



# GANESH COLLEGE OF ENGINEERING

(Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai)  
Attur Main Road, Mettupatti, Salem - 636 111, Tamilnadu, India  
Phone: 0427 - 2211212, +91 9865440414  
E-Mail: principal@ganeshenggcollege.org www.ganeshenggcollege.org

GCE/CIVIL /2023-2024/SP11

DATE: 28.06.2023

## CIRCULAR

The Civil Department has decided to conduct a Value added Course on "SP10311 – STAAD PRO" For the II<sup>nd</sup> & IV<sup>th</sup> year Civil Engineering students from 16.07.2023 to 27.08.2023 on every Sundays. Interested students can enroll their name to the program coordinator Dr. T. Gobi, Professor on or before 6.7.2023.

Venue: Conference Hall

Copy to:

1. Principal's Office
2. IQAC
3. Department file

PRINCIPAL

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Ganesh College of Engineering,  
Attur Main Road, Mettupatti,  
SALEM-636 111





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ACADEMIC YEAR- 2023-2024 (ODD SEM)

CERTIFICATE COURSE

SP10311 – STAAD PRO

SYLLABUS

## UNIT-1

Introduction to STRUCTURAL ENGINEERING - Introduction to STAAD.Pro.V8i - Getting familiar with STAAD window - Model generation using STAAD editor

## UNIT-2

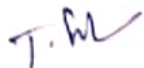
Introduction to Snap Node/Beam Editor - Model generation using Node/Beam Editor - Introduction to Translational Repeat -Model generation using Translational Repeat

## UNIT-3

Assigning Properties - Assigning Supports - Assigning Loads - Structure Analysis

## UNIT-4

Simply Supported Beam - Analysis of Framed Structure - Applying Floor Loads

  
PROGRAM COORDINATOR



  
HOD



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ACADEMIC YEAR- 2023-2024

SP10311–STAAD PRO

PROGRAM REPORT

Ganesh college of Engineering Department of Civil Engineering sponsored a value added course titled “SP10311– STAAD PRO” on the first day of the course, Prof.T.Gobi, HOD, Department of Civil Engineering, gave the welcome talk at 10A.M. It took place in our college grounds over the period of 30 hours, on Sundays, from 16.07.2023 to 27.08.2023. Mr.A.Sathish, a trainer from Surya Builders, Chennai, taught the students about design and how to construct models in the lab. This certificate programme follows a set of guidelines that define the beginning and end of the training period. The course Assessment was performed on September 19, 2023, utilizing a questionnaire that comprises 25 questions about the course. Around 09 Second, Final –Year civil engineering students finished the course satisfactorily. The students were appreciated with the course completion certificate. At the end of this course the students were able to create a prototype model in all types of civil component project.



  
PROGRAM COORDINATOR



  
HOD

  
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ACADEMIC YEAR- 2023-2024 (ODD SEM)

CERTIFICATE COURSE

SP10311 – STAAD PRO

FEEDBACK QUESTIONNAIRE (PLEASE TICK THE APPROPRIATE ANSWER)

Name of the Participant:

M. Karibharathi

Class: IV - year.

1. Was the presentation clear and relevant to the topic?

Yes/No

2. Was the session well organized?

Yes/No

3. Was the course material provided sufficient and relevant?

Yes/No

4. Was the expert member capable of delivering the contents Clearly?

Yes/No

5. Would you like to attend similar type of course again in the future?

Yes/No

COMMENTS:

Staad Pro is an excellent software for beginners as well as for Industry.

SIGNATURE OF THE PARTICIPANT

M. Karibharathi






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## CERTIFICATE COURSE ON STAAD PRO

### CERTIFICATE COURSE: STUDENT PARTICIPATION LIST

S. No	Name of the Student	Reg. Number	Remarks
1.	KAVIBHARATHI M	620620103001	M. Key
2.	RAHUL K	620620103002	K. P. K.
3.	DINESHKUMAR T	620620103301	T. Dineshkumar
4.	JEEVANANTH A	620620103302	A. Jeevananth
5.	NESAMANI M	620620103303	M. nesam.
6.	ANANTH T	620622103001	T. Anant.
7.	ASHIQUEBASHA K	620622103002	K. Ashique
8.	BHAVATHARANI P	620622103003	P. Bhavatharani
9.	TAI LAPANG	620622103301	T. Lapang

  
PROGRAM COORDINATOR

  
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ACADEMIC YEAR- 2023-2024 (ODD SEM)

SP10311 – STAAD PRO

COURSE OUTCOME

## 1. Software features

Students learn how to use the software's various features, including modeling, analysis, and design optimization tools.

## 2. Structural analysis principles

Students learn the principles and theories of structural analysis, such as load generation, boundary conditions, and FEA.

## 3. Design codes and standards

Students learn about relevant design codes and standards in structural engineering and design.

## 4. Structural analysis and design

Students learn how to perform structural analysis and design for various types of buildings, including steel and concrete structures.

## 5. Software functionalities

Students learn how to use the software's various functionalities, such as model generation and editing, loading analysis, concrete designing, and more.

## 6. Graphic model generation

Students learn how to create 2D and 3D graphic models.

## 7. Printer plots

Students learn how to take presentation-quality printer plots of geometry and results.

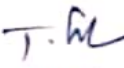
## 8. Plate/shell elements

Students learn how to perform accurate plate/shell elements.

## 9. Code checks

Students learn how to perform code checks, member selection, and optimized member selection.

  
Program Coordinator

  
HOD





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**CERTIFICATE COURSE – ACADEMIC YEAR 2023-2024 (ODD SEM)**

**SP10311 –STAAD PRO**

**STUDENT ATTENDANCE PARTICULARS**

**COURSE TIMING - 10 AM TO 4 PM**

S. NO	NAME OF THE STUDENT	REG. NUMBER	16-07-23	23-07-23	30-07-23	06-08-23	13-08-24	REMARKS
1	KAVIBHARATHI M	620620103001	P	P	P	P	P	P
2	RAHUL K	620620103002	P	P	P	P	P	P
3	DINESHKUMAR T	620620103301	P	P	P	P	P	P
4	JEEVANANTH A	620620103302	P	P	P	P	P	P
5	NESAMANI M	620620103303	P	P	P	P	P	P
6	ANANTH T	620622103001	P	P	P	P	P	P
7	ASHIQUEBASHA K	620622103002	P	P	P	P	P	P
8	BHAVATHARANI P	620622103003	P	P	P	P	P	P
9	TAI LAPANG	620622103301	P	P	P	P	P	P
COURSE COORDINATOR			J.W	J.W	J.W	J.W	J.W	J.W

J.W  
HOD



J.W  
PRINCIPAL

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## DEPARTMENT OF CIVIL ENGINEERING

*CERTIFICATE COURSE ON "STAAD PRO"*

*Certificate*

This is to certify that Dr./Mr./Ms M.KAVIBHARATHI has successfully completed the "CERTIFICATE COURSE SPI0311 –STAAD PRO" organized by Department of CIVIL ENGINEERING, Ganesh College Of Engineering ,Salem during the Academic Year 2023-2024.

  
Organizing Secretary



  
Principal  
**PRINCIPAL**  
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## DEPARTMENT OF CIVIL ENGINEERING

*CERTIFICATE COURSE ON "STAAD PRO"*

*Certificate*

This is to certify that Dr./Mr./Ms K.RAHUL has successfully completed the "CERTIFICATE COURSE SPI0311 –STAAD PRO" organized by Department of CIVIL ENGINEERING, Ganesh College Of Engineering ,Salem during the Academic Year 2023-2024.

  
Organizing Secretary



  
Principal  
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GCE/CIVIL /2023-2024/TK12

DATE: 02.02.2024

## CIRCULAR

The Civil Department has decided to conduct a Certificate Course on "TK10312 - TEKLA" For the II<sup>nd</sup>. & IV<sup>th</sup> year Civil Engineering students from 18.02.2024 to 17.03.2024 on every Sundays. Interested students can enroll their name to the program coordinator Dr. T. Gobi, Professor on or before 12.02.2024.

Venue: Conference Hall

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ACADEMIC YEAR- 2023-2024 (EVEN SEM)

CERTIFICATE COURSE

TK10312 - TEKLA

SYLLABUS

## UNIT 1

Introduction To BIM - Getting Started Tekla Structures - Overview Of Structures Modelling - Create New Models - Create Gridlines And Creating Views - Modify And Delete Grids - Create Radial Grids - Create Model Views - Save View & Modify Views - Change The Color Settings

## UNIT 2

Create Reinforcements, Modify, Create Planes And Points - Predefined Parametric Profiles - Modelling Concrete Structural Members - Editing Structural Members And Connections

## UNIT 3

Drawing And Reports - Report Templates, Reports For Rbars - Create Rebar Drawing Layout - Create GA Drawing - Single Part Drawing Import And Export Models(3d Drawing/Dxf,3d Dgn, Etc.,)

## UNIT 4

Analyse And Design - Export Rebar Detailing - Generate Structural Drawings - Foundation Types - Load Application - Foundation Design - Structural Designer Introduction - Transfer Model To Tsd - Important Cad Layout - Loading And Design Codes.

  
PROGRAM COORDINATOR

  
HOD





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ACADEMIC YEAR- 2023-2024 (EVEN SEM)

CERTIFICATE COURSE

TK10312 - TEKLA

FEEDBACK QUESTIONNAIRE (PLEASE TICK THE APPROPRIATE ANSWER)

Name of the Participant:

J. Ananth

Class: II-year

1. Was the presentation clear and relevant to the topic?

Yes/No

2. Was the session well organized?

Yes/No

3. Was the course material provided sufficient and relevant?

yes/No

4. Was the expert member capable of delivering the contents Clearly?

Yes/No

5. Would you like to attend similar type of course again in the future?

Yes/No

COMMENTS:

Testing is done using Tekla Structures best packages and supporting materials introducing the features.

J. Ananth

SIGNATURE OF THE PARTICIPANT





# GANESH COLLEGE OF ENGINEERING

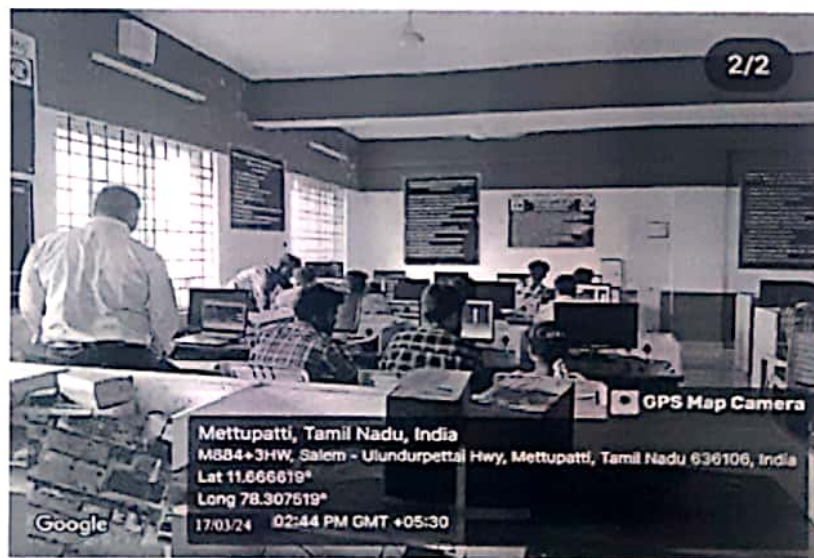
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**ACADEMIC YEAR- 2023-2024**

**TK10312 - TEKLA**

**PROGRAM REPORT**

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*T.G*  
**PROGRAM COORDINATOR**

*T.G*  
**HOD**



*T.G*  
Ganesh College of Engineering  
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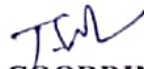
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## CERTIFICATE COURSE ON TEKLA

### CERTIFICATE COURSE: STUDENT PARTICIPATION LIST

S. No	Name of the Student	Reg. Number	Remarks
1.	KAVIBHARATHI M	620620103001	M. Jagan,
2.	RAHUL K	620620103002	K. Ravi,
3.	DINESHKUMAR T	620620103301	S. Dinesh Kumar,
4.	JEEVANANTH A	620620103302	A. Jeevanth,
5.	NESAMANI M	620620103303	M. Nesamani,
6.	ANANTH T	620622103001	T. Ananth,
7.	ASHIQUEBASHA K	620622103002	K. Ashiquebasha,
8.	BHAVATHARANI P	620622103003	P. Bhavatharani,
9.	TAI LAPANG	620622103301	Tai Lapang,

  
PROGRAM COORDINATOR

  
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ACADEMIC YEAR- 2023-2024 (EVEN SEM)

TK10312 - TEKLA

## COURSE OUTCOME

- 1. Model creation:** Students learn to create 3D models of steel structures, civil construction, and more.
- 2. Model analysis and design:** Students learn to analyze and design models according to industry standards.
- 3. Project management:** Students learn how to effectively manage projects.
- 4. Collaboration:** Students learn how to work more effectively with others on projects.
- 5. Cost savings:** Students learn how to reduce material waste and construction errors, which can result in project cost savings.
- 6. Professional growth:** Students improve their technical skills, problem-solving abilities, and decision-making capabilities

Program Coordinator



HOD



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CERTIFICATE COURSE – ACADEMIC YEAR 2023-2024 (EVEN SEM)

TK10312- TEKLA

STUDENT ATTENDANCE PARTICULARS

COURSE TIMING – 10 AM TO 4 PM

S. NO	NAME OF THE STUDENT	REG. NUMBER	20-08-17	27-08-17	03-09-17	10-09-17	17-09-17	REMARKS
1	KAVIBHARATHI M	620620103001	P	P	P	P	P	P
2	RAHUL K	620620103002	P	P	P	P	P	P
3	DINESHKUMAR T	620620103301	P	P	P	P	P	P
4	JEEVANANTH A	620620103302	P	P	P	P	P	P
5	NESAMANI M	620620103303	P	P	P	P	AB	P
6	ANANTH T	620622103001	P	P	P	P	P	P
7	ASHIQUEBASHA K	620622103002	P	P	P	P	P	P
8	BHAVATHARANI P	620622103003	P	P	P	P	P	P
9	TAI LAPANG	620622103301	P	P	P	P	P	P
COURSE COORDINATOR			T.H	T.H	T.H	T.H	T.H	T.H

T.H  
HOD

PRINCIPAL



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## DEPARTMENT OF CIVIL ENGINEERING

*CERTIFICATE COURSE ON "TEKLA"*

*Certificate*

This is to certify that Dr./Mr./Ms P.BHAVATHARANI has successfully completed the  
"CERTIFICATE COURSE TK10312 –TEKLA" organized by Department of CIVIL ENGINEERING, Ganesh College  
Of Engineering ,Salem during the Academic Year 2023-2024.

  
Organizing Secretary



  
Principal  
**PRINCIPAL**  
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## DEPARTMENT OF CIVIL ENGINEERING

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*Certificate*

This is to certify that Dr./Mr./Ms T.DINESH KUMAR has successfully completed the "CERTIFICATE COURSE TK10312 –TEKLA" organized by Department of CIVIL ENGINEERING, Ganesh College Of Engineering ,Salem during the Academic Year 2023-2024.

  
Organizing Secretary



  
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GCE/CSE/STU/2023-2024/VAC01

Date: 09-02-2024

## CIRCULAR

The Department has decided to conduct a certificate Course program on “(AI2401 – ARTIFICIAL INTELLIGENCE)” For Third year students from 25.02.2024 to 31.03.2024 on every Sundays. Interested students can enroll their name to the program coordinator (Mrs.D.Latha) on or before 18.02.2024.

PRINCIPAL

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## SYLLABUS

### SYLLABUS OF THE CERTIFICATE COURSE

#### MODULE 1:

##### Preparatory Sessions- Python & Linux

Python Basics, OOPS, Numpy, Pandas, Matplotlib, Seaborn, Linux installation, Linux Commands for File Handling and Data Extraction, etc.

#### MODULE 2:

##### Git

Introduction to Git Version Control/Revision Control system. The types of VCS · 2. Getting Started with Git and Its Architecture.

#### MODULE 3

##### Python with Data Science

Building a solid foundation to explore the fields of web development, game development, data science & artificial intelligence. Become Industry 4.0 ready with this comprehensive Python course.

#### MODULE 4

##### Advanced Statistics

Statistical Methods: Definition and scope of Statistics, concepts of statistical population and sample. Data: quantitative and qualitative, attributes, variables, scales of measurement nominal, ordinal, interval and ratio. Presentation: tabular and graphical, including histogram and ogives, consistency and independence of data with special reference to attributes.

#### MODULE 5

##### Machine Learning & Prediction Algorithm

BASICS Learning Problems Perspectives and Issues Concept Learning Version Spaces and Candidate Eliminations – Inductive bias – Decision Tree learning – Representation – Algorithm – Heuristic Space Search

#### MODULE 6:

##### Data Science at Scale with PySpark

Data Science at Scale with PySpark. 5.1 Introduction to Big Data and Apache Spark. 5.2 Apache Spark framework and RDDs. 5.3 PySpark SQL and Data Science.

  
Program Coordinator

  
HOD





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ACADEMIC YEAR 2023-2024

## COURSE SCHEDULE

### AI2401 – ARTIFICIAL INTELLIGENCE

Date / Hour	1	2	3	4	LUNCH BREAK	5	6
25-02-2024	Python Basics, OOPS, Numpy, Pandas, Matplotlib		Linux installation, Linux Commands for File Handling and Data Extraction			Practical Session on AI	
03-03-2024	The types of VCS · 2. Getting Started With Git And Its Architecture.		<b>Intoduction to</b> Git Version Control/Revision Control system			Practical Session on AI	
10-03-2024	Building a solid foundation to explore the fields of web development,		game development, data science & artificial intelligence.			Practical Session on AI	
17-03-2024	Statistical Methods: Definition and scope of Statistics,		tabular and graphical, including histogram and ogives, and independence of data			Practical Session on AI	
24-03-2024	Perspectives and Issues Concept Learning Version Spaces		Version Spaces and Candidate eEliminations			Practical Session on AI	
31-03-2024	Data Science at Scale with PySpark.		PySpark SQL and Data Science.			Practical Session on AI	

  
Program Coordinator

  
HOD





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ACADEMIC YEAR – 2023-2024(ODDSEM)

CERTIFICATION COURSE

AI2401 – ARTIFICIAL INTELLIGENCE

FEEDBACK QUESTIONNAIRE (PLEASE TICK THE APPROPRIATE ANSWER)

NAME OF THE PARTICIPANT: DEVAKI.K

CLASS: III year

1. Was the presentation clear and relevant to the topic?

Yes/No

2. Was the session well organized?

Yes/.No

3. Was the course material provided sufficient and relevant?

Yes/No

4. Was the expert member capable of delivering the contents clearly?

Yes/No

5. Would you like to attend similar type of course again in the future?

Yes/No

Comments:

NILL

Signature of the Participant





# GANESH COLLEGE OF ENGINEERING

(Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai)  
Attur Main Road, Mettupatti, Salem - 636 111, Tamilnadu, India  
Phone: 0427 - 2211212, +91 9865440414  
E-Mail: principal@ganeshenggcollege.org www.ganeshenggcollege.org

## ACADEMIC YEAR 2023-2024(ODD SEM)

### AI2401 – ARTIFICIAL INTELLIGENCE

#### PROGRAM REPORT

The Department of Computer Science and Engineering, Ganesh College of Engineering organized a Certificate Course on AI2401 – Artificial Intelligence.

The Course was inaugurated on 25.02.2024 10.00am. Mr.R.Sundaram, Head, Dept of CSE delivered the welcome address. It was conducted during the weekends from 25.02.2024 to 31.03.2024 for the duration of 35 hours. This Programme was conducted by EG Technologies, Salem.

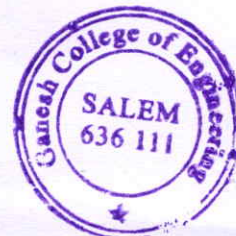
Mr. H. Ranjithkumar, started with introduction about Artificial Intelligence on 25.02.2024. The course Assessment was carried out on 31.03.2024(AN) which consists of 25 questions about the topic, discussed. Around 41 students of Third Year CSE successfully completed the course. The students were appreciated with the course completion certificate.

The feedback was collected from the participants. Mr.R.Sundaram, HOD, Dept of CSE delivered the vote of thanks at the end of the session.

The students are excited in doing Artificial Intelligence after the successful completion of this course.



  
Program Coordinator



  
HOD



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**ACADEMIC YEAR 2023-2024(ODD SEM)**

**AI2401 – ARTIFICIAL INTELLIGENCE**

## **COURSE OUTCOMES**

- CO1** Formulate problems precisely, solve the problems, apply formal proof techniques, and explain the reasoning clearly.
- CO2** Apply appropriate mathematical concepts and skills to solve problems in both familiar and unfamiliar situations including those in real-life contexts.
- CO3** Design and analyze real world engineering problems by applying set theory, propositional logic and to construct proofs using mathematical induction.

  
**PROGRAM COORDINATOR**

  
**HOD**







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## CERTIFICATE COURSE - ACADEMIC YEAR – 2023-2024(EVEN SEM) AI2401- ARTIFICIAL INTELLIGENCE STUDENT ATTENDANCE PARTICULARS

S.NO	REG. NUMBER	NAME OF THE STUDENT	25.02. 2024	03.03. 2024	10.03. 2024	17.03. 2024	24.03. 2024	31.03. 2024	Remarks
1	620621104003	ANJALI K	P	P	P	P	P	P	
2	620621104004	ARUN C	P	P	P	P	P	P	
3	620621104005	BADRIPRASATH K	P	AB	P	P	AB	P	
4	620621104008	DEVA M	P	P	P	P	P	P	
5	620621104009	DEVAKI K	P	P	P	P	P	P	
6	620621104011	DHIVYA G	P	P	P	P	P	P	
7	620621104012	GANAPATHI P	P	P	P	P	P	P	
8	620621104013	INDHIRA R	P	P	P	AB	P	P	
9	620621104014	INDHUMATHI P	P	P	P	P	P	P	
10	620621104015	JOTHIKA M	P	P	P	P	P	P	
11	620621104016	KARTHIKA K	P	P	P	P	P	P	
12	620621104017	KOVENDAN M	P	P	P	P	P	P	
13	620621104020	MUGESWARAN P	P	P	P	P	P	P	
14	620621104022	NANDHINI M	P	P	P	P	P	P	
15	620621104023	NARAYANAN K	P	P	P	P	P	P	
16	620621104024	NAVEENKUMAR S	P	P	P	P	P	P	
17	620621104025	NIRESHKUMAR V	P	P	P	P	P	P	
18	620621104026	PADHMINI P	P	AB	P	P	AB	P	
19	620621104029	POOVIZHI V	P	P	P	P	P	P	
20	620621104030	PRAVEENA M	P	P	P	P	P	P	
21	620621104031	RAJKUMAR G	P	P	P	P	P	P	
22	620621104033	REENA A	P	P	P	P	P	P	
23	620621104035	SAKTHIKUMAR A	P	P	P	P	P	P	
24	620621104037	SANTHOSH S	P	P	AB	P	AB	P	
25	620621104039	SARANYA R	P	P	P	P	P	P	
26	620621104040	SARAVANAN N	P	P	P	P	P	P	
27	620621104041	SATHISH KUMAR S	P	P	P	P	P	P	
28	620621104042	SHALINI J	P	P	P	P	P	P	



29	620621104043	SIVAKUMAR R	P	AB	P	P	P	P	
30	620621104044	SIVASAKTHI R	P	P	P	P	P	P	
31	620621104045	SNEHA S	P	P	P	P	P	P	
32	620621104048	SUDHAKAR R	P	P	P	P	P	P	
33	620621104049	SUJATHA P	P	P	P	P	P	P	
34	620621104050	SURENDHAR P	P	P	P	P	AB	P	
35	620621104051	SURIYA B	P	P	P	P	P	P	
36	620621104054	THATCHAYINI S	P	P	P	P	P	P	
37	620621104056	VAIDHEGI S	P	P	P	P	P	P	
38	620621104058	VIJAY K	P	P	P	P	P	P	
39	620621104060	VINAYAN B	P	P	P	P	P	P	
40	620621104301	SASIKANNAN S	P	AB	P	P	P	P	
41	620621104302	VIDHYASAGAR K	P	P	P	P	P	P	
COURSE COORDINATOR			V. S. S.	V. S. S.	V. S. S.	V. S. S.	V. S. S.	V. S. S.	

