



STELLA MARYS COLLEGE OF ENGINEERING
Aruthenganvilai, Kallukatti Junction, Azhikal Post, Kanyakumari
District, Tamil Nadu - 629 202

NUMBER OF ADD ON /CERTIFICATE PROGRAMS OFFERED
DURING THE YEAR
ACADEMIC YEAR: 2023-2024

Year -1						
Name of Add on /Certificate programs offered	Course Code (if any)	Year of offering	No. of times offered during the same year	Duration of course	Number of students enrolled in the year	Number of Students completing the course in the year
I Leap- A New Age Career Skills	SHCCO2	2023-2024 ODD	1	45 Hours	35	35
		2023-2024 ODD	1	45 Hours	19	19
		2023-2024 ODD	1	45 Hours	49	49
		2023-2024 ODD	1	45 Hours	58	58
		2023-2024 ODD	1	45 Hours	105	105
		2023-2024 ODD	1	45 Hours	122	122
Advanced Excel and Power BI	AD001	2023-2024 EVEN	1	45 Hours	35	35
Year 2						
Name of Add on /Certificate programs offered	Course Code (if any)	Year of offering	No. of times offered during the same year	Duration of course	Number of students enrolled in the year	Number of Students completing the course in the year
Auto cad -2D	CECP 01	2023-2024 ODD	1	40 Hours	26	26
Rivet Architecture	CECP 04	2023-2024 EVEN	1	45 Hours	22	22
Building And Deploying Flutter Web Apps	VAC 28	2023-2024 ODD	1	45 Hours	124	124
Power BI	VAC 30	2023-2024 EVEN	1	45 Hours	124	124
Web Development	CC	2023-2024 ODD & EVEN	1	45 Hours	124	124
Web Designing	EECCS42324	2023-2024 EVEN	1	45 hours	40	40
Embedded Systems	VAC - 12	2023-2024 EVEN	1	36 Hours	53	53
Introduction to Basic Electronics	VAC- 11	2023-2024 ODD	1	35 Hours	53	53
Artificial Intelligence	VAC- 10	2023-2024 ODD	1	35 Hours	53	53
AUTOCAD	VAC-M23-3	2023-2024 EVEN	1	40 Hours	46	46

Year 3						
Name of Add on /Certificate programs offered	Course Code (if any)	Year of offering	No. of times offered during the same year	Duration of course	Number of students enrolled in the year	Number of Students completing the course in the year
Advanced Field Surveying	CECP 03	2023-2024 ODD	1	40 Hours	30	30
3Ds Max	CECP 08	2023-2024 EVEN	1	80 hours	30	30
MERN Stack Development	VAC 29	2023-2024 ODD	1	45 Hours	65	65
Big Data Tools	VAC 31	2023-2024EVEN	1	45 Hours	65	65
Artificial Intelligence With Python	CC	2023-2024 ODD & EVEN	1	45 Hours	65	65
Matlab Phase II	EECCS52324	2023-2024 ODD	1	42 Hours	28	28
Embedded Systems Phase I	EECCS62324	2023-2024 EVEN	1	45 hours	28	28
EMBEDDED to IOT Devices	VAC 13	2023-2024 EVEN	1	45 Hours	57	57
Master CAM-CNC Lathe and Milling	VAC-M23-2	2023-2024 ODD	1	45 Hours	61	61
Year 4						
Name of Add on /Certificate programs offered	Course Code (if any)	Year of offering	No. of times offered during the same year	Duration of course	Number of students enrolled in the year	Number of Students completing the course in the year
Tekla	CECP 09	2023-2024 ODD	1	40 Hours	33	33
Overview of Devops tools and technologies	VAC27	2023-2024 ODD	1	45 Hours	63	63
Embedded Phase II	EECCS72324	2023-2024 ODD	1	45 hours	31	31
Advanced INDUSTRIAL IOT	VAC 14	2023-2024 ODD	1	45 hours	40	40
Solid works	VAC-M23-1	2023-2024 EVEN	1	40 Hours	51	51



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Aruthenganvilai, Kallukatti Junction, Azhikal Post, Kanyakumari District-629202

SMCE/CSAY-VEADCE/TG/LR-10D/RTAL

CAMPUS ACTIVITY (Value Added Course/Training Programme) -Request & Approval Letter
SMCE/CSAY-VEADCE/TG/LR-10D/ /2023-24 (odd)

Date: 2/8/23

From
The Head,
Department of Civil Engineering
Stella Mary's College of Engineering

To
The Principal,
Stella Mary's College of Engineering

Respected Sir,
Sub: Request for permission-Certificate Program Tekla Regarding;
It is proposed to conduct a Certificate Program with the motive of imparting knowledge to the
..... IV year students, Department of Civil The details are as follows,

Name of the Certificate Program / Training Programme		<u>Tekla</u>	
Name, Designation, Official Address of the Expert with Contact No. & Email ID.		<u>Educad Tec, Nagercoil.</u>	
Date/s of Programme		From <u>2/8/23</u> To <u>11/11/23</u>	
No. of Students interested to participate		<u>27</u>	
Amount to be collected/ Student		Rs. <u>2000/-</u>	
Total Amount to be paid to the Experts		Rs. <u>-</u>	
Boarding & Lodging for the Experts		Yes / No	Inside campus / Outside
No. of Experts in the Team		Male: _____	Female: _____
Mode of Travel		Flight/Car/Train/Bus	
Date of Travel		From: _____ To: _____ & Back	
No. of Hours Required		Upward: _____	Downward: _____
No. of Days		Distribution of Hours	No. of Sessions
Hospitality		Refreshment in the campus (Morning Tea + Lunch + Evening Tea)	
Venue		<u>Civil - Computer Lab.</u> <u>Stella Mary's College of Engineering</u>	

Encl: 1. Expert Profile and Brochure (if any) 2. Budget statement for the Programme

Thanking You,
Yours faithfully,

Recommendations of

Principal

Approved / Not Approved

Approval by

Remarks (if any):



STELLA MARYS COLLEGE OF ENGINEERING

Aruthenganvilai, Kallukatti Junction, Azhikal Post, Kanyakumari District-629202

SMCE/CSAY-VEADCE/TG/LR-10D/RTAL

CAMPUS ACTIVITY (Value Added Course/Training Programme) Request & Approval Letter

From

The Head,
Department of Civil Engineering
Stella Mary's College of Engineering

To
The Principal,
Stella Mary's College of Engineering

Date: 12/8/23

Respected Sir,
Sub: Request for permission-Certificate Program Advanced Total Station Regarding;
It is proposed to conduct a Certificate Program with the motive of imparting knowledge to the
III year students, Department of Civil. The details are as follows,

Name of the Certificate Program / Training Programme		<u>Advanced Total Station.</u>	
Name, Designation, Official Address of the Expert with Contact No. & Email ID.		<u>Krishna land Survey Institute.</u>	
Date/s of Programme		From <u>12/8/23</u> To <u>10/11/23</u>	
No. of Students interested to participate		<u>30</u>	
Amount to be collected/ Student		Rs. <u>100</u>	
Total Amount to be paid to the Experts		Rs. <u>-</u>	
Boarding & Lodging for the Experts		Yes / No	<u>Inside campus / Outside</u>
No. of Experts in the Team		Male: <u> </u>	Female: <u> </u>
Mode of Travel		Flight/Car/Train/Bus From: <u> </u> To: <u> </u> & Back	
Date of Travel		Upward: <u> </u> Downward: <u> </u>	
No. of Hours Required	<u>40</u>	Distribution of Hours	<u> </u>
No. of Days	<u>6</u>	No. of Sessions	<u> </u>
Hospitality		Refreshment in the campus (Morning Tea + Lunch + Evening Tea)	
Venue		<u>Stella Mary's college of Engg.</u>	

Encl: 1. Expert Profile and Brochure (if any) 2. Budget statement for the Programme

Thanking You,
Yours faithfully,

Recommendations of

Principal

Approved / Not Approved

Approval by

Remarks (if any):



