
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- b) buffer
- c) Crypto
- d) dgram

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- a) 21
- b) 18
- c) 19
- d) 20

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- a) Create
- b) Listen for
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- d) All of the above

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- c) post
- d) All of the above

25. Which of the following NodeJS modules is used for file uploads?

- a) formidable
- b) . fs
- c) express
- d) files


CC Coordinator


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Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ACADEMIC YEAR 2022-2023 / EVEN SEMESTER

Certificate course on "Building scalable web application using Node js"

S.NO	REG.NO	NAME OF THE STUDENT	YEAR/ BRANCH	ATTENDANCE DETAILS		VAC-MCQ TEST		OVERALL MARK(100) (50% of A + 50% of B)
				No of HRS Attended	Attendance Mark(100) (A)	No of Correct Answers	MCQ Mark(100) (B)	
1	912619104001	ANNAPOORANI M	IV / CSE	30	100	24	96	98
2	912619104003	ARUNNAVAMEENA A	IV / CSE	30	100	23	92	96
3	912619104004	DAYANA P	IV / CSE	30	100	22	88	94
4	912619104005	DHARSHINI D	IV / CSE	30	100	24	96	98
5	912619104007	FAHMIDHA B	IV / CSE	24	80	20	80	80
6	912619104009	GULNAS FATHIMA S	IV / CSE	30	100	23	92	96

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7	912619104010	HELAN J	IV / CSE	30	100	21	84	92
8	912619104011	KEERTHANA R	IV / CSE	30	100	22	88	94
9	912619104012	MUTHULAKSHMI G	IV / CSE	30	100	24	96	98
10	912619104013	MUTHU MEENAKSHI M	IV / CSE	30	100	23	92	96
11	912619104014	NIROSHIKA R	IV / CSE	30	100	25	100	100
12	912619104017	PARAMESHWARI S	IV / CSE	30	100	22	88	94
13	912619104019	RANJANI K	IV / CSE	30	100	23	92	96
14	912619104020	RILWANA PARVEEN J	IV / CSE	30	100	20	80	90
15	912619104021	ROOPINA R	IV / CSE	30	100	20	80	90
16	912619104022	SANDHIYA B	IV / CSE	30	100	21	84	92
17	912619104023	SANTHI D	IV / CSE	24	80	22	88	84
18	912619104024	SARANYA C	IV / CSE	30	100	23	92	96
19	912619104027	SNEHA R	IV / CSE	30	100	24	96	98
20	912619104029	SURIYA JOTHI S	IV / CSE	30	100	22	88	94

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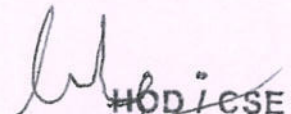
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21	912619104301	ABINAYA S	IV / CSE	30	100	25	100	100
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CC Coordinator


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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ACADEMIC YEAR 2022-2023 / EVEN SEMESTER

Date: 24 / 01 / 2023

DEPARTMENT CIRCULAR


Certificate Course offered by the Department of CSE will be conducted for all Second year and Third year CSE students on “**Building Scalable Web application using Node JS**” from 30.01.2023 to 03.02.2023 . Certificates will be issued to all the participants at the end of the Course.

S.No.	Name of the Course	Resource Person
1.	Building Scalable Web application using Node JS	Resource Person 1: Ms. EL.Thanga Uma AP / CSE Resource Peron 2: Ms.G.Rajalakshmi AP/CSE

CC:

- Principal's office
- IQAC Coordinator
- Class In charges – II, III Year
- CSE Students - II, III Year
- Notice Board


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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ACADEMIC YEAR 2022-2023 / EVEN SEMESTER


Certificate Course on "Building Scalable web applications using Node js"

SYLLABUS

S.NO	TOPIC COVERED	DURATION (in hours)	DATE FN/AN	Resource Person
1	Introduction to web programming-Introduction to HTML-HTML Basic Formatting Tags- -HTML Images-HTML	3	30.01.2023	EL.Thanga Uma
2	Hyperlink-HTML Tables-HTML iFrame-HTML Form-HTML Headers-HTML Miscellaneous.	3	30.01.2023	G.Rajalakshmi
3	Getting Started with Angular - Angular Development Environment Setup - Creating Components and Modules	3	31.01.2023	EL.Thanga Uma
4	Templates – Directives - Data Binding – Pipes - Nested Components – Forms -Services – Routing	3	31.01.2023	G.Rajalakshmi
5	Node.js: Why and What Node.js - How to use Node.js - Create a web server in Node.js - Node Package Manager	3	01.02.2023	EL.Thanga Uma
6	Modular programming in Node.js - Restarting Node Application - File Operations	3	01.02.2023	G.Rajalakshmi
7	Express Development Environment - defining a route - Handling Routes - Route and Query Parameters - How Middleware works	3	02.02.2023	EL.Thanga Uma
8	Chaining of Middleware's - Types of Middleware's - connecting to MongoDB with Mongoose - Validation Types and Defaults – Models	3	02.02.2023	G.Rajalakshmi
9	MongoDB: Introduction Module Overview- Document Database Overview- Understanding JSON	3	03.02.2023	EL.Thanga Uma
10	MongoDB Structure and Architecture- MongoDB Remote Management- Installing MongoDB on the local computer (Mac or Windows)	3	03.02.2023	G.Rajalakshmi
Total Hours :		30		


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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ACADEMIC YEAR 2022-2023 / EVEN SEMESTER

Certificate Course on "Building scalable web application using Node js"

STUDENT PARTICIPATION LIST-CC PROGRAM

S.NO	REG.NO	NAME OF THE STUDENT	YEAR/BRANCH
1	912620104001	AKALYA S	III / CSE
2	912620104002	HEMA V	III / CSE
3	912620104004	KALAIVANI S	III / CSE
4	912620104005	KALPANA K	III / CSE
5	912620104007	MEIYYAMMAL M	III / CSE
6	912620104008	NANDHINI P	III / CSE
7	912620104009	PRASANNA DEVI P	III / CSE
8	912620104010	PRISHIYA E	III / CSE
9	912620104012	ROSAMMAL M	III / CSE
10	912620104013	ROSHIKA K	III / CSE
11	912620104014	SABHA AYSHA S	III / CSE
12	912620104015	SATHIYASRI P	III / CSE
13	912620104016	SIVAGAMI D	III / CSE
14	912620104017	SIVAHARINI S	III / CSE
15	912620104018	SUBASHINI C	III / CSE
16	912620104019	SUBASHINI M	III / CSE
17	912620104020	SWETHA D	III / CSE
18	912620104021	VANATHI T	III / CSE
19	912620104022	VINCIYA MARY S	III / CSE
20	912620104304	VAISHNAVI R	III / CSE

Dr. S. THILAGAVATHI M.E., Ph.D.,

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21	912621104001	ABINAYA K	II / CSE
22	912621104002	AMEERA N	II / CSE
23	912621104003	ANJUGAM C	II / CSE
24	912621104004	ARUNDATHI S	II / CSE
25	912621104005	ASHIKA B	II / CSE
26	912621104006	DIVYA T	II / CSE
27	912621104007	ELACKIYA G	II / CSE
28	912621104008	GAYATHRI K	II / CSE
29	912621104009	GEETHA M	II / CSE
30	912621104010	HARSHITHA P	II / CSE
31	912621104011	ISHWARYA S	II / CSE
32	912621104012	JANANI R	II / CSE
33	912621104015	LAVANYA S	II / CSE
34	912621104016	MAHASREE P	II / CSE
35	912621104018	PRIYA M	II / CSE
36	912621104019	RABIKA R	II / CSE
37	912621104021	SAHEENA BEGAM A	II / CSE
38	912621104022	SASIPRIYA R	II / CSE
39	912621104023	SHAMIMA P	II / CSE
40	912621104024	SHEERA BANU A	II / CSE
41	912621104025	SIVAJOTHIKA S	II / CSE
42	912621104026	SIVAPRIYA R	II / CSE
43	912621104027	SUBHA DHARSHINI S	II / CSE
44	912621104028	SUBIKSHA S	II / CSE
45	912621104029	VINITHA K	II / CSE
46	912621104030	VISALATCHI S	II / CSE
47	912621104301	VAISHNAVI .B	II / CSE


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48	912621104302	VISHNU PRIYA. A	II / CSE
49	912621104701	AARTHI. S	II / CSE
50	912621104702	SWATHI. A.R	II / CSE


CC Coordinator


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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ACADEMIC YEAR 2022-2023 / EVEN SEMESTER

Certificate course on "Building Scalable web application using Node js"