*[Signature]*  
HOD

*[Signature]*  
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**CERTIFICATE COURSE - ACADEMIC YEAR – 2023-2024(EVEN SEM)**

**AI2401- ARTIFICIAL INTELLIGENCE**

**STUDENTS PARTIPATION LIST**

S.NO	REG. NUMBER	NAME OF THE STUDENT	SIGNATURE
1	620621104003	ANJALI K	Anjali K
2	620621104004	ARUN C	Arun C
3	620621104005	BADRIPRASATH K	Badrprasath K
4	620621104008	DEVA M	Deva M
5	620621104009	DEVAKI K	Devaki K
6	620621104011	DHIVYA G	Dhivya G
7	620621104012	GANAPATHI P	Ganapathi P
8	620621104013	INDHIRA R	Indhira R
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10	620621104015	JOTHIKA M	Jothika M
11	620621104016	KARTHIKA K	Karthika K
12	620621104017	KOVENDAN M	Kovendan M
13	620621104020	MUGESWARAN P	Mugeswaran P
14	620621104022	NANDHINI M	Nandhini M
15	620621104023	NARAYANAN K	Narayanan K
16	620621104024	NAVEENKUMAR S	Naveenkumar S
17	620621104025	NIRESHKUMAR V	Nireshkumar V
18	620621104026	PADHMINI P	Padhmini P
19	620621104029	POOVIZHI V	Poovizhi V
20	620621104030	PRAVEENA M	Praveena M
21	620621104031	RAJKUMAR G	Rajkumar G
22	620621104033	REENA A	Reena A
23	620621104035	SAKTHIKUMAR A	Sakthikumar A
24	620621104037	SANTHOSH S	Santhosh S
25	620621104039	SARANYA R	Sarany R
26	620621104040	SARAVANAN N	Saravanan N
27	620621104041	SATHISH KUMAR S	Sathishkumar S
28	620621104042	SHALINI J	Shalini J

29	620621104043	SIVAKUMAR R	Sivakumar R
30	620621104044	SIVASAKTHI R	S. Sivasakthi R
31	620621104045	SNEHA S	S. Sneha
32	620621104048	SUDHAKAR R	Sudhakar R
33	620621104049	SUJATHA P	Sujatha P
34	620621104050	SURENDHAR P	Suren P
35	620621104051	SURIYA B	Suriya B
36	620621104054	THATCHAYINI S	S. Thatayini
37	620621104056	VAIDHEGI S	S. Vaidhegi
38	620621104058	VIJAY K	Vijay K
39	620621104060	VINAYAN B	Vinayan B
40	620621104301	SASIKANNAN S	Sasikannan S
41	620621104302	VIDHYASAGAR K	Vidhyasagar K

  
Course Coordinator

  
Principal

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GCE/CSE/STU/2023-2024/VAC01

Date: 12-09-2023

## CIRCULAR

The Department has decided to conduct a certificate Course program on "WA803-WEB APPLICATIONS" For second year students from 01.10.2023 to 05.11.2023 on every Sundays. Interested students can enroll their name to the program coordinator Mrs.V.SOWMIYA on or before 21.09.2023.

### Copy to:

1. Principal's office
2. IQAC
3. Department File

  
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## SYLLABUS

### SYLLABUS OF THE CERTIFICATE COURSE

#### MODULE 1:

##### Basics of Networking and Web Architecture

Basic network concepts, Internet, channel, Bandwidth, Data Transfer Rate, Protocols: HTTP, FTP, TCP/IP, VoIP, Types of network: PAN, LAN, MAN, WAN, Web Architecture: Types of architecture- Client Server Model, Three Tier Model, Service Oriented Architectures.

#### MODULE 2:

##### WEBSITE DEVELOPMENT USING HTML AND CSS

Concept of website, its need and purpose, Languages used for website development, HTML: basic tags, formatting tags, Adding images, Lists, Internal and External Linking, Frames, Forms, Basics of Cascading Style sheets, Overriding, Comments, color, background, Font, images

#### MODULE 3

##### MULTIMEDIA DESIGN- GIMP

Gimp as a graphics tool Gimp interface, color modes, tools, transform, color tools, foreground, background Creating and editing images Filter tools like Blur, Layers : creating , rearranging and masking layers.

#### MODULE 4

##### INTRODUCTION TO DYNAMIC WEBSITES USING JAVASCRIPT

Limitations of static websites, Dynamic websites Features of JavaScript, extension of JavaScript Syntax of JavaScript, data types, operators, variables, Document object Creating interactive web pages using JavaScript Selection, terative statement: for, for/in, while, do while break and continue

#### MODULE 5

##### Server-Side Development

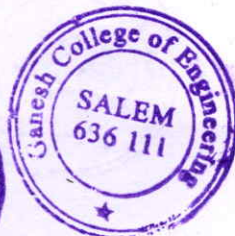
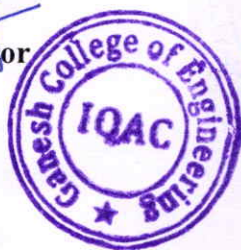
Designing and implementing the server logic, database management, user authentication, and business logic. Common programming languages for server-side development include Python, Ruby, Java, PHP, and Node.js

#### MODULE 6:

##### Frameworks and Libraries

Developers use frameworks and libraries to streamline the development process, ensure best practices. These tools provide pre-built components, structures, and patterns for routing, authentication, and data handling tasks.

  
Program Coordinator



  
HOD



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ACADEMIC YEAR 2023-2024

COURSE SCHEDULE

WA803- WEB APPLICATIONS

Date / Hour	1	2	3	4	LUNCH BREAK	5	6
01-10-2023	Basics of Networking and Web Architecture		Basic network concepts, Internet, channel, Bandwidth, Data Transfer Rate, Protocols: HTTP, FTP, TCP/IP, VoIP,			Practical Session on BC	
08-10-2023	Website development using HTML and CCS.		Concept of website, HTML, Internal and External Linking, Frames, Forms, Basics of Cascading Style sheets,			Practical Session on BC	
15-10-2023	Multimedia design GIMP		Gimp as a graphics tool Gimp interface, color modes, tools, transform, color tools, foreground			Practical Session on BC	
22-10-2023	Introduction to Dynamic website using java script		Limitations of static websites, Dynamic websites Features of JavaScript,			Practical Session on BC	
29-11-2023	Server-Side Development		Designing and implementing the server logic, database management, user authentication			Practical Session on BC	
05-11-2023	Frameworks and Libraries		Developers use frameworks and libraries to streamline the development process, ensure best practices.			Practical Session on BC	

  
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ACADEMIC YEAR – 2023-2024(EVEN SEM)

CERTIFICATION COURSE

WA803- WEB APPLICATIONS

FEEDBACK QUESTIONNAIRE (PLEASE TICK THE APPROPRIATE ANSWER)

NAME OF THE PARTICIPANT: Akash.P

CLASS: II year

1. Was the presentation clear and relevant to the topic?

Yes/No

2. Was the session well organized?

Yes/No

3. Was the course material provided sufficient and relevant?

Yes/No

4. Was the expert member capable of delivering the contents clearly?

Yes/No

5. Would you like to attend similar type of course again in the future?

Yes/No

Comments:

Very useful course  
Akash.P  
Signature of the Participant







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## ACADEMIC YEAR 2023-2024(EVEN SEM)

### WA803- WEB APPLICATIONS

#### PROGRAM REPORT

The Department of Computer science and Engineering, Ganesh College of Engineering organized a Certificate Course on “WA803- WEB APPLICATIONS” The Course was inaugurated on 01.10.2023 10.00am. Mr.R.Sundram, Head, Dept of CSE delivered the welcome address. It was conducted during the weekends from 01.10.2023 to 05.11.2023 for the duration of 35 hours.

Mr. V.SANJEEV started with introduction about WA803- WEB APPLICATIONS on 01.10.2023. The course Assessment was carried out on 05.11.2023(AN) which consists of 25 questions about the topic discussed. Around 45 students of Second Year CSE successfully completed the course. The students were appreciated with the course completion certificate.

The feedback was collected from the participants. Mr.R.Sundram, HOD, Dept of CSE delivered the vote of thanks at the end of the session.

The students are excited in doing WA803- WEB APPLICATIONS after the successful completion of this course.



  
Program Coordinator



  
HOD



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## ACADEMIC YEAR 2023-2024(EVEN SEM)

### WEB APPLICATIONS

### COURSE OUTCOMES

#### Course description and objectives:

On completion of this course, a student will be familiar with client server architecture and able to develop a web application using java technologies. Students will gain the skills and project-based experience needed for entry into web application and development careers.

#### COURSE OUTCOMES

1. Students are able to develop a dynamic webpage by the use of java script and DHTML
2. Students will be able to write a well formed / valid XML document
3. Students will be able to connect a java program to a DBMS and perform insert, update and delete operations on DBMS table.
4. Students will be able to write a server side java application called Servlet to catch form data sent from client, process it and store it on database.
5. Students will be able to write a server side java application called JSP to catch form data sent from client and store it on database.

  
Program Coordinator



  
HOD



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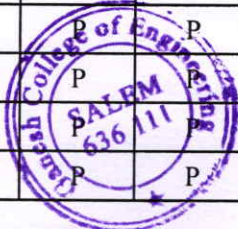
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CERTIFICATE COURSE - ACADEMIC YEAR - 2023-2024(EVEN SEM)

## WA803 - WEB APPLICATION STUDENT ATTENDANCE PARTICULARS

S.NO	REG. NUMBER	NAME OF THE STUDENT	01.10.2023	08.10.2023	15.10.2023	22.10.2023	29.10.2023	05.11.2023	Remarks
1	620622104001	ABINAYA V	P	P	P	P	P	P	
2	620622104003	AKASH P	P	P	P	P	P	P	
3	620622104004	AMUTHESWARAN S	P	AB	P	P	AB	P	
4	620622104006	ARTHI K	P	P	P	P	P	P	
5	620622104008	AVINASH S	P	P	P	P	P	P	
6	620622104010	BALRAJ P	P	P	P	P	P	P	
7	620622104011	BARATHVAJ G	P	P	P	P	P	P	
8	620622104012	BHARATH J	P	P	P	AB	P	P	
9	620622104013	GOKULRAJ M	P	P	P	P	P	P	
10	620622104015	JANANI M	P	P	P	P	P	P	
11	620622104016	JAYANDHI S	P	P	P	P	P	P	
12	620622104017	JOY SAMUEL B	P	P	P	P	P	P	
13	620622104018	KARTHICK M	P	P	P	P	P	P	
14	620622104020	KARTHIKEYAN V	P	P	P	P	P	P	
15	620622104021	KAVINESH H	P	P	P	P	P	P	
16	620622104022	KRISHNAN R	P	P	P	P	P	P	
17	620622104023	MANIGANDAN B	P	P	P	P	P	P	
18	620622104024	MANIMEGALAI S	P	AB	P	P	AB	P	
19	620622104026	NARMATHA M	P	P	P	P	P	P	
20	620622104027	NAVEEN K	P	P	P	P	P	P	
21	620622104028	NEEDHU M	P	P	P	P	P	P	
22	620622104029	NETHAJI S	P	P	P	P	P	P	
23	620622104030	NISHA M	P	P	P	P	P	P	
24	620622104032	POOVARASAN S	P	P	AB	P	AB	P	
25	620622104033	PRAVEEN M	P	P	P	P	P	P	
26	620622104035	RAJNAVEEN J	P	P	P	P	P	P	
27	620622104036	RENUGA S	P	P	P	P	P	P	
28	620622104039	SANJAI S	P	P	P	P	P	P	
29	620622104040	SANNAY K	P	AB	P	P	P	P	
30	620622104041	SARATHKUMAR S	P	P	P	P	P	P	
31	620622104042	SATHISH KUMAR M	P	P	P	P	P	P	
32	620622104043	SATHISH KUMAR S	P	P	P	P	P	P	
33	620622104044	SETHUPATHY C	P	P	P	P	P	P	



34	620622104046	SHANMUGAM K	P	P	P	P	AB	P	
35	620622104047	SHARMILA K	P	P	P	P	P	P	
36	620622104048	SIVARANJANI R	P	P	P	P	P	P	
37	620622104049	SIVASANKAR J	P	P	P	P	P	P	
38	620622104050	SOWMIYA R	P	P	P	P	P	P	
39	620622104051	SURENDHAR S	P	P	P	P	P	P	
40	620622104052	SURYA C	P	AB	P	P	P	P	
41	620622104054	VASANTH R	P	P	P	P	P	P	
42	620622104055	VASANTH S	P	P	P	P	P	P	
43	620622104057	VETRIVEL K P	P	P	P	P	P	AB	
44	620622104058	VIGNESHWARAN C	P	P	P	P	P	P	
45	620622104060	VISHWA D	P	P	P	P	P	P	
COURSE COORDINATOR			V. Suresh	V. Suresh	V. Suresh	V. Suresh	V. Suresh	V. Suresh	

*[Signature]*  
HOD

*[Signature]*

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## CERTIFICATE COURSE - ACADEMIC YEAR - 2023-2024(EVEN SEM)

### WA803 - WEB APPLICATION

### STUDENTS PARTIPATION LIST

S.NO	REG. NUMBER	NAME OF THE STUDENT	SIGNATURE
1	620622104001	ABINAYA V	ABINAYA.V
2	620622104003	AKASH P	Akash P
3	620622104004	AMUTHESWARAN S	Amutheswaran S
4	620622104006	ARTHI K	Arthi K
5	620622104008	AVINASH S	Avinash S
6	620622104010	BALRAJ P	BALRAJ P
7	620622104011	BARATHVAJ G	Barathvaj G
8	620622104012	BHARATH J	BHARATH J
9	620622104013	GOKULRAJ M	Gokulraj M
10	620622104015	JANANI M	Janani M
11	620622104016	JAYANDHI S	Jayandhi S
12	620622104017	JOY SAMUEL B	Joy Samuel B
13	620622104018	KARTHICK M	Karthick M
14	620622104020	KARTHIKEYAN V	Karthikeyan V
15	620622104021	KAVINESH H	Kavinesh H
16	620622104022	KRISHNAN R	K. Ravi
17	620622104023	MANIGANDAN B	Manigandan B
18	620622104024	MANIMEGALAI S	Manimegalai S
19	620622104026	NARMATHA M	Narmatha M
20	620622104027	NAVEEN K	Naveen K
21	620622104028	NEEDHU M	Needhu M
22	620622104029	NETHAJI S	Nethaji S
23	620622104030	NISHA M	NISHA.M
24	620622104032	POOVARASAN S	Poovarasan S
25	620622104033	PRAVEEN M	Praveen M
26	620622104035	RAJNAVEEN J	Rajnaveen J
27	620622104036	RENUGA S	Renuga S
28	620622104039	SANJAI S	Sanjai S
29	620622104040	SANJAY K	K Sanjay
30	620622104041	SARATHKUMAR S	Sarathkumar S
31	620622104042	SATHISH KUMAR M	Sathishkumar M
32	620622104043	SATHISH KUMAR S	Sathishkumar S
33	620622104044	SETHUPATHY C	Sethupathy C
34	620622104046	SHANMUGAM K	Shanmugam K
35	620622104047	SHARMILA K	Sharmila K
36	620622104048	SIVARANJANI R	Sivaranjani R
37	620622104049	SIVASANKAR J	Sivasankar J
38	620622104050	SOWMIYA R	Sowmiya R
39	620622104051	SURENDHARS	Surendhars
40	620622104052	SURYA C	Surya C
41	620622104054	VASANTH R	Vasanth R
42	620622104055	VASANTH S	Vasanth S
43	620622104057	VETRIVEL K P	P. Vetrivel
44	620622104058	VIGNESHWARAN C	Vigneshwaran C
45	620622104060	VISHWA D	Vishwa D

Course Coordinator

**PRINCIPAL**  
Ganesh College of Engineering,  
Attur Main Road, Mettupatti,  
SALEM 636 111



# GANESH COLLEGE OF ENGINEERING

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Phone: 0427 - 2211212, +91 9865440414  
E-Mail: principal@ganeshenggcollege.org www.ganeshenggcollege.org

**GCE/EEE/2023-2024/EVT09**

**DATE: 03.09.2023**

## CIRCULAR

The Electrical and Electronics Department has decided to conduct a Value added Course on “EVT10509 – ELECTRIC VEHICLE TECHNOLOGY” for the II<sup>nd</sup> year Electrical and Electronics Engineering students from 03.09.2023 to 01.10.2023 on every Sundays. Interested students can enroll their name to the program coordinator Mr.T.VinothRaj, Professor on or before 22.08.2023.

Venue: Conference Hall

Copy to:

1. Principal's Office
2. IQAC
3. Department file



**PRINCIPAL**

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ACADEMIC YEAR 2023-2024 (ODD SEM)

CERTIFICATE COURSE

EVT10509- ELECTRIC VEHICLE TECHNOLOGY

SYLLABUS

## UNIT I: Electric Vehicle: Introduction

History of Electric Vehicles – Automobile power Train-Architecture of Electric Vehicles -Types of Electric Vehicles- Break down of key components in EV-Vehicle Control Unit –Controllers used in EV

## UNIT II: Power Electronics Converters and Electrical Motors for EV

Power Semiconductor devices- Rectifiers- DC -DC converters-Inverters -Bidirectional Chargers. Induction Motors -Permanent Magnet Brushless DC motor – Switched reluctance motor – Permanent magnet synchronous motor and their controllers -Regenerative Braking-Integration with Vehicle Systems


## UNIT III: Battery Management Systems (BMS) for EV

Batteries –Types of Batteries- Battery packs- Energy Density and Range- Battery Degradation and Lifetime-Functions of a BMS-State of Charge (SoC) –State of Health-Temperature Management-Cell Balancing- Charging Control-Sensors-Battery Management Systems

## UNIT IV: Electric Vehicle Charging

ON Board chargers – Off board chargers- Level 1 Charging -Level 2 Charging -DC fast Charging- Charging Connectors- Range and Efficiency

  
Program Coordinator

  
HOD



  
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**ACADEMIC YEAR 2023-2024 (EVEN SEM)**

**CERTIFICATE COURSE**

**EVT10509- ELECTRIC VEHICLE TECHNOLOGY**

**PROGRAM REPORT**

The Department of Electrical and Electronics Engineering, Ganesh College of Engineering organized Certificate course on "Electric Vehicle Technology" course was inaugurated on 06.09.2023, 10.30 a.m. Inaugural address was given by our principal Dr.M.Subas Chandrabose. MR.M.Karthikeyan AP/ EEE delivered the welcome address. It was conducted during Sundays from 03.09.2023 to 01.10.2023 for the duration of 35 hours. Mr.T.VinothRaj, AP/EEE, initiated the session by giving a brief Introduction on Electric Vehicle Technology. Experienced faculty members of our department train the students on electric vehicle models and Mr.P.Vijayakumar, Senior Engineer, YardStick Academy, Salem provides hands on experience to participants.

The Course Assessment was conducted on 03.09.2024 (AN), in MCQ pattern based on the topics covered. Around 20 EEE students successfully completed the course. The students were highly benefited by theoretical and practical aspects of course.

The feedback was collected from the participants, Mr. M.Karthikeyan, AP/EEE delivered the vote of Thanks at the end of the session.



*Smith*  
Program Coordinator



*M. Karthikeyan*  
Head of the Department



*[Signature]*  
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Ganesh College of Engineering,  
Attur Main Road, Mettupatti,  
SALEM-636 111.





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ACADEMIC YEAR- 2023-2024 (ODD SEM)

CERTIFICATE COURSE

EVT10508 – ELECTRIC VEHICLE TECHNOLOGY

FEEDBACK QUESTIONNAIRE(PLEASE TICK THE APPROPRIATE ANSWER)

Name of the Participant: *S. Dinesh*

Class: *II / EEE*

1. Was the presentation clear and relevant to the topic?



Yes/No

2. Was the session well organized?



Yes/No

3. Was the course material provided sufficient and relevant?



yes/No

4. Was the expert member capable of delivering the contents Clearly?



Yes/No

5. Would you like to attend similar type of course again in the future?



Yes/No

COMMENTS:

*It helps me to develop my own interests and aptitudes, and prepare me to meet industrial demands.*

*S. Dinesh*

SIGNATURE OF THE PARTICIPANT



*[Signature]*  
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## GANESH COLLEGE OF ENGINEERING CERTIFICATE COURSE EVT10509- ELECTRIC VEHICLE TECHNOLOGY STUDENT PARTICIPATION LIST

S.NO	REGISTER NUMBER	NAME OF THE STUDENT	SIGNATURE
1	620622105003	Dinesh S	Dinesh.S
2	620622105004	Govindha perumal J	J. Govindha perumal
3	620622105007	Muniyappan P	Muniyappan.P
4	620622105008	Nithish prasanna S	Nithish Prasanna.S
5	620622105009	Pandu B	Pandu.B
6	620622105011	Pradeepa S	Pradeepa.S
7	620622105012	Rakesh T	Rakesh.T
8	620622105013	Ruban P	P. Ruban
9	620622105014	Sakthivel C	Sakthivel.C
10	620622105015	Saravanan K	Shanmugapriya.S
11	620622105016	Shanmugapriya S	Saravanan.K
12	620622105017	Siranjeevi M	Siranjeevi.M
13	620622105018	Siva K	Siva.K
14	620622105021	Tamilvelan A	Tamilvelan.A
15	620622105022	Thirumalai S	Thirumalai.S
16	620622105023	Vasu M	Vasu.M
17	620622105024	Vijayakumar K	Vijayakumar.K
18	620622105303	Kabilan P	Kabilan.P
19	620622105305	Krubakaran B	Krubakaran.B
20	620622105306	Mohamed umar basha S	Mohamed umar basha.S

  
Course Coordinator

  
Principal



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## EVT10509- ELECTRIC VEHICLE TECHNOLOGY

### COURSE OUTCOMES

Upon the completion of Electric vehicle technology certification course will learn to Electric vehicle design and models, and will also gain knowledge of the following:

- Components; EV classification
- Battery Electric vehicle (BEV); Hybrid electric vehicle (HEV)
- Cell Types their Selection, sizing & layout design
- Charging station& their types
- Energy Storage Solutions
- Types & Selection criteria of Motors; Torque calculation
- Mechanical & Electrical connection of motor
- Service, Maintenance & Repair of EVs as Career
- Other Challenges

PROGRAM COORDINATOR

HOD



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**GANESH COLLEGE OF ENGINEERING**  
**CERTIFICATE COURSE**  
**EVT10509- ELECTRIC VEHICLE TECHNOLOGY**  
**ATTENDANCE SHEET**

S.NO	REGISTER NUMBER	NAME OT THE STUDENT					
			03.09.23	10.09.23	17.09.23	24.09.23	01.10.23
1	620622105003	Dinesh S	P	P	P	P	P
2	620622105004	Govindha perumal J	P	P	p	P	P
3	620622105007	Muniyappan P	P	P	p	P	P
4	620622105008	Nithish prasanna S	P	P	P	P	P
5	620622105009	Pandu B	P	P	P	P	P
6	620622105011	Pradeepa S	P	P	P	P	AB
7	620622105012	Rakesh T	P	P	AB	P	P
8	620622105013	Ruban P	P	P	P	P	P
9	620622105014	Sakthivel C	P	P	P	P	P
10	620622105015	Saravanan K	P	P	P	P	P
11	620622105016	Shanmugapriya S	P	AB	P	P	P
12	620622105017	Siranjeevi M	P	P	P	P	P
13	620622105018	Siva K	P	P	P	P	P
14	620622105021	Tamilvelan A	P	P	P	P	P
15	620622105022	Thirumalai S	P	P	P	P	P
16	620622105023	Vasu M	P	P	P	P	P
17	620622105024	Vijayakumar K	P	P	P	P	P
18	620622105303	Kabilan P	P	P	P	P	P
19	620622105305	Krubakaran B	P	P	P	P	P
20	620622105306	Mohamed umar basha S	P	AB	P	P	P
Course Coordinator			<i>[Handwritten Signature]</i>				

*[Handwritten Signature]*  
HOD

PRINCIPAL



*[Handwritten Signature]*  
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 Attur Main Road, Meltupatti,  
 SALEM-636 111.