STELLA MARYS COLLEGE OF ENGINEERING

SMCE/CSAY-VEADCE/TG/LR-10D/RTAL

Aruthenganvilai, Kallukatti Junction, Azhikal Post, Kanyakumari District-629202

CAMPUS ACTIVITY (Value Added Course/Training Programme) -Request & Approval Letter

SMCE/CSAY-VEADCE/TG/LR-10D/ 2023-24 (odd)

Date: 18/11/23

From
The Head,
Department of Civil Engineering
Stella Mary's College of Engineering

To
The Principal,
Stella Mary's College of Engineering

Respected Sir,

Sub: Request for permission-Certificate Program Autocad - 2D Regarding;
It is proposed to conduct a Certificate Program with the motive of imparting knowledge to the
11 year students, Department of Civil. The details are as follows,

Name of the Certificate Program /Training Programme		<u>Autocad - 2D</u>	
Name, Designation, Official Address of the Expert with Contact No. & Email ID.		<u>Educaad Tech , Nagercoil.</u>	
Date/s of Programme		From <u>18/11/23</u> To _____	
No. of Students interested to participate		<u>30</u>	
Amount to be collected/ Student		Rs. <u>1000/-</u>	
Total Amount to be paid to the Experts		Rs. _____	
Boarding & Lodging for the Experts		Yes / No	<u>Inside</u> campus /Outside
No. of Experts in the Team		Male: <u>2</u>	Female: _____
Mode of Travel		Flight/Car/Train/Bus From: _____ To: _____ & Back	
Date of Travel		Upward: _____ Downward: _____	
No. of Hours Required	<u>40</u>	Distribution of Hours	_____
No. of Days	<u>6+8</u>	No. of Sessions	_____
Hospitality		Refreshment in the campus (Morning Tea +Lunch+ Evening Tea)	
Venue		<u>Stella Mary's college of Engg.</u>	

Encl: 1. Expert Profile and Brochure (if any) 2. Budget statement for the Programme

Thanking You,
Yours faithfully,

Recommendations of

Principal
Approved / Not Approved

Approval by

Remarks (if any):



STELLA MARY'S COLLEGE OF ENGINEERING

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

(Accredited by NAAC and Accredited by NBA (Mech& CSE))

Aruthenganvilai, Kallukatti Junction Azhikal Post, Kanyakumari District-629202, Tamil Nadu, South India.

DEPARTMENT OF CIVIL ENGINEERING

CIRCULAR

SMCE/CE/CR-C8/VAC-010/2023-2024

Date: 14.02.2024

In order to keep students updated with recent developments in the field of Civil Engineering, it is planned to organize a short term certificate program. All the students are instructed to go through the course content displayed in the notice board and register their names to the course in-charge.

S.No	Year/Sem	Course Name	Course in-Charge
1.	III/6	CECP-08/3Ds Max	Dr.R.Remma
2.	II/4	CECP-04/RIVET ARCHITECTURE	Mrs.N. Agnes Flora

Signature of HOD/CE
Dr. R.K. MADHUMATHI, M.E., Ph.D.
Associate Professor and Head,
Department of Civil Engineering,
Stella Mary's College of Engineering,
Aruthenganvilai, K.M. Dist.- 629 202.

Circulated to:

All the students of CE

Copy to:

1. The Principal
2. All Staff



SMCE/CSAY-VEADCE/TG/LR-10D/RTAL

STELLA MARYS COLLEGE OF ENGINEERING

Aruthenganvilai, Kallukatti Junction, Azhikal Post, Kanyakumari District-629202

CAMPUS ACTIVITY (Value Added Course/Training Programme) -Request & Approval Letter

SMCE/CSAY-VEADCE/TG/LR-10D/ 2023-24 (Even)

Date: 24/07/24

From

The Head,
Department of Civil Engg.
Stella Mary's College of Engineering

To

The Principal,
Stella Mary's College of Engineering

Respected Sir,

Sub: Request for permission-Certificate Program Rivet Architecture Regarding;

It is proposed to conduct a Certificate Program with the motive of imparting knowledge to the

II year students, Department of Civil Engg. The details are as follows,

Name of the Certificate Program /Training Programme		<u>RIVET ARCHITECTURE</u>	
Name, Designation, Official Address of the Expert with Contact No. & Email ID.			
Date/s of Programme		From <u>27/04/24</u> To <u>14/05/24</u>	
No. of Students interested to participate		<u>30</u>	
Amount to be collected/ Student		Rs. <u>1200</u>	
Total Amount to be paid to the Experts		Rs. <u>36,000/-</u>	
Boarding & Lodging for the Experts		Yes / No	Inside campus /Outside
No. of Experts in the Team		Male: <u>2</u>	Female: <u>-</u>
Mode of Travel		Flight/Car/Train/Bus From: _____ To: _____ & Back	
Date of Travel		Upward: _____ Downward: _____	
No. of Hours Required	<u>45</u>	Distribution of Hours	<u>45 hrs</u>
No. of Days	<u>9</u>	No. of Sessions	<u>18</u>
Hospitality		Refreshment in the campus (Morning Tea +Lunch+ Evening Tea)	
Venue		<u>Computer Lab</u>	

Encl: 1. Expert Profile and Brochure (if any) 2. Budget statement for the Programme

Thanking You,

Yours faithfully,

N. AGNES FLORAR. Suresh

Principal

Recommendations of

Approval by

Approved / Not Approved

Dr.R.Suresh Premil Kumar M.E PhD
PRINCIPAL

Remarks (if any):

STELLA MARY'S COLLEGE OF ENGINEERING
ARUTHENGANVILAI, AZHICKAL POST-629 202
KANYAKUMARI DISTRICT



SMCE/CSAY-VEADCE/TG/LR-10D/RTAL

STELLA MARYS COLLEGE OF ENGINEERING

Aruthenganvilai, Kallukatti Junction, Azhikal Post, Kanyakumari District-629202

CAMPUS ACTIVITY (Value Added Course/Training Programme) -Request & Approval Letter

SMCE/CSAY-VEADCE/TG/LR-10D/ 2023-24 (Even)

Date: 18/7/24.

From

To

The Head,
Department of Civil Eng
Stella Mary's College of EngineeringThe Principal,
Stella Mary's College of Engineering

Respected Sir,

Sub: Request for permission-Certificate Program 3D's Max Regarding;

It is proposed to conduct a Certificate Program with the motive of imparting knowledge to the

III year students, Department of Civil. The details are as follows,

Name of the Certificate Program /Training Programme		<u>3D's Max.</u>	
Name, Designation, Official Address of the Expert with Contact No. & Email ID.		<u>CADDESK</u>	
Date/s of Programme		From <u>18/7/24</u> To <u>31/7/24</u>	
No. of Students interested to participate		<u>26</u>	
Amount to be collected/ Student		Rs. <u>1200/-</u>	
Total Amount to be paid to the Experts		Rs.	
Boarding & Lodging for the Experts		Yes / No	Inside campus /Outside
No. of Experts in the Team		Male: _____	Female: _____
Mode of Travel		Flight/Car/Train/Bus From: _____ To: _____ & Back	
Date of Travel		Upward: _____ Downward: _____	
No. of Hours Required	<u>80</u>	Distribution of Hours	
No. of Days	<u>10</u>	No. of Sessions	
Hospitality		Refreshment in the campus (Morning Tea +Lunch+ Evening Tea)	
Venue		<u>Civil - Computer lab.</u> <u>SMCE.</u>	

End: 1. Expert Profile and Brochure (if any) 2. Budget statement for the Programme

Thanking You,

Yours faithfully,

Recommendations of

R. Suresh

Principal

Approval by

Approved / Not Approved

Dr.R.Suresh Premil Kumar M.E, Ph.D

PRINCIPAL

Remarks (if any):

STELLA MARY'S COLLEGE OF ENGINEERING
ARUTHENGANVILAI, AZHICAL POST-629 202
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DEPARTMENT OF CIVIL ENGINEERING