S.NO	REG.NO	NAME OF THE STUDENT	YEAR/ BRANCH	DATE		DATE		DATE		DATE		DATE		NO OF SESSIONS ATTENDED	SIGNATURE OF THE STUDENT
				30.01.23		31.01.23		01.02.23		02.02.23		03.02.23			
				FN	AN	FN	AN	FN	AN	FN	AN	FN	AN		
1	912620104001	AKALYA S	III / CSE	/	/	/	/	/	/	/	/	/	/	10	S. Abalya
2	912620104002	HEMA V	III / CSE	/	/	/	/	/	/	/	/	/	/	10	Hema
3	912620104004	KALAIVANI S	III / CSE	/	/	/	/	/	/	/	/	/	/	10	Kalavani
4	912620104005	KALPANA K	III / CSE	/	/	/	/	/	/	/	/	/	/	10	Kalpana
5	912620104007	MEIYYAMMAL M	III / CSE	/	/	a	a	/	/	/	/	/	/	08	Meiyyammal
6	912620104008	NANDHINI P	III / CSE	/	/	/	/	/	/	/	/	/	/	10	Nandhini
7	912620104009	PRASANNA DEVI P	III / CSE	/	/	/	/	/	/	/	/	/	/	10	Prasanna
8	912620104010	PRISHIYA E	III / CSE	/	/	/	/	/	/	/	/	/	/	10	Prishiya
9	912620104012	ROSAMMAL M	III / CSE	/	/	/	/	/	/	/	/	/	/	10	Rosamma
10	912620104013	ROSHIKA K	III / CSE	/	/	/	/	/	/	/	/	/	/	10	Roshika


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11	912620104014	SABHA AYSHA S	III / CSE	/	/	/	/	/	/	/	/	/	/	10	S. Sabha
12	912620104015	SATHIYASRI P	III / CSE	/	/	/	/	/	/	/	/	/	/	10	Sathy
13	912620104016	SIVAGAMI D	III / CSE	/	/	/	/	/	/	/	/	/	/	10	Sivagami
14	912620104017	SIVAHARINI S	III / CSE	/	/	/	/	/	/	/	/	/	/	10	Sivaharini
15	912620104018	SUBASHINI C	III / CSE	/	/	/	/	/	/	/	/	/	/	10	Subashini
16	912620104019	SUBASHINI M	III / CSE	/	/	/	/	/	/	/	/	/	/	10	Subashini
17	912620104020	SWETHA D	III / CSE	aa	/	/	/	/	/	/	/	/	/	08	Swetha
18	912620104021	VANATHI T	III / CSE	/	/	/	/	/	/	/	/	/	/	10	Vanathi
19	912620104022	VINCIYA MARY S	III / CSE	/	/	/	/	/	/	/	/	/	/	10	Vinciya
20	912620104304	VAISHNAVI R	III / CSE	/	/	/	/	/	/	/	/	/	/	10	Vaishnavi
21	912621104001	ABINAYA K	II / CSE	/	/	/	/	/	/	/	/	/	/	10	Abinaya
22	912621104002	AMEERA N	II / CSE	/	/	/	/	/	/	/	/	/	/	10	Ameera
23	912621104003	ANJUGAM C	II / CSE	/	/	/	/	/	/	/	/	/	/	10	Anjugam
24	912621104004	ARUNDATHI S	II / CSE	/	/	/	/	/	/	/	/	/	/	10	Arundathi
25	912621104005	ASHIKA B	II / CSE	/	/	/	/	/	/	/	/	/	/	10	Ashika
26	912621104006	DIVYA T	II / CSE	/	/	/	/	/	/	/	/	/	/	10	Divya
27	912621104007	ELACKIYA G	II / CSE	/	/	/	/	/	/	/	/	/	/	10	Elackiya
28	912621104008	GAYATHRI K	II / CSE	/	/	/	/	/	/	/	/	/	/	10	Gayathri

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29	912621104009	GEETHA M	II / CSE	/	/	/	/	/	/	/	/	/	/	10	Geetha
30	912621104010	HARSHITHA P	II / CSE	/	/	/	/	/	/	/	/	/	/	10	Harshitha
31	912621104011	ISHWARYA S	II / CSE	/	/	/	/	/	/	/	/	/	/	10	Ishtwarya
32	912621104012	JANANI R	II / CSE	/	/	/	/	/	/	/	/	/	/	10	Janani R
33	912621104015	LAVANYA S	II / CSE	/	/	/	/	/	/	/	/	/	/	10	S. Lavanya
34	912621104016	MAHASREE P	II / CSE	/	/	a	a	/	/	/	/	/	/	08	Mahassree P.
35	912621104018	PRIYA M	II / CSE	/	/	/	/	/	/	/	/	/	/	10	Priya
36	912621104019	RABIKA R	II / CSE	/	/	/	/	/	/	/	/	/	/	10	Rabi
37	912621104021	SAHEENA BEGAM A	II / CSE	/	/	/	/	/	/	/	/	/	/	10	Sahya
38	912621104022	SASIPRIYA R	II / CSE	/	/	/	/	/	/	/	/	/	/	10	Sasipriya
39	912621104023	SHAMIMA P	II / CSE	/	/	/	/	/	/	/	/	/	/	10	S. S. Sha
40	912621104024	SHEERA BANU A	II / CSE	/	/	/	/	/	/	/	/	/	/	10	Sheera
41	912621104025	SIVAJOTHIKA S	II / CSE	/	/	/	/	/	/	/	/	/	/	10	Sivajothika
42	912621104026	SIVAPRIYA R	II / CSE	/	/	/	/	/	/	/	/	/	/	10	Sivapriya
43	912621104027	SUBHA DHARSHINI S	II / CSE	/	/	/	/	/	/	/	/	/	/	10	Subha
44	912621104028	SUBIKSHA S	II / CSE	/	/	/	/	/	/	/	/	/	/	10	Subiksha
45	912621104029	VINITHA K	II / CSE	/	/	/	/	/	/	/	/	/	/	10	Vinitha
46	912621104030	VISALATCHI S	II / CSE	/	/	/	/	/	/	/	/	/	/	10	Visalatchi

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47	912621104301	VAISHNAVI .B	II / CSE	/	/	/	/	/	/	/	/	/	/	10	<i>Vanya</i>
48	912621104302	VISHNU PRIYA. A	II / CSE	/	/	/	/	/	/	/	/	/	/	10	<i>Princy</i>
49	912621104701	AARTHI. S	II / CSE	/	/	/	/	/	/	/	/	/	/	10	<i>Arshi</i>
50	912621104702	SWATHI. A.R	II / CSE	/	/	/	/	/	/	/	/	/	/	10	<i>Swathi</i>

[Signature]
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[Signature]
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[Signature]
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Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

Report on Certificate Course

Title:	Building Scalable web application using Node js				
Resource Person:	Resource Person 1: Ms. EL.Thanga Uma AP / CSE		Resource Peron 2: Ms.G.Rajalakshmi AP/CSE		
Date of conduct from :	30.01.2023	To:	03.02.2023	Duration:	30 Hours
Organized Department :	COMPUTER SCIENCE AND ENGINEERING				
Participant Year:	2,3 (CSE)	Semester:	EVEN	No. of Students Registered :	50
Venue:	Auditorium, II Floor				

Outcome of Cetificate Course (CC)

At the end of the Certificate course the student can able to

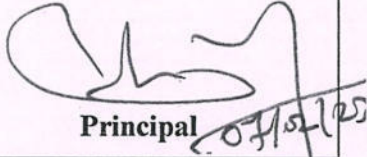
- Develop algorithmic solutions to simple computational problems.
- Develop and execute simple Full stack framework.
- Write simple Python programs using conditionals and loops for solving problems.
- Decompose a Python program into functions.

Assessment Process

- Student securing **more than 60% on total score** and secured more than 75% in attendance is eligible to receive the certificate for the CC course conducted
- Total Score = $(0.5 * \text{Attendance in CC out of 100 percentage} + 0.5 * \text{Test mark in CC out of 100 marks})$


VAC Coordinator


HoD / CSE


Principal

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PUDUKKOTTAI DISTRICT


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Certificate of Completion

This certificate is awarded to Ms.D.SWETHA of III CSE in recognition of their successful completion of certificate course on **BUILDING SCALABLE WEB APPLICATION USING NODE JS** during the academic year 2022-2023 even semester.

Course Coordinator

HoD / CSE

Principal

Dr. S.THILAGAVATHI M.E., Ph.D.,
PRINCIPAL

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Kaikkurichi, Pudukkottai, Tamil Nadu - 622 303, India



Certificate of Completion

This certificate is awarded to Ms.M.GEETHA of II CSE in recognition of their successful completion of certificate course on **BUILDING SCALABLE WEB APPLICATION USING NODE JS** during the academic year 2022-2023 even semester.

Course Coordinator

HoD / CSE

Principal

Dr. S.THILAGAYATHI M.E.,Ph.D.,
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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ACADEMIC YEAR 2022-2023 / EVEN SEMESTER

Certificate Course on "Building Scalable Web application using Node JS"

Name of the Student :

Year/Sem:

AU Register Number:

MCQ QUESTIONS (25X1 = 25 Marks)

1. Node.js is written in

A. JavaScript

B. C

C. C++

D. All of the above

2. Which of the following statement is correct?

A. js is Server Side Language.

B. js is the Client Side Language.

C. js is both Server Side and Client Side Language.

D. None of the above

3. What does the REPL stand for?

A. REPL stands for "Read Eval Print Loop."

B. REPL stands for "Research Eval Program Learn."

C. REPL stands for "Read Earn Point Learn."

D. REPL stands for "Read Eval Point Loop."

4. How modules in Node.js can be connected from one component to another ?

A.Expose

B.Module

C.Exports

D.All of the above

5. Which of the below modules is not a built-in module in Node.js ?

A.zlib

B.HTTPS

C.dgram

D.fsread

6 Which of the below command will show all the modules installed locally ?

A. npm ls -g

B .npm ls

C .node ls -g

D .node ls


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7. Which of the below fs module is used to truncate a file ?