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Certificate of Participation

This is to certify that Mr. / Ms ..... **P. MUNIYAPPAN** ..... has participated in  
 the Value Added Course on “ **EXT10509: ELECTRIC VEHICLE TECHNOLOGY** ..... ”  
 offered by the Department of **ELECTRICAL AND ELECTRONICS ENG.**, Ganesh College of  
 Engineering, Salem. During **03.09.23** ..... To **01.10.23** .....

*Signature*

COORDINATOR



*Signature*

HOD



*Signature*  
 PRINCIPAL  
 PRINCIPAL  
 Ganesh College of Engineering,  
 Attur Main Road, Mettupatti,  
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# GANESH COLLEGE OF ENGINEERING

## Certificate of Participation

This is to certify that Mr. / Ms ..... **J. GOVINDHA PERUMAL** ..... has participated in  
 the Value Added Course on " **ELECTRO- ELECTRIC VEHICLE TECHNOLOGY** ..... "  
 offered by the Department of **ELECTRICAL AND ELECTRONICS ENGG**....., Ganesh College of  
 Engineering, Salem. During **03.09.23**..... To **01.10.23**.....

*Ninth*

COORDINATOR



*Shreyas*

HOD



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## Certificate of Participation

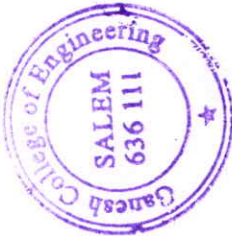
This is to certify that Mr. / Ms ..... **S. DINESH** ..... has participated in  
 the Value Added Course on " ..... **EXT.10509 - ELECTRIC VEHICLE TECHNOLOGY** ....."  
 offered by the Department of **ELECTRICAL AND ELECTRONICS ENG.** ..... , Ganesh College of  
 Engineering, Salem. During **03.09.23** ..... To **01.10.23** .....

*Nivith*

COORDINATOR

*Principals*

HOD



PRINCIPAL  
PRINCIPAL

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E-Mail: principal@ganeshenggcollege.org www.ganeshenggcollege.org

GCE/EEE/2023-2024/SPID08

DATE: 22.05.2024

## CIRCULAR

The Electrical and Electronics Department has decided to conduct a Value added Course on "SPID10508 – SOLAR PHOTOVOLATIC SYSTEM DESIGNING AND INSTALLATION" for the II<sup>nd</sup> year Electrical and Electronics Engineering students from 21.05.2024 to 25.05.2024. Interested students can enroll their name to the program coordinator Mr.T.VinothRaj, Professor on or before 17.05.2024.

  
PRINCIPAL

Venue: Conference Hall

Copy to:

1. Principal's Office
2. IQAC
3. Department file

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ACADEMIC YEAR 2023-2024 (EVEN SEM)

CERTIFICATE COURSE

SPDI10508- SOLAR PHOTOVOLTAIC SYSTEM DESIGNING AND INSTALLATION

SYLLABUS

## UNIT I: Solar Photovoltaic

Solar Cell and its function, Solar Technologies, Solar Cell Parameters, Efficiency of Solar Cell, Solar PV Module, Rating of Solar PV Module, PV Module Parameters, Efficiency of PV Module, Measuring Module Parameters, Connection of PV Module in Series and Parallel, Estimation and Measurement of PV Module Power, Selection of PV Module.

## UNIT II: Batteries

Battery function, Types of Batteries, Battery parameters, Selection of Battery, Series Parallel combination of Batteries, Batteries for Photo voltaic System, Application of Batteries in Solar PV system, Battery Maintenance and Measurements, Battery Fault Detection and Test, Battery Installation for PV system.

## UNIT III: Electrical Wiring

Types of Wire, Wire Sizing, Junction Box, DC cabling, AC cabling, Array Combiner Box, AC Distribution Box, Energy Metering, Electrical Grounding, Earth Resistance and Insulation Resistance Measurements.

## UNIT IV: Solar PV System Design and Installation

Solar Radiation Energy Measurements, Estimating Energy requirement, Types of Solar PV System, Design methodology for SPV system, Design and Development of Solar Street Light and Solar Lantern, Installation and Trouble shooting of Standalone Solar PV System, Safety in installation of Solar PV System, Maintenance of Solar PV System.

Program Coordinator



HOD

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**ACADEMIC YEAR 2023-2024 (EVEN SEM)**

**CERTIFICATE COURSE**

**SPDI10508- SOLAR PHOTOVOLTAIC SYSTEM DESINING AND INSTALLATION**

**PROGRAM REPORT**

The Department of Electrical and Electronics Engineering, Ganesh College of Engineering organized Certificate course on “Solar Photovoltaic System Designing and Installation” course was inaugurated on 22.05.2024, 10.30 a.m. Inaugural address was given by our principal Dr. M. Subas Chandrabose. MR. M. Karthikeyan AP/ EEE delivered the welcome address. It was conducted during Thursday from 21.05.2024 to 25.05.2024 for the duration of 35 hours. Mr.T.VinothRaj, AP/EEE, initiated the session by giving a brief Introduction on Solar Photovoltaic System. Experienced faculty members of our department train the students on designing of solar photovoltaic system and Mr. M. Gowtham, Senior Engineer, Unit of NIRE Solution, Salem provides hands on experience to participants.

The Course Assessment was conducted on 22.05.2024 (AN), in MCQ pattern based on the topics covered. Around 18 EEE students successfully completed the course. The students were highly benefited by theoretical and practical aspects of course. The students were able to design and install the solar photovoltaic system.

The feedback was collected from the participants, Mr. M. Karthikeyan, AP/EEE delivered the vote of Thanks at the end of the session.



Program Coordinator

Head of the Department



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ACADEMIC YEAR- 2023-2024 (EVEN SEM)

CERTIFICATE COURSE

SPDI10508 – SOLAR PHOTOVOLTAIC SYSTEM DESIGNING AND INSTALLATION

FEEDBACK QUESTIONNAIRE (PLEASE TICK THE APPROPRIATE ANSWER)

Name of the Participant: *Govinda perumal. I* Class: *II / EEE*

1. Was the presentation clear and relevant to the topic?

Yes/No

2. Was the session well organized?

Yes/No

3. Was the course material provided sufficient and relevant?

Yes/No

4. Was the expert member capable of delivering the contents Clearly?

Yes/No

5. Would you like to attend similar type of course again in the future?

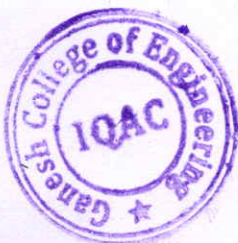
Yes/No

COMMENTS:

*The course was wonderfully practical both personally and professionally.*

*J. Govinda*

SIGNATURE OF THE PARTICIPANT



*[Signature]*  
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## GANESH COLLEGE OF ENGINEERING

### CERTIFICATE COURSE

#### SPDI10508-SOLAR PHOTOVOLTAIC SYSTEM DESIGNING AND INSTALLATION

#### STUDENT PARTICIPATION LIST

S.NO	REGISTER NUMBER	NAME OF THE STUDENT	SIGNATURE
1	620622105003	Dinesh S	Dinesh - S
2	620622105004	Govindha perumal J	J. Govindha perumal
3	620622105007	Muniyappan P	Muniyappan - P
4	620622105008	Nithish prasanna S	Nithish Prasanna - S
5	620622105009	Pandu B	Pandu - B
6	620622105011	Pradeepa S	Pradeepa - S
7	620622105012	Rakesh T	Rakesh - T
8	620622105013	Ruban P	R Ruban
9	620622105014	Sakthivel C	Sakthivel - C
10	620622105015	Saravanan K	Saravanan - K
11	620622105016	Shanmugapriya S	Shanmugapriya - S
12	620622105017	Siranjeevi M	Siranjeevi - M
13	620622105018	Siva K	Siva - K
14	620622105021	Tamilvelan A	Tamilvelan - A
15	620622105022	Thirumalai S	Thirumalai S
16	620622105023	Vasu M	Vasu - M
17	620622105024	Vijayakumar K	Vijaya Kumar - K
18	620622105303	Kabilan P	Kabilan - B
19	620622105305	Krubakaran B	Krubakaran B
20	620622105306	Mohamed umar basha S	Mohamed umar basha S

  
Course Coordinator

  
Principal



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## SPDI10508-SOLAR PHOTOVOLTAIC SYSTEM DESIGNING AND INSTALLATION

### COURSE OUTCOMES

Upon the completion of Solar Photovoltaic System Designing and Installation certification course will learn Solar Photovoltaic to design and installation, and will also gain knowledge of the following:

- Understand the basics solar energy and concept of solar PV (photovoltaic) system
- Site assessment and load calculation
- System design
- Mounting and Installation
- Electrical wiring and connections
- System testing and commissioning
- Operation and maintenance
- Safety protocols
- Potential career paths after completing this course

**PROGRAM COORDINATOR**

**HOD**



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**GANESH COLLEGE OF ENGINEERING**  
**CERTIFICATE COURSE**  
**SPDI10508-SOLAR PHOTOVOLTAIC SYSTEM DESIGNING AND INSTALLATION**  
**ATTENDANCE SHEET**

S.NO	REGISTER NUMBER	NAME OT THE STUDENT	21.05.24	22.05.24	23.05.24	24.05.24	25.05.24
1	620622105003	Dinesh S	P	P	P	P	P
2	620622105004	Govindha perumal J	P	P	p	P	P
3	620622105007	Muniyappan P	P	P	p	P	P
4	620622105008	Nithish prasanna S	P	P	P	P	P
5	620622105009	Pandu B	P	P	P	P	P
6	620622105011	Pradeepa S	P	P	P	P	AB
7	620622105012	Rakesh T	P	P	AB	P	P
8	620622105013	Ruban P	P	P	P	P	P
9	620622105014	Sakthivel C	P	P	P	P	P
10	620622105015	Saravanan K	P	P	P	P	P
11	620622105016	Shanmugapriya S	P	AB	P	P	P
12	620622105017	Siranjeevi M	P	P	P	P	P
13	620622105018	Siva K	P	P	P	P	P
14	620622105021	Tamilvelan A	P	P	P	P	P
15	620622105022	Thirumalai S	P	P	P	P	P
16	620622105023	Vasu M	P	P	P	P	P
17	620622105024	Vijayakumar K	P	P	P	P	P
18	620622105303	Kabilan P	P	P	P	P	P
19	620622105305	Krubakaran B	P	P	P	P	P
20	620622105306	Mohamed umar basha S	P	AB	P	P	P
Course Coordinator			<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>

*[Signature]*

HOD

PRINCIPAL



**PRINCIPAL**  
 Ganesh College of Engineering,  
 Attur Main Road, Mettupatti,  
 SALEM-636 111.

Certificate No: SE-007/WS-



**NIRE**



**NATIONAL INSTITUTE OF RENEWABLE ENERGY**

**Unit of NIRE SOLUTION**

**SALEM-636 007**

**CERTIFICATE**

This is to certify that Ms/Mr THIRUMALAI S, U-Y, EEE of GANESH COLLEGE OF ENGINEERING (GCE) has participated in the Three Days workshop on "Solar Photovoltaic System Designing and Installation" held on May 22-24, 2024 at the Department of Electrical & Electronics, GANESH COLLEGE OF ENGINEERING (GCE), METTUPATTI, SALEM - 636 111.

(Dr. M. SUBAS CHANDRABOSE)  
PRINCIPAL,  
GANESH COLLEGE OF ENGINEERING (GCE),  
SALEM



(Mr. V. MANOJ KUMAR)  
PRINCIPAL  
Ganesh College of Engineering  
Managing Director,  
Attur Main Road, Mettupatti, NIRE SOLUTION,  
SALEM-636 111.

*V. Manoj Kumar*

Certificate No: SE-007/WS-



# NIRE




NATIONAL INSTITUTE OF RENEWABLE ENERGY

Unit of NIRE SOLUTION


SALEM-636 007

## CERTIFICATE

This is to certify that **Ms/Mr** SIRANJEEVI. M. J. Y. EEF of **GANESH COLLEGE OF ENGINEERING (GCE)** has participated in the Three Days workshop on "*Solar Photovoltaic System Designing and Installation*" held on May 22-24, 2024 at the Department of Electrical & Electronics, **GANESH COLLEGE OF ENGINEERING (GCE), METTUPATTI, SALEM - 636 111.**

  
**(Dr. M. SUBAS CHANDRABOSE)**  
PRINCIPAL,  
GANESH COLLEGE OF ENGINEERING (GCE), IQAC  
SALEM



  
**PRINCIPAL (Mr. V. MANOJ KUMAR)**  
Ganesh College of Engineering, Director,  
Attur Main Road, Mettupatti, Salem  
SALEM-636 111



Certificate No: SE-007/WS-



# NIRE



NATIONAL INSTITUTE OF RENEWABLE ENERGY

Unit of NIRE SOLUTION

SALEM-636 007

## CERTIFICATE

This is to certify that Ms/Mr SIVA K. J. J of GANESH COLLEGE OF ENGINEERING (GCE) has participated in the Three Days workshop on "Solar Photovoltaic System Designing and Installation" held on May 22-24, 2024 at the Department of Electrical & Electronics, GANESH COLLEGE OF ENGINEERING (GCE), METTUPATTI, SALEM - 636 111.

(Dr. M. SUBAS CHANDRABOSE)  
PRINCIPAL,  
GANESH COLLEGE OF ENGINEERING (GCE),  
SALEM



PRINCIPAL  
Ganesh College of Engineering,  
Attur Main Road, Mettupatti,  
SALEM-636 111.

*V.V. Manoj Kumar*

(Mr. V. MANOJ KUMAR)  
MANAGING DIRECTOR,  
NIRE SOLUTION,  
SALEM



# GANESH COLLEGE OF ENGINEERING

(Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai)  
Attur Main Road, Mettupatti, Salem - 636 111, Tamilnadu, India  
Phone: 0427 - 2211212 +91 9865440414  
E-Mail: principal@ganeshenggcollege.org www.ganeshenggcollege.org

GEC/ECE/2023-2024/CC9

DATE: 13.08.2024

## CIRCULAR

The ECE Department has decided to conduct a certificate course on "10602-Internet Of things Computing Concepts" for second year, third year and final year students from 01.09.2024 to 20.10.24 (All Sunday). Interested students have to enroll their name to the program coordinator T.Karthick, AP on or before 22.08.24.

**Copy to:**

1. Principal's Office
2. IQAC
3. Concerned Department Heads

  
PRINCIPAL

**PRINCIPAL**  
Ganesh College of Engineering  
Attur Main Road, Mettupatti,  
SALEM-636 111





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E-Mail: principal@ganeshenggcollege.org      www.ganeshenggcollege.org

## Syllabus

### MODULE-I

Definition & Characteristics of IOT, Physical Design of IOT, Basic Components of IoT, Thing Sensing & Actuators, Vision, Physical Parameters. IOT Protocols. Application Areas of IoT: Home Automation, Smart Cities, Medical, Logistics, Environment, Analytics. Smart Grids.

### MODULE-II

IOT Communication Models, APIs, IoT Architecture: Basic Architecture: 3 layer and 5-layer Architecture, ITU- IoT Reference Model, Machine to Machine Communication, IoT Gateways, Wireless Sensor Networks. Technologies: Bluetooth Low Energy (BLE), ZigBee: Architecture, Comparison with other wireless standards. LoraWAN.

### MODULE-III

Electronic Product Code (EPC), Near Field Comm. (NFC), 6LoWPAN, End to End Reliability: MQTT, SCADA. Hardware and Software Platforms: Hardware: Raspberry Pi, ESP8266 Wifi Module, Arduino. Implementation of Basic Sensors (temperature, humidity, proximity, gas, air quality, Ultrasonic sensors)





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## INTERNET OF THINGS COMPUTING CONCEPT

### FEEDBACK QUESTIONNAIRE

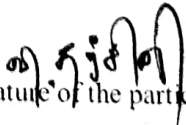
(PLEASE TICK THE APPROPRIATE ANSWER)

Name of the participant: **V. DHARSHINI**

Class: **II/III/IV-ECE**

1. Was the presentation clear and relevant to the topic?  
Yes/No
2. Was the session well Organized?  
Yes/No
3. was the course material provided sufficient and relevant?  
Yes/No
4. was the expert member capable of delivering the contents clearly?  
Yes/No
5. would you like to attend similar type of course again in the future?  
Yes/No

Comment

  
Signature of the participant





# GANESH COLLEGE OF ENGINEERING

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E-Mail: principal@ganeshenggcollege.org      www.ganeshenggcollege.org

**ACADEMIC YEAR 2023-2024 (EVEN SEM)**

**CERTIFICATE COURSE**

**10602-INTERNET OF THINGS COMPUTING CONCEPT**

**PROGRAM REPORT**

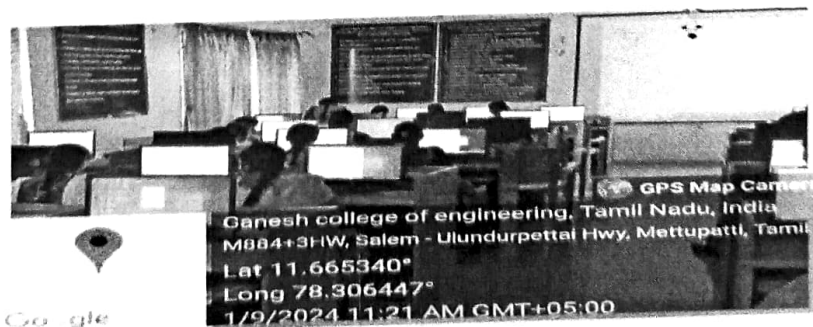
Resource Person: 1. Rajesh .M

2. Naveen.B

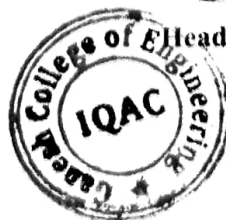
3. Arul Prasath.P

The Department of Electronics and Communication Engineering , Ganesh College of Engineering organized a certificate course on 10602-Internet of things concept computing. The Course Commenced on 22.08.2024 and was Conducted during the weekends from 01.09.2024 to 20.10.2024 for the duration of 30 hours. T.Karthick Asst.Prof/ECE initiated the course by giving a brief Introduction on Internet of things concept. The course covered the architecture of internet of things during the theoretical Sessions. During the Hands-on-sessions. programming and machine to machine communication.

The course Assessment was conducted on 01.09.2024 in a MCQ pattern based on the topic covered. Around 80 students of ECE (UG) completed the course. The students were highly benefited by theoretical and practical aspects of the course. The students showed their interest in learning the course. The feedback on the course conducted was collected from the participants by M. Vasanth AP/ECE at the end of the Session.



*[Signature]*  
Course Coordinator



Head of the Department



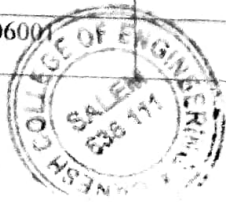
# GANESH COLLEGE OF ENGINEERING

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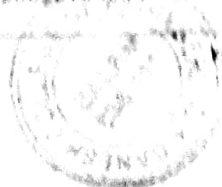
## INTERNET OF THINGS CONCEPT COMPUTING

### CERTIFICATE COURSE; STUDENT PARTICIPATION LIST

S.No	Reg.Number	Name of the Students	Remarks
1	620621106001	ANUSHA K	Anusha.k.
2	620621106003	DHANUSH P	Dhanush P.
3	620621106005	ESTHER Y	Esther.y.
4	620621106006	EVANGELIN M	M. Evangelin
5	620621106007	GOKULNATH R D	Gokulnath.R.D
6	620621106008	GOPI S S	Goopi S.S.
7	620621106009	GOPIKA T	Goopika.T.
8	620621106010	HARIHARAN G	Hariharan.G
9	620621106011	JAYAPRAKASH V	V. Jayaprakash
10	620621106014	KAVIYA R	Kaviya.R.
11	620621106016	MANOJ C	Manoj C.
12	620621106017	NARMADHA S	S. Narmadha
13	620621106019	POOJA M	Pooja M.
14	620621106022	RAGUL P	P. Ragul
15	620621106023	RASHITHA S	S. Rashitha
16	620621106025	SAKTHIVEL D	Sakthivel D.
17	620621106027	SANTHOSHKUMAR A S	A.S. Santhosh Kumar
18	620621106028	SATHISH M	M. Sathish
19	620621106031	SNEHA B	B. Sneha
20	620621106035	SUBASRI G	G. Subasri
21	620621106038	THIRUPPATHIAZHAKAN R	R. Thiruppathiazhan
22	620622106001	ANANDHAN	R. Anandhan



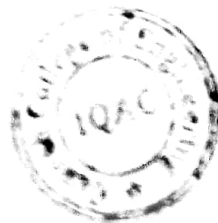
23	620622106002	ARTHIL S	A +
24	620622106003	CHANDIRAMOHAN V	Chandirama
25	620622106004	DEEPIKA S	Deepika
26	620622106006	DIHNEESH SIKARMA K	Darshan
27	620622106007	GAYATHIRE N	Gayatri
28	620622106008	GOPI M	Gopi
29	620622106010	GOWTHAM PRASATH T	Gowtham
30	620622106011	JAGATHI AMARNATH	Jagathi
31	620622106012	JAGATHESHKUMAR K	Jagathesan
32	620622106016	KRISHNAMOORTHY C	Krishna
33	620622106018	MANIHARATHIL M	Manishan
34	620622106019	MANOL M	Manoj
35	620622106020	MANORANJITH P	Manoranjan
36	620622106021	MEGANATHAN M	Meghanathan
37	620622106023	NAVINA S	Navina
38	620622106024	NITHISH S	Nithish
39	620622106025	PARVESH D	Parvesh
40	620622106026	PRIYADHARSHINI K	Priya
41	620622106027	RAJKUMAR T	Rajkumar
42	620622106028	RANGANATHAN S	Ranganathan
43	620622106030	RUTHRAMOORTHY K	Ruthra
44	620622106033	SINDHU V	Sindhu
45	620622106035	SUBAL AKSHMI R	Subalakshmi
46	620622106036	SUBASH CHANDRABOSE	Subash
47	620622106038	VEDHACHALAM A	A. vedhachalam
48	620622106039	VIGNESHWARI A	A. vignesh
49	620622106040	VIJAY S	Vijay
50	620622106043	YOGESHWARAN K	K. yokeshan
51	620622106044	YOGESHVARAN S	Yogesh



52	620622106001	ANANDHAN R	Anandhan R
53	620623106001	AJAY P	Ajay
54	620623106003	ARKESH A	Arkeesh A.
55	620623106006	DANIEL S	Daniel
56	620623106007	DHARSHAN M	Dharshan
57	620623106008	DHARSHINI V	Dharshini V.
58	620623106009	GOBINATH S	Gooban
59	620623106010	HARI MURALIDHARAN R	Hari Muralidharan
60	620623106011	KATHIRAVAN S	Kathiravan
61	620623106012	KAVIPRIYAN M	Kavipriyan
62	620623106015	MANJUKUMAR S	Manjukumar
63	620623106016	MERLIN RIA A	Merlin
64	620623106017	MOULIPRIYAN M	Moulipriyan
65	620623106019	RANJITH B	Ranjith
66	620623106020	RUBINI S	Rubini
67	620623106021	SANDHIYA P	Sandhya
68	620623106022	SANGEETHA KUMARI S	Sangeetha Kumari
69	620623106024	SELVA BHARATHY B	Selva Bharathy
70	620623106026	SHOUDHIRI A	Shoudhiri
71	620623106027	SIVANESH B	Sivanesh
72	620623106029	VIGNESH G	Vignesh G
73	620623106030	VIJAYAKUMAR S	Vijay S.