VALUE ADDED COURSE

Rubrics For 3Ds Max

Criteria	Excellent >80	Good (80-60)	Satisfactory (60-50)	Unsatisfactory <50
Technical Skills	Demonstrates mastery of all tools and techniques in 3Ds Max.	Shows proficiency in most tools and techniques, with minor areas of improvement.	Shows basic understanding of tools and techniques but lacks proficiency in some areas.	Demonstrates limited understanding of tools and techniques, with significant areas of improvement needed.
Creativity and Originality	Presents highly original and creative concepts with exceptional design execution.	Displays creativity and originality in design and concept development.	Demonstrates some creativity in design and concept, but lacks originality or innovation.	Shows little creativity or originality in design and concept development.
Problem Solving and Execution	Executes project efficiently with well-organized workflow and effectively overcomes challenges encountered.	Demonstrates good problem-solving skills and executes project with reasonable efficiency.	Exhibits some difficulty in workflow organization and problem-solving but completes the project satisfactorily.	Struggles with workflow organization and problem-solving, resulting in incomplete or poorly executed project.
Presentation	Presents final project	Presents final project	Presents final project	Presents final project

and Documentation	with professional-quality renders, animations, and comprehensive documentation.	with clear renders and animations and adequate documentation.	with some inconsistencies in renders or animations and incomplete documentation.	with poor-quality renders or animations and lacks essential documentation.
Overall Impact	Project demonstrates exceptional quality, creativity, and originality, leaving a lasting impression on viewers.	Project shows good quality, creativity, and originality, engaging viewers effectively.	Project displays satisfactory quality, creativity, and originality, but fails to leave a strong impression on viewers.	Project lacks quality, creativity, and originality, failing to engage viewers effectively.

HOD

L. K. K. K.



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DEPARTMENT OF CIVIL ENGINEERING VALUE ADDED COURSE Rubrics For Rivet

Criteria	Excellent >80	Good (80-60)	Satisfactory (60-50)	Unsatisfactory <50
Modeling	Model accurately represents a realistic rivet, with precise dimensions and details.	Model represents a rivet with mostly accurate proportions and details.	Model somewhat resembles a rivet but lacks accuracy in proportions or details.	Model does not resemble a rivet or lacks significant accuracy in proportions/details.
Texturing	Textures and materials are applied realistically, enhancing the appearance of the rivet.	Textures and materials are applied adequately, contributing to the overall look.	Textures and materials are applied but may lack realism or detail.	Textures and materials are poorly applied, detracting from the appearance of the rivet.
Lighting	Lighting setup effectively showcases the rivet model, with appropriate shadows and highlights.	Lighting setup adequately illuminates the rivet model, providing visibility.	Lighting setup is basic and may not effectively highlight the rivet model.	Lighting setup is inadequate, making it difficult to see or evaluate the rivet model.
Detail and	Rivet model exhibits a high level of detail and	Rivet model demonstrates	Rivet model lacks some detail or realism but is	Rivet model lacks significant detail and

Realism	realism, enhancing its overall quality.	satisfactory detail and realism, contributing to its quality.	still recognizable.	realism, diminishing its quality.
Presentation and Renders	Renders present the rivet model clearly and professionally, highlighting its features.	Renders effectively showcase the rivet model, providing clear views from multiple angles.	Renders adequately present the rivet model but may lack clarity or detail.	Renders poorly represent the rivet model, making evaluation difficult.

P. K. R. U.
HOD



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Aruthenganvilai, Kallukatti Junction Azhikal Post, Kanyakumari District-629202

DEPARTMENT OF CIVIL ENGINEERING

Academic year-2023-24

S.No	Reg No	Name of the Student
1.	963522103001	ABISHEK T
2.	963522103003	AJISH G
3.	963522103004	AKSHAIKUMAR K. J
4.	963522103005	ASHIKA G
5.	963522103006	ASWIN M
6.	963522103009	BELGIN B
7.	963522103010	BOOMIKA P
8.	963522103011	DHANUSH T.S
9.	963522103012	DHUSWIN K.V
10.	963522103013	JAYA PRAKASH J
11.	963522103014	JOTHI RABEELA J
12.	963522103015	JEYA SREE S
13.	963522103016	LIJO A.M
14.	963522103017	Nishanth R
15.	963522103018	PRATHEESH B
16.	963522103019	PRIYA DHARSHINI N.S
17.	963522103020	RAGAVAN K
18.	963522103021	RAM PRIYA K



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DEPARTMENT OF CIVIL ENGINEERING

Academic year-2023-24

S.No	Reg No	Name of the Student
1.	963522103001	ABISHEK T
2.	963522103003	AJISH G
3.	963522103004	AKSHAIKUMAR K. J
4.	963522103005	ASHIKA G
5.	963522103006	ASWIN M
6.	963522103009	BELGIN B
7.	963522103010	BOOMIKA P
8.	963522103011	DHANUSH T.S
9.	963522103012	DHUSWIN K.V
10.	963522103013	JAYA PRAKASH J
11.	963522103014	JOTHI RABEELA J
12.	963522103015	JEYA SREE S
13.	963522103016	LIJO A.M
14.	963522103017	Nishanth R
15.	963522103018	PRATHEESH B
16.	963522103019	PRIYA DHARSHINI N.S
17.	963522103020	RAGAVAN K
18.	963522103021	RAM PRIYA K

19.	963522103022	RAVIN R
20.	963522103023	SANDHYA P
21.	963522103024	SANJAY V
22.	963522103025	SANTHOSH KUMAR S
23.	963522103026	SEJIN X
24.	963522103027	SHAMI FRANGA J
25.	963522103029	SIVA PRIYA. P.M
26.	963522103031	SUDHA N
27.	963522103032	SUMAN A
28.	963522103033	VINISH M.D
29.	963522103034	VIRGIN RAJA R
30.	963522103301	KEERTHIKA M G

P. K. S. S.

19.	963522103022	RAVIN R
20.	963522103023	SANDHYA P
21.	963522103024	SANJAY V
22.	963522103025	SANTHOSH KUMAR S
23.	963522103026	SEJIN X
24.	963522103027	SHAMI FRANGA J
25.	963522103029	SIVA PRIYA. P.M
26.	963522103031	SUDHA N
27.	963522103032	SUMAN A
28.	963522103033	VINISH M.D
29.	963522103034	VIRGIN RAJA R
30.	963522103301	KEERTHIKA M G

P. K. S. S.



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Aruthenganvilai, Kallukatti Junction Azhikal Post, Kanyakumari District-629202, Tamil Nadu, South India.

DEPARTMENT OF CIVIL ENGINEERING

S.NO.	REGISTER NUMBER	NAME OF THE STUDENT
1.	963521103003	ALEN ASHIMA ROY A
2.	963521103005	ALTERIN RISHI.A
3.	963521103006	ANISH KUMAR.S
4.	963521103007	ANITHA P
5.	963521103008	ANUSHIYA A
6.	963521103009	ARUL GINO A
7.	963521103010	ASWIN J
8.	963521103011	BAVITHRA M
9.	963521103013	DONEL HANUS.U
10.	963521103014	FLARENCE RENITHA T R
11.	963521103016	JENISH L
12.	963521103017	JENISHA J S
13.	963521103019	KANMANI.P
14.	963521103023	MUTHU SANKAR.P
15.	963521103024	RAHUL R
16.	963521103025	RASIKA R
17.	963521103026	REDLIN ASHIKA P
18.	963521103028	RUBEN R M
19.	963521103029	SAHAYA ANUSHA D
20.	963521103030	SIMMOOTH C
21.	963521103031	SREE PATHMA RAJ.V
22.	963521103032	VINOTH.M
23.	963521103304	GOKUL.G
24.	963521103306	NITHEESH,M
25.	963521103307	SAJIN.D
26.	963521103308	THAJAYS

R.k.m



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DEPARTMENT OF CIVIL ENGINEERING