- A. fs.delete(fd, len, callback)
- B. fs.remove(fd, len, callback)
- C. fs.ftruncate(fd, len, callback)
- D. None of the above.

8. How do we return a path string from the given path object in Node.js ?

- A. path.get()
- B. path.set()
- C. path.format()
- D. path.return()

9. What is the default scope in the Node.js application ?

- A. Global
- B. Local
- C. Global Function
- D. Local to object

10. Which of the below method is used to return the current working directory of the process ?

- A. cwd();
- B. .cmd();
- C. pwd();
- D. None of the above

11. What does the fs module stand for?

- A. FileStore
- B. .FileService
- C. File System
- D. None of the above

12. Which of the below options is correct about package.json in the node.js application?

- A. It is present in the root directory of any Node application.
- B. It is used to define the properties of a package.
- C. It is used to update the dependencies of an application.
- D. All of the above.

13. Which of the below is the correct syntax for installing the Nodemon in the Node.js application ?

- A. npm install -g nodemon
- B. node install -g nodemon
- C. node install node
- D. node install -l nodemon

14. Which of the following command is used to start a REPL session?

- A. \$ node
- B. \$ node start
- C. \$ node repl
- D. \$ node console

15. In which language is Node.js written?

- A. JavaScript
- B. C
- C. C++
- D. CoffeeScript



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E. All of the above

16 Which of the following command is used to install the Node.js express module?

A. \$ npm install express

B. \$ node install express

C. \$ install express

D. None of the above

17. What is Callback?

A. The callback is a technique in which a method calls back the caller method.

B. The callback is an asynchronous equivalent for a function.

C. Both of the above.

D. None of the above.

18. Which of the following extension is used to save the Node.js files?

A. .js

B. .node

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19 The Node.js modules can be exposed using:

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D. All of the above

20. Which of the following module is not a built-in node module?

A. zlib

B. https

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21. Which node module is used to handle binary data?

A. binary

B. buffer

C. Crypto

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22. How many node objects methods are available?

A. 21

B. 18

C. 19

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23. Which of the following operations can we do with the NodeJS events module?

A. Create

B. Listen for

C. Fire

D. All of the above

24. Which of the following is a valid HTTP method?

A. get

B. put

C. post

D. All of the above

25. Which of the following NodeJS modules is used for file uploads?

A. formidable

B. fs

C. express

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CC Coordinator

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ACADEMIC YEAR 2022-2023 / EVEN SEMESTER

Certificate Course on "Building scalable web application using Node js"

ANSWER KEY

1	d	6	b	11	c	16	a	21	b
2	a	7	c	12	d	17	b	22	b
3	a	8	c	13	a	18	a	23	d
4	c	9	b	14	a	19	c	24	d
5	d	10	a	15	e	20	d	25	b


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ACADEMIC YEAR 2022-2023 / EVEN SEMESTER

Certificate Course on "Building scalable web application using Node js"

Name of the Student : K. Kalpana

Year/Sem: III / 06.

AU Register Number: 912620104005

MCQ QUESTIONS (25X1 = 25 Marks)

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- a) JavaScript
b) C
c) C++
d) All of the above
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Phone: 0437-233211

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ACADEMIC YEAR 2022-2023 / EVEN SEMESTER

Certificate Course on "Building scalable web application using Node js"

S.NO	REG.NO	NAME OF THE STUDENT	YEAR/ BRANCH	ATTENDANCE DETAILS		VAC-MCQ TEST		OVERALL MARK(100) (50% of A + 50% of B)
				No of Sessions Attended	Attendance Mark(100) (A)	No of Correct Answers	MCQ Mark(100) (B)	
1	912620104001	AKALYA S	III / CSE	10	100	21	84	92
2	912620104002	HEMA V	III / CSE	10	100	18	72	86
3	912620104004	KALAIVANI S	III / CSE	10	100	19	76	88
4	912620104005	KALPANA K	III / CSE	10	100	20	80	90
5	912620104007	MEIYYAMMAL M	III / CSE	8	80	21	84	82
6	912620104008	NANDHINI P	III / CSE	10	100	23	92	96
7	912620104009	PRASANNA DEVI P	III / CSE	10	100	24	96	98
8	912620104010	PRISHIYA E	III / CSE	10	100	22	88	94


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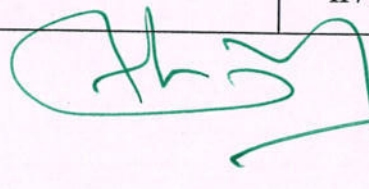
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COLLEGE FOR

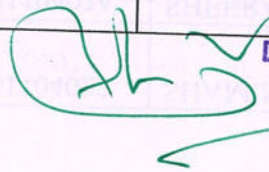
Kaikkurichi - 622 303

9	912620104012	ROSAMMAL M	III / CSE	10	100	24	96	98
10	912620104013	ROSHIKA K	III / CSE	10	100	19	76	88
11	912620104014	SABHA AYSHA S	III / CSE	10	100	22	88	94
12	912620104015	SATHIYASRI P	III / CSE	10	100	23	92	96
13	912620104016	SIVAGAMI D	III / CSE	10	100	24	96	98
14	912620104017	SIVAHARINI S	III / CSE	10	100	21	84	92
15	912620104018	SUBASHINI C	III / CSE	10	100	19	76	88
16	912620104019	SUBASHINI M	III / CSE	10	100	17	68	84
17	912620104020	SWETHA D	III / CSE	8	80	24	96	88
18	912620104021	VANATHI T	III / CSE	10	100	22	88	94
19	912620104022	VINCIYA MARY S	III / CSE	10	100	24	96	98
20	912620104304	VAISHNAVI R	III / CSE	10	100	21	84	92
21	912621104001	ABINAYA K	III / CSE	10	100	20	80	90
22	912621104002	AMEERA N	III / CSE	10	100	24	96	98
23	912621104003	ANJUGAM C	II / CSE	10	100	25	100	100



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24	912621104004	ARUNDATHI S	II / CSE	10	100	18	72	86
25	912621104005	ASHIKA B	II / CSE	10	100	23	92	96
26	912621104006	DIVYA T	II / CSE	10	100	17	68	84
27	912621104007	ELACKIYA G	II / CSE	10	100	24	96	98
28	912621104008	GAYATHRI K	II / CSE	10	100	23	92	96
29	912621104009	GEETHA M	II / CSE	10	100	24	96	98
30	912621104010	HARSHITHA P	II / CSE	10	100	24	96	98
31	912621104011	ISHWARYA S	II / CSE	10	100	23	92	96
32	912621104012	JANANI R	II / CSE	10	100	24	96	98
33	912621104015	LAVANYA S	II / CSE	10	100	21	84	92
34	912621104016	MAHASREE P	II / CSE	8	80	22	88	84
35	912621104018	PRIYA M	II / CSE	10	100	23	92	96
36	912621104019	RABIKA R	II / CSE	10	100	22	88	94
37	912621104021	SAHEENA BEGAM A	II / CSE	10	100	21	84	92
38	912621104022	SASIPRIYA R	II / CSE	10	100	23	92	96

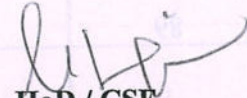


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39	912621104023	SHAMIMA P	II / CSE	10	100	24	96	98
40	912621104024	SHEERA BANU A	II / CSE	10	100	19	76	88
41	912621104025	SIVAJOTHIKA S	II / CSE	10	100	18	72	86
42	912621104026	SIVAPRIYA R	II / CSE	10	100	24	96	98
43	912621104027	SUBHA DHARSHINI S	II / CSE	10	100	21	84	92
44	912621104028	SUBIKSHA S	II / CSE	10	100	22	88	94
45	912621104029	VINITHA K	II / CSE	10	100	22	88	94
46	912621104030	VISALATCHI S	II / CSE	10	100	23	92	96
47	912621104301	VAISHNAVI .B	II / CSE	10	100	24	96	98
48	912621104302	VISHNU PRIYA. A	II / CSE	10	100	21	84	92
49	912621104701	AARTHI. S	II / CSE	10	100	24	96	98
50	912621104702	SWATHI. A.R	II / CSE	10	100	24	96	98


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Criteria 2

Teaching-Learning and Evaluation

350

Key Indicator- 2.3. Teaching- Learning Process (40)

2022-2023

**COMPUTER SCIENCE AND
ENGINEERING**

**PARTICIPATIVE LEARNING
CONFERENCE AND SYMPOSIUM**



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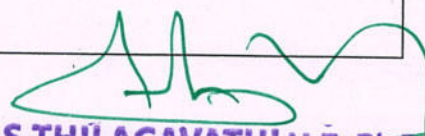
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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