*S. Praveen*  
Course Co Ordinator

*S. Praveen*  
Principal







# GANESH COLLEGE OF ENGINEERING

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E-Mail: principal@ganeshenggcollege.org      www.ganeshenggcollege.org

**ACADEMIC YEAR 2023-2024-(EVEN SEM)**

**CERTIFICATE COURSE ON**

**10602-INTERNET OF THINGS COMPUTING CONCEPT**

**OUT COME OF THE PROGRAM**


- 1.Students learned the basic knowledge of definition and significance of internet of things .
- 2.Students learned the basic knowledge of architecture ,operation and business benefits of IOT solution.
- 3.Students learned the potential business opportunities that IOT can uncover.
- 4.Students learned the relationship between IOT ,cloud computing, and big data.
- 5.Students learned about the practical approach in identify how IOT differs from traditional data collection.





46	620622106036	SUBASH CHANDRABOSE	P	P	P	P	P	P	P	P
47	620622106038	VEDHACHALAM A	P	P	P	P	P	P	P	P
48	620622106039	VIGNESHWARI A	P	P	AB	P	P	P	P	P
49	620622106040	VIJAY S	P	P	P	P	AB	P	P	P
50	620622106042	VINOTHKUMAR S	P	P	P	P	P	P	P	P
51	620622106043	YOGESHWARAN K	P	P	P	P	P	P	P	P
52	620622106044	YOGIPRAKASH S	P	P	P	P	P	P	P	P
53	620623106001	AJAY P	P	P	P	P	P	P	P	P
54	620623106003	ARKESH A	P	P	P	P	P	P	P	P
55	620623106006	DANIEL S	P	P	P	P	P	P	P	P
56	620623106007	DHARSHAN M	P	P	P	AB	P	P	P	P
57	620623106008	DHARSHINI V	P	P	P	P	P	P	P	P
58	620623106009	GOBINATH S	P	P	P	P	P	P	P	P
59	620623106010	HARI MURALIDHARAN R	P	P	P	P	P	P	P	P
60	620623106011	KATHIRAVAN S	P	P	P	P	P	P	P	P
61	620623106012	KAVIPRIYAN M	P	P	P	P	P	P	P	P
62	620623106015	MANJUKUMAR S	P	P	P	AB	P	P	P	P
63	620623106016	MERLIN RIA A	P	P	P	P	P	AB	P	P
64	620623106017	MOULIPRIYAN M	P	P	P	P	P	P	P	P
65	620623106019	RANJITH B	P	P	P	P	P	P	P	P
66	620623106020	RUBINI S	P	P	P	P	P	P	P	P
67	620623106021	SANDHIYA P	P	P	P	P	P	P	P	P
68	620623106022	SANGEETHA KUMARI S	P	P	P	P	P	P	P	P
69	620623106024	SELVA BHARATHY B	P	P	P	AB	P	P	P	P
70	620623106026	SHOUDHIRI A	P	P	P	P	P	P	P	P
71	620623106027	SIVANESH B	P	P	AB	P	P	P	P	P
72	620623106029	VIGNESH G	P	P	P	P	P	P	P	P
73	620623106030	VIJAYAKUMAR S	P	P	P	P	P	P	P	P



  
**PRINCIPAL**  
 Ganesh College of Engineering  
 Attur Main Road, Mettupalaiyam  
 SALEM-836 111



# GANESH COLLEGE OF ENGINEERING

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E-Mail: principal@ganeshenggcollege.org www.ganeshenggcollege.org

GEC/ECE/2023-2024/CC8


DATE: 13.03.2024

## CIRCULAR

The ECE Department has decided to conduct a certificate course on "106009-Sensor Technology" for second year, third year and final year students from 31.3.24 to 12.5.24 (All Sunday). Interested students have to enroll their name to the program coordinator E.KEERTHIKA, AP on or before 01.03.2024.

### Copy to:

1. Principal's Office
2. IQAC
3. Concerned Department Heads

  
PRINCIPAL  
PRINCIPAL  
Ganesh College of Engineering,  
Attur Main Road, Mettupatti,  
SALEM-636 111.



## Syllabus

### MODULE-I

Transducers and sensors- Accuracy and precisions, types of errors, statistical analysis, probability of errors, limiting errors, sensitivity, linearity, hysteresis, resolution, reproducibility, transfer function. Analog Signal Conditioning: Signal conditioning, Loading effects, Bridges for measurement techniques, Attenuators and Amplifiers, Passive filters, Op-amp based signal conditioning circuits, Inverting and Non-Inverting Amplifiers, Linearization, Differential amplifiers and Instrumentation amplifiers.

### MODULE-II

Digital Signal Conditioning: Digital measuring techniques, Sample and Hold Circuits, Comparator, Buffers, D/A Conversion and A/D Conversion, Single channel and multichannel Data Acquisition System (DAS). Temperature Sensors: Resistance Vs Temperature characteristics for different materials, Thermistors, Thermocouples - thermoelectric effects for thermocouples, thermocouple tables, RTD, Other Thermal Sensors

### MODULE-III

Pressure, force, displacement and weight measurement: Capacitive and inductive transducers, Displacement Sensor (LVDT), Strain Sensors – strain gauges, its principle, applications, types of strain gauges, Load cells, Piezo-electric sensors, Motion sensors.

### MODULE-IV

Flow measurement: Basic principle of flow meter, Differential pressure flow meters, Variable area flow meter, Volumetric flow meter, Hotwire anemometer, Magnetic and ultrasonic flow meter, Rota meter, Hall effect transducer working and measurement techniques.

### MODULE-5

RF sensing: Basic principle of EM fields, Antenna, RFID, Near Field and Far Field Sensing, Radar and Navigation, EMI & EMC sensing.



# GAMESH COLLEGE OF ENGINEERING

Principal, AMEET COLLEGE OF ENGINEERING, Salem  
Attur Main Road, Mettur 641, Salem - 641 111, Tamilnadu, India  
Phone: 0427-2744212, 0427-2744444  
E-Mail: principal@gameshenggcollege.org, www.gameshenggcollege.org

## SENSOR TECHNOLOGY

### FEEDBACK QUESTIONNAIRE

(PLEASE TICK THE APPROPRIATE ANSWER)

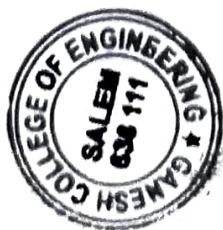
Name of the participant: **M. Pooja**

Class: **II/III/IV-ECE**

1. Was the presentation clear and relevant to the topic?  
Yes/No
2. Was the session well Organized?  
Yes/No
3. was the course material provided sufficient and relevant?  
Yes/No
4. was the expert member capable of delivering the contents clearly?  
Yes/No
5. would you like to attend similar type of course again in the future?  
Yes/No

Comment

*M. Pooja*  
Signature of the participant



ACADEMIC YEAR 2023-2024 (ODD SEM)

CERTIFICATE COURSE

106009-SENSOR TECHNOLOGY

PROGRAM REPORT

Resource Person: 1. Ram kumar .R

2. Senthil kumar.V

3. Sunil.M

The Department of Electronics and Communication Engineering , Ganesh College of Engineering organized a certificate course on 106009-Sensor Technology. The Course Commenced on 01.03.2024 and was Conducted during the weekends from 31.03.2024 to 12.05.2024 for the duration of 30 hours. E.Keerthika Asst.Prof/ECE initiated the course by giving a brief Introduction on Sensor Technology and instrumentation. The course covered the transducer and sensor,digital signal conditioning and flow measurement of meter during the theoretical Sessions. During the Hands-on-sessions. programming and Interfacing EM field and RFID.

The course Assessment was conducted on 31.03.2024 in a MCQ pattern based on the topic covered. Around 80 students of ECE (UG) completed the course. The students were highly benefited by theoretical and practical aspects of the course. The students showed their interest in learning the course.

The feedback on the course conducted was collected from the participants by T.Karthick AP/ECE at the end of the Session.



*[Signature]*  
Course Coordinator



*[Signature]*  
Head of the Department



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E-Mail: ponnupal@ganeshenggcollege.org www.ganeshenggcollege.org

## SENSOR TECHNOLOGY

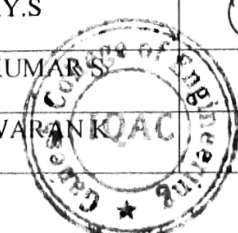
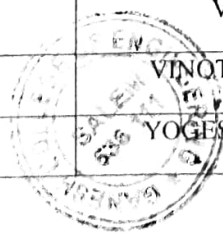
### CERTIFICATE COURSE; STUDENT PARTICIPATION LIST

S.No	Reg.Number	Name of the Students	Remarks
1	620621106001	ANUSHA K	Anusha k
2	620621106003	DHANUSH P	Dhanush.
3	620621106005	ESTHER Y	Esther.y.
4	620621106006	EVANGELIN M	Evanslin.
5	620621106007	GOKULNATH R D	Gokulnath.
6	620621106008	GOPI S S	S. S Gopi
7	620621106009	GOPIKA T	Gopika
8	620621106010	HARIHARAN G	Narinarin.
9	620621106011	JAYAPRAKASH V	Jay -
10	620621106014	KAVIYA R	K. kaviya re -
11	620621106016	MANOJ C	manoj.
12	620621106017	NARMADHA S	Narmadha
13	620621106019	POOJA M	Pooja
14	620621106022	RAGUL P	Ragul.
15	620621106023	RASHITHA S	Rashitha
16	620621106025	SAKTHIVEL D	Sakthivel
17	620621106027	SANTHOSHKUMAR A S	Santhosh
18	620621106028	SATHISH M	Sathish
19	620621106031	SNEHA B	Sneha
20	620621106035	SUBASRI G	Suba
21	620621106038	THIRUPATHIAZHAKAN R	Thirupathiazhakan
22	620622106001	ANANDHAN	Anandhan.





23	620622106002	ARTHIL S	Arif .
24	620622106003	CHANDIRAMOHAN A	V. Chandiramani
25	620622106004	DEEPIKA S	Deepika
26	620622106006	DHINESH SHARMA K	K. Dhinesh sharma
27	620622106007	GAYATHRI N	Gayathri
28	620622106008	GOPI M	M. Gopi
29	620622106010	GOWTHAM PRASATH T	T. Gowtham prasa
30	620622106011	JAGATH AMARNATH	Jagath Amarnath
31	620622106012	JAGATHESHKUMAR K	Jagatheshkumar
32	620622106016	KRISHNAMOORTHY C	C. Krishnamoorthy
33	620622106018	MANIBHARATHI M	M. Manibharathi
34	620622106019	MANOJ M	Manoj. c
35	620622106020	MANORANJTH P	P. Manoranjith
36	620622106021	MEGANATHAN M	Meganathan
37	620622106023	NAVINA S	Navina
38	620622106024	NITHISH S	Nithin
39	620622106025	PARVESH D	Parvesh
40	620622106026	PRIYADHARSHINI K	Priyadharshini
41	620622106027	RAJKUMAR T	Rajkumar
42	620622106028	RANGANATHAN S	Ranganathan
43	620622106030	RUTHRAMOORTHY K	Ruthra
44	620622106033	SINDHU V	Sindhu
45	620622106035	SUBALAKSHMI R	Suba
46	620622106036	SUBASH CHANDRABOSE	Subash
47	620622106038	VEDHACHALAM A	Vedha chalam
48	620622106039	VIGNESHWARI A	Vigneshwari
49	620622106040	VIJAY S	Vijay
50	620622106042	VINOTHKUMAR S	Vinothkumar
51	620622106043	YOGESHWARAN K	Yogeshwari



52	620623106014	YOGIPRAKASH S	YogiPrakash.
53	620623106001	AJAY P	Ajay.
54	620623106003	ARKEESH A	Arkeesh
55	620623106006	DANIEL S	Danish
56	620623106007	DHARSHAN M	Dharsh.
57	620623106008	DHARSHINI V	Dharshini V.
58	620623106009	GOBINATH S	Gopinath
59	620623106010	HARI MURALIDHARAN R	Hari.
60	620623106011	KATHIRAVAN S	Kathiravan.
61	620623106012	KAVIPRIYAN M	Kavya.
62	620623106015	MANJUKUMAR S	Manjukumar.
63	620623106016	MERLIN RIA A	Merlin.
64	620623106017	MOULIPRIYAN M	Mouli.
65	620623106019	RANJITH B	Ranjith
66	620623106020	RUBINI S	Rubini.
67	620623106021	SANDHIYA P	Sandhya
68	620623106022	SANGEETHA KUMARI S	Sangeetha
69	620623106024	SELVA BHARATHY B	Selva
70	620623106026	SHOUDHIRI A	Shoudhri.
71	620623106027	SIVANESH B	Sivaneshe.
72	620623106029	VIGNESH G	Vignesh
73	620623106030	VIJAYAKUMAR S	Vijay.

  
Course CoOrdinator

  
Principal





# GANESH COLLEGE OF ENGINEERING

(Approved by A.C.TE, New Delhi & Affiliated to Anna University, Chennai)  
Attar Main Road, Mettupatti, Salem - 636 111, Tamilnadu, India  
Phone: 0427-2211212 / -91 9865440414  
E-Mail: principal@ganeshenggcollege.org      www.ganeshenggcollege.org

## ACADEMIC YEAR 2023-2024-(ODD SEM)

### CERTIFICATE COURSE ON

### 106009-SENSOR TECHNOLOGY

### OUT COME OF THE PROGRAM

- 1.Students learned the basic knowledge of various sensor materials and technology used in designing sensors.
- 2.Students learned the basic knowledge of concept of sensors and its characteristics.
- 3.Students learned the physical principles of sensing based on sensor signals and systems.
- 4.Students learned the programming skills identify the sensor interfacing with various electronics circuits.
- 5.Students learned about the practical approach in design of technology based on different sensors.





# Ganesh College of Engineering

Approved by AICTE & Affiliated to Anna University  
Attur Main Road, Mettupatti, Salem District, Pin - 636 111, TamilNadu, India

CERTIFICATE COURSE ACADAMIC YEAR 2023-2024 (ODD SEM)

106009-SENSOR TECHNOLOGY

STUDENT ATTENDANCE PARTICULAR

S.NO	REG.NO	NAME OF STUDENTS	31.03.24	07.04.24	14.04.24	21.04.24	28.04.24	05.05.24	12.05.24	REMARKS
1	620621106001	ANUSHA K	P	P	P	P	P	P	P	
2	620621106003	DIANUSH P	P	P	AB	P	P	P	P	
3	620621106005	ESTHER Y	P	P	P	P	P	AB	P	
4	620621106006	EVANGELIN M	P	P	P	AB	P	P	P	
5	620621106007	GOKULNATH R D	P	P	P	P	P	P	P	
6	620621106008	GOPI S S	P	AB	P	P	P	P	P	
7	620621106009	GOPIKA T	P	P	P	P	P	P	P	
8	620621106010	HARIHARAN G	P	P	P	P	P	P	P	
9	620621106011	JAYAPRAKASH V	P	P	P	P	P	P	P	
10	620621106014	KAVIYA R	P	P	P	P	P	P	P	
11	620621106016	MANOJ C	P	P	P	P	P	P	P	
12	620621106017	NARMADHA S	P	AB	P	P	P	P	P	
13	620621106019	POOJA M	P	P	P	P	P	P	P	
14	620621106022	RAGUL P	P	P	P	P	P	P	P	
15	620621106023	RASHITHA S	P	P	P	P	P	AB	P	
16	620621106025	SAKTHIVEL D	P	P	P	P	P	P	P	
17	620621106027	SANTHOSHKUMAR A S	P	P	P	AB	P	P	P	
18	620621106028	SATHISH M	P	P	P	P	P	P	P	
19	620621106031	SNEHA B	P	AB	P	P	P	P	P	
20	620621106035	SUBASRI G	P	P	P	P	P	P	P	
21	620621106038	THIRUPATHIAZHAKAN R	P	P	P	P	P	P	P	
22	620622106001	ANANDHAN R	P	P	P	P	P	P	P	
23	620622106002	ARTHIS	P	P	P	P	P	P	P	
24	620622106003	CHANDIRAMOHAN V	P	P	P	P	P	P	P	
25	620622106004	DEEPIKA S	P	P	P	P	P	P	P	
26	620622106006	DHINESH SHARMA K	P	P	P	P	P	P	P	
27	620622106007	GAYATHRI N	P	P	P	AB	P	P	P	
28	620622106008	GOPI M	P	P	P	P	P	P	P	
29	620622106010	GOWTHAM PRASATH T	P	P	P	P	P	P	P	
30	620622106011	JAGATH AMARNATH	P	P	P	P	P	P	P	
31	620622106012	JAGATHESHKUMAR K	P	P	P	P	AB	P	P	
32	620622106016	KRISHNAMOORTHY C	P	P	P	P	P	P	P	
33	620622106018	MANIBHARATH M	P	P	P	P	P	P	P	
34	620622106019	MANOJ M	P	P	P	P	P	P	P	
35	620622106020	MANORANTH P	P	P	P	P	P	P	P	
36	620622106021	MEGANATHAN M	P	P	P	P	P	P	P	
37	620622106023	NAVINA S	P	P	P	P	P	AB	P	

38	620622106024	NITHISH S	P	P	P	P	P	P	P	
39	620622106025	PARVESH D	P	P	P	P	P	P	P	
40	620622106026	PRIYADHARSHINI K	P	P	P	P	P	P	P	
41	620622106027	RAJKUMAR T	P	P	P	P	P	AB	P	
42	620622106028	RANGANATHAN S	P	P	P	P	P	P	P	
43	620622106030	RUTHRAMOORTHY K	P	P	P	P	P	P	P	
44	620622106033	SINDHU V	P	P	P	P	P	P	P	
45	620622106035	SUBALAKSHMI R	P	P	P	P	P	P	P	
46	620622106036	SUBASH CHANDRABOSE	P	P	P	P	P	P	P	
47	620622106038	VEDHACHALAM A	P	P	P	P	P	P	P	
48	620622106039	VIGNESHWARI A	P	P	AB	P	P	P	P	
49	620622106040	VIJAY S	P	P	P	P	P	P	P	
50	620622106042	VINOTHKUMAR S	P	P	P	P	P	P	P	
51	620622106043	YOGESHWARAN K	P	P	P	P	P	P	AB	
52	620622106044	YOGIPRAKASH S	P	P	P	P	P	P	P	
53	620623106001	AJAY P	P	P	P	P	P	P	P	
54	620623106003	ARKESH A	P	P	P	P	P	P	P	
55	620623106006	DANIEL S	P	P	P	P	P	P	P	
56	620623106007	DHARSHAN M	P	P	P	AB	P	P	P	
57	620623106008	DHARSHINI V	P	P	P	P	P	P	P	
58	620623106009	GOBINATH S	P	P	P	P	P	P	P	
59	620623106010	HARI MURALIDHARAN R	P	P	P	P	P	P	P	
60	620623106011	KATHIRAVAN S	P	P	P	P	P	P	P	
61	620623106012	KAVIPRIYAN M	P	P	P	P	P	P	P	
62	620623106015	MANJUKUMAR S	P	P	P	AB	P	P	P	
63	620623106016	MERLIN RIA A	P	P	P	P	P	AB	P	
64	620623106017	MOULIPRIYAN M	P	P	P	P	P	P	P	
65	620623106019	RANJITH B	P	P	P	P	P	P	P	
66	620623106020	RUBINI S	P	P	P	P	P	P	P	
67	620623106021	SANDHIYA P	P	P	P	P	P	P	AB	
68	620623106022	SANGEETHA KUMARI S	P	P	P	P	P	P	P	
69	620623106024	SELVA BHARATHY B	P	P	P	P	P	P	P	
70	620623106026	SHOUDHIRI A	P	P	P	P	P	P	P	
71	620623106027	SIVANESH B	P	P	AB	P	P	P	P	
72	620623106029	VIGNESH G	P	P	P	P	P	P	P	
73	620623106030	VIJAYAKUMAR S	P	P	P	P	P	P	P	



**PRINCIPAL**  
Ganesh College of Engineering  
Attur Main Road, Mettupatti  
SALEM-636 111.



# GANESH COLLEGE OF ENGINEERING

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Attur Main Road, Mettupatti, Salem - 636 111, Tamilnadu, India  
Phone: 0427 - 2211212, +91 9865440414  
E-Mail: principal@ganeshenggcollege.org      www.ganeshenggcollege.org

GCE/MECH/STU/2023-2024/VAC-02

Date: 19/01/2024

## CIRCULAR

The Mechanical Department has decided to conduct a value added Course on "TOA11402 - Training on Ansys" for the IV year Mechanical Engineering Students from 28.01.2024 to 25.02.2024 on Sundays only. The course will be trained by the experts. The Interested students have to enroll their name to the program coordinator Mr.I.Angu, Assistant Professor, on or before "23.01.2024"

**PRINCIPAL  
PRINCIPAL**

Ganesh College of Engineering,  
Attur Main Road, Mettupatti,  
SALEM-636 111.

### Copy to:

1. Principal's Office
2. IQAC
3. Department file





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ACADEMIC YEAR – 2023-2024 (EVEN SEM)

VALUE ADDED COURSE

“TOA11402 - TRAINING ON ANSYS”

SYLLABUS

## Chapter 1: before you start using Ansys

- a. Introduction to the Finite Element Method
- b. What is the Finite Element Method?
- c. General Steps of the Finite Element Method
- d. Explanation of 1D, 2D and 3D Elements with examples of ANSYS Elements
- e. Need of FEM
- f. Types of analysis that can be done using ANSYS
- g. Advantages of the Finite Element Method
- h. Limitations of FEA
- i. About ANSYS Inc.
- j. ANSYS Family of products with their capabilities
- k. Types of analysis that can be done with ANSYS.
- l. Introduction to the Ansys GUI
- m. Operation Modes of Ansys

## Chapter 2: Selection Logic

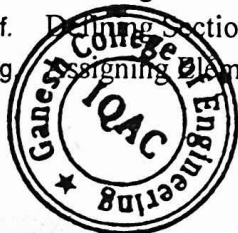
- a. Pan-Zoom-Rotate
- b. Picking
- c. Coordinate Systems

## Chapter 3: Solid Modeling

- a. An Overview of Solid Modeling Operations
- b. Working with Boolean operations
- c. Working Plane
- d. Importing of 3D models

## Chapter 4: Meshing

- a. Free meshing or Mapped meshing
- b. Setting Element Attributes
- c. Selecting Element Type
- d. Shape Function
- e. Defining Element Types
- f. Defining Section Properties
- g. Assigning Element Attributes before meshing



- h. Mesh Controls
- i. The ANSYS Mesh Tool
- j. Smart sizing
- k. Meshing
- l. Free Meshing

#### **Chapter 5: Material Properties**

- a. Material Library
- b. Specifying properties

#### **Chapter 6: Boundary Conditions**

- a. Types of Loads
- b. Applying loads

#### **Chapter 7: Solvers**

- a. Types of Solvers
- b. Solver Setup
- c. Load Step Options
- d. Solving Multiple Load Steps

#### **Chapter 8: Post-processing**

- a. Contour Plot Viewing
- b. Time History Postprocessor (POST26)
- c. Report Generator

#### **Chapter 9: Introduction to Non-Linear Analysis**

#### **Chapter 10: Sample Structural Analysis**

- a. Workshop

#### **Chapter 11: Sample Thermal Analysis**

- a. Workshop

#### **Chapter 12: Sample Modal Analysis**

- a. Workshop

#### **Chapter 13: Tips & Tricks**

- a. Using the Toolbar & Creating Abbreviations
- b. Introduction to APDL
- c. Using Parameters
- d. Using the Start File
- e. Using the Session Editor
- f. Using Input Files

#### **Chapter 14: ANSYS Workbench**

- a. Introduction to ANSYS Workbench
- b. Graphical User Interface
- c. Static Structural Analysis
- d. Modal Analysis
- e. Thermal Analysis
- f. Contact Recognition



Program Coordinator

  
HoD





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Phone: 0427 - 2211212, +91 9865440414

E-Mail: principal@ganeshenggcollege.org www.ganeshenggcollege.org

ACADEMIC YEAR – 2023-2024 (EVEN SEM)

## VALUE ADDED COURSE ON

### “TOA11402 - TRAINING ON ANSYS”

#### PROGRAM REPORT

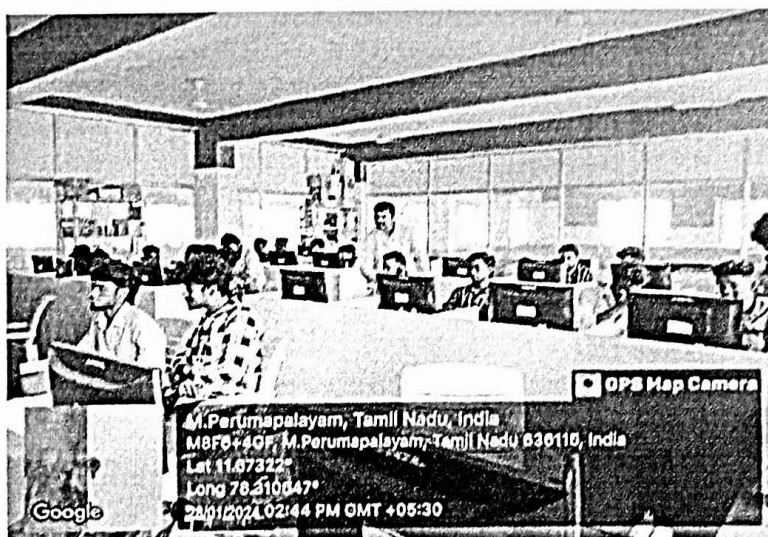
The Department of Mechanical Engineering, Ganesh College of Engineering encouraged a Value Added Course on “TOA11402 - Training on Ansys”. Dr.N.Senthilkumar, HOD, Department of Mechanical Engineering made the welcoming address at 10 AM. On the first day of the course.