S.NO.	REGISTER NUMBER	NAME OF THE STUDENT
1.	963521103003	ALEN ASHIMA ROY A
2.	963521103005	ALTERIN RISHI.A
3.	963521103006	ANISH KUMAR.S
4.	963521103007	ANITHA P
5.	963521103008	ANUSHIYA A
6.	963521103009	ARUL GINO A
7.	963521103010	ASWIN J
8.	963521103011	BAVITHRA M
9.	963521103013	DONEL HANUS.U
10.	963521103014	FLARENCE RENITHA T R
11.	963521103016	JENISH L
12.	963521103017	JENISHA J S
13.	963521103019	KANMANI.P
14.	963521103023	MUTHU SANKAR.P
15.	963521103024	RAHUL R
16.	963521103025	RASIKA R
17.	963521103026	REDLIN ASHIKA P
18.	963521103028	RUBEN R M
19.	963521103029	SAHAYA ANUSHA D
20.	963521103030	SIMMOOTH C
21.	963521103031	SREE PATHMA RAJ.V
22.	963521103032	VINOTH.M
23.	963521103304	GOKUL.G
24.	963521103306	NITHEESH,M
25.	963521103307	SAJIN.D
26.	963521103308	THAJAYS

R.k.m



STELLA MARY'S COLLEGE OF ENGINEERING

Aruthenganvillai, Kallukatti Junction, Azhikal (Po), Kanyakumari District-629202

DEPARTMENT OF CIVIL ENGINEERING

VALUE ADDED COURSE

2023-2024(EVEN)

COURSE CODE /COURSE NAME: CECp- 08/3Ds MAX

COURSE IN-CHARGE: Dr. R.Reman

CLASS: III year/ 6Sem

COURSE DESCRIPTION:

Autodesk 3ds Max, provides powerful tools for 3D modeling, texturing, lighting, rigging, animation, dynamics, particles and rendering. This enables game developers, visual effect artists, architects, designers, engineers, and visualization specialists to create stunning artwork. Additionally, the interactive interface and workflow tools of 3ds Max makes the job of design visualization specialists easier.

This course is basically designed to assist the modelers, animators, and designers. Keeping in view the varied requirements of the students, this course covers a wide range of tools and features. Also covers concepts, and techniques for modelling, texturing, lighting, rigging, animating the objects, fluid simulation, cloth simulation, particle system, create 360 panoramic images, create realistic Vray render, Interactive 3ds max and so on. Additionally, in this course, we introduce the Interactive 3ds max. On the completion of this course, students will be able to create complex 3d scenes, stunning environments and realistic virtual reality experiences.

SYLLABUS:

Unit: 1 Introducing 3Ds Max

Importance of 3Ds Max for Civil/Architecture Students-Creating all type of Standard, Extended, Primitive objects-Creating Doors, Windows and Stairs according to parameters-Creating all types of shapes like Circle, Line and Ellipse etc.-Convert all solid objects into Editable mesh-Convert all shapes in Editable Spline-Creating Compound Objects-Creating Doors, Windows frame, Pannel, Glasses using Boolean-Creating Doors, Windows frame, Pannel, Glasses using Editor Spline

Unit: 2 Lighting and Rendering

Importing AutoCAD 3D Building Model File in 3Ds Max- Applying Camera, Lights and Materials in 3D Model view-Rendering Model View using Default Scan line Renderer-Rendering Building View using Mental Ray Renderer

Unit-3 Modelling and Using External design data

Different types of Lens and Effects in Lights-Creating Road Night views using Spot light and Lens effects- with path and without path Animation of an object in Particular frames-Road Animation creating with Dummy and Camera-Creating a big Fountain of Circular shape by Particle-System and Space Warp-Creating Bounce Effect of Water-Creating Smoke Effect in Pooja Room by Particle system and Space Warp-Creating a Farm House with Water Animation, Rotation of Fan Wheel

Unit-4 Import Cad files

Creating a scene with Fire Effects-Creating Inner wall, door with Frames in AutoCAD to Exterior Building Model-Importing Exterior and Interior building model in 3Ds Max-Setting the furniture in rooms according to its requirement

Unit-5 Interior and Exterior Scene

Walk through of Building in Exterior and Interior-Creating AVI Movie-Creating Blanket with Bed and Table Cloth using some special modifiers-Creating Curtains using special modifiers

COURSE PLAN:

S.No.	No. of periods required to handle	No. of periods handled (cumulative)	Course content	Delivery mode
1.	2	2	Importance of 3Ds Max for Civil/Architecture Students- Creating all type of Standard	PPT/ Flipped/ Model Based Learning
2.	2	4	Extended, Primitive objects-Creating Doors, Windows and Stairs according to parameters-Creating all types of shapes like Circle, Line and Ellipse etc.	PPT/ Flipped/ Model Based Learning
3.	1	5	Convert all solid objects into Editable mesh-Convert all shapes in Editable Spline	PPT/ Flipped/ Model Based Learning
4.	2	7	Creating Compound Objects-Creating Doors, Windows frame, Pannel, Glasses using Boolean	PPT/ Flipped/ Model Based Learning
5.	1	8	Creating Doors, Windows frame, Pannel, Glasses using Editor Spline	PPT/ Flipped/ Model Based Learning
6.	2	10	Importing AutoCAD 3D Building Model File in 3Ds Max	PPT/ Flipped/ Model Based Learning
7.	1	11	Applying Camera, Lights and Materials in 3D Model view	PPT/ Flipped/ Model Based Learning
8.	2	13	Rendering Model View using Default Scan line Renderer	PPT/ Flipped/ Model Based Learning
9.	1	14	Rendering Building View using Mental Ray Render	PPT/ Flipped/ Model Based Learning

10.	1	15	Different types of Lens and Effects in Lights-	PPT/ Flipped/ Model Based Learning
11.	3	18	Creating Road Night views using Spot light and Lens effects- with path and without path Animation of an object in Particular frames	PPT/ Flipped/ Model Based Learning
12.	2	20	Road Animation creating with Dummy and Camera	PPT/ Flipped/ Model Based Learning
13.	1	21	Creating a big Fountain of Circular shape by Particle-System and Space Warp-	PPT/ Flipped/ Model Based Learning
14.	2	23	Creating a scene with Fire Effects	PPT/ Flipped/ Model Based Learning
15.	1	24	Creating Inner wall, door with Frames in AutoCAD to Exterior Building Model-	PPT/ Flipped/ Model Based Learning
16.	2	26	Importing Exterior and Interior building model in 3Ds Max	PPT/ Flipped/ Model Based Learning
17.	1	27	Setting the furniture in rooms according to its requirement	PPT/ Flipped/ Model Based Learning
18.	1	28	Walk through of Building in Exterior and Interior	PPT/ Flipped/ Model Based Learning
19.	2	30	Creating AVI Movie-Creating Blanket with Bed and Table Cloth using some special modifiers	PPT/ Flipped/ Model Based Learning
20.	2	32	Creating Curtains using special modifiers	PPT/ Flipped/ Model Based Learning

R. K. S. S.
HoD/CE



STELLA MARY'S COLLEGE OF ENGINEERING
Aruthenganvillai, Kallukatti Junction, Azhikal (Po), Kanyakumari District-629202

DEPARTMENT OF CIVIL ENGINEERING

CERTIFICATE COURSE

2023-2024(EVEN)

COURSE CODE /COURSE NAME:CECP 04/REVIT ARCHITECTURE

COURSE INSTRUCTURE: Edu cad, Nagercoil

COURSE IN-CHARGE: Mrs.N.Agnes Flora

CLASS:S4/ II YEAR CE

COURSE DESCRIPTION:

Revit is a single application built for **Building Information Modeling** with features for architectural design, MEP (mechanical, electrical and plumbing) and structural engineering and construction. While there are many differences between **Revit** and **AutoCAD**, both programs are often used within the same organization. Both **AutoCAD** and **Revit** are widely used CAD software to create 2D drawings such as floor plans, elevations, details, etc.; 3D models and objects; construction documents, and rendered images.