PARTICIPATIVE LEARNING (SYMPOSIUM/WORKSHOP/SEMINAR)

ACADEMIC YEAR (2022 - 2023)

S.No	Register No	Student Name	Year/Sem	Name of the Participative Learning Method
1.	912620104018	C.Subhashini	III/V	Symposium - Paper Presentation (KRCE)
2.	912620104017	S.Sivaharini		
3.	912620104016	D.Sivagami		
4.	912620104010	E.Prishiya	III/V	
5.	912620104014	S.Sabha Aysha	III/V	Symposium – Capture Flag (SEC)
6.	912620104005	K.Kalpana	III/V	Symposium - Paper Presentation (SEC)
7.	912620104019	M.Subashini		
8.	912620104022	S.Vinciya Mary		
9.	912620104009	P.Prasanna Devi		
10.	912620104019	M.Subashini	III/V	Symposium – Clear the Red (SEC)
11.	912620104022	S.Vinciya Mary		
12.	912620104002	V.Hema		
13.	912620104009	P.Prasanna Devi		
14.	912620104005	K.Kalpana		
15.	912620104018	C.Subashini	III/ VI	Symposium - Superficio (ACGCET)
16.	912620104009	P.Prasanna Devi	III/V	Symposium – Cyber Ethnicity (MZCET)
17.	912620104014	S.Sabha Aysha	III/ VI	Symposium – Poster Presentation (SEC)
18.	912619104001	M.Annapoorani		
19.	912619104001	M.Annapoorani	IV/ VIII	Symposium - Copy cat (SEC)
20.	912619104023	D.Santhi		
21.	912620104014	S.Sabha Aysha	III/ VI	Symposium - Paper Presentation (SEC)
22.	912619104001	M.Annapoorani	IV/ VIII	
23.	912619104023	D.Santhi		
24.	912619104005	D.Dharshini	IV/ VIII	Symposium - Paper Presentation (MAIET)
25.	912619104010	J.Helan		
26.	912619104011	R.Keerthana		
27.	912619104013	M.Muthu Meenakshi		
28.	912619104019	K.Ranjani		
29.	912619104021	R.Roopina		
30.	912619104027	R.Sneha		
31.	912619104301	S.Abinaya		
32.	912620104018	C.Subashini	III/ VI	


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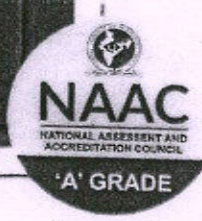
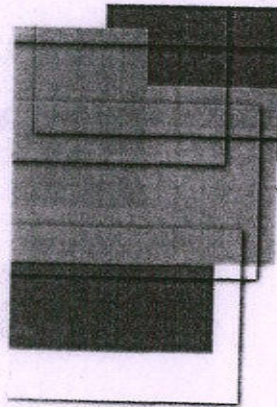
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

PARTICIPATIVE LEARNING (SYMPOSIUM/WORKSHOP/SEMINAR)

33.	912619104005	D.Dharshini	IV/ VIII	Symposium - Paper Presentation (SRRCET)		
34.	912619104005	D.Dharshini	IV/ VIII	Symposium - QUIZ (SRRCET)		
35.	912619104019	K.Ranjani				
36.	912619104012	G.Muthulakshmi				
37.	912619104017	S.Parameshwari				
38.	912619104001	M.Annapoorani	IV/ VIII	Symposium – Thought Presenter		
39.	912619104023	D.Santhi	III/ VI	International Conference – Paper Presentation (SRRCET)		
40.	912620104002	V.Hema				
41.	912620104018	C.Subashini				
42.	912620104014	S. Sabha Aysha				
43.	912620104019	M.Subashini				
44.	912620104304	R.Vaishnavi				
45.	912619104003	A.Arunnavameena				
46.	912619104004	P.Dayana				
47.	912619104007	B.Fahmidha	IV/ VIII	International Conference – Paper Presentation (SRRCET)		
48.	912619104009	S.Gulnas Fathima				
49.	912619104010	J.Helan				
50.	912619104011	R.Keerthana				
51.	912619104014	R.Niroshika				
52.	912619104017	S.Parameshwari				
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54.	912619104027	R.Sneha				
55.	912619104001	M.Annapoorani			IV/ VIII	International Conference – Paper Presentation (CCE)
56.	912619104013	M.Muthu Meenakshi				
57.	912619104020	J.Rilwana Parveen				
58.	912619104024	C.Saranya				
59.	912619104023	D.Santhi				
60.	912619104029	S.Suriya Jothi				


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**K.RAMAKRISHNAN
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**CERTIFICATE OF PARTICIPATION
ECentra'22**

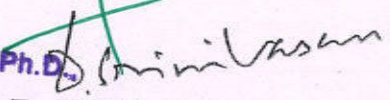


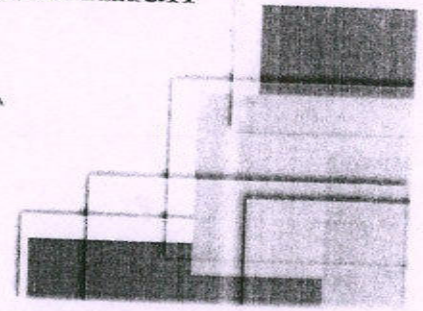
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from SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN has presented
a paper entitled MOBILE COMPUTING

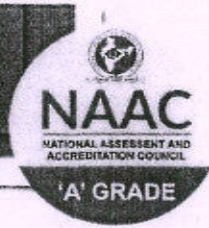
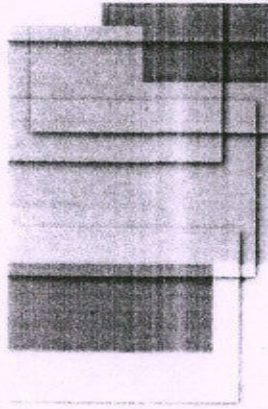
in _____ in
ECentra'22 - National Level workshop & Technical symposium organized
by Department of ECE held on 24th September 2022 at K.Ramakrishnan
College of Engineering, Trichy.


Dr. M. Maheswari
HOD/ECE


Dr. S. THILAGAVATHI M.E., Ph.D.
PRINCIPAL
SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN
Kalkkurchi - 622 303, Pudukkottai Dt.


Dr. D. Srinivasan
PRINCIPAL





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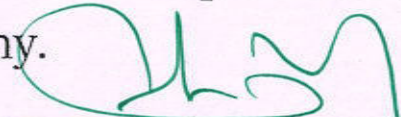
CERTIFICATE OF PARTICIPATION
ECentra'22

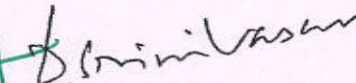


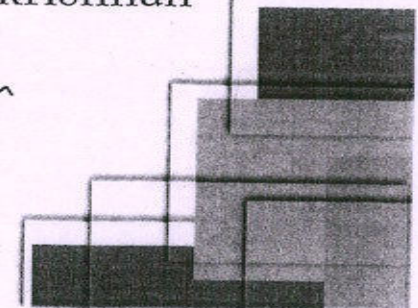
This is to certify that SIVAHARINI . S of III CSE
from SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN has presented
a paper entitled MOBILE COMPUTING

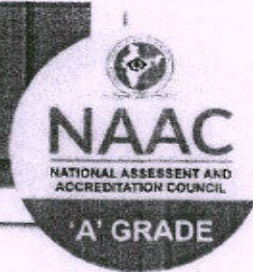
_____ in
ECentra'22 – National Level workshop & Technical symposium organized
by Department of ECE held on 24th September 2022 at K.Ramakrishnan
College of Engineering, Trichy.


Dr. M. Maheswari
HOD/ECE


Dr. S. THILAGAVATHI M.E., Ph.D.,
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Dr. D. Srinivasan
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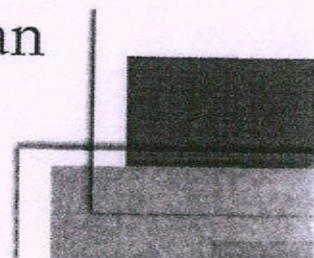
**CERTIFICATE OF PARTICIPATION
ECentra'22**

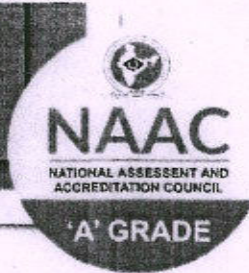


This is to certify that D. Sivagami of III / CSE
from Sri Bharathi Engineering College for Women has presented
a paper entitled Artificial Intelligence

_____ in
ECentra'22 - National Level workshop & Technical symposium organized
by Department of ECE held on 24th September 2022 at K.Ramakrishnan
College of Engineering, Trichy.