It looks place over the course of 30 hours on Sundays. Form 28/01/2024 to 25/02/2024 in our college premises.

Mr.D.Suresh kumar, Manager (Education & Training), CMC Academy taught about simulation, analysis and its applications. This certificate programme adheres to a syllabus that was established as the beginning and finish of the training part. On 25.02.2024, the course Assessment was completed using a questionnaire that included 20 questions concerning the course material. Students were appreciated with the course completion certificate.

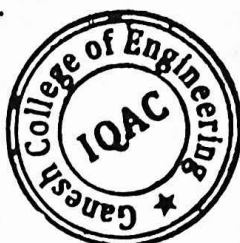
The feedback was collected from the participants.

At the end of this course, the students were able to simulate the models from the projects.



Program Coordinator

HoD





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## VALUE ADDED COURSE - "TOA11402 - TRAINING ON ANSYS"

### CERTIFICATE COURSE; STUDENT PARTICIPATION LIST

S.No	Name of the Student	Reg. Number	Remarks
1	BOOPALAN M	620620114001	M.Boopalan
2	ISRABEL PRASANNA K	620620114003	K. Israbel
3	JEEVA A	620620114004	Jeeva A.
4	KALAIVANAN G	620620114005	Kalai Vanan
5	LOGANATHAN S	620620114006	Loganathan
6	MAHESWARAN V	620620114007	V. Maheswaran
7	NAVEEN K	620620114009	Naveen K.
8	RAMANA V	620620114012	Ramana V.
9	SAKTHIVEL K	620620114013	Sakthivel K.
10	SHARAN	620620114016	Sharan
11	VELAN V	620620114018	Velan V.
12	VIGNESH T	620620114019	T. Vignesh
13	ARAVINTH M	620620114302	Aravinth M.
14	BALAJI J	620620114304	Balaji J.
15	BHARATH J	620620114306	Bharath J.
16	JEROSLINTONY A	620620114307	Jeroslintony A.
17	KABILAN K R	620620114308	Kabilan K R.
18	KAVINRAJ P	620620114309	Kavinraj P.
19	NANTHA KUMAR G	620620114312	Nanthakumar G.
20	NARESH K	620620114314	Narsh K.
21	RAGHUL K	620620114316	Raghul K.
22	RANJITH S	620620114317	Ranjith S.
23	SUBASH F	620620114318	Subash F.
24	YOGESHWARAN V	620620114321	Yogeshwaran V.
25	TAMILARASAN MB	620620114501	M.B. Tamilarasan

Course Coordinator

Principal  
**PRINCIPAL**

Ganesh College of Engineering,  
Attur Main Road, Mettupatti,  
SALEM-636 111.





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ACADEMIC YEAR – 2023-2024 (EVENT SEM)

VALUE ADDED COURSE “TOA11402 - TRAINING ON ANSYS”

FEEDBACK QUESTIONNAIRE (PLEASE TICK THE APPROPRIATE ANSWER)

Name of the participants:

Year: IV

1. Was the presentation clear and relevant to the topic?  
 Yes/No
2. Was the session well organized?  
 Yes/No
3. Was the course material provided sufficient and relevant?  
 Yes/No
4. Was the expert member capable of delivering the contents clearly?  
 Yes/No
5. Would you like to attend similar type of course again in the future?  
 Yes/No

Comments:

*Naveen*  
Signature of the participants





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ACADEMIC YEAR: 2023-2024 (EVEN SEM)

CERTIFICATE COURSE ON

“TOA11402-TRAINING ON ANSYS”

OUTCOME OF THE PROGRAM

- Introduce to the Finite Element Analysis (FEA) concepts and make familiar with the tools and techniques of the ANSYS software package.
- This Certificate Course aims at providing complete hands-on training on FEA analysis.
- The Certificate Course will help the participants to develop expertise on various aspects of ANSYS for FEA applications.
- The Certificate Course serves the purpose of bringing together the engineers from various domains such as Structural, Thermal and Fluid Dynamics fields.

Program Coordinator

HoD





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**CERTIFICATE COURSE -ACADEMIC YEAR – 2023- 2024 (EVEN SEM)**

**VALUE ADDED COURSE - “TOA11402 - TRAINING ON ANSYS”**

**STUDENT ATTENDANCE PARTICULARS**

**COURSE TIMING (10.00AM TO 04.00PM)**

S.NO	REG.NUMBER	NAME OF THE STUDENT	28/01/2024	04/02/2024	11/02/2024	18/02/2024	25/02/2024
1	620620114001	BOOPALAN M	P	P	P	P	P
2	620620114003	ISRABEL PRASANNA K	P	P	P	P	P
3	620620114004	JEEVA A	P	P	P	P	P
4	620620114005	KALAIVANAN G	P	P	P	P	P
5	620620114006	LOGANATHAN S	P	P	P	P	P
6	620620114007	MAHESWARAN V	P	P	P	P	P
7	620620114009	NAVEEN K	P	P	P	P	P
8	620620114012	RAMANA V	P	P	P	P	P
9	620620114013	SAKTHIVEL K	P	P	P	P	P
10	620620114016	SHARAN	P	P	P	P	P
11	620620114018	VELAN V	P	P	P	P	P
12	620620114019	VIGNESH T	P	P	P	P	P
13	620620114302	ARAVINTH M	P	P	P	P	P
14	620620114304	BALAJI J	P	P	P	P	P
15	620620114306	BHARATH J	P	P	P	P	P
16	620620114307	JEROSLINTONY A	P	P	P	P	P
17	620620114308	KABILAN K R	P	P	P	P	P
18	620620114309	KAVINRAJ P	P	P	P	P	P
19	620620114312	NANTHA KUMAR G	P	P	P	P	P
20	620620114314	NARESH K	P	P	P	P	P
21	620620114316	RAGHUL K	P	P	P	P	P
22	620620114317	RANJITH S	P	P	P	P	P
23	620620114318	SUBASH F	P	P	P	P	P
24	620620114321	YOGESHWARAN V	P	P	P	P	P
25	620620114501	TAMILARASAN MB	P	P	P	P	P
COURSE COORDINATOR							

HoD



PRINCIPAL  
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Ganesh College of Engineering,  
Attur Main Road, Mettupatti,  
SALEM-636 111.



# GANESH COLLEGE OF ENGINEERING

*Approved by AICTE, New Delhi & Affiliated to Anna University Chennai.*

*Attur Main Raod, Mettupatti, Salem District, Salem pin 636111.*

DEPARTMENT OF MECHANICAL ENGINEERING

## Certificate

This is to certify that Mr./Ms MAHESWARAN.V (IV-YEAR) has successfully completed the course on "TOA11402 - Training on Ansys" offered by the Department of Mechanical Engineering, Certificate Course during the academic year 2023- 2024.

CO-ORDINATOR



PRINCIPAL



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DEPARTMENT OF MECHANICAL ENGINEERING

## Certificate

This is to certify that Mr./Ms BOOPALAN .M (IV-YEAR) has successfully completed the course on "TOA11402 - Training on Ansys" offered by the Department of Mechanical Engineering, Certificate Course during the academic year 2023- 2024.

CO-ORDINATOR



PRINCIPAL



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GCE/MECH/STU/2023-2024/VAC -01


DATE: 01.8.2023

## CIRCULAR

The Mechanical Department has decided to conduct a value added Course Program on "PDUC11401 - Product Design using Creo" for the III & IV year Mechanical Engineering students from 06.08.2023 to 10.09.2023 on Sundays. The Course will be trained by the experts. Interested students have to enroll their name to the program coordinator Mr.S.Sivakumar, Asst. Prof/Mech on or before "03.08.2023".

Copy to:

1. Principal's Office
2. IQAC
3. Department file

  
**PRINCIPAL**  
**PRINCIPAL**  
Ganesh College of Engineering.  
Attur Main Road, Mettupatti,  
SALEM-636 111.







# GANESH COLLEGE OF ENGINEERING

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## ACADEMIC YEAR- 2023-2024 (ODD) VALUE ADDED COURSE PRODUCT DESIGN USING CREO SYLLABUS

### Section -1

Introduction to Creo Parametric , parametric Nature, File Menu options Managing Files Menu Manager Model Tree, Understanding the functions of the Mouse Buttons , Ribbon Toolbars Navigator, Creo Parametric Browser Appearance Gallery Rendering in Creo Parametric , Colour Scheme Used in this Book. Sketch Mode Environment, Drawing a line, Centerline, Geometry centerline, Rectangle Ellipse, Dimensioning a Sketch Using the normal Tool Linear Dimensioning of a line.

### Section -2

Creating Sketches : - Creating Fillets, Circular Fillets, Elliptical, Fillets, Creating Base Features Invoking the part Mode the Default Datum planes Creating a protrusion, Extruding a Sketch , Revolving a Sketch ,Understanding the Orientation of Datum planes, parent –child Relationship,. Implicit Relationship,. Explicit Relationship,Nesting of Sketches.

### Section -3

Default Datum Planes Need for Datums in Modeling Selection Method in creo Parametric Datum Options, Datum Planes, Creating Datum Planes, Datum Planes created On –The –Fly, Datum Axes, Datum points Creating Cuts, Removing Material by using the Extrude Tool, Options Aiding Construction of parts creating Holes, Creating Rounds, Creating Basic Rounds.

### Section -4

Creating Feature Patterns, Copying Features, Refs Mirror, Section of a solid Models, Works Region Method ,Sweep Features, Thin sweep Protrusion, Sweep Cut, Blend General Blend Vertex., shell Feature, Constant Thickness Shell, Thickness shell, Datum curves, Curve Button, Project option , wrap Option.

### Section -5

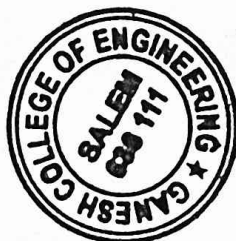
Assembly Modeling, Top –Down Assemblies, Components in the Assembly Model, Assembling Components, 3D Dragger, Applying constraints Status Area Placement Tab, Packaging components, Creating Simplified Representations redefining the components of an Assembly reordering components Suppressing /Resuming components replacing.

### Section -6

Surface modeling, Creo Parametric, Extruded Surface creating a Revolved surface creating a Sweep, t blend surface creating a Helical Sweep Surface, Blending the boundaries, Style Environment of creo parametric, style Dashboard. Introduction to sheet metal, Mode, Planer wall, Revolve Wall, offset wall, Flat wall, Twist wall, Flange wall, bend back, sheet metal part, cuts in the sheet metal components.

  
Program Coordinator

  
HOD





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ACADEMIC YEAR- 2023-2024 (ODD SEM)

VALUE ADDED COURSE ON PRODUCT DESIGN USING CREO

FEEDBACK QUESTIONNAIRE (PLEASE TICK THE APPROPRIATE ANSWER)

Name of the participant:

Class: III & VI YEAR

1. Was the presentation clear the relevant to the topic?

Yes/No

2. Was the Session well organized?

Yes/No

3. Was the course material provided sufficient and relevant?

Yes/No

4. Was the expert member capable of delivering the contents clearly?

Yes/No

5. Would you like to attend a similar type of course again in the future?

Yes/No

Comments:

*Silamban S*  
Signature of the participant





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## VALUE ADDED COURSE ON PRODUCT DESIGN USING CREO

### CERTIFICATE COURSE: STUDENT PARTICIPATION LIST

S.No	Name of the Student	Reg. Number	Remark
1	ARAVINDUAN M	620621114001	M. Arun.
2	CHANDRU K	620621114004	R. Chandru
3	HIRUBAKARAN B	620621114007	J. Hirubakaran
4	MANO V	620621114010	V. Manoj
5	MANOJKUMAR T	620621114011	T. Manoj Kumar
6	MEYARASU S	620621114012	M. Meyarasu
7	MUTHUKUMARAN R	620621114014	R. Muthukumar
8	PANDIDURAI A	620621114018	A. Panduraj
9	PRASANTH K	620621114019	K. Prasantha
10	REMO S	620621114020	S. Remo
11	SARATHIKUMAR M	620621114021	M. Sarathikumar
12	TAMIL K	620621114025	K. Tamil
13	YUGENDRAN K	620621114030	K. Yugendran
14	KALAIVANAN P	620621114302	P. Kalaiavanan
15	SILAMBARSAN S	620621114304	S. Silambarasan
16	SETHUPATHI G	620621114303	G. Sethupathi
17	BOOPALAN M	620620114001	M. Boopalan
18	ISRAVEL PRASANNA K	620620114003	K. Prasanna
19	JEEVA A	620620114004	A. Jeeva
20	KALAIVANAN G	620620114005	G. Kalaiavanan
21	LOGANATHAN S	620620114006	S. Loganathan
22	MAHESWARAN V	620620114007	V. Maheswaran
23	NAVEEN K	620620114009	K. Naveen
24	RAMANA V	620620114012	V. Ramana
25	SAKTHIVEL K	620620114013	K. Sakthivel
26	SHARAN	620620114016	Sharan
27	VELAN V	620620114018	V. Velan
28	VIGNESH T	620620114019	T. Vignesh
29	ARAVINTH M	620620114302	M. Aravinth
30	BALAJI	620620114304	Balaji
31	BIHARATHI J	620620114306	J. Biharathi
32	JEROSLINTONY A	620620114307	A. Jeroslintony
33	KABILAN K R	620620114308	R. Kabilan
34	KAVINRAJ P	620620114309	P. Kavinraj
35	NANTHA KUMAR G	620620114312	G. Nantha Kumar
36	NARESH K	620620114314	K. Naresh
37	RAGHUL K	620620114316	K. Raghul
38	RANJITH S	620620114317	S. Ranjith
39	SUBASH F	620620114318	F. Subash
40	YOGESHWARAN V	620620114321	V. Yogeshwaran
41	TAMILARASAN MB	620620114501	M. B. Tamilarasan

*[Signature]*  
 Course Coordinator

*[Signature]*  
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ACADEMIC YEAR – 2023-2024 (ODD SEM)

## PDUC11401 - VALUE ADDED COURSE ON PRODUCT DESIGN USING CREO

### PROGRAM REPORT

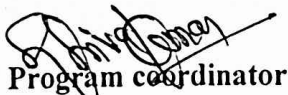
The Ganesh College of Engineering Department of Mechanical Engineering sponsored a value added course titled “PDUC11401 - Product Design using Creo”. On the first day of the course, Dr.N.Senthilkumar, HoD - Department of Mechanical Engineering, gave the welcome talk at 10 a.m.

It took place in our college ground over the period of 30 hours on Sunday, from 06/08/2023 to 10/09/2023.

Mr.S.Karaiadiselman, Managing Director, CADD Centre, taught about product design using CREO and its applications. This Value Added Course follows a set of guidelines that define the beginning and end of the training period. The course Assessment was performed on September 10, 2023 utilizing a questionnaire that comprised 25 questions concerning the course material. Around 41 Third & Final year mechanical engineering students finished the course satisfactorily. The students were appreciated with the course completion certificate. The feedback was collected from the participants and resource persons.

At the end of this course, the students were able to create a prototype model in all types of mechanical component projects.



  
Program coordinator

  
HoD





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ACADEMIC YEAR: 2023-2024 (ODD SEM)

CERTIFICATE COURSE ON

PDUC11402-PRODUCT DESIGN USING CREO

OUTCOME OF THE PROGRAM

The participants will be able to:

- Understand the concepts of CAD and CAD tools,
- Design and create Part Models and Assembly Models,
- Understand concepts of 3D Modeling: Concepts, Wireframe, Surface, and Solid Design  
and
- Drafting of Part Modeling and Assemble Modeling's in 2D and 3D.

  
Program Coordinator

  
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Learn. Rise. Excel

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## CERTIFICATE COURSE - ACADEMIC YEAR - 2023- 2024 (ODD SEM)

### PDUC11401 - PRODUCT DESIGN USING CREO

### STUDENT ATTENDANCE PARTICULARS

### COURSE TIMING (10.00AM TO 4.00PM)

S.NO	REG.NUMBER	NAME OF THE STUDENT	06/08/2023	13/08/2023	20/08/2023	27/08/2023	03/09/2023	10/09/2023
1	620621114001	ARAVINDHAN M	P	P	P	P	P	P
2	620621114004	CHANDRU K	P	P	P	P	P	P
3	620621114007	HIRUBAKARAN B	P	P	P	P	P	P
4	620621114010	MANO V	P	P	P	P	P	P
5	620621114011	MANOJKUMAR T	P	P	P	P	P	P
6	620621114012	MEIYARASU S	P	P	P	P	P	P
7	620621114014	MUTHUKUMARAN R	P	P	P	P	P	P
8	620621114018	PANDIDURAI A	P	P	P	P	P	P
9	620621114019	PRASANTH K	P	P	P	P	P	P
10	620621114020	REMO S	P	P	P	P	P	P
11	620621114021	SARATHKUMAR M	P	P	P	P	P	P
12	620621114025	TAMIL K	P	P	P	P	P	P
13	620621114030	YUGENDRAN K	P	P	P	P	P	P
14	620621114302	KALAIVANAN P	P	P	P	P	P	P
15	620621114304	SILAMBARSAN S	P	P	P	P	P	P
16	620621114303	SETHUPATHI G	P	P	P	P	P	P
17	620620114001	BOOPALAN M	P	P	P	P	P	P
18	620620114003	ISRAVEL PRASANNA K	P	P	P	P	P	P
19	620620114004	JEEVA A	P	P	P	P	P	P
20	620620114005	KALAIVANAN G	P	P	P	P	P	P
21	620620114006	LOGANATHAN S	P	P	P	P	P	P
22	620620114007	MAHESWARAN V	P	P	P	P	P	P
23	620620114009	NAVEEN K	P	P	P	P	P	P
24	620620114012	RAMANA V	P	P	P	P	P	P
25	620620114013	SAKTHIVEL K	P	P	P	P	P	P
26	620620114016	SHARAN	P	P	P	P	P	P
27	620620114018	VELAN V	P	P	P	P	P	P
28	620620114019	VIGNESH T	P	P	P	P	P	P
29	620620114302	ARAVINTH M	P	P	P	P	P	P
30	620620114304	BALAJI J	P	P	P	P	P	P
31	620620114306	BHARATH J	P	P	P	P	P	P
32	620620114307	JEROSLINTONY A	P	P	P	P	P	P
33	620620114308	KABILAN K R	P	P	P	P	P	P
34	620620114309	KAVINRAJ P	P	P	P	P	P	P
35	620620114312	NANTHA KUMAR G	P	P	P	P	P	P
36	620620114314	NARESH K	P	P	P	P	P	P
37	620620114316	RAGHUL K	P	P	P	P	P	P
38	620620114317	RANJITH S	P	P	P	P	P	P
39	620620114318	SUBASH F	P	P	P	P	P	P
40	620620114321	YOGESHWARAN V	P	P	P	P	P	P
41	620620114501	TAMILARASAN MB	P	P	P	P	P	P
COURSE COORDINATOR			<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>

*N. S. Arumugam*  
HoD



*[Signature]*  
PRINCIPAL  
Ganesh College of Engineering,  
Attur Main Road, Mettupatti,  
SALEM-636 111



# GANESH COLLEGE OF ENGINEERING

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*Attur Main Road, Mettupatti, Salem District, Salem pin 636111.*

DEPARTMENT OF MECHANICAL ENGINEERING

## Certificate

This is to certify that Mr./Ms BALAJI .J (IV-YEAR) has successfully completed the course on "PDUC11401 - Product Design using Creo" offered by the Department of Mechanical Engineering, Certificate Course during the academic year 2023- 2024.

  
CO-ORDINATOR



  
PRINCIPAL



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*Attur Main Raod, Mettupatti, Salem District, Salem pin 636111.*

**DEPARTMENT OF MECHANICAL ENGINEERING**

## Certificate

This is to certify that Mr./Ms MANOJKUMAR .T (III-YEAR) has successfully completed the course on "PDUC11401 - Product Design using Creo" offered by the Department of Mechanical Engineering, Certificate Course during the academic year 2023- 2024.

  
CO-ORDINATOR



  
PRINCIPAL





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GEC/BME/2023-2024/CC4

DATE: 08/09/2023

## CIRCULAR

The BME Department has decided to conduct a certificate course on "Calibration of medical Equipment" the medical Concepts for third year students from 10/09/2023 to 22/10/2023 (All Sundays). Interested students have to enroll their name to the program coordinator P.Amuda Priya Dharshinee, AP/BME on or before 30.08.23.

Copy to:

1. Principal's Office
2. IQAC
3. Concerned Department Heads

PRINCIPAL

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SALEM-636 111





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## Syllabus

### MODULE-I

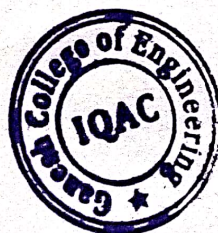
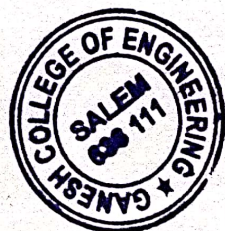
Generalized Instrumentation System-General properties of input transducer - Static Characteristics- Accuracy, Precision - Resolution-Reproducibility, Sensitivity, Drift, Hysteresis - Linearity, Input Impedance and Output Impedance. Dynamic Characteristics: First Order and Second Order Characteristics, Time Delay, Transfer Function – First and Second Order Systems.

### MODULE-II

Temperature transducers- thermo resistive transducers, thermoelectric, Displacement transducers - potentiometric, resistive strain gauges, inductive displacement, and capacitive displacement transducer. Pressure transducer-indirect method - measurement of blood pressure using sphygmomanometer - piezoelectric type - catheter tip transducers - measurement of intracranial pressure - catheter tip-implantable type - Optical Sensors.

### MODULE-III

Electrodes- Electrolyte Interface - Half Cell Potential - Polarization, Polarizable and Non Polarizable, Electrodes - Calomel Electrode - Electrode Circuit Model- Electrode Skin Interface and Motion Artifact - Body Surface Electrodes- Ion exchange membrane electrodes, oxygen electrodes, CO<sub>2</sub> electrodes enzyme electrode - ISFET for glucose - urea.