SYLLABUS

CHAPTER – 1:INTRODUCTION

- 1.1:Introduction to BIM
- 1.2: Introduction to Revit Architecture
- 1.3: Special Features of Revit Architecture
- 1.4: Understanding Revit Elements
- 1.5: Working in one model with many views

CHAPTER -2: TERMS OF TECHNOLOGY

- 2.1: Understanding different versions of Revit
- 2.2: Recent files and Application Menu
- 2.3: Using Ribbon & Quick Access Toolbar(QAT)
- 2.4: Using Properties Palette
- 2.5: Modifying Properties & Professional Palette
- 2.6: Using Project Browser
- 2.7: Navigation Views (Zoom, Pan, and Rotate)

CHAPTER-3: WORKING WITH PROJECT

- 3.1: Creating a new project from file
- 3.2: Accessing Multiuser Projects using work share
- 3.3: Configure Project Settings
- 3.4: Adding Levels
- 3.5: Adding Grids
- 3.6: Referring Layout with temporary dimensions
- 3.7: Adding Columns

CHAPTER-4: MODELLING WALLS, DOORS AND WINDOWS

- 4.1: Adding Walls
- 4.2: Using snaps
- 4.3: Wall Properties and Types
- 4.4: Locating Walls
- 4.5: Using Modifying Tools
- 4.6: Adding Doors and Windows
- 4.7: Using Constraints
- 4.8: Adding Plumbing Fixtures and other components
- 4.9: Using Autodesk Seek
- 4.10: Wall Joints

CHAPTER 5: MODELLING ROOF, CEILING & FLOOR

- 5.1: Working with Footprint Roofs
- 5.2: Working with Ceilings
- 5.3: Working with Floors
- 5.4: Working with Extrusion Roofs
- 5.5: Attaching Walls to Roofs

CHAPTER -6: WORKING WITH STAIRS

- 6.1: Working with Stairs
- 6.2: Adding Railings to Stairs
- 6.3: Working with Component based Stairs
- 6.4: Adding Extensions to Railings

CHAPTER-7: WORKING WITH COMPLEX WALLS

- 7.1: Creating Custom Basic Wall Type
- 7.2: Understanding Stacked Walls
- 7.3: Adding Curtain Walls
- 7.4: Adding Curtain Grids, Mullians and Panels
- 7.5: Creating Wall Sweeps and Reveals

CHAPTER-8: VIEWS, VISIBILITY & GRAPHIC CONTROLS

- 8.1: Using Object tiles
- 8.2: Working with Visibility & Graphics
- 8.3: Using View Templates
- 8.4: Hiding and Isolating objects in a model
- 8.5: Understanding View Range
- 8.6: Displaying Objects Above and Below in Plan Views
- 8.7: Using Line Work Tool
- 8.8: Using Cutaway Views
- 8.9: Using Sketchy Lines

CHAPTER-9: DOCUMENTATION

- 9.1: Understanding the Tags
- 9.2: Adding Schedule Views
- 9.3: Modifying Schedule Views
- 9.4: Creating Key Schedule
- 9.5: Using Images in the Schedule
- 9.6: Adding Sheets
- 9.7: Working with Place Order Sheets
- 9.8: Aligning Views with Guide Grid

9.9: Outputting Sheets to DWF file
9.10: Exporting to AutoCAD

Course Plan:

S.No.	No. of periods required to handle	No. of periods handled (cumulative)	Course content	Delivery mode
1	1	1	Introduction to BIM, Introduction to Revit Architecture	PPT
2	1	2	Special Features of Revit Architecture, Understanding Revit Elements	PPT
3	1	3	Working in one model with many views	PPT/ Flipped/ Model based learning
4	1	4	Understanding different versions of Revit, Recent files and Application.	PPT/ Flipped/ Model based learning
5	1	5	Menu, Using Ribbon & Quick Access Toolbar(QAT)	PPT/ Flipped/ Model based learning
6	1	6	Using Properties Palette, Modifying Properties & Professional Palette	PPT/ Flipped/ Model based learning
7	1	7	Using Project Browser, Navigation Views (Zoom, Pan, and Rotate)	PPT/ Flipped/ Model based learning
8	1	8	Creating a new project from file Accessing Multiuser Projects using work share	PPT/ Flipped/ Model based learning
9	1	9	Configure Project Settings, Adding Levels, Adding Grids	PPT/ Flipped/ Model based learning
10	1	10	Referring Layout with temporary dimensions, Adding Columns	PPT/ Flipped/ Model based learning
11	1	11	Adding Walls, Properties Using and snaps Wall Types	PPT/ Flipped/ Model based learning

12	1	12	Locating Walls, Using Modifying Tools, Adding Doors and Windows	PPT/ Flipped/ Model based learning
13	1	13	Using Constraints, Adding Plumbing Fixtures and other components	PPT/ Flipped/ Model based learning
14	1	14	Using Autodesk Seek, Wall Joints	PPT/ Flipped/ Model based learning
15	1	15	Working with Footprint Roofs	PPT/ Flipped/ Model based learning
16	1	16	Working with Ceilings, Working with Floors	PPT/ Flipped/ Model based learning
17	1	17	Working with Extrusion Roofs Attaching Walls to Roofs	PPT/ Flipped/ Model based learning
18	1	18	Working with Stairs, Adding Railings to Stairs	PPT/ Flipped/ Model based learning
19	1	19	Working with Component based Stairs, Adding Extensions to Railings	PPT/ Flipped/ Model based learning
20	1	20	Creating Custom Basic Wall Type, Understanding Stacked Walls	PPT/ Flipped/ Model based learning
21	1	21	Adding Curtain Wall, Adding Curtain Grids, Mullians and Panels	PPT/ Flipped/ Model based learning
22	1	22	Creating Wall Sweeps and Reveals Using Object tiles	PPT/ Flipped/ Model based learning
23	1	23	Working with Visibility & Graphics, Using View Templates	PPT/ Flipped/ Model based learning
24	1	24	Hiding and Isolating objects in a model, Understanding View Range	PPT/ Flipped/ Model based learning

				learning
25	1	25	Displaying Objects Above and Below in Plan Views, Using Line Work Tool	PPT/ Flipped/ Model based learning
26	1	26	Using Cutaway Views, Using Sketchy Lines	PPT/ Flipped/ Model based learning
27	1	27	Understanding the Tags, Adding Schedule Views, Modifying Schedule Views	PPT/ Flipped/ Model based learning
28	1	28	Creating Key Schedule, Using Images in the Schedule Adding Sheets, Working with Place Order Sheets	PPT/ Flipped/ Model based learning
29	1	29	Aligning Views with Guide Grid	PPT/ Flipped/ Model based learning
30	1	30	Outputting Sheets to DWF file Exporting to AutoCAD	PPT/ Flipped/ Model based learning


HoD/CE



STELLA MARYS COLLEGE OF ENGINEERING

(Approved By AICTE, New Delhi And Affiliated To Anna University Chennai, Accredited by NAAC, NBA (Mech & CSE))

Aruthenganvilai, Kallukatti Junction, Azhikal Post, Kanyakumari District-629202

CAMPUS ACTIVITY (Academic & Co-Curricular) - Request & Approval Letter

SMCE/CSAY-CCR/FM-3.1A/ - 120 23-2024 (022)

Date: 03.07.2023

From

To

The Head/ Coordinator,
Department/Club of CSE,
Stella Mary's College of Engineering.

The Chairman,
Stella Mary's College of Engineering.
(Through The Director & Principal)

Respected Sir,

Sub: Request for permission to conduct Value Added Course -Regarding
It is proposed to organize/ Conduct a Value Added Course, in
the Department/Club of Computer Science & Engineering. The Details are
as follows

Program promoted by & Designation	Dr. T.R. Shiny Malai / Prof & Head.		
Name of the Coordinator & Designation	II CSE A - G. Santhya III CSE - Dr. M. Sanyoga.		
Topic	II - Building & Deploying flutter web apps. III - Overview of DevOps tool & Technology		
Mode of Conduct	Conventional / Virtual	Name of Platform proposed <u>offline</u>	
Name, Designation, Official Address of the Expert with Contact No. & Email ID.	-		
Date/s of Programme	On <u>18.7.23</u> / From <u>18.7.23</u> To <u>29.9.2023</u>		
Mode of Travel	Flight/Car /Train/Bus	From:	To:
Date/s of Travel	From: To:	Boarding & Lodging	Inside campus /Outside/ Nil
No. of Days	No. of Sessions	Venue	
Hospitality	Refreshment in the campus- Morning +Lunch+ Evening Tea / Nil		

Encl.: I. Budget for the Programme-Yes / No (* If yes enclose Statement)

Thanking you,

Yours faithfully

Recommendations of

Principal

Approval by

Approved / Not Approved

Vice Chairman

Chairman

CC to: The IQAC

Signature



STELLA MARYS COLLEGE OF ENGINEERING

Approved By AICTE, New Delhi and Affiliated to Anna University, Chennai. Accredited by NAAC, NEA Status B (CBE)

Aruthengandalai, Kalukatti Junction, Aruthal Post, Kanyakumari District-629202

CAMPUS ACTIVITY (Academic & Co-Curricular) - Request & Approval Letter

SMCE/CSAY-CCR/PM-3.1A/ - 2023-2024 (EVEN)

Date: 19.02.2024

From

The Head/ Coordinator,
Department/Club of CSE
Stella Mary's College of Engineering.