Dr. S.THILAGAVATHI M.E., Ph.D.,
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 (Accredited by NBA)

CERTIFICATE OF PARTICIPATION
ECentra'22



This is to certify that E. Prishiya of III / CSE
 from Sri Bharathi Engineering College for Women has presented
 a paper entitled Artificial Intelligence

_____ in
 ECentra'22 - National Level workshop & Technical symposium organized
 by Department of ECE held on 24th September 2022 at K.Ramakrishnan
 College of Engineering, Trichy.

Dr. M Maheswari

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Dr. D.Srinivasan



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BUREAU OF YOUNG COMPUTER ENGINEERS
AND
INTERNAL QUALITY ASSURANCE CELL (IQAC)

CERTIFICATE

This is to certify that ~~M~~/Ms.....*S. SABHA AYSHA*.....of
Sri Bharathi Engineering College for Women.....has
participated and Secured ~~H~~ / II prize in Thought Presenter / Master Minds / Clear the Red / Capture the Flag
in the National Level Technical Symposium "TechnoPedia 2022" held on 01st June 2022, conducted by
the Department Of Computer Science and Engineering, Shanmuganathan Engineering College, Arasampatti,
Pudukkottai Dist.


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AND
INTERNAL QUALITY ASSURANCE CELL (IQAC)

CERTIFICATE

This is to certify that Mr/Ms K. KALPANA of
..... Sri..... Bharathi Engineering College for Women has participated and presented a paper
Titled..... Internet of Things Architecture in the
National Level Technical Symposium "TechnoPedia 2022" held on 01st June 2022, conducted by the Department Of
Computer Science and Engineering, Shanmuganathan Engineering College, Arasampatti, Pudukkottai Dist.


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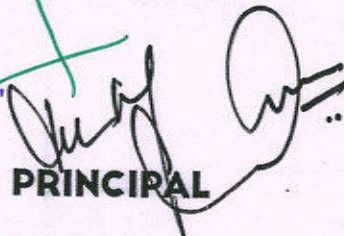
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AND
INTERNAL QUALITY ASSURANCE CELL (IQAC)

CERTIFICATE

*This is to certify that M/MsM. SUBASHINI.....of
.....Sri Bharathi Engineering College for Women.....has participated and presented a paper
Titled.....Virtual Artificial Intelligence.....in the
National Level Technical Symposium "TechnoPedia 2022" held on 01st June 2022, conducted by the Department Of
Computer Science and Engineering, Shanmuganathan Engineering College, Arasampatti, Pudukkottai Dist.*


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CERTIFICATE

This is to certify that ~~Mr/Ms~~ *S. Vinciya many* of
Sri Bharathi Engineering college for women has participated and presented a paper
Titled..... *Internet of Things Architecture* in the
National Level Technical Symposium "TechnoPedia 2022" held on 01st June 2022, conducted by the Department Of
Computer Science and Engineering, Shanmuganathan Engineering College, Arasampatti, Pudukkottai Dist.


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INTERNAL QUALITY ASSURANCE CELL (IQAC)

CERTIFICATE

This is to certify that Mr/MsPRASANNA DEVI.....of
...Sri...Bharathi...Engineering...College...for...Women.....has participated and presented a paper
Titled.....Virtual.....Artificial.....Intelligence.....in the
National Level Technical Symposium "TechnoPedia 2022" held on 01st June 2022, conducted by the Department Of
Computer Science and Engineering, Shanmuganathan Engineering College, Arasampatti, Pudukkottai Dist.


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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING BOYCE ASSOCIATION

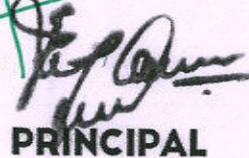
BUREAU OF YOUNG COMPUTER ENGINEERS
AND
INTERNAL QUALITY ASSURANCE CELL (IQAC)

CERTIFICATE

*This is to certify that Mr/Ms.....M...SUBASHINI.....of
.....Sri.....Bharathi.....Engineering.....college.....for.....women.....has
participated and Secured ~~L/II~~ prize in Thought Presenter / Master Minds / Clear the Red / Capture the Flag
in the National Level Technical Symposium "TechnoPedia 2022" held on 01st June 2022, conducted by
the Department Of Computer Science and Engineering, Shanmuganathan Engineering College, Arasampatti,
Pudukkottai Dist.*


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BOYCE ASSOCIATION

BUREAU OF YOUNG COMPUTER ENGINEERS
AND
INTERNAL QUALITY ASSURANCE CELL (IQAC)

CERTIFICATE

This is to certify that *Mr/Ms. S. VINCIYA MARY*.....of
Sri Bharathi Engineering College of Engineering.....has
participated ~~and Secured~~ *H-H* ~~prize~~ in *Thought Presenter / Master Minds / Clear the Red / Capture the Flag*
in the National Level Technical Symposium "TechnoPedia 2022" held on 01st June 2022, conducted by
the Department Of Computer Science and Engineering, Shanmuganathan Engineering College, Arasampatti,
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SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
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BOYCE ASSOCIATION

BUREAU OF YOUNG COMPUTER ENGINEERS
AND
INTERNAL QUALITY ASSURANCE CELL (IQAC)

CERTIFICATE

*This is to certify that Mr/Ms.....V...HEMA.....of
.....Sri.....Bharathi.....Engineering.....College.....for.....women.....has
participated ~~and Secured 1st prize~~ in Thought Presenter / Master Minds / Clear the Red / Capture the Flag
in the National Level Technical Symposium "TechnoPedia 2022" held on 01st June 2022, conducted by
the Department Of Computer Science and Engineering, Shanmuganathan Engineering College, Arasampatti,
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BUREAU OF YOUNG COMPUTER ENGINEERS
AND
INTERNAL QUALITY ASSURANCE CELL (IQAC)

CERTIFICATE

This is to certify that Mr/Ms.....P. PRASANNA DEVI.....of
.....Sri Bharathi Engineering College for women.....has
participated ~~and Secured I / II prize~~ in Thought Presenter / Master Minds / Clear the Red / Capture the Flag
in the National Level Technical Symposium "TechnoPedia 2022" held on 01st June 2022, conducted by
the Department Of Computer Science and Engineering, Shanmuganathan Engineering College, Arasampatti,
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BOYCE ASSOCIATION

BUREAU OF YOUNG COMPUTER ENGINEERS
AND
INTERNAL QUALITY ASSURANCE CELL (IQAC)

CERTIFICATE

This is to certify that Mr/Ms.....*k. KALPANA*.....of
...*Sri Bharathi*.....college of Engineering for Women.....has
participated and Secured ~~I-H~~ *1-H* prize in Thought Presenter / Master Minds / Clear the Red / Capture the Flag
in the National Level Technical Symposium "TechnoPedia 2022" held on 01st June 2022, conducted by
the Department Of Computer Science and Engineering, Shanmuganathan Engineering College, Arasampatti,
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HOD-CSE


Dr. S. THILAGAVATHI M.E., Ph.D.,
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Kaikkurchi - 622 303, Pudukkottai Dt.


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Department of Computer Science and Engineering
proudly presents



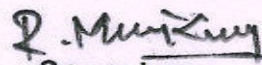
COGNOLAZE ' 23
Get ready to Blaze


A National Level Technical Symposium

CERTIFICATE
— of winner —

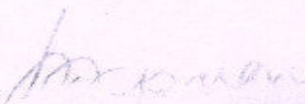
Dr. S. THILAGAVATHI M.E., Ph.D.,
PRINCIPAL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
Kaikkurchi - 622 303, Pudukkottai Dt.

This is to certify that C. SUBASHINI of
SRI BHARATHI ENGINEERING COLLEGE has secured WINNER prize
in the event SUPERFICIO held on 26 Apr 2023.


Secretary


26/4/23
Head of the Department


26/4
Vice Principal


Principal



MOUNT ZION

COLLEGE OF ENGINEERING AND TECHNOLOGY

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Lena Vilakku, Pilivalam P.O, Thirumayam TK, Pudukkottai - 622507

E-mail: info@mzcet.in | www.mzcet.in



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TECHQUEST — 2022 —

RIDE THE CREST OF TECH



Certificate of Winner

This certificate is presented to PRASANNA DEVI. P of Sri Bharathi Engineering College for Women for securing third place in CYBER ETHNICITY of TECHQUEST'22 on OCTOBER 20, 2022.