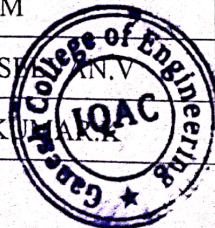
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## INTERNET OF THINGS CONCEPT COMPUTING

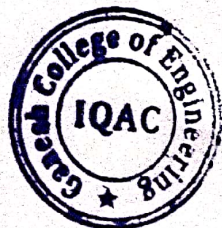
### CERTIFICATE COURSE; STUDENT PARTICIPATION LIST

S.No	Reg.Number	Name of the Students	Remarks
1	620621121003	AGALYA.K	Ic. Agalya
2	620621121005	ANITHA.A	A. Anitha
3	620621121006	ANUSUYA.S	S. Anusuya
4	620621121008	ARIVUMATHI.M	M. Arivumathi
5	620621121009	ARTHIR	R. Arithy
6	620621121010	BARATHKUMAR.T	T. Barathkumar
7	620621121011	BLESSY.S	Blessy S
8	620621121014	GOPIKA.B	B. Gopi
9	620621121015	GOPIKRISHNAN.E	Gopi Krishnan
10	620621121016	GOWRIA	Gowri
11	620621121018	JANANI.N	Janani
12	620621121021	KARTHIKEYAN.B.K	B.K. Karthikeyan
13	620621121023	KAVINILA S	Kavinila
14	620621121026	KOWSALYA.M	Kowsalya
15	620621121028	LAVANYA.S	Lavanya
16	620621121029	MAHALAKSHMI.R	Mahalakshmi
17	620621121032	NANDHINI.C	Nandhini C
18	620621121033	NAVEEN.P	Naveen
19	620621121034	NITHIYAPRIYA.D	Nithiyapriya
20	620621121035	PERUMAL.M	Perumal M
21	620621121036	PONMANI S	Ponmani
22	620621121037	PRAVEENK	Praveen



23	620621121038	PREMA RANI.P	Prema
24	620621121039	RAJESH.R	Rajesh
25	620621121042	SANDHIYA.K	Sandhya K.
26	620621121043	SANDHIYA.S	Sandhya S.
27	620621121044	SANGARANARAYANAN.B	Sangaranarayanan B.
28	620621121045	SANJAY.S	Sanjay S.
29	620621121046	SARADHAPRIYA.S	Saradha Priya S.
30	620621121048	SATHYA.R	Sathya R.
31	620621121049	SEVVANTHI.S	Sevanti S.
32	620621121050	SIVASAKTHI.S	Sivasakthi S.
33	620621121052	SURIYA.A.M	Suriya A.M.
34	620621121053	SURIYA.V	Suriya V.
35	620621121054	SWATHI.T	T. Swathi
36	620621121055	THAMARAISELVAN.G	Thamaraiselvan G.
37	620621121056	THOLKAPPIYAN.A	Tholkappiyon A.
38	620621121057	VAITHEESWARAN.P	Vaitheswaran P.
39	620621121058	VASUKI.M	Vasuki M.
40	620621121059	VINOTHA.A	Vinotha A.
41	620621121060	VINOTHINI.V	Vinoothini V.

  
Course Co-Ordinator



  
Principal

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## CCBME04- CALIBRATION OF MEDICAL EQUIPMENT

### FEEDBACK QUESTIONNAIRE

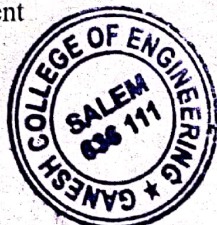
(PLEASE TICK THE APPROPRIATE ANSWER)

Name of the participant: AGALYA.K

Class: III-BME

1. Was the presentation clear and relevant to the topic?  
Yes/No \_\_\_\_\_
2. Was the session well organized?  
Yes/No \_\_\_\_\_
3. Was the course material provided sufficient and relevant?  
Yes/No \_\_\_\_\_
4. Was the expert member capable of delivering the contents clearly?  
Yes/No \_\_\_\_\_
5. Would you like to attend similar type of course again in the future?  
Yes/No \_\_\_\_\_

Comment



*H. Agalya*  
Signature of the participant





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**ACADEMIC YEAR 2023-2024 (EVEN SEM)**

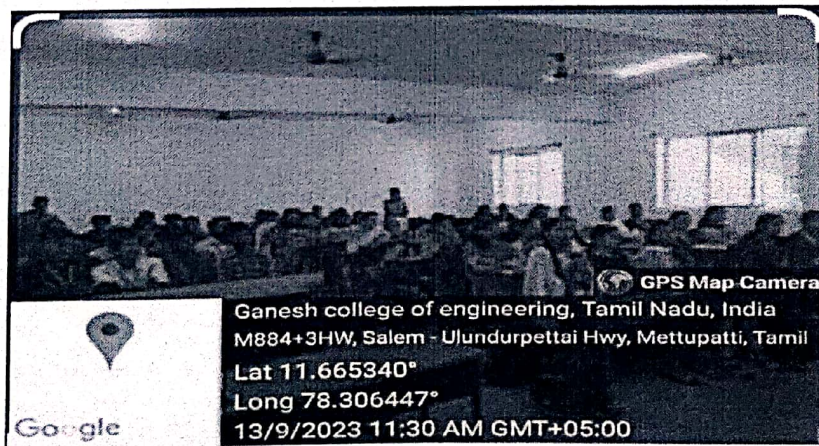
**CERTIFICATE COURSE**

**CCBME04- CALIBRATION OF MEDICAL EQUIPMENT**

**PROGRAM REPORT**

Resource Person: 1. Mr.M.Ezhumalai  
2. Mr.P.Selvam

The Department of Biomedical Engineering, Ganesh College of Engineering organized a certificate course on CCBME04- Calibration of medical equipment. The Course Commenced on 30.08.2023 and was Conducted during the weekends from 10/09/2023 to 22/10/2023 for the duration of 30 hours. P.Amuda Priya Dharshinee, Asst.Prof/BME initiated the course by giving a brief Introduction on Calibration of medical equipment concept. The course covered the medical equipment during the theoretical Sessions. During the Hands-on-sessions. Programming and medical coding communication. The course Assessment was conducted on 10.09.2023 in a MCQ pattern based on the topic covered. Around 41 students of ECE (UG) completed the course. The students were highly benefited by theoretical and practical aspects of the course. The students showed their interest in learning the course. The feedback on the course conducted was collected from the participants by M.Poontamilselvi AP/BME at the end of the Session.



*P. Selvam*  
Course Coordinator



*A. Keerthi*  
Head of the Department



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ACADEMIC YEAR 2023-2024 (EVEN SEM)

CERTIFICATE COURSE

CCBME04- CALIBRATION OF MEDICAL EQUIPMENT

PROGRAM OUTCOME

### Patient safety

Calibrating medical equipment ensures accurate readings from diagnostic instruments like X-ray machines, CT scanners, and MRI machines. This helps to reduce the risk of misdiagnosis, unnecessary or harmful treatments, and patient harm.

### Accurate readings


Calibration helps to ensure that the data collected by the device is accurate. For example, if a pH meter is not properly calibrated, it may give readings that are too high or too low.

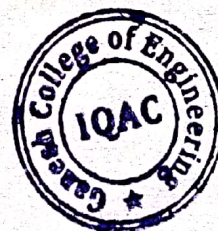
### Reliable results

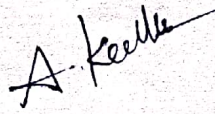
Proper calibration is the first step to producing reliable results and assuring good instrument performance.

### Other benefits

Avoiding sudden maintenance, replacements, and errors  
Economical use of raw materials without generating waste  
Showing everyone involved how to maintain accuracy throughout the stages of testing

  
Course Co-Ordinator



  
HOD

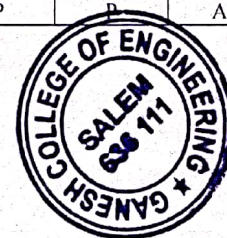


# GANESH COLLEGE OF ENGINEERING

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## CERTIFICATE COURSE – ACADEMIC YEAR 2023-2024 (EVEN SEM) CCBME04- CALIBRATION OF MEDICAL EQUIPMENT STUDENT ATTENDANCE PARTICULARS COURSE TIMING – 10 AM TO 4 PM

S.N O	REG.NO	NAME OF THE STUDENT	10.09.2023	17.09.2023	24.09.2023	1.10.2023	8.10.2023	15.10.2023	22.10.2024	Remarks
1	620621121003	AGALYA.K	P	AB	P	P	P	AB	P	
2	620621121005	ANITHA.A	P	P	P	P	AB	P	P	
3	620621121006	ANUSUYA.S	P	P	P	P	P	P	P	
4	620621121008	ARIVUMATHI.M	P	P	AB	P	P	P	P	
5	620621121009	ARTHI.R	P	P	P	AB	P	P	P	
6	620621121010	BARATHKUMAR.T	P	P	P	P	P	P	P	
7	620621121011	BLESSY.S	P	P	P	P	P	P	P	
8	620621121014	GOPIKA.B	P	P	P	P	AB	P	P	
9	620621121015	GOPIKRISHNAN.E	AB	AB	P	P	P	P	P	
10	620621121016	GOWRLA	P	P	P	P	P	P	P	
11	620621121018	JANANI.N	P	P	P	P	P	P	P	
12	620621121021	KARTHIKEYAN.B.K	P	P	P	P	P	P	P	
13	620621121023	KAVINILA.S	P	P	P	P	P	P	P	
14	620621121026	KOWSALYA.M	P	P	P	P	P	P	AB	
15	620621121028	LAVANYA.S	P	AB	P	AB	P	P	P	
16	620621121029	MAHALAKSHMI.R	P	P	P	P	P	P	P	
17	620621121032	NANDHINI.C	P	P	P	P	P	P	P	
18	620621121033	NAVEEN.P	P	P	P	P	P	P	P	
19	620621121034	NITHIYAPRIYA.D	AB	P	P	P	P	P	P	
20	620621121035	PERUMAL.M	P	P	P	P	P	P	P	
21	620621121036	PONMANI SELVAN.V	P	P	P	P	AB	P	P	
22	620621121037	PRAVEENKUMAR.K	P	P	P	P	P	P	P	
23	620621121038	PREMA RANI.P	P	P	P	P	P	P	P	
24	620621121039	RAJESH.R	P	AB	P	P	P	P	P	
25	620621121042	SANDHIYA.K	P	P	P	P	AB	P	P	
26	620621121043	SANDHIYA.S	P	P	P	P	P	P	P	
27	620621121044	SANGARANARAYA NAN.B	P	AB	P	P	P	P	P	
28	620621121045	SANJAY.S	P	P	AB	P	P	P	P	
29	620621121046	SARADHAPRIYA.S	P	P	P	P	P	P	P	
30	620621121048	SATHYA.R	P	AB	P	P	P	P	P	
31	620621121049	SEVVANTHILS	P	P	P	P	P	AB	P	





32	620621121050	SIVASAKTHI.S	P	P	P	P	P	P	P
33	620621121052	SURIYA.A.M	P	P	P	P	P	P	P
34	620621121053	SURIYA.V	P	P	AB	P	P	P	AB
35	620621121054	SWATHI.T	P	P	P	P	P	P	P
36	620621121055	THAMARASELVAN. G	P	P	P	P	AB	P	P
37	620621121056	THOLKAPPIYAN.A	P	P	P	P	P	P	P
38	620621121057	VAITHEESWARAN.P	AB	P	P	P	P	P	P
39	620621121058	VASUKI.M	P	P	AB	P	P	P	AB
40	620621121059	VINOTHA.A	P	P	P	P	P	P	P
41	620621121060	VINOTHINI.V	P	P	P	P	AB	P	P

*A. K. K. K.*  
HOD



*[Signature]*  
PRINCIPAL

**PRINCIPAL**  
Ganesh College of Engineering  
Attur Main Road, Mettupattinam



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GEC/BME/2023-2024/CC8

DATE: 08/02/2024

## CIRCULAR

The BME Department has decided to conduct a certificate course on "Biomedical instrumentation" medical Concepts the Second year students from 11/02/2024 to 31/03/2024 (All Sunday). Interested students have to enroll their name to the program coordinator Amuda Priya Dharshini, AP/BME on or before 08.01.2024.

Copy to:

1. Principal's Office
2. IQAC
3. Concerned Department Heads

  
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## Syllabus

### MODULE-I

Bio signals characteristics – Origin of bio potential and its propagation. Frequency and amplitude ranges. Electrode configurations: Electrode-electrolyte interface, electrode-skin interface impedance, polarization effects of electrode – non-polarizable electrodes. Unipolar and bipolar configuration-classification of electrodes.

### MODULE-II

Bio signals characteristics – ECG-frequency and amplitude ranges – Einthoven's triangle, standard 12 lead system. EEG - EEG – 10-20 electrode system, unipolar, bipolar and average mode. EMG– unipolar and bipolar mode. EMG - Electrode configuration - unipolar and bipolar mode.

### MODULE-III

Need for bio-amplifier - Differential bio-amplifier – Single ended amplifier - Band pass filtering, isolation amplifiers – transformer and optical isolation - isolated DC amplifier - and AC carrier amplifier-Chopper amplifier- Power line interference.





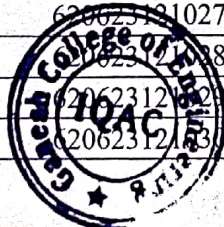
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## BIOMEDICAL INSTRUMENTATION

### CERTIFICATE COURSE; STUDENT PARTICIPATION LIST

S.NO	REGISTER NO	NAME LIST	SIGNATURE
1	620623121001	ABINAYA.M	Abinaya.
2	620623121002	BOOMIKA.B	Boomika.
3	620623121003	BRUNDHA.G	Brundha.
4	620623121004	CHAKRAVARTHI.K	Chakr.
5	620623121005	DEEPIKA.K	Deepika.
6	620623121006	DHARANI.S	S. Dhara.
7	620623121007	DHARSHINI.E	Dhars.
8	620623121009	DHIVAGAR.D	D. Dhivagar.
9	620623121010	ELAVARASI.E	E. Elavarasi.
10	620623121011	IYYAPPAN.P	Iyyappa.
11	620623121012	JANANI.P	Janani.
12	620623121013	JEEVA.M	Jeeva.
13	620623121014	JEEVITHA.P	Jeevitha.
14	620623121015	JEEVIYA.I	Jeeviya.
15	620623121016	KATHIR.K	Kathir.
16	620623121017	KIRUTHIGA.K	K. Kiruthiga.
17	620623121018	MAGESWARI.S	Mageswari.
18	620623121019	MANIRAJ.T	Maniraj.
19	620623121020	MANIVASAGAN.M	Manivasagan.
20	620623121021	MOHANAPRIYA.K	Mohanapriya.
21	620623121022	NANTHINI.K	Nanthini.
22	620623121023	NEHA.M	Neha.
23	620623121024	NITHEESH.R	Nitheesh.
24	620623121025	NITHISH.S	Nithish.
25	620623121026	RAJASEKAR.D	Rajasekar.
26	620623121027	RAMYA.H	Ramya.
27	620623121028	SANDHIYA.R	Sandhiya.
28	620623121029	SANTHOSH.M	Santhosh.
29	620623121030	SANTHOSH.V	Santhosh.



30	620623121031	SARAVANAN.M	<i>Saravanan</i>
31	620623121032	SHAKINA.V	<i>Shakina</i>
32	620623121033	SHARKESH.V	<i>Sharkesh</i>
33	620623121034	SIVA.N	<i>Siva.N</i>
34	620623121035	SIVARANJANI.D	<i>Sivaranjan</i>
35	620623121036	SOWMIYA.S	<i>A.S Sowmya</i>
36	620623121037	SUJITHRA.R	<i>Sujithra</i>
37	620623121038	SWETHA.P	<i>Swetha P</i>
38	620623121040	THIRUVALLARASU.P	<i>Thiruvallarasu P</i>
39	620623121041	UMA.P	<i>Uma P</i>
40	620623121042	VEDHACHALAM.M	<i>Vedhachalam</i>

Course Co-Ordinator



Principal

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## CCBME08- BIOMEDICAL INSTRUMENTATION

### FEEDBACK QUESTIONNAIRE

(PLEASE TICK THE APPROPRIATE ANSWER)

Name of the participant: ELAVARASIE

Class: II-BME

1. Was the presentation clear and relevant to the topic?  
 Yes/No
2. Was the session well organized?  
 Yes/No
3. Was the course material provided sufficient and relevant?  
 Yes/No
4. Was the expert member capable of delivering the contents clearly?  
 Yes/No
5. Would you like to attend similar type of course again in the future?  
 Yes/No

Comment \_\_\_\_\_

*E. Aravind*  
Signature of the participant





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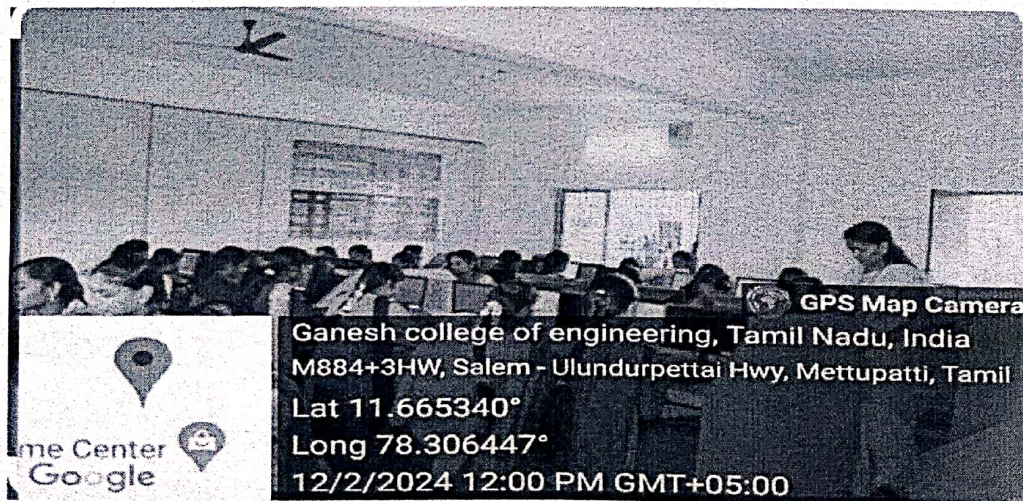
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## ACADEMIC YEAR 2023-2024 (ODD SEM) CERTIFICATE COURSE CCBME08- BIOMEDICAL INSTRUMENTATION PROGRAM REPORT

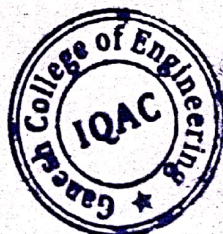
Resource Person: 1. Mr.M.Rahul  
2. Mr.P.Mouleeshwaran

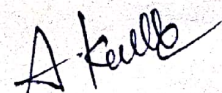
The Department of Biomedical Engineering, Ganesh College of Engineering organized a certificate course on CCBME07- Biomedical instrumentation. The Course Commenced on 08.02.2024 and was Conducted during the weekends from 11/02/2024 to 31/03/2024 for the duration of 30 hours. P.Amuda Priya Dharshinee, Asst.Prof/BME initiated the course by giving a brief Introduction on Biomedical instrumentation concept. The course covered the medical equipment during the theoretical Sessions. During the Hands-on-sessions. Programming and medical to medical coding communication.

The course Assessment was conducted on 11.02.2024 in a MCQ pattern based on the topic covered. Around 40 students of BME (UG) completed the course. The students were highly benefited by theoretical and practical aspects of the course. The students showed their interest in learning the course. The feedback on the course conducted was collected from the participants by M.Poontamilselvi AP/BME at the end of the Session.



  
Course Coordinator



  
Head of the Department



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**ACADEMIC YEAR 2023-2024 (ODD SEM)**

**CERTIFICATE COURSE**

**CCBME08- BIOMEDICAL INSTRUMENTATION**

**PROGRAM OUTCOME**

### **Physiology and transducers**


Cell and its structure, Resting and Action Potential, Nervous system: Functional organization of the nervous system, Structure of nervous system, neurons, synapse, transmitters and neural communication, Cardiovascular system, respiratory system, Basic components of a biomedical system, Transducers, selection criteria, Piezo-electric, ultrasonic transducers, Temperature, measurements - Fiber optic temperature sensors.

### **Medical Imaging**

Radiographic and fluoroscopic techniques, X rays, Computer tomography, Mammography, MRI, FMRI, Ultrasonography, Endoscopy, Thermograph, Different types of biotelemetry systems and patient monitoring.

### **Non-electrical parameter measurements**

Measurement of blood pressure, Cardiac output, Heart rate, Heart sound Pulmonary function measurements, Spirometer, Photo Plethysmography, Body Plethysmography, Blood Gas analyzers : pH of blood, measurement of blood pCO<sub>2</sub>, pO<sub>2</sub>, finger-tipoximeter, ESR, GSR, measurements, Standard HL7.

  
Course Co-Ordinator



  
HOD





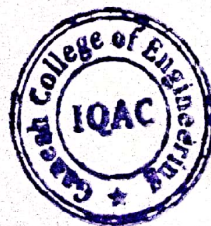


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## CERTIFICATE COURSE – ACADEMIC YEAR 2023-2024 (EVEN SEM) CCBME04- CALIBRATION OF MEDICAL EQUIPMENT STUDENT ATTENDANCE PARTICULARS COURSE TIMING – 10 AM TO 4 PM

S.N O	REG.NO	NAME OF THE STUDENT	10.09.2023	17.09.2023	24.09.2023	1.10.2023	8.10.2023	15.10.2023	22.10.2024	Remarks
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11	620621121018	JANANI.N	P	P	P	P	P	P	P	
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14	620621121026	KOWSALYA.M	P	P	P	P	P	P	AB	
15	620621121028	LAVANYA.S	P	AB	P	AB	P	P	P	
16	620621121029	MAHALAKSHMI.R	P	P	P	P	P	P	P	
17	620621121032	NANDHINI.C	P	P	P	P	P	P	P	
18	620621121033	NAVEEN.P	P	P	P	P	P	P	P	
19	620621121034	NITHIYAPRIYA.D	AB	P	P	P	P	P	P	
20	620621121035	PERUMAL.M	P	P	P	P	P	P	P	
21	620621121036	PONMANI SELVAN.V	P	P	P	P	AB	P	P	
22	620621121037	PRAVEENKUMAR.K	P	P	P	P	P	P	P	
23	620621121038	PREMA RANI.P	P	P	P	P	P	P	P	
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27	620621121044	SANGARANARAYA NAN.B	P	AB	P	P	P	P	P	
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30	620621121048	SATHYA.R	P	AB	P	P	P	P	P	
31	620621121049	SEVVANTHIS	P	P	P	P	P	AB	P	



32	620621121050	SIVASAKTHIS	P	P	P	P	P	P	P	
33	620621121052	SURIYA.A.M	P	P	P	P	P	P	P	
34	620621121053	SURIYA.V	P	P	AB	P	P	P	AB	
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37	620621121056	THOLKAPPIYAN.A	P	P	P	P	P	P	P	
38	620621121057	VAITHEESWARAN.P	AB	P	P	P	P	P	P	
39	620621121058	VASUKI.M	P	P	AB	P	P	P	AB	
40	620621121059	VINOTHA.A	P	P	P	P	P	P	P	
41	620621121060	VINOTHINI.V	P	P	P	P	AB	P	P	

*A. Keelbe*  
HOD



*[Signature]*  
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GCE/IT/STU/2023-2024/VAC01

Date: 22-09-2023

## CIRCULAR

The Department has decided to conduct a certificate Course program on “(BC20501-BLOCKCHAIN TECHNOLOGY)” For second year students from 08.10.2023 to 12.11.2023 on every Sundays. Interested students can enroll their name to the program coordinator (Mrs. N.Thenmozhi) on or before 29.09.2023.

  
PRINCIPAL

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3. Department File

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## SYLLABUS

### SYLLABUS OF THE CERTIFICATE COURSE

#### MODULE 1:

##### Overview of Blockchain

Introduction to Blockchain and its Origin, Blockchain is crucial and its objectives, Blockchain terminologies, databases and blockchain, Distributed Ledger, Blockchain ecosystem and structure, Working of blockchain, Types of blockchain.

#### MODULE 2:

##### Create & deploy your private Blockchain on MultiChain

Cryptography and Crypto-currency, Anonymity and Pseudonymity in cryptocurrencies

#### MODULE 3

##### Delving into Blockchain

The role and property of crypto, Terminology: Alice, Bob, Eve, encrypt, decrypt, cryptography, cryptanalysis, ROTx, substitution cipher, Symmetric encryption: DES, AES

#### MODULE 4

##### Hyperledger

Access policy, access control matrix, Oracle authentication: password, Kerberos, Oracle authorization: privileges, roles

#### MODULE 5

##### Prospects of Blockchain

Necessity of VPD, How to implement VPD, Problems of VPD, Launch SQL injection attacks, Countermeasures

#### MODULE 6:

##### Ethereum

Challenges in outsourced database, Merkle Hash Tree, Data confidentiality: relational encryption.