The Chairman,
Stella Mary's College of Engineering.
(Through The Director & Principal)

Respected Sir,

Sub: Request for permission to conduct Value Added Course Regarding
It is proposed to organize/ Conduct a Value Added Course in
the Department/Club of Computer Science & Engineering The Details are
as follows

Program promoted by & Designation	<u>Dr. F.R. Shunug Malar / Prof & Head.</u>		
Name of the Coordinator & Designation	<u>Dr. Mary Mathiyazh B, AP & Subashini Sub. B, AP</u> <u>Dr. M. Rajeshkumar, AP</u>		
Topic	<u>Dr. Power BI, Dr. Bigdata Tool.</u>		
Mode of Conduct	Conventional / Virtual	Name of Platform proposed	
Name, Designation, Official Address of the Expert with Contact No. & Email ID.	<u>R. P.</u>		
Date/s of Programme	On <u>17-2-24</u> To <u>26-2-2024</u>		
Mode of Travel	Flight/Car /Train/Bus	From:	To:
Date/s of Travel	From: To:	Boarding & Lodging	Inside campus /Outside/ Nil
No. of Days	No. of Sessions	Venue:	
Hospitality	Refreshment in the campus- Morning +Lunch+ Evening Tea / Nil		

Encl: 1. Budget for the Programme-Yes / No (* If yes enclose Statement)
Thanking you,

Yours faithfully,

Recommendations of

Principal

Approval by

Approved / Not Approved

Vice Chairman

Chairman

CAMPUS ACTIVITY (Academic & Co.)

Date: 09.7.2023

Stella Mary, a College of Engineering,
(Chairman/The Director & Principal)

Respected Sir,

Sub: Request for permission to conduct Certification course Regarding _____
It is proposed to organize/Conduct a Certification course in _____
the Department/Club of Computer Science & Engineering The Details are
as follows:

Program promoted by & Designation		Dr. F. R. Sheng Malar / Prof & Head	
Name of the Coordinator & Designation		Dr. F. R. Sheng Malar / Prof & Head	
Topic		Web Development , Artificial Intelligence with python	
Mode of Conduct		Conventional / Virtual	Name of Platform proposed
Name, Designation, Official Address of the Expert with Contact No. & Email ID.			
Date/s of Programme		On / From 18.7.23 To 26.4.2024	
Mode of Travel		Flight/Car /Train/Bus	From/ To:
Date/s of Travel		From: To:	Boarding & Lodging: Inside campus /Outside/ Nil.
No. of Days		No. of Sessions	Venue
Hospitality		Refreshment in the campus- Morning +Lunch+ Evening Tea / Nil	

Encl.: 1. Budget for the Programme. Yes ☒ No ☐ If yes, Enc. Statement ☐
 Date: ☒ you

Yours faithfully,

Recommendations of

Principles

Approved / Not Approved



STELLA MARY'S COLLEGE OF ENGINEERING

Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai and Accredited by NAAC & NBA (Mech & CSE)

Aruthenganvilai, Kallukatti Junction, Azhikal Post, Kanyakumari District - 629 202

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Vision of the Department

To be a leading department in computer science education and innovation, equipping students with the expertise to create and solve real-world challenges through ethical, responsible, and transformative technological solutions for global progress

Mission of the Department

M1 To provide a strong foundation in computer science principles, fostering innovative problem-solving and a deep-rooted commitment to developing socially responsible and impactful engineering solutions

M2 To bridge academia and industry by fostering partnerships and research that equips students with practical skills and entrepreneurial drive.

M3 To inspire intellectual curiosity and ethical responsibility, guiding students to apply technology for the advancement of humanity.

Program Education Objectives

PEO1 Apply their technical competence in computer science to solve real world problems, with technical and people leadership.

PEO2 Conduct cutting edge research and develop solutions on problems of social relevance.

PEO3 Work in a business environment, exhibiting team skills, work ethics, adaptability and lifelong learning.



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Aruthenganvilai, Kallukatti Junction, Azhikal Post, Kanyakumari District - 629 202

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

VALUE ADDED COURSE DETAILS

Name of value-added course	Year of offering	Semester/ Year	No.of students benefited
Building And Deploying Flutter Web Apps	ODD 2023-2024	S3/II	61+63
MERN Stack Development		S5/III	65
Overview of Devops tools and technologies		S7/IV	63
Power BI	EVEN 2023-2024	S4/II	61+63
Big Data Tools		S6/III	65

CERTIFICATION COURSE

Semester	Course Name
S3	Web Development
S4	
S5	Artificial Intelligence with Python
S6	


Dr. F.R. SANKARANARAYANAN, M.Tech., Ph.D.,
Head of the Department
Department of Computer Science & Engineering
Stella Mary's College of Engineering
Aruthenganvilai, Azhikkal Post
Kanyakumari District - 629 202



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Aruthenganvilai, Kallukatti Junction, Azhikal Post, Kanyakumari District - 629 202

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

SMCE/CSE/CR/VAC-13/2023-2024(ODD)

CIRCULAR

Date:26-07-2023

In order to keep the students updated with recent developments in the field of Computer Science and engineering, it is planned to organize a short-term Value-Added Courses of 40 hours. All the students are instructed to go through the course content displayed in the notice board and register their names to respective class in-charge.

S.No	Year	Start Date	End Date	Course Name	Resource Person
1	II CSE A	18.07.2023	29.09.2023	Building And Deploying Flutter Web Apps	Mrs.G.Santhiya
2	II CSE B	18.07.2023	29.09.2023	Building And Deploying Flutter Web Apps	Ms.R.Shirely Jeeva Malar
3	III CSE	18.07.2023	29.09.2023	MERN Stack Development	Dr.M.Supriya
4	IV CSE	18.07.2023	29.09.2023	Overview of Devops tools and technologies	Mr.C.Senthil Kumar

Circulated to:

1. II CSE A
2. II CSE B
3. III CSE
4. IV CSE

Copy to:

1. The Principal
2. All Staff

Signature of HoD/CSE
Dr. F.R. Senthil Kumar, M.Tech., Ph.D.,
Head of the Department
Department of Computer Science & Engineering
Stella Mary's College of Engineering
Aruthenganvilai, Azhikkal Post
Kanyakumari District - 629 202



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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

VALUE ADDED COURSE

ODD 2023-2024

COURSE CODE/ COURSE NAME: VAC 28-Building And Deploying Flutter Web Apps

RESOURCE PERSON: Mrs. G. Santhiya, Mrs. R. Shirley, Teeva Malar

CLASS: S3/II CSE A, B

COURSE DESCRIPTION:

Building and Deploying Flutter Web Apps involves using Flutter, a popular UI toolkit, to create web applications that run on various browsers using a single codebase. Developers can write Dart code that seamlessly integrates with the web platform, offering a rich user experience. The process begins with setting up the development environment and configuring Flutter for web support. Flutter's responsive design capabilities help create applications that adapt to different screen sizes and devices. Performance optimization, including lazy loading and reducing the build size, is essential for fast web apps. Testing and debugging are critical steps to ensure functionality across browsers. Once the app is ready, it can be compiled into production-ready code. Deployment options include platforms like Firebase Hosting, Netlify, and GitHub Pages. Flutter's support for Progressive Web Apps (PWAs) enhances the app's usability. Developers can automate deployment through CI/CD pipelines. The result is a high-performance, scalable Flutter web app ready for the market.