Dr. S.THILAGAVATHI M.E., Ph.D.,
PRINCIPAL

**SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
Kaikkurchi - 622 303, Pudukkottai Dt.**

HEAD OF THE DEPARTMENT

Sf
20/10/22
CO-ORDINATOR

[Handwritten signature]
20/10/2022



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AND
INTERNAL QUALITY ASSURANCE CELL (IQAC)

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*This is to certify that Mr/Ms.....SABHA.....AYSHA.....S.....of
.....S.R.I.....BHARATHI.....ENGINEERING.....COLLEGE.....FOR.....WOMEN.....has
participated and Secured I / II prize in Copy cat / Hashcrack / Thought presenter / Poster Presentation / Short
film / Meme Contest / Mr.Bean game in the National Level Technical Symposium "TechnoPedia 2023" held on 29th
April 2023, conducted by the Department Of Computer Science and Engineering, Shanmuganathan Engineering
College, Arasampatti, Pudukkottai Dist.*


HOD-CSE


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AND
INTERNAL QUALITY ASSURANCE CELL (IQAC)

CERTIFICATE

This is to certify that Mr/Ms..... ANNAPURANI, M of
SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN has
participated and secured ~~I / II~~ prize in Copy cat / Hashcrack / Thought presenter / Poster Presentation / Short
film / Meme Contest / Mr.Bean game in the National Level Technical Symposium "TechnoPedia 2023" held on 29th
April 2023, conducted by the Department Of Computer Science and Engineering, Shanmuganathan Engineering
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HOD-CSE


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COLLEGE FOR WOMEN
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This is to certify that Mr/Ms.....SANTHI...D.....of
SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN.....has
participated ~~and Secured I / II prize~~ in Copy cat / Hashcrack / Thought presenter / Poster Presentation / Short
flim / Meme Contest / Mr.Bean game in the National Level Technical Symposium "TechnoPedia 2023" held on 29th
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CERTIFICATE

*This is to certify that Mr/MsSABHA..AYSHA...S.....of
.SRI..BHARATHI..ENGINEERING..COLLEGE..FOR..WOMEN..has participated and presented a paper
Titled..BEAUTY...PARADISE...THE...COSMETIC...CENTRE.....in the
National Level Technical Symposium "TechnoPedia 2023" held on 29th April 2023, conducted by the Department Of
Computer Science and Engineering, Shanmuganathan Engineering College, Arasampatti, Pudukkottai Dist.*


HOD-CSE


Dr. S. THILAGAVATHI M.E., Ph.D.,
PRINCIPAL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
Kaikkurchi - 622 303, Pudukkottai Dt.


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SHANMUGANATHAN ENGINEERING COLLEGE



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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

BOYCE ASSOCIATION


BUREAU OF YOUNG COMPUTER ENGINEERS

AND

INTERNAL QUALITY ASSURANCE CELL (IQAC)

CERTIFICATE

This is to certify that Mr/Ms ANNA POORANI M.....of
SRI BHARATHI ENGINEERING COLLEGE.....has participated and presented a paper
Titled CROP DISEASE DETECTION USING NEURAL NETWORK.....in the
National Level Technical Symposium "TechnoPedia 2023" held on 29th April 2023, conducted by the Department Of
Computer Science and Engineering, Shanmuganathan Engineering College, Arasampatti, Pudukkottai Dist.


HOD-CSE


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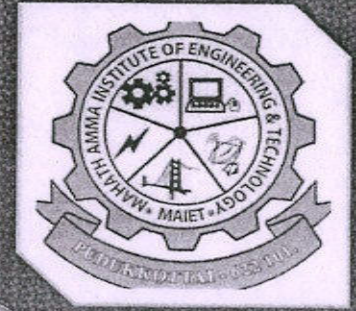
CERTIFICATE

This is to certify that Mr/MsSANTHI D.....of
SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN has participated and presented a paper
Titled...CROP DISEASE DETECTION USING NEURAL NETWORK.....in the
National Level Technical Symposium "TechnoPedia 2023" held on 29th April 2023, conducted by the Department Of
Computer Science and Engineering, Shanmuganathan Engineering College, Arasampatti, Pudukkottai Dist.


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of Appreciation TECHNOPHILIA - 2K23

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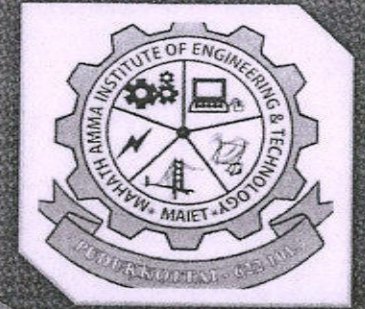
This Is To Certify That Mr/Ms D. DHARSHINI
Of SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN
Has Participated/~~Win~~ In PAPER PRESENTATION Event
Conducted By The Department Of Computer Science Engineering
In TECHNOPHILIA - 2K23 A National Level Technical Symposium
On 28th April 2023.

Dr. S.THILAGAVATHI M.E., Ph.D.,
PRINCIPAL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
Kaikkurchi - 622 303, Pudukkottai Dt.

PAS
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A. Anjaly
HEAD OF THE DEPARTMENT

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INSTITUTE OF ENGINEERING & TECHNOLOGY
N.M.Nagar,Ariyur,Siththanavasal Road,Pudukkottai-622 101

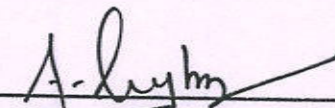
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This Is To Certify That Mr/Ms HELAN.J
Of SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN
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In TECHNOPHILIA - 2K23 A National Level Technical Symposium
On 28th April 2023.

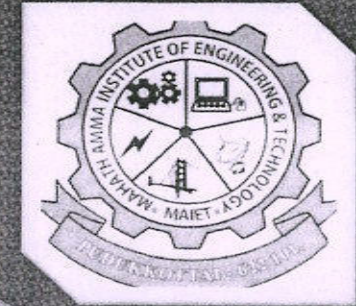



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Dr. S.THILAGAVATHI M.E.,Ph.D.,
PRINCIPAL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
Kaikkurchi - 622 303, Pudukkottai Dt.


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of Appreciation TECHNOPHILIA - 2K23

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This Is To Certify That Mr/Ms HELAN . J
Of SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN
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In TECHNOPHILIA - 2K23 A National Level Technical Symposium
On 28th April 2023.



[Signature]
CONVENER

[Signature]
HEAD OF THE DEPARTMENT

[Signature]
Dr. S.THILAGAVATHI M.E.,Ph.D.,
PRINCIPAL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
Kaikkurchi - 622 303, Pudukkottai Dt.

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Of SRI BHARATHI COLLEGE OF ENGINEERING FOR WOMEN
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In TECHNOPHILIA - 2K23 A National Level Technical Symposium
On 28th April 2023.



Dr. S.THILAGAVATHI M.E., Ph.D.

PRINCIPAL

SRI BHARATHI ENGINEERING

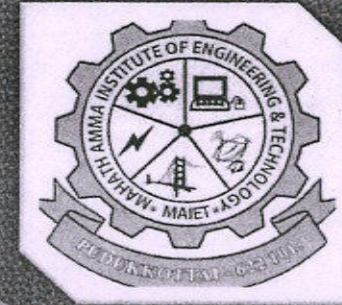
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This Is To Certify That Mr/Ms M.MUTHU MEENAKSHI
Of SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN
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In TECHNOPHILIA - 2K23 A National Level Technical Symposium
On 28th April 2023.

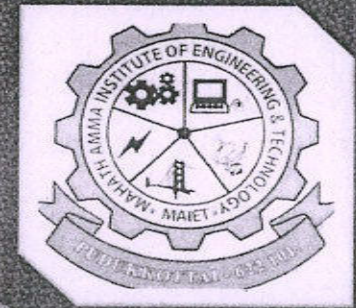


PAD
CONVENER

A. Srinivasan
HEAD OF THE DEPARTMENT

Dr. S.Thilagavathi
PRINCIPAL
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Of SRI BHARATHI COLLEGE OF ENGINEERING FOR WOMEN
Has Participated/Win In PAPER PRESENTATION Event
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In TECHNOPHILIA - 2K23 A National Level Technical Symposium
On 28th April 2023.

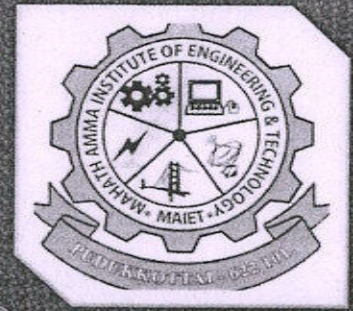


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Dr. **S.THILAGAVATHI** M.E.,Ph.D.,
PRINCIPAL
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Kaikkurchi - 622 303, Pudukkottai Dt.

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Of SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN
Has Participated/Win In PAPER PRESENTATION Event
Conducted By The Department Of Computer Science Engineering
In TECHNOPHILIA - 2K23 A National Level Technical Symposium
On 28th April 2023.

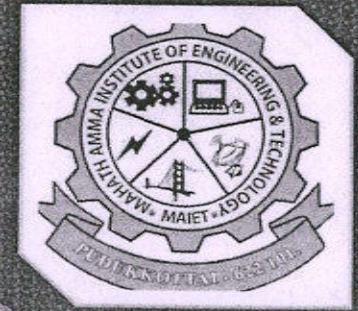


Dr. **S.THILAGAVATHI M.E., Ph.D.,**
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Of SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN
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In TECHNOPHILIA - 2K23 A National Level Technical Symposium
On 28th April 2023.