  
Program Coordinator

  
HOD





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ACADEMIC YEAR 2023-2024(EVEN SEM)

## COURSE SCHEDULE

### BC20501- BLOCKCHAIN TECHNOLOGY

Date / Hour	1	2	3	4	LUNCH BREAK	5	6
08-10-2023	Overview of Blockchain		Blockchain ecosystem and structure, Working of blockchain ,Types of blockchain.			Practical Session on BC	
15-10-2023	Create & deploy your private Blockchain on MultiChain		Cryptography and Crypto-currency,Anonymity and Pseudonymity in cryptocurrencies			Practical Session on BC	
22-10-2023	Delving into Blockchain		The role and property of crypto			Practical Session on BC	
29-10-2023	Hyperledger		Oracle authorization: privileges, roles			Practical Session on BC	
05-11-2023	Prospects of Blockchain		Launch SQL injection attacks, Countermeasures			Practical Session on BC	
12-11-2023	Ethereum		Data confidentiality: relational encryption			Practical Session on BC	

  
Program Coordinator

  
HOD





# GANESH COLLEGE OF ENGINEERING

(Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai)  
Attur Main Road, Mettupatti, Salem - 636 111, Tamilnadu, India  
Phone: 0427 - 2211212, +91 9865440414  
E-Mail: principal@ganeshenggcollege.org www.ganeshenggcollege.org

ACADEMIC YEAR – 2023-2024(EVEN SEM)

CERTIFICATION COURSE

BC20501- BLOCKCHAIN TECHNOLOGY

FEEDBACK QUESTIONNAIRE (PLEASE TICK THE APPROPRIATE ANSWER)

NAME OF THE PARTICIPANT: S. SACHIN

CLASS: II YEAR

1. Was the presentation clear and relevant to the topic?

Yes/No

2. Was the session well organized?

Yes/.No

3. Was the course material provided sufficient and relevant?

Yes/No

4. Was the expert member capable of delivering the contents clearly?

Yes/No

5. Would you like to attend similar type of course again in the future?

Yes/No

Comments:

very usefull course.

Signature of the Participant





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**ACADEMIC YEAR 2023-2024 (EVEN SEM)**

**BC20501- BLOCKCHAIN TECHNOLOGY**

## COURSE OUTCOME

- Describe the basic concepts and technology used for blockchain.
- Describe the primitives of the distributed computing and cryptography related to blockchain. Illustrate the concepts of Bitcoin and their usage.
- Implement Ethereum block chain contract.
- Apply security features in blockchain technologies.
- Use smart contract in real world applications.

  
Program Coordinator

  
HOD





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## ACADEMIC YEAR 2023-2024 (EVEN SEM)

### BC20501- BLOCKCHAIN TECHNOLOGY

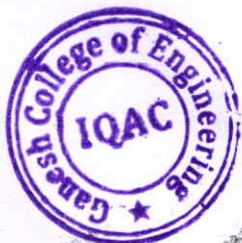
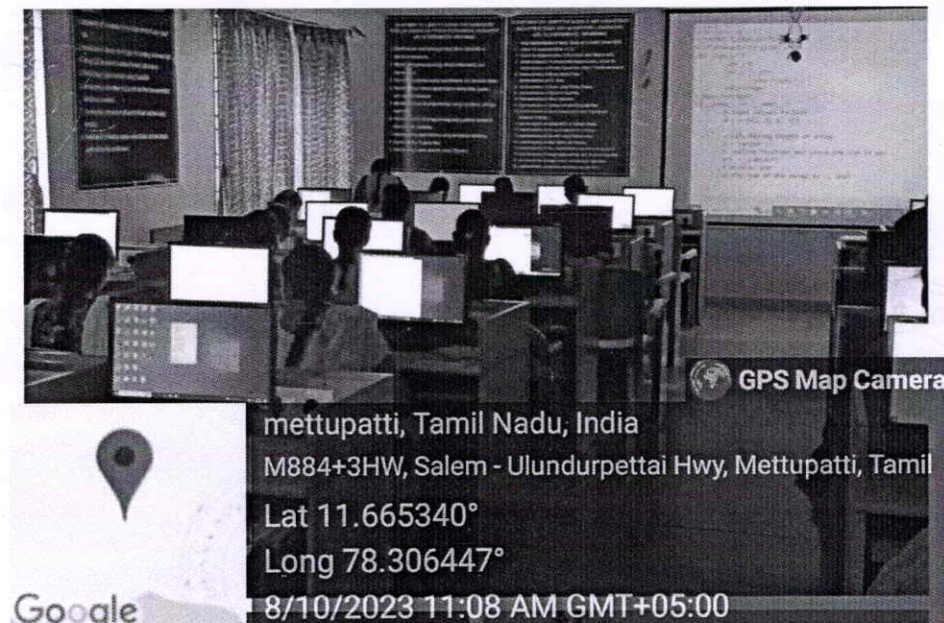
#### PROGRAM REPORT

The Department of Information Technology, Ganesh College of Engineering organized a Certificate Course on "BC20501- BLOCKCHAIN TECHNOLOGY" The Course was inaugurated on 08.10.2023 10.00 am. Mr.C.SILAMBARASAN, Head, Dept of IT delivered the welcome address. It was conducted during the weekends from 08.10.2023 to 12.11.2023 for the duration of 35 hours.

Mr. P.Tamilarasan, started with introduction about Blockchain Technology on 08.10.2023. The course Assessment was carried out on 12.11.2023 (AN) which consists of 25 questions about the topic, discussed. Around 46 students of Second Year IT successfully completed the course. The students were appreciated with the course completion certificate.

The feedback was collected from the participants. Mr.C.SILAMBARASAN, HOD, Dept of IT delivered the vote of thanks at the end of the session.

The students are excited in doing Blockchain Technology after the successful completion of this course.



*R. Arindya*  
Program Coordinator



*[Signature]*  
HOD





Learn. Rise. Excel

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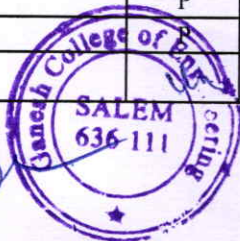
CERTIFICATE COURSE - ACADEMIC YEAR - 2023-2024(EVEN SEM)

BC20501- BLOCKCHAIN TECHNOLOGY  
STUDENT ATTENDANCE PARTICULARS

S.NO	REG. NUMBER	NAME OF THE STUDENT	8.10.2023	15.10.2023	22.10.2023	29.10.2023	5.11.2023	12.11.2023	Remarks
1	620622205001	AARTHI R	P	P	P	P	P	P	
2	620622205002	ALEX V	P	P	P	P	P	P	
3	620622205004	ARUN PRASATH A	P	AB	P	P	AB	P	
4	620622205005	ATHISIVAN C	P	P	P	P	P	P	
5	620622205006	CHATHRAPATHI T	P	P	P	P	P	P	
6	620622205007	DEEPIKA K	P	P	P	P	P	P	
7	620622205008	DEVAKUMAR S	P	P	P	P	P	P	
8	620622205009	DHANUSH V	P	P	P	AB	P	P	
9	620622205010	DHANUSHRAJ K	P	P	P	P	P	P	
10	620622205012	ELAKKIA E	P	P	P	P	P	P	
11	620622205014	GOKULRAJ V	P	P	P	P	P	P	
12	620622205015	GOPINATH B	P	P	P	P	P	P	
13	620622205016	GUNAL R	P	P	P	P	P	P	
14	620622205017	JAGATHEESH A	P	P	P	P	P	P	
15	620622205018	KARTHICK N	P	P	P	P	P	P	
16	620622205020	LAVANYA D	P	P	P	P	P	P	
17	620622205021	LINGESH V	P	P	P	P	P	P	
18	620622205022	MAHALAKSHMI K	P	AB	P	P	AB	P	
19	620622205023	MANIKANDAN M	P	P	P	P	P	P	
20	620622205024	MANOKARAN K	P	P	P	P	P	P	
21	620622205025	MANUSHVINI S	P	P	P	P	P	P	
22	620622205027	NISHA U	P	P	P	P	P	P	
23	620622205028	NITHISHA B	P	P	P	P	P	P	
24	620622205029	PACHAYAPPAN M	P	P	AB	P	AB	P	
25	620622205030	PRADEEP B	P	P	P	P	P	P	
26	620622205031	PRAVIN A	P	P	P	P	P	P	
27	620622205032	PREETHI AK	P	P	P	P	P	P	
28	620622205033	PURUSHOTHAMAN S	P	P	P	P	P	P	
29	620622205034	RADHAKRISHNAN N	P	AB	P	P	P	P	
30	620622205035	RAGUL SV	P	P	P	P	P	P	
31	620622205037	RAMKUMAR M	P	P	P	P	P	P	
32	620622205039	SABARISH B	P	P	P	P	P	P	
33	620622205040	SACHIN S	P	P	P	P	P	P	
34	620622205041	SAKTHIVEL E	P	P	P	P	AB	P	
35	620622205042	SANGARESHWARAN K	P	P	P	P	P	P	
36	620622205043	SANJAY K	P	P	P	P	P	P	
37	620622205045	SARMILA P	P	P	P	P	P	P	
38	620622205046	SIVA S	P	P	P	P	P	P	
39	620622205048	SIVAGURU S	P	P	P	P	P	P	
40	620622205049	SRIRAM T	P	AB	P	P	P	P	
41	620622205050	THAMILSELVAN T	P	P	P	P	P	P	
42	620622205053	VIGNESH K	P	P	P	P	P	P	
43	620622205054	VIJAY V	P	P	P	P	P	AB	
44	620622205055	VINOSRI R	P	P	P	P	P	P	
45	620622205056	VINOTHINI R	P	P	P	P	P	P	
46	620622205701	MUTHUVEL	P	P	P	P	P	P	
COURSE COORDINATOR									



HOD



PRINCIPAL  
Ganesh College of Engineering,  
Attur Main Road, Mettupatti,  
SALEM-636 111.



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## CERTIFICATE COURSE - ACADEMIC YEAR - 2023-2024 BC20501- BLOCKCHAIN TECHNOLOGY STUDENTS PARTIPATION LIST

S.NO	REG. NUMBER	NAME OF THE STUDENT	SIGNATURE
1	620622205001	AARTHI R	Aarthi.R
2	620622205002	ALEX V	Alex
3	620622205004	ARUN PRASATH A	Arun. Prasath.A
4	620622205005	ATHISIVAN C	Athisivan.C
5	620622205006	CHATHRAPATHI T	Chathrapathi.T
6	620622205007	DEEPIKA K	Deepika.K
7	620622205008	DEVAKUMAR S	Devakumar.S
8	620622205009	DHANUSH V	Dhanush
9	620622205010	DHANUSHRAJ K	Dhanushraj.K
10	620622205012	ELAKKIA E	Elakkia.E
11	620622205014	GOKULRAJ V	Gokulraj
12	620622205015	GOPINATH B	Gopinath.B
13	620622205016	GUNAL R	Gunal.R
14	620622205017	JAGATHEESH A	Jagatheesh.A
15	620622205018	KARTHICK N	Karthick
16	620622205020	LAVANYA D	Lavanya.D
17	620622205021	LINGESH V	Lingesht.V
18	620622205022	MAHALAKSHMI K	Mahalakshmi.K
19	620622205023	MANIKANDAN M	Manikandan.M
20	620622205024	MANOKARAN K	Manokaran.K
21	620622205025	MANUSHVINI S	Manushvini.S
22	620622205027	NISHA U	Nisha.U
23	620622205028	NITHISHA B	Nithisha
24	620622205029	PACHAYAPPAN M	Pachayappan.M
25	620622205030	PRADEEP B	Pradeep



26	620622205031	PRAVIN A	Pravin A
27	620622205032	PREETHI AK	Preethi AK
28	620622205033	PURUSHOTHAMAN S	Purushothaman S
29	620622205034	RADHAKRISHNAN N	Radhakrishnan N
30	620622205035	RAGUL SV	Ragul SV
31	620622205037	RAMKUMAR M	Ramkumar M
32	620622205039	SABARISH B	Sabarish B
33	620622205040	SACHIN S	Sachin S
34	620622205041	SAKTHIVEL E	Sakthivel E
35	620622205042	SANGARESHWARAN K	Sangareshwaran K
36	620622205043	SANJAY K	Sanjay K
37	620622205045	SARMILA P	Sarmila P
38	620622205046	SIVA S	Siva S
39	620622205048	SIVAGURU S	Sivaguru S
40	620622205049	SRIRAM T	Sriram T
41	620622205050	THAMILSELVAN T	Thamilselvan T
42	620622205053	VIGNESH K	Vignesh K
43	620622205054	VIJAY V	Vijay V
44	620622205055	VINOSRI R	Vinosri R
45	620622205056	VINOTHINI R	Vinothini R
46	620622205701	MUTHUVEL	Muthuvel

  
HOD

  
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GCE/IT/STU/2023-2024/VAC02

Date: 13-02-2024

## CIRCULAR

The Department has decided to conduct a certificate Course program on “(IOT20502-INTERNET OF THINGS)” For second year students from 03.03.2024 to 07.04.2024 on every Sundays. Interested students can enroll their name to the program coordinator R. Thivyabharadhi on or before 24.02.2024.

  
PRINCIPAL

### Copy to:

1. Principal's office
2. IQAC
3. Department File

**PRINCIPAL**  
Ganesh College of Engineering,  
Attur Main Road, Mettupatti,  
SALEM-636 111.





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## SYLLABUS

### SYLLABUS OF THE CERTIFICATE COURSE

#### MODULE 1:

##### **IOT Introduction**

IOT enabling technologies, IOT Architecture, Major component of IOT. IOT communication and networking protocols, Role of wired and wireless communication.

#### MODULE 2:

##### **IOT Security**

Attack, Defense, and Network Robustness of Internet of Things, Malware Propagation and Control in Internet of Things, Privacy Preservation Data Dissemination

#### MODULE 3

##### **IOT Data Acquisition & Platforms**

MicroControllers (Arduino uno/mega2560, Raspberry-Pi, ARM), Real-time systems and embedded software, OS and Drivers (End Device Program)

#### MODULE 4

##### **IOT Data Communication**

IEEE 802.15.4, IEEE 802.15.4e, 802.11ah, Relay Access Point (AP), Grouping of station, Target Wake Time (TWT)

#### MODULE 5

##### **IOT Data Storage & Retrieval**

Overview and Role of Storage in Cloud / Server / Inhouse Storage. Databases Connectivity with IOT and uses.

#### MODULE 6:

##### **IOT Data Analytics & Visualization**

Analysis Of data using python Module, Visualization and interpretation of Data, Data Cleaning in IOT

  
Program Coordinator

  
HOD





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ACADEMIC YEAR 2023-2024

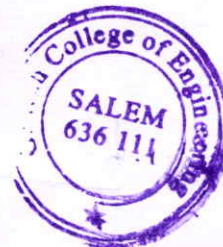
COURSE SCHEDULE

IOT20502- INTERNET OF THINGS

Date / Hour	1	2	3	4	LUNCH BREAK	5	6
03-03-2024	IOT Introduction		IOT Architecture, Major component of IOT			Practical Session on IOT	
10-03-2024	IOT Security		Attack, Defense, and Network Robustness of Internet of Things			Practical Session on IOT	
17-03-2024	IOT Data Acquisition & Platforms		Real-time systems and embedded software			Practical Session on IOT	
24-03-2024	IOT Data Communication		IEEE 802.15.4, IEEE 802.15.4e, 802.11ah, Relay Access Point (AP)			Practical Session on IOT	
31-03-2024	IOT Data Storage & Retrieval		Overview and Role of Storage in Cloud / Server /Inhouse Storage			Practical Session on IOT	
07-04-2024	IOT Data Analytics & Visualization		Visualization and interpretation of Data			Practical Session on IOT	

  
Program Coordinator

  
HOD





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ACADEMIC YEAR – 2023-2024(ODD SEM)

CERTIFICATION COURSE

IOT20502- INTERNET OF THINGS

FEEDBACK QUESTIONNAIRE (PLEASE TICK THE APPROPRIATE ANSWER)

NAME OF THE PARTICIPANT: *K. Sanganeshwaran* CLASS: *II<sup>nd</sup> Year*

1. Was the presentation clear and relevant to the topic?

Yes/No

2. Was the session well organized?

Yes/.No

3. Was the course material provided sufficient and relevant?

Yes/No

4. Was the expert member capable of delivering the contents clearly?

Yes/No

5. Would you like to attend similar type of course again in the future?

Yes/No

Comments:

*Nil*

*K. Sanganeshwaran*  
Signature of the Participant





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## ACADEMIC YEAR 2023-2024 (ODD SEM)

### IOT20502- INTERNET OF THINGS

#### PROGRAM REPORT

The Department of Information Technology, Ganesh College of Engineering organized a Certificate Course on “IOT20502- INTERNET OF THINGS” The Course was inaugurated on 03.03.2024 10.00 am. Mr.C. Silambarasan, Head, Dept of IT delivered the welcome address. It was conducted during the weekends from 03.03.2024 to 07.04.2024 for the duration of 35 hours.

Mr. P.Meganathan, started with introduction about Internet of Things on 03.03.2024. The course Assessment was carried out on 07.04.2024 (AN) which consists of 25 questions about the topic, discussed. Around 46 students of Second Year IT successfully completed the course. The students were appreciated with the course completion certificate.

The feedback was collected from the participants. Mr.C.Silambarasan, HOD, Dept of IT delivered the vote of thanks at the end of the session.

The students are excited in doing Internet of Things after the successful completion of this course.



*B. Thiruv*  
Program Coordinator



*[Signature]*  
HOD





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**ACADEMIC YEAR 2023-2024 (ODD SEM)**

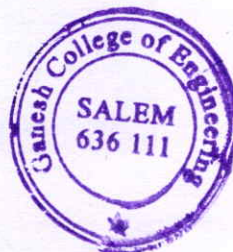
**IOT20502- INTERNET OF THINGS**

## **COURSE OUTCOME**

- Impact and challenges posed by IoT networks leading to new architectural models.
- The smart objects and the technologies to connect them to network.
- Application protocols for IoT.
- Role of Data Analytics and Security in IoT.
- Sensor technologies for sensing real world entities
- The basic technologies of IoT for developing innovative applications.
- Assess the genesis and impact of IoT applications, architectures in real world.
- Diverse methods of deploying smart objects and connect them to network.

  
**Program Coordinator**

  
**HOD**





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## CERTIFICATE COURSE - ACADEMIC YEAR - 2023-2024(EVEN SEM) IOT20502 - INTERNET OF THINGS

### STUDENT ATTENDANCE PARTICULARS

S.N O	REG. NUMBER	NAME OF THE STUDENT	03.03.2024	10.03.2024	17.03.2024	24.03.2024	31.03.2024	07.04.2024	Remarks
1	620622205001	AARTHI R	P	P	P	P	P	P	
2	620622205002	ALEX V	P	P	P	AB	P	P	
3	620622205004	ARUN PRASATH A	P	P	P	P	P	P	
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29	620622205034	RADHAKRISHNAN N	P	P	P	P	P	P	
30	620622205035	RAGUL SV	P	P	P	P	P	P	
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32	620622205039	SABARISH B	P	P	P	P	P	P	
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46	620622205701	MUTHUVEL	P	P	P	P	P	P	
COURSE COORDINATOR									



*[Signature]*  
HOD



*[Signature]*  
PRINCIPAL

**PRINCIPAL**  
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 Attur Main Road, Mettupatti,  
 SALEM-636 111.

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26	620622205031	PRAVIN A	Pravin A
27	620622205032	PREETHI AK	AK Preethi
28	620622205033	PURUSHOTHAMAN S	Purus
29	620622205034	RADHAKRISHNAN N	Radhakrishnan
30	620622205035	RAGUL SV	SV Ragul
31	620622205037	RAMKUMAR M	Ram
32	620622205039	SABARISH B	Sabarish
33	620622205040	SACHIN S	Sachin
34	620622205041	SAKTHIVEL E	Sakthivel
35	620622205042	SANGARESHWARAN K	Sangareshan
36	620622205043	SANJAY K	Sanjay
37	620622205045	SARMILA P	P. Sarmila
38	620622205046	SIVA S	Siva
39	620622205048	SIVAGURU S	Sivaguru
40	620622205049	SRIRAM T	J. SRIRAM
41	620622205050	THAMILSELVAN T	Thamilselvan
42	620622205053	VIGNESH K	Vignesh
43	620622205054	VIJAY V	Vijay
44	620622205055	VINOSRI R	Vinosri
45	620622205056	VINOTHINI R	Vinoti
46	620622205701	MUTHUVEL	Muthuvel

*P. Anitha*  
Course Coordinator

*[Signature]*  
Principal



**PRINCIPAL**  
Ganesh College of Engineering,  
Attur Main Road, Mettupatti  
SALEM-636 111.



# GANESH COLLEGE OF ENGINEERING

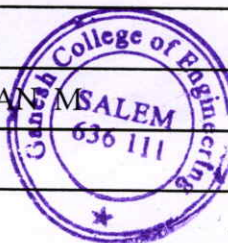
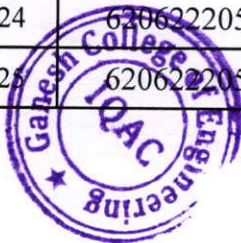
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Phone: 0427 - 2211212, +91 9865440414  
E-Mail: principal@ganeshenggcollege.org www.ganeshenggcollege.org

CERTIFICATE COURSE - ACADEMIC YEAR - 2023-2024

IOT20502 - INTERNET OF THINGS

STUDENTS PARTIPATION LIST

S.NO	REG. NUMBER	NAME OF THE STUDENT	SIGNATURE
1	620622205001	AARTHI R	
2	620622205002	ALEX V	
3	620622205004	ARUN PRASATH A	
4	620622205005	ATHISIVAN C	
5	620622205006	CHATHRAPATHI T	
6	620622205007	DEEPIKA K	
7	620622205008	DEVAKUMAR S	
8	620622205009	DHANUSH V	
9	620622205010	DHANUSHRAJ K	
10	620622205012	ELAKKIA E	
11	620622205014	GOKULRAJ V	
12	620622205015	GOPINATH B	
13	620622205016	GUNAL R	
14	620622205017	JAGATHEESH A	
15	620622205018	KARTHICK N	
16	620622205020	LAVANYA D	
17	620622205021	LINGESH V	
18	620622205022	MAHALAKSHMI K	
19	620622205023	MANIKANDAN M	
20	620622205024	MANOKARAN K	
21	620622205025	MANUSHVINI S	
22	620622205027	NISHA U	
23	620622205028	NITHISHA B	
24	620622205029	PACHAYAPPAN M SALEM	
25	620622205030	PRADEEP B	





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E-Mail: principal@ganeshenggcollege.org www.ganeshenggcollege.org

GCE/AI&DS/2023-2024/ML01AI

Date: 23-02-2024

## CIRCULAR

The Department has decided to conduct a certificate Course program on “(ML01AI–MACHINE LEARNING WITH AI APPLICATIONS)” For Secondyear students from 10/3/2024 to 14/04/2024 on every Sundays. Interested students can enroll their name to the program coordinator (Mrs.V.SOWMIYA, AP) on or before 27.02.2024.



HOD

### Copy to:

1. Principal's office
2. IQAC
3. Department File





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## SYLLABUS

### SYLLABUS OF THE CERTIFICATE COURSE

#### MODULE 1:

##### **Social Media Features:**

Social media platforms use machine learning algorithms and approaches to create some attractive and excellent features. For instance, Facebook notices and records.

#### MODULE 2:

##### **Product Recommendations:**

Product recommendation is one of the most popular and known applications of machine learning. Product recommendation is one of the stark features of almost every e-commerce website today, which is an advanced application of machine learning.

#### MODULE 3:

##### **Image Recognition:**

Image recognition, which is an approach for cataloging and detecting a feature or an object in the digital image, is one of the most significant and notable machine learning and AI techniques.

#### MODULE 4:

##### **Sentiment Analysis:**

Sentiment analysis is one of the most necessary applications of machine learning. AI is a real-time machine learning application that determines the emotion or opinion of the speaker or the write.