COURSE OUTCOME:

After completing this course, students will be able to:

CO1 Proficiency in Flutter for Web Development

CO2 Mastery of Dart Programming and Flutter Widgets

CO3 Ability to Create Responsive and Scalable Web UIs

CO4 Competence in State Management for Flutter Web Applications

CO5 Proficiency in Integrating Web APIs and Handling Backend Communication



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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

DETAILED SYLLABUS

Sl. No	Topic	Lecture Hours
1	Introduction to Flutter and Web Development Overview of Flutter Framework-History and evolution of Flutter for the web-Comparison between Flutter for mobile and Flutter for web-Key components and architecture of Flutter web applications-Setup and installation of Flutter SDK for web development-Setting up development environment (IDE, browser)-Configuring for web (Chrome, Edge)	8
2	Flutter Basics Dart programming language refresher-Understanding Flutter widgets: Stateless vs Stateful widgets-Layout and styling in Flutter (Columns, Rows, Containers)-Handling user interaction (Gestures, Input fields)-Navigating between screens (routes and navigation)	8
3	Web-Specific Features in Flutter Differences in handling UI for web vs. mobile-Handling screen sizes and responsiveness: Responsive design principles MediaQuery and LayoutBuilder-Building responsive layouts using Flex, Grid, and Stack-Introduction to web APIs and services for Flutter web-Using Flutter web plugins and packages	8
4	State Management in Flutter Web Introduction to state management: setState(), InheritedWidget-Provider pattern for web-Managing state efficiently in web applications-Performance considerations in state management for large apps.	8
5	Backend Integration and APIs Overview of web communication (HTTP requests, RESTful APIs)-Fetching data from APIs (GET, POST methods)-Handling asynchronous operations (Futures, async/await)-Working with JSON data and serialization-Security considerations for web apps (CORS, API keys).	8
	Total	40



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Aruthenganvilai, Kallukatti Junction, Azhikal Post, Kanyakumari District - 629 202

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

COURSE PLAN

COURSE CODE/ COURSE NAME: VAC 28-Building And Deploying Flutter Web Apps

S.NO	No of periods required to handle	No of periods handled (cumulative)	Course Content	Delivery mode	Assessments(Periodic tests/Quiz/Assignments)
1	1	1	Overview of Flutter Framework	PPT	Assessments(Periodic tests/Quiz/Assignments)
2	1	2	History and evolution of Flutter for the web	PPT	Assessments(Periodic tests/Quiz/Assignments)
3	1	3	Comparison between Flutter for mobile and Flutter for web	PPT	Assessments(Periodic tests/Quiz/Assignments)
4	1	4	Key components and architecture of Flutter web applications	PPT	Assessments(Periodic tests/Quiz/Assignments)
5	2	6	Setup and installation of Flutter SDK for web development	PPT	Assessments(Periodic tests/Quiz/Assignments)
6	1	7	Setting up development environment (IDE, browser)	PPT	Assessments(Periodic tests/Quiz/Assignments)
7	1	8	Configuring for web (Chrome, Edge)	PPT	Assessments(Periodic tests/Quiz/Assignments)
8	2	10	Dart programming language refresher	PPT	Assessments(Periodic tests/Quiz/Assignments)
9	2	12	Understanding Flutter widgets: Stateless vs Stateful widgets	PPT	Assessments(Periodic tests/Quiz/Assignments)
10	2	14	Layout and styling in Flutter (Columns, Rows, Containers)	PPT	Assessments(Periodic tests/Quiz/Assignments)



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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

11	1	15	Handling user interaction (Gestures, Input fields)	PPT	Assessments(Periodic tests/Quiz/Assignments)
12	1	16	Navigating between screens (routes and navigation)	PPT	Assessments(Periodic tests/Quiz/Assignments)
13	1	17	Differences in handling UI for web vs. mobile	PPT	Assessments(Periodic tests/Quiz/Assignments)
14	1	18	Handling screen sizes and responsiveness: Responsive design principles MediaQuery and LayoutBuilder	PPT	Assessments(Periodic tests/Quiz/Assignments)
15	2	20	Building responsive layouts using Flex, Grid, and Stack	PPT	Assessments(Periodic tests/Quiz/Assignments)
16	2	22	Introduction to web APIs and services for Flutter web	PPT	Assessments(Periodic tests/Quiz/Assignments)
17	2	24	Using Flutter web plugins and packages	PPT	Assessments(Periodic tests/Quiz/Assignments)
18	2	26	Introduction to state management: setState(), InheritedWidget	PPT	Assessments(Periodic tests/Quiz/Assignments)
19	2	28	Provider pattern for web-	PPT	Assessments(Periodic tests/Quiz/Assignments)
20	2	30	Managing state efficiently in web applications	PPT	Assessments(Periodic tests/Quiz/Assignments)



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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

21	2	32	Performance considerations in state management for large apps	PPT	Assessments(Periodic tests/Quiz/Assignments)
22	2	34	Overview of web communication (HTTP requests, RESTful APIs)	PPT	Assessments(Periodic tests/Quiz/Assignments)
23	2	36	Fetching data from APIs (GET, POST methods)	PPT	Assessments(Periodic tests/Quiz/Assignments)
24	2	38	Handling asynchronous operations (Futures, async/await)	PPT	Assessments(Periodic tests/Quiz/Assignments)
25	1	39	Working with JSON data and serialization	PPT	Assessments(Periodic tests/Quiz/Assignments)
26	1	40	Security considerations for web apps (CORS, API keys)	PPT	Assessments(Periodic tests/Quiz/Assignments)

Note: Delivery Mode- 1. Participative learning-Interaction between staff and students during lecture(Seminar/Quiz etc...)
2. Flipped Classroom- Discussion of content circulated through Google Classroom
3. Experiential Learning- Lab or Field based demonstrative learning.
4. Model/Project based learning- Demonstration done using models/Projects

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COURSE ARTICULATION MATRIX

CO	Bloom's taxonomy level	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8	P O 9	P O 10	P O 11	P O 12	P S O 1	P S O 2	P S O 3	Assessments(Periodic tests/Quiz/Assignments)
CO1	3	3	3	2	2	3	1	1	1	2	2	1	1	3	2	3	Quiz/Assignments
CO2	4	3	3	2	2	3	1	1	1	2	2	1	1	3	2	3	Quiz/Assignments
CO3	4	2	3	3	3	3	2	2	2	2	2	2	2	3	2	2	Quiz/Assignments
CO4	5	2	3	2	3	3	2	2	2	2	2	2	2	2	2	2	Quiz/Assignments
CO5	6	2	3	3	3	3	2	2	2	2	2	2	2	3	3	2	Quiz/Assignments

COURSE COORDINATOR

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

COURSE CODE/ COURSE NAME: VAC 28-Building And Deploying Flutter Web Apps

CLASS: II CSE A

S.NO	REG NO	NAME
1	963522104003	ABINAYA.M
2	963522104005	ABISH.R
3	963522104006	ABISH.S
4	963522104007	ABISHEK.K
5	963522104008	ABISHEK.M
6	963522104009	ABITHA.A.L
7	963522104010	ADCHUTHAN.J.R
8	963522104012	AJIN.S
9	963522104013	AJISH.M
10	963522104017	ANTONY REMANE.S
11	963522104020	ASHICK LEONUT.A
12	963522104026	ASVITHA.S
13	963522104027	ASWIN.J
14	963522104028	ATHITHYA NAREN K V
15	963522104030	AUTHAVA.V.S
16	963522104033	BELSHA EVE GOLDY.M
17	963522104034	BENNYHINN SAM.T
18	963522104036	BHARATH KANTH.R.N
19	963522104037	BIJO ANNAN.B
20	963522104038	CHRISTOBHA.T
21	963522104039	FRANCINA RAJ.J



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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