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A. Srinivasan
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Dr. S.THILAGAVATHI M.E.,Ph.D.,
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of Appreciation TECHNOPHILIA - 2K23

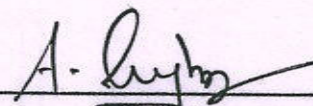
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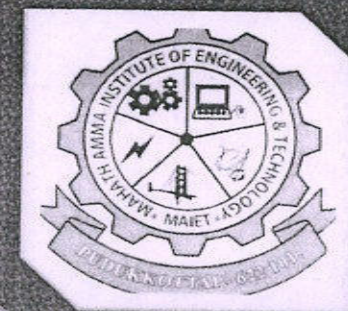
This Is To Certify That Mr/Ms SNEHA . R
Of SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN
Has Participated/Win In PAPER PRESENTATION [IIIrd prize] Event
Conducted By The Department Of Computer Science Engineering
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On 28th April 2023.

Dr. **S.THILAGAVATHI M.E., Ph.D.,**
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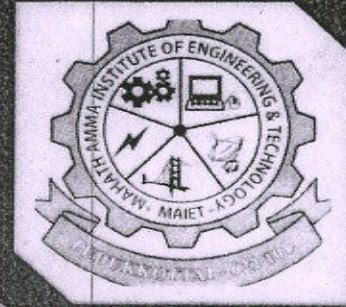
This Is To Certify That Mr/Ms S.ABINAYA
Of SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN
Has Participated/~~Win~~ In PAPER PRESENTATION Event
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On 28th April 2023.



PMS
CONVENER

A. Srinivasan
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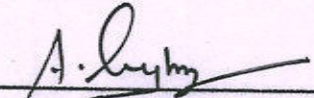
This Is To Certify That Mr/Ms C. SUBASHINI
Of SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN
Has Participated/Win In CONNECTION COMPETITION [11th prize] Event
Conducted By The Department Of Computer Science Engineering
In TECHNOPHILIA - 2K23 A National Level Technical Symposium
On 28th April 2023.



Dr. **S.THILAGAVATHI M.E.,Ph.D.,**
PRINCIPAL

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**A NATIONAL LEVEL TECHNICAL SYMPOSIUM
TECHSAT '23**

CERTIFICATE OF MERIT

~~Mr/Ms/Mrs~~ D. Dharshini CSE (IV Year) of
SBECW Has Participate In The Event paper presentation
In The National Level Technical Symposium TECHSAT '23 Held On 20th March 2023
Organized By The Department of EEE.


HOD


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Dr. S. THILAGAVATHI M.E., Ph.D.,
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CERTIFICATE OF MERIT

Mr/Ms/Mrs. D. Dharehini of
SBECH Has Participate In The Event Tech Quiz
In The National Level Technical Symposium TECHSAT '23 Held On 20th March 2023
Organized By The Department of EEE.

Dr. **S.THILAGAVATHI M.E., Ph.D.,**
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TECHSAT '23

CERTIFICATE OF MERIT

Mr/Ms/Mrs K. RANJANI of
SBE.CW Has Participate In The Event Technical Quiz
In The National Level Technical Symposium TECHSAT '23 Held On 20th March 2023
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Mr/Ms/Mrs. Parameswar P. S of
SBECH Has Participate In The Event. Tech Quiz

In The National Level Technical Symposium TECHSAT '23 Held On 20th March 2023
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CERTIFICATE OF MERIT

Mr/Ms/Mrs G. Muthulakshmi of
SBECH Has Participate In The Event Tech Quiz

In The National Level Technical Symposium TECHSAT '23 Held On 20th March 2023
Organized By The Department of EEE.

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PRINCIPAL
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Kaikkurchi - 622 303, Pudukkottai Dt.

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BOYCE ASSOCIATION

BUREAU OF YOUNG COMPUTER ENGINEERS
AND
INTERNAL QUALITY ASSURANCE CELL (IQAC)

CERTIFICATE

This is to certify that Mr/Ms.....ANNA POORANI M.....of
...SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN.....has
participated and Secured [✓] I / II prize in Copy cat / Hashcrack / Thought presenter / Poster Presentation / Short
flim / Meme Contest / Mr.Bean game in the National Level Technical Symposium "TechnoPedia 2023" held on 29th
April 2023, conducted by the Department Of Computer Science and Engineering, Shanmuganathan Engineering
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BOYCE ASSOCIATION

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AND
INTERNAL QUALITY ASSURANCE CELL (IQAC)

CERTIFICATE

This is to certify that Mr/Ms.....S. ANTHI D......of
.....SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN.....has
participated and Secured [✓] I / II prize in Copy cat / Hashcrack / Thought [✓] presenter / Poster Presentation / Short
film / Meme Contest / Mr.Bean game in the National Level Technical Symposium "TechnoPedia 2023" held on 29th
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Dr. S. THILAGAVATHI M.E., Ph.D.
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DEPARTMENT OF ECE & EEE

JOINTLY ORGANIZED

INTERNATIONAL CONFERENCE ON

EMERGING TRENDS IN ELECTRICAL ELECTRONICS & COMMUNICATION TECHNOLOGY

(ICETEECT'23)

CERTIFICATE OF PARTICIPATION

This is to certify that Prof./Dr./Mr./Ms. V. HEMA.....CSE - THIRD YEAR.....has presented a Paper entitledE-VOTING SYSTEM USING ETHEREUM NETWORK..... In the International Conference on "Emerging Trends in Electrical Electronics & Communication Technology" held on 20th April 2023, Organized by the Department Of Electrical Electronics & Communication Engineering, Sri Raaja Raajan College Of Engineering And Technology, Karaikudi.

Dr.A.ELANGO
Principal



Dr.S.SUBBIAH
Advisor

Dr. S. THILAGAVATHI M.E., Ph.D.,
PRINCIPAL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
Kaikkurchi - 622 303, Pudukkottai Dt.



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EMERGING TRENDS IN ELECTRICAL ELECTRONICS & COMMUNICATION TECHNOLOGY

(ICETEECT'23)

CERTIFICATE OF PARTICIPATION

This is to certify that Prof./Dr./Mr./Ms...**S. SABHAAYSHA..BE.(CSE)..THIRD YEAR**.....has presented a Paper entitled **DESIGN AND IMPLEMENTATION OF BEAUTY PARADISE**..... In the International Conference on "Emerging Trends in Electrical Electronics & Communication Technology" held on 20th April 2023, Organized by the Department Of Electrical Electronics & Communication Engineering, Sri Raaja Raajan College Of Engineering And Technology, Karaikudi.

Dr.A.ELANGO
Principal



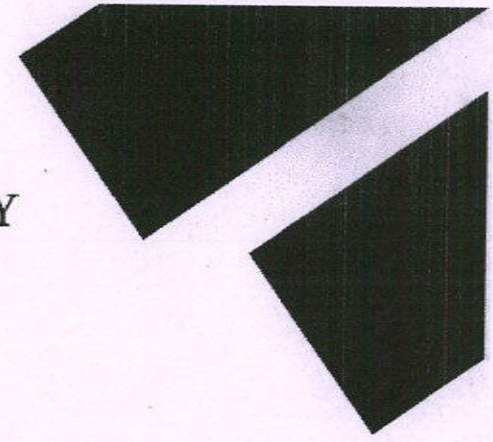
Dr.S.SUBBIAH
Advisor

Dr. S. THILAGAVATHI M.E., Ph.D.,
PRINCIPAL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
Kaikkurchi - 622 303, Pudukkottai Dt.





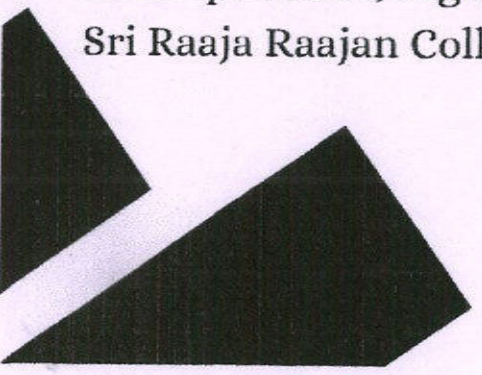
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 (Approved by AICTE, New Delhi & Affiliated to Anna University)
 AMARAVATHIPUTHUR, KARAİKUDI - 630 301

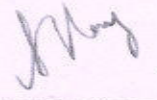


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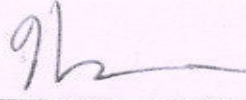
This is to certify that Prof./Dr./Mr./Ms. M. SUBASHINI - CSE - THIRD YEAR.....has presented a Paper entitled E-VOTING SYSTEM USING ETHEREUM NETWORK..... In the International Conference on "Emerging Trends in Electrical Electronics & Communication Technology" held on 20th April 2023, Organized by the Department Of Electrical Electronics & Communication Engineering, Sri Raaja Raajan College Of Engineering And Technology, Karaikudi.






Dr. A. ELANGO
 Principal

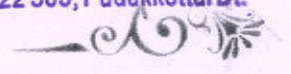




Dr. S. SUBBIAH
 Advisor



Dr. S. THILAGAVATHI M.E., Ph.D.,
 PRINCIPAL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
 Kaikkurchi - 622 303, Pudukkottai Dt.





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Dr. S. THILAGAVATHI M.E., Ph.D.,

PRINCIPAL

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COLLEGE FOR WOMEN

Kaikkurchi - 622 303, Pudukkottai Dt.