#### MODULE 5:

##### **Automating Employee Access Control:**

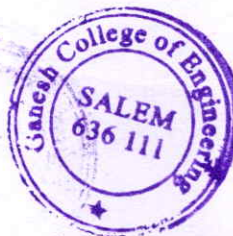
Organizations are actively implementing machine learning algorithms to determine the level of access employees would need in various areas, depending on their job profiles.

#### MODULE 6:

##### **Regulating Healthcare Efficiency and Medical Services:**

Significant healthcare sectors are actively looking at using machine learning algorithms to manage better. They predict the waiting times of patients in the emergency waiting rooms across various departments of hospitals.

  
Program Coordinator



  
HOD





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ACADEMIC YEAR 2023-2024

## COURSE SCHEDULE

### ML01AI-MACHINE LEARNING WITH AI APPLICATIONS

Date / Hour	1	2	3	4	LUNCH BREAK	5	6
10-03-2024	Social Media Features		Machine learning algorithms and approaches			Practical Session on ML	
17-03-2024	Product Recommendations		E-commerce website today, which is an advanced application of machine learning			Practical Session on ML	
24-03-2024	Image Recognition		Machine learning and AI techniques.			Practical Session on ML	
31-03-2024	Sentiment Analysis		Emotion or opinion of the speaker or the write.			Practical Session on ML	
07-04-2024	Automating Employee Access Control		Implementing machine learning algorithms			Practical Session on ML	
14-04-2024	Regulating Healthcare Efficiency and Medical Services		Emergency waiting rooms across various departments of hospitals.			Practical Session on ML	

  
Program Coordinator

  
HOD







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ACADEMIC YEAR – 2023-2024(ODD SEM)

CERTIFICATION COURSE

ML01AI-MACHINE LEARNING WITH AI APPLICATIONS

FEEDBACK QUESTIONNAIRE (PLEASE TICK THE APPROPRIATE ANSWER)

NAME OF THE PARTICIPANT: AKALYA-K

CLASS: II YEAR

1. Was the presentation clear and relevant to the topic?

Yes/No

2. Was the session well organized?

Yes/.No

3. Was the course material provided sufficient and relevant?

Yes/No

4. Was the expert member capable of delivering the contents clearly?

Yes/No

5. Would you like to attend similar type of course again in the future?

Yes/No

Comments:

NIL

*Akalya.k.*

Signature of the Participant





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**ACADEMIC YEAR 2023-2024(EVEN SEM)**

**ML01AI-MACHINE LEARNING WITH AI APPLICATIONS**

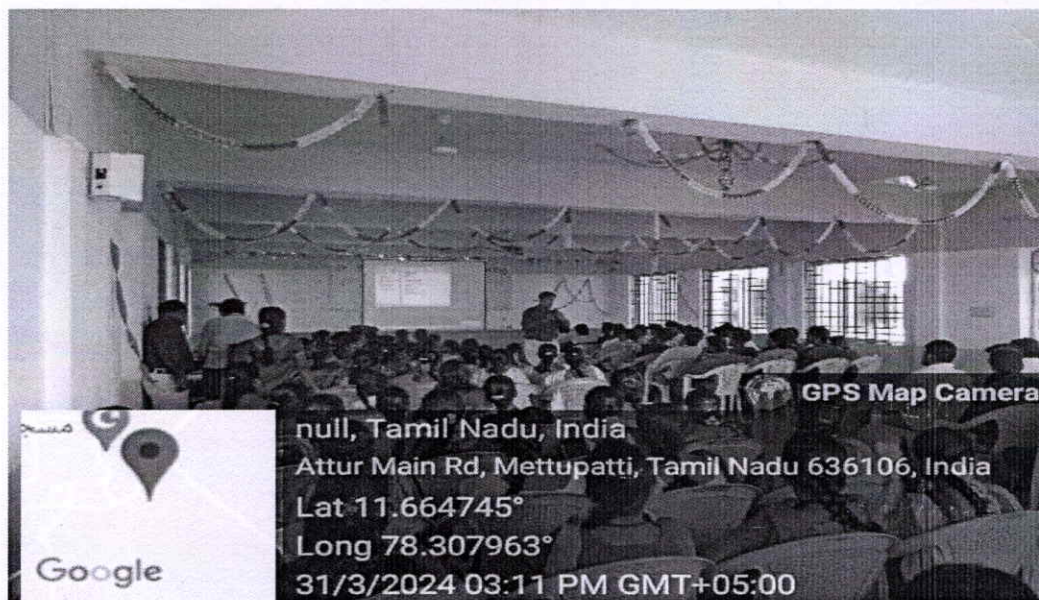
## PROGRAM REPORT

The Department of Computer Science and Engineering, Ganesh College of Engineering organized a Certificate Course on “ML01AI-MACHINE LEARNING WITH AI APPLICATIONS” The Course was inaugurated on 10.03.2024 10.00am. Mrs.D.Latha, Head, Dept of AI&DS delivered the welcome address. It was conducted during the weekends from 10.03.2024 to 14.04.2024 for the duration of 35 hours.

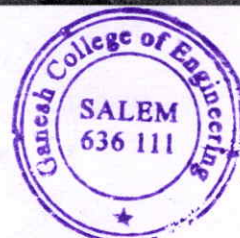
Mr.A.Aruna, started with introduction about Machine Learning with AI Applications on 10.03.2024. The course Assessment was carried out on 21.04.2024(AN) which consists of 25 questions about the topic, discussed. Around 36 students of Second Year AI&DS successfully completed the course. The students were appreciated with the course completion certificate.

The feedback was collected from the participants. Mrs.D.Latha, HOD, Dept of AI&DS delivered the vote of thanks at the end of the session.

The students are excited in doing Machine Learning with AI Applications after the successful completion of this course.



  
Program Coordinator



  
HOD



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**ACADEMIC YEAR 2023-2024(ODD SEM)**

**ML01AI-MACHINE LEARNING WITH AI APPLICATIONS**

## **COURSE OUTCOMES**

**Financial services.** Risk assessment, algorithmic trading, customer service and personalized banking are areas where financial services companies apply machine learning. Capital One, for example, deployed ML for credit card defense, which the company places in the broader category of anomaly detection.

**Pharmaceuticals.** Drug makers use ML for drug discovery, in clinical trials and in drug manufacturing. Eli Lilly has built AI and ML models, for example, to find the best sites for clinical trials and boost the diversity of participants. The models have sharply reduced clinical trial timelines, according to the company.

**Manufacturing.** Predictive maintenance use cases are prevalent in the manufacturing industry, where an equipment breakdown can lead to expensive production delays. In addition, the computer vision aspect of machine learning can inspect items coming off a production line to ensure quality control.

**Insurance.** Recommendation engines can suggest options for clients based on their needs and how other customers have benefited from specific insurance products. Machine learning is also useful in underwriting and claims processing.

**Retail.** In addition to recommendation systems, retailers use computer vision for personalization, inventory management and planning the styles and colors of a given fashion line. Demand forecasting is another key use case.

  
**Program Coordinator**

  
**HOD**





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## CERTIFICATE COURSE - ACADEMIC YEAR - 2023-2024(ODD SEM) ML01AI-MACHINE LEARNING WITH AI APPLICATIONS STUDENT ATTENDANCE PARTICULARS

S.NO	REG. NUMBER	NAME OF THE STUDENT	10.03.2024	17.03.2024	24.03.2024	31.03.2024	07.04.2024	14.04.2024	REMARKS
1	620622243001	AAKASH P R	P	P	P	P	P	P	
2	620622243002	ABHISHEKH PRASANNA M	P	P	P	P	P	P	
3	620622243003	AJITH P	P	AB	P	P	AB	P	
4	620622243004	AKALYA K	P	P	P	P	P	P	
5	620622243005	AMSAVALLI A	P	P	P	P	P	P	
6	620622243006	ANJALI R	P	P	P	P	P	P	
7	620622243007	ARAVINTH KUMAR M	P	P	P	P	P	P	
8	620622243008	ARJUN Y	P	P	P	AB	P	P	
9	620622243009	DHARANIDHARAN K	P	P	P	P	P	P	
10	620622243010	GAYATHRI S	P	P	P	P	P	P	
11	620622243011	GOKUL B	P	P	P	P	P	P	
12	620622243012	GOKULMANIKKAM P	P	P	P	P	P	P	
13	620622243013	GOPIKA A	P	P	P	P	P	P	
14	620622243014	GOPIKA S	P	P	P	P	P	P	
15	620622243015	GOPINATH R	P	P	P	P	P	P	
16	620622243016	GOWRI SHANKAR M	P	P	P	P	P	P	
17	620622243017	HARI M	P	P	P	P	P	P	
18	620622243018	HEMANTH T	P	AB	P	P	AB	P	
19	620622243019	JAGADEESH S	P	P	P	P	P	P	
20	620622243021	KARTHICK A K	P	P	P	P	P	P	
21	620622243022	KIRUTHIGA M	P	P	P	P	P	P	
22	620622243023	MAHALAKSHMI S	P	P	P	P	P	P	
23	620622243024	MANIKANDAN M	P	P	P	P	P	P	
24	620622243025	MANIKANDAN N	P	P	AB	P	AB	P	
25	620622243026	MUGANESHWARAN K	P	P	P	P	P	P	
26	620622243027	MUKESH RAJ M	P	P	P	P	P	P	
27	620622243028	NANDHINI Y	P	P	P	P	P	P	
28	620622243029	NISHANTH S	P	P	P	P	P	P	
29	620622243030	PARTHASARATHY A R	P	AB	P	P	P	P	
30	620622243031	RAGAVAN S	P	P	P	P	P	P	
31	620622243032	RAJENDHIRAN S	P	P	P	P	P	P	
32	620622243033	RAMESH K	P	P	P	P	P	P	
33	620622243034	SANDHIYA D	P	P	P	P	P	P	
34	620622243035	SANJAY M	P	P	P	P	AB	P	
35	620622243037	SATHISHKUMAR G	P	P	P	P	P	P	
36	620622243038	SHANMUGAPRIYA S	P	P	P	P	P	P	
COURSE COORDINATOR									

  
HOD

  
PRINCIPAL

**PRINCIPAL**  
Ganesh College of Engineering,  
Attur Main Road, Mettupatti





Learn. Rise. Excel

# GANESH COLLEGE OF ENGINEERING

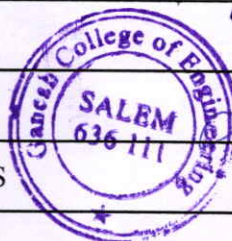
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CERTIFICATE COURSE - ACADEMIC YEAR - 2023-2024

ML01AI-MACHINE LEARNING WITH AI APPLICATIONS

STUDENTS PARTIPATION LIST

S.NO	REG. NUMBER	NAME OF THE STUDENT	SIGNATURE
1	620622243001	AAKASH P R	Aakash
2	620622243002	ABHISHEKH PRASANNA M	M. Abhishek
3	620622243003	AJITH P	Ajith
4	620622243004	AKALYA K	K. Akalya
5	620622243005	AMSAVALLI A	Amsavalli. A
6	620622243006	ANJALI R	Anjali. R
7	620622243007	ARAVINTH KUMAR M	M. Aravinth
8	620622243008	ARJUN Y	Arjun. Y
9	620622243009	DHARANIDHARAN K	Dharanidharan. K
10	620622243010	GAYATHRI S	Gayathri
11	620622243011	GOKUL B	Gokul. B
12	620622243012	GOKULMANIKKAM P	Gokulmanikan
13	620622243013	GOPIKA A	Gopika. A
14	620622243014	GOPIKA S	Gopika
15	620622243015	GOPINATH R	Gopinath. R
16	620622243016	GOWRI SHANKAR M	Gowrisan. M
17	620622243017	HARI M	Hari. M
18	620622243018	HEMANTH T	Hemant
19	620622243019	JAGADEESH S	Jagadeesh. S
20	620622243021	KARTHICK A K	Karthick. A. K
21	620622243022	KIRUTHIGA M	Kiruthiga
22	620622243023	MAHALAKSHMI S	Maah. S

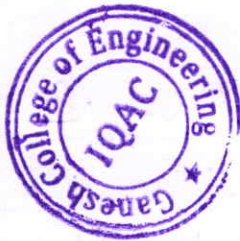


23	620622243024	MANIKANDAN M	Manikandan M
24	620622243025	MANIKANDAN N	Manikandan N
25	620622243026	MUGANESHWARAN K	Muganeshwaran K
26	620622243027	MUKESH RAJ M	Mukesh Raj M
27	620622243028	NANDHINI Y	Nandhini Y
28	620622243029	NISHANTH S	Nishanth S
29	620622243030	PARTHASARATHY A R	Parthasarathy A R
30	620622243031	RAGAVAN S	Ragavan S
31	620622243032	RAJENDHIRAN S	S. Rajendhiran
32	620622243033	RAMESH K	Ramesh K
33	620622243034	SANDHIYA D	Sandhya D
34	620622243035	SANJAY M	Sanjay M
35	620622243037	SATHISHKUMAR G	Sathishkumar G
36	620622243038	SHANMUGAPRIYA S	Shanmugapriya S

*[Signature]*  
Course Coordinator

*[Signature]*  
Principal

**PRINCIPAL**  
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GCE/AI&DS/2023-2024/SBT1

Date: 29-09-2023

## CIRCULAR

The Department has decided to conduct a certificate Course program on “(SBT1C - CYBER SECURITY)” For Secondyear students from 15/10/2023 to 19/11/2023 on every Sundays. Interested students can enroll their name to the program coordinator (Mrs. A.BABY SHARMILA, AP/AI&DS) on or before 07.10.2023.

HOD

### Copy to:

1. Principal's office
2. IQAC
3. Department File





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## SYLLABUS

### SYLLABUS OF THE CERTIFICATE COURSE

#### MODULE 1:

**Foundation of Cyber Security and Engineering:** This module covers four broad topic areas: programming, operating systems, encryption and networks. These topics will be taught in the context of Cyber Security.

#### MODULE 2:

**Cyber Threat Intelligence and Network Security:** Cyber threat intelligence has become one of the most popular topics in recent years with the explosion of cyber threat data from different data sources.

#### MODULE 3:

**Malware Analysis, Penetration Testing and Incident Response :** This module shows how to think like an attacker, how to probe systems for exploitable vulnerabilities and how to react appropriately when an incident occurs.

#### MODULE 4:

**Digital Forensics with Legal, Ethical and Research Methods:** The module focuses on the ethical and professional context of cyber security digital engineering, systems management, and digital forensics and in doing so it addresses the theory of professionals in organisations, security management, project management, the legal framework.

#### MODULE 5:

**Data Analysis Project:** In a data analysis project, the student is expected to evaluate, select and apply computational techniques for data analysis and knowledge extraction, to solve a novel data analysis or knowledge extraction problem.

#### MODULE 6:

**Conceptual Analysis Project:** In a conceptual analysis project, the student is expected to develop an analysis on paper of a system or of how to solve a problem. Such projects might involve developing an analysis of a working software system.

*Bruce*

Program Coordinator



*[Signature]*

HOD







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ACADEMIC YEAR 2023-2024

COURSE SCHEDULE

SBT1C-CyberSecurity

Date / Hour	1	2	3	4	LUNCH BREAK	5	6
15-10-2023	Foundation of Cyber Security and Engineering		Programming, operating systems, encryption			Practical Session on CS	
22-10-2023	: Cyber Threat Intelligence and Network Security		Explosion of cyber threat data			Practical Session on CS	
29-10-2023	Malware Analysis, Penetration Testing and Incident Response		Vulnerabilities and how to react appropriately			Practical Session on CS	
05-11-2023	Digital Forensics with Legal, Ethical and Research Methods		Professionals in organisations, security management, project management, the legal framework			Practical Session on CS	
12-11-2023	Data Analysis Project		Data analysis or knowledge extraction problem			Practical Session on CS	
19-11-2023	Conceptual Analysis Project		Developing an analysis of a working software system			Practical Session on CS	

  
Program Coordinator

  
HOD





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ACADEMIC YEAR – 2023-2024(EVEN SEM)

CERTIFICATION COURSE

SBT1C-CYBER SECURITY

FEEDBACK QUESTIONNAIRE (PLEASE TICK THE APPROPRIATE ANSWER)

NAME OF THE PARTICIPANT: **KARTHICK A-K**

CLASS: **II Year**

1. Was the presentation clear and relevant to the topic?

Yes/No

2. Was the session well organized?

Yes/.No

3. Was the course material provided sufficient and relevant?

Yes/No

4. Was the expert member capable of delivering the contents clearly?

Yes/No

5. Would you like to attend similar type of course again in the future?

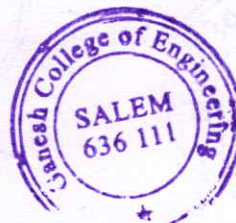
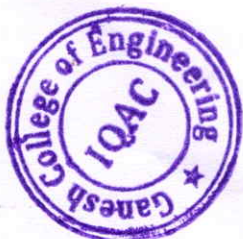
Yes/No

Comments:

**NIL**

**Karthick A-K**

Signature of the Participant





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## ACADEMIC YEAR 2023-2024(EVEN SEM)

### SBT1C-CYBER SECURITY

#### PROGRAM REPORT

The Department of Computer Science and Engineering, Ganesh College of Engineering organized a Certificate Course on “SBT1C-CyberSecurity” The Course was inaugurated on 15.10.2023 10.00am. Mrs.D.Latha, Head, Dept of AI&DS delivered the welcome address. It was conducted during the weekends from 15.10.2023 to 19.11.2023 for the duration of 35 hours.

Mr.A.Prakash, started with introduction about CyberSecurity on 15.10.2023. The course Assessment was carried out on 26.11.2023 (AN) which consists of 25 questions about the topic, discussed. Around 36 students of Second Year AI&DS successfully completed the course. The students were appreciated with the course completion certificate.

The feedback was collected from the participants. Mrs.D.Latha, HOD, Dept of AI&DS delivered the vote of thanks at the end of the session.

The students are excited in doing Cybersecurity after the successful completion of this course.



*B. Prakash*  
Program Coordinator



*D. Latha*  
HOD



# GANESH COLLEGE OF ENGINEERING

(Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai)  
Attur Main Road, Mettupatti, Salem - 636 111, Tamilnadu, India  
Phone: 0427 - 2211212, +91 9865440414  
E-Mail: principal@ganeshenggcollege.org      www.ganeshenggcollege.org

## ACADEMIC YEAR 2023-2024(EVEN SEM)

### SBT1C-CYBER SECURITY

#### COURSE OUTCOMES

1. We work closely with industry to design engaging courses that will give you the skills and experience to accelerate your career and get ahead in the competitive job market.
2. We'll support you to become what employers need: work-ready graduates with professional experience and industry skills. Your career will be in focus from day one, with support from our award-winning Careers Team, UK and overseas placements, internships, targeted training, coaching and research opportunities as part of DMU life and study.
3. Our commitment to helping students achieve their career goals was recognized in the Uni Compare rankings where students rated us the 16th best university for employability. There's lifelong support, too, through our alumni network.
4. We offer undergraduate and postgraduate courses (our postgraduate courses were rated as 8<sup>th</sup> best overall by students in the 2024 What Uni Student Choice Awards), foundation courses, full-time and part-time courses, and Learning Beyond Registration modules among others.
5. Most courses are taught using block teaching - our innovative approach to learning where you study one module at a time. You'll benefit from regular assessments - rather than lots of exams at the end of the year.

  
Program Coordinator

  
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## CERTIFICATE COURSE - ACADEMIC YEAR - 2023-2024 (EVEN SEM) SBITC-CYBER SECURITY STUDENT ATTENDANCE PARTICULARS

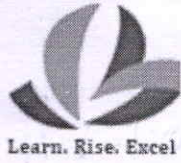
S.NO	REG. NUMBER	NAME OF THE STUDENT	15.10.23	22.10.23	29.10.23	05.11.23	12.11.23	19.11.23	REMARKS
1	620622243001	AAKASH P R	P	P	P	P	P	P	
2	620622243002	ABHISHEKH PRASANNA M	P	P	P	P	P	P	
3	620622243003	AJITH P	P	AB	P	P	AB	P	
4	620622243004	AKALYA K	P	P	P	P	P	P	
5	620622243005	AMSAVALLI A	P	P	P	P	P	P	
6	620622243006	ANJALI R	P	P	P	P	P	P	
7	620622243007	ARAVINTH KUMAR M	P	P	P	P	P	P	
8	620622243008	ARJUN Y	P	P	P	AB	P	P	
9	620622243009	DHARANIDHARAN K	P	P	P	P	P	P	
10	620622243010	GAYATHRI S	P	P	P	P	P	P	
11	620622243011	GOKUL B	P	P	P	P	P	P	
12	620622243012	GOKULMANIKKAM P	P	P	P	P	P	P	
13	620622243013	GOPIKA A	P	P	P	P	P	P	
14	620622243014	GOPIKA S	P	P	P	P	P	P	
15	620622243015	GOPINATH R	P	P	P	P	P	P	
16	620622243016	GOWRI SHANKAR M	P	P	P	P	P	P	
17	620622243017	HARI M	P	P	P	P	P	P	
18	620622243018	HEMANTH T	P	AB	P	P	AB	P	
19	620622243019	JAGADEESH S	P	P	P	P	P	P	
20	620622243021	KARTHICK A K	P	P	P	P	P	P	
21	620622243022	KIRUTHIGA M	P	P	P	P	P	P	
22	620622243023	MAHALAKSHMI S	P	P	P	P	P	P	
23	620622243024	MANIKANDAN M	P	P	P	P	P	P	
24	620622243025	MANIKANDAN N	P	P	AB	P	AB	P	
25	620622243026	MUGANESHWARAN K	P	P	P	P	P	P	
26	620622243027	MUKESH RAJ M	P	P	P	P	P	P	
27	620622243028	NANDHINI Y	P	P	P	P	P	P	
28	620622243029	NISHANTH S	P	P	P	P	P	P	
29	620622243030	PARTHASARATHY A R	P	AB	P	P	P	P	
30	620622243031	RAGAVAN S	P	P	P	P	P	P	
31	620622243032	RAJENDHIRAN S	P	P	P	P	P	P	
32	620622243033	RAMESH K	P	P	P	P	P	P	
33	620622243034	SANDHIYA D	P	P	P	P	P	P	
34	620622243035	SANJAY M	P	P	P	P	AB	P	
35	620622243037	SATHISHKUMAR G	P	P	P	P	P	P	
36	620622243038	SHANMUGAPRIYA S	P	P	P	P	P	P	
COURSE COORDINATOR			<i>W</i>	<i>W</i>	<i>W</i>	<i>W</i>	<i>dy</i>	<i>be</i>	

*[Signature]*  
HOD

*[Signature]*  
PRINCIPAL



**PRINCIPAL**  
Ganesh College of Engineering,  
Attur Main Road, Mettupatti,  
SALEM-636 111.



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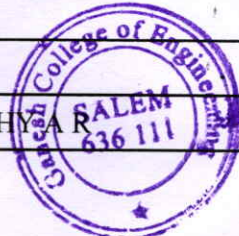
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**CERTIFICATE COURSE - ACADEMIC YEAR - 2023-2024**

**SBITC-CYBER SECURITY**

**STUDENTS PARTIPATION LIST**

S.NO	REG. NUMBER	NAME OF THE STUDENT	SIGNATURE
1	620622243001	AAKASH P R	
2	620622243002	ABHISHEKH PRASANNA M	
3	620622243003	AJITH P	
4	620622243004	AKALYA K	
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28	620622243029	NISHANTH S	
29	620622243030	PARTHASARATHY A	



30	620622243031	RAGAVAN S	<i>[Signature]</i>
31	620622243032	RAJENDHIRAN S	<i>[Signature]</i>
32	620622243033	RAMESH K	<i>[Signature]</i>
33	620622243034	SANDHIYA D	<i>[Signature]</i>
34	620622243035	SANJAY M	<i>[Signature]</i>
35	620622243037	SATHISHKUMAR G	<i>[Signature]</i>
36	620622243038	SHANMUGAPRIYA S	<i>[Signature]</i>

*[Signature]*  
Course Coordinator

*[Signature]*  
Principal

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