22	963522104041	FREEDA JOSE.B
23	963522104044	JAJASHINI.J
24	963522104049	JENISHA.M
25	963522104050	JERLIN SHABLI.S.G
26	963522104051	JEROLD SUBIN.S
27	963522104057	JIGO.G
28	963522104059	JOHN SHALAMON M
29	963522104063	KARTHEESWARI.V
30	963522104064	KISHAL.M
31	963522104067	LIBIN RAJ.F
32	963522104068	LIGIN.M
33	963522104069	LUXICA BENCY.G.K
34	963522104072	MARIA BENSIYA.S
35	963522104074	MAXWELL RUBERT.B
36	963522104076	MICHEL NITHESH.S
37	963522104079	MUHAMED FATEEN.M
38	963522104082	NAVEENA.S
39	963522104084	NISHMI VINISHA.A.J
40	963522104086	PRAVEEN.T.S
41	963522104087	PRIM SAJUN.P
42	963522104088	PRIYA DHARSHINI.S.A
43	963522104092	RAHUL.M
44	963522104093	RAJASARATHI.K



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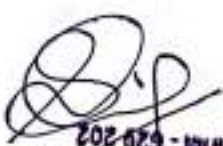
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45	963522104097	RESHMA.R
46	963522104101	RITHIKA.R
47	963522104104	RUSHMA.K
48	963522104106	SAHAYA ASMI LANIBA.P
49	963522104109	SANTHA KUMAR.R
50	963522104110	SAVIN.M
51	963522104111	SHAJIL.S
52	963522104112	SHALMA.V
53	963522104114	SHARON.A.B
54	963522104115	SHEJIN.R
55	963522104120	SURJITH.S.D
56	963522104123	VIJAY.J
57	963522104124	VIPIN SHARONE MONY.T
58	963522104125	VISHALIN.W
59	963522104301	ASHOK.M
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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

COURSE CODE/ COURSE NAME: VAC 28-Building And Deploying Flutter Web Apps

CLASS: II CSE B

S.NO	REG NO	NAME
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2	963522104011	AJAI KUMAR.R
3	963522104014	AKASNI BRUTSHIBA.C
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5	963522104018	ANUPREM.J
6	963522104019	ARAVIND.M
7	963522104021	ASHIKA.L
8	963522104022	ASHMI.B
9	963522104023	ASHMI.P
10	963522104024	ASLIN VINISH.M
11	963522104025	ASMIKA.R
12	963522104029	AUSLIN KIBHA.J
13	963522104031	AZHAR HUSSAIN.S
14	963522104032	BATHAN.J.C
15	963522104035	BERLIN.R.D
16	963522104040	FREDIC FEMIL MEBIHA.P
17	963522104042	IBANCY MICHEAL J
18	963522104043	INFANCE TONYE
19	963522104045	JAKKULIN BRITTO.A
20	963522104046	JEBARSHAN.J
21	963522104047	JENIBER JEYA.J



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23	963522104052	JERSLIN BENISH.J
24	963522104053	JERSON.J
25	963522104054	JERVIN REVALDO.X
26	963522104055	JESHWIN ANTONY BENADICTUS J
27	963522104056	JEYANTH.K.L
28	963522104058	JOEL JACKSON.J
29	963522104060	JOHNSTON ANTON.S
30	963522104061	JOSEPH RISHAN.V
31	963522104062	JUDE SHARUK.J
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34	963522104070	MAHA LAKSHMI.G
35	963522104071	MANUSHA.P
36	963522104073	MARSHA GRASIS
37	963522104075	MERCY.B
38	963522104077	MOHAMED SHAHID.S
39	963522104078	MOHAMMED RAFAEEK.A.K
40	963522104080	MUHAMMED HASSAN.M.N
41	963522104081	NAGALAKSHMI.M
42	963522104083	NISHAN.E
43	963522104085	NIVETHA.M.K
44	963522104089	RABISHA.R



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45	963522104091	RAGUL.R (Rajakumar.P)
46	963522104090	RAGUL.R (Ramar.I)
47	963522104094	RAKESH.M
48	963522104095	REJUNE.M
49	963522104096	RESHIKAN.G
50	963522104099	RIHASHA.J
51	963522104100	RISHIKA.K
52	963522104102	ROSHAN.R.S
53	963522104103	RUBIT.G.R.SEBA
54	963522104105	SABIN.M
55	963522104107	SAHAYA MERUSHA.E
56	963522104108	SAHAYA TEENU.S
57	963522104113	SHAMILI.S
58	963522104116	SIVAN.R
59	963522104117	SREE KRISHNAN S
60	963522104118	SREE SNEHA.K.A
61	963522104119	SRI RAM.S
62	963522104121	THISHON.M
63	963522104302	BAVJITH.D


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Course Coordinator



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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

VALUE ADDED COURSE

ODD 2023-2024

COURSE CODE/ COURSE NAME: VAC 29 MERN Stack Development

RESOURCE PERSON: Dr. M. Supriya

CLASS: S5/III CSE

COURSE DESCRIPTION:

MERN Stack Development refers to the combination of four powerful technologies: MongoDB, Express.js, React.js, and Node.js. MongoDB is a NoSQL database used for storing data in a flexible, JSON-like format. Express.js is a web application framework for Node.js, simplifying the creation of APIs and handling routing. React.js is a popular front-end JavaScript library for building dynamic, responsive user interfaces. Node.js is a server-side JavaScript runtime that enables building scalable web applications. The MERN stack enables full-stack development, allowing developers to use JavaScript for both client-side and server-side coding. It is known for its high performance, scalability, and ease of use. With MERN, developers can build robust, data-driven applications with real-time capabilities. The stack is highly customizable and supports the development of single-page applications (SPAs) and RESTful APIs. The integration of these technologies allows seamless data flow from the front-end to the back-end, making it a popular choice for modern web development.

COURSE OUTCOME:

After completing this course, students will be able to:

CO1: Understanding of Web Development and MERN Stack Components

CO2: Proficiency in Back-End Development with Node.js and Express

CO3: Mastery of Database Integration with MongoDB

CO4: Front-End Development with React

CO5: Full-Stack Development and Deployment of MERN Applications



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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

DETAILED SYLLABUS

VAC 29 MERN Stack Development

Sl. No	Topic	Lecture Hours
1	Introduction to MERN Stack Overview of Web Development- Introduction to Web Technologies- Client-Server Architecture- Overview of MERN Stack Components- Setting Up the Development Environment Installing Node.js and npm- Introduction to MongoDB and Setting Up a Database- Setting Up Code Editors (VS Code)	8
2	Back-End Development with Node.js and Express Node.js Fundamentals- Understanding Node.js Architecture- Asynchronous Programming with Callbacks and Promises- Using npm Packages-Building RESTful APIs with Express.js- Introduction to Express.js- Creating a Basic Express Application- Routing and Middleware in Express	8
3	Database Integration with MongoDB MongoDB Basics- Introduction to NoSQL Databases- CRUD Operations in MongoDB- Mongoose ODM: Defining Schemas and Models-Connecting Express with MongoDB- Integrating MongoDB with Express- Building APIs to Interact with MongoDB- Data Validation and Error Handling	8
4	Front-End Development with React React Basics- Introduction to React and its Concepts- Creating Components and Props-State Management in React- Advanced React and Routing- React Hooks (useState, useEffect)-Using React Router for Navigation- Fetching Data from APIs in React	8
5	Full-Stack Development and Deployment Connecting Front-End and Back-End- Integrating React with Express APIs- Managing State with Context API or Redux (optional)- Implementing Authentication (JWT or Session-based) Deployment and Best Practices- Deployment Options for MERN Apps (Heroku, Vercel,etc.)- Environment Variables Management- Best Practices for Code Quality and Security	8
	Total	40



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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

COURSE PLAN

VAC 29 MERN Stack Development

S.NO	No of periods required to handle	No of periods handled (cumulative)	Course Content	Delivery mode	Assessments(Periodic tests/Quiz/Assignments)
1	1	1	Overview of Web Development	PPT	Assessments(Periodic tests/Quiz/Assignments)
2	1	2	Introduction to Web Technologies	PPT	Assessments(Periodic tests/Quiz/Assignments)
3	1	3	Client-Server Architecture	PPT	Assessments(Periodic tests/Quiz/Assignments)
4	1	4	Overview of MERN