This is to certify that Prof./Dr./Mr./Ms.....C. SUBASHINI.....has presented a Paper entitled ANDROID APP FOR WOMEN SAFETY..... In the International Conference on "Emerging Trends in Electrical Electronics & Communication Technology" held on 20th April 2023, Organized by the Department Of Electrical Electronics & Communication Engineering, Sri Raaja Raajan College Of Engineering And Technology, Karaikudi.

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Kaikkurchi - 622 303, Pudukkotte Dt.

This is to certify that Prof./Dr./Mr./Ms. B.R. VAISHNAVI.....has presented a Paper entitled "ANDROID APP FOR WOMEN SAFETY"..... In the International Conference on "Emerging Trends in Electrical Electronics & Communication Technology" held on 20th April 2023, Organized by the Department Of Electrical Electronics & Communication Engineering, Sri Raaja Raajan College Of Engineering And Technology, Karaikudi.

Dr. A. ELANGO
Principal



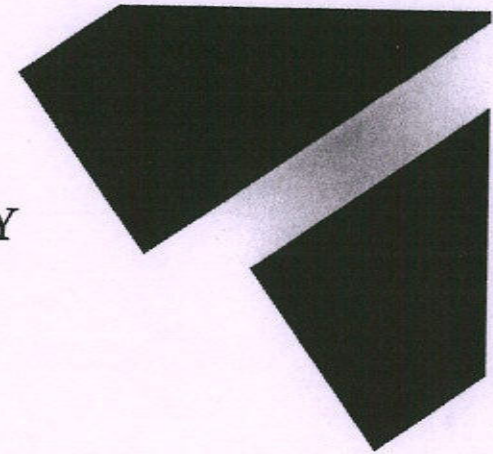
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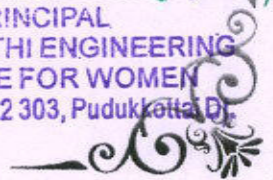
This is to certify that Prof./Dr./Mr./Ms.....ARUN NAVA MEENA : A.....has presented a Paper entitled EVENT OF SAFETY VIOLATION DETECTION IN INDUSTRIAL ENVIRONMENT In the International Conference on "Emerging Trends in Electrical Electronics & Communication Technology" held on 20th April 2023, Organized by the Department Of Electrical Electronics & Communication Engineering, Sri Raaja Raajan College Of Engineering And Technology, Karaikudi.

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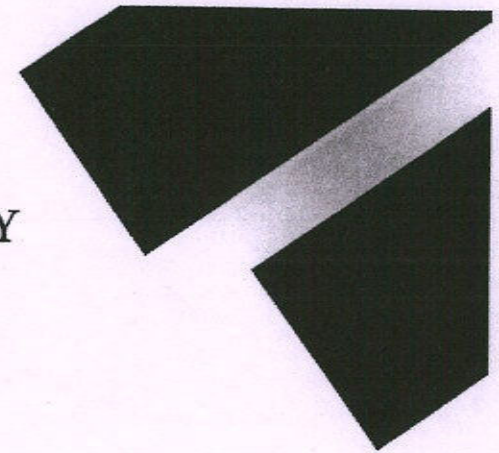




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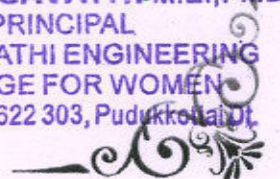
This is to certify that Prof./Dr./Mr./Ms.....DAYANA . P.....has presented a Paper entitled EVENT OF SAFETY VIOLATION DETECTION IN INDUSTRIAL ENVIRONMENT In the International Conference on "Emerging Trends in Electrical Electronics & Communication Technology" held on 20th April 2023, Organized by the Department Of Electrical Electronics & Communication Engineering, Sri Raaja Raajan College Of Engineering And Technology, Karaikudi.

Dr.A.ELANGO
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This is to certify that Prof./Dr./Mr./Ms. B. FAHMIDHA, IV-YEAR (CSE) has presented a Paper entitled Domain recognition and Disguises Detection using deep learning technique In the International Conference on "Emerging Trends in Electrical Electronics & Communication Technology" held on 20th April 2023, Organized by the Department Of Electrical Electronics & Communication Engineering, Sri Raaja Raajan College Of Engineering And Technology, Karaikudi.

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Dr. S. SUBBIAH
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
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This is to certify that Prof./Dr./Mr./Ms. P. KEERTHANA, BE (CSE) - FINAL YEAR has presented a Paper entitled Liquid Petroleum hydro carbon ocean coastal water pollution identification using deep learning In the International Conference on "Emerging Trends in Electrical Electronics & Communication Technology" held on 20th April 2023, Organized by the Department Of Electrical Electronics & Communication Engineering, Sri Raaja Raajan College Of Engineering And Technology, Karaikudi.

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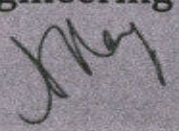
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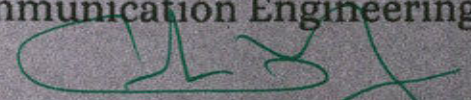
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This is to certify that Prof./Dr./Mr./Ms. R. NIROSHIKA, CSE - FINAL YEAR has presented a Paper entitled Driver Recognition and drowsiness detection using deep Learning technique In the International Conference on "Emerging Trends in Electrical Electronics & Communication Technology" held on 20th April 2023, Organized by the Department Of Electrical Electronics & Communication Engineering, Sri Raaja Raajan College Of Engineering And Technology, Karaikudi.


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This is to certify that Prof./Dr./Mr./Ms.....~~PARAMESHWARI: S~~.....has presented a Paper entitled ~~EVENT...OF...SAFETY...VIOLATION...DETECTION...IN...INDUSTRIAL...~~ **ENVIRONMENT** In the International Conference on "Emerging Trends in Electrical Electronics & Communication Technology" held on 20th April 2023, Organized by the Department Of Electrical Electronics & Communication Engineering, Sri Raaja Raajan College Of Engineering And Technology, Karaikudi.

Mrs.k.Isabella Rani.M.E.,
Conveiner



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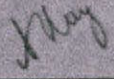
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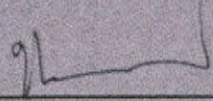
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Paper entitled Interact computer with facial Expression for technoplogia users using deep Learning In the International
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Dr. S. SUBBIAH
Advisor


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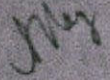
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Principal




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Advisor


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CERTIFICATE OF PARTICIPATION

This is to certify that

Mr/Ms

M ANNAPOORANI

of

SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN

Has Presented Paper Entitled as

Plant Disease Prediction Using Neural Network

Dr. **S. THILAGAVATHI M.E., Ph.D.,**
PRINCIPAL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
Kaikkurchi - 622 303, Pudukkottai Dt.

in the "International Conference on Information and Communication Engineering (ICICE'23) organized by Department of Electronics and Communication Engineering at CARE College of Engineering during 27 & 28 April , 2023.

Ms. M. Shiva Shankari
Organizing Chair
CARE College of Engineering
Trichirannalli

Ms. R. Deepalakshmi
Organizing Chair
CARE College of Engineering

Mrs. R. Vanitha
Organising Chair
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Mr/Ms

M. MUTHU MEENAKSHI

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Has Presented Paper Entitled as

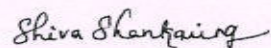
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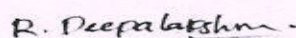
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PRINCIPAL

SRI BHARATHI ENGINEERING
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Kalkkuchi - 622 303, Pudukkottai Dt.

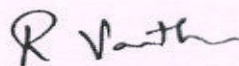
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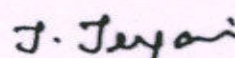
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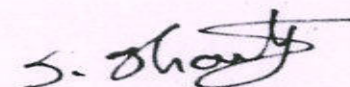
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This is to certify that

Mr/Ms

J.RILWANA PARVEEN

of

SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN

Has Presented Paper Entitled as

Ai Enhanced Ot Security Tool

Dr. S.THILAGAVATHI M.E., Ph.D.,
PRINCIPAL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
Kaikkurchi - 622,303, Pudukkottai Dt,

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Mr/Ms

C.SARANYA

of

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Dr. S.THILAGAVATHI M.E., Ph.D.,
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Mr/Ms

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Mr/Ms

S.SURIYA JOTHI

of

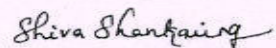
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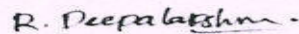
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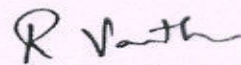
in the "International Conference on Information and Communication Engineering (ICICE'23) organized by Department of Electronics and Communication Engineering at CARE College of Engineering during 27 & 28 April , 2023.



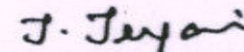
Ms. M.Shiva Shankari
Organizing Chair
CARE College of Engineering
Trichirappalli



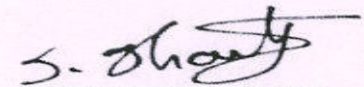
Ms. R.Deepalakshmi
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Mrs. R. Vanitha
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Dr. J. Jeyarani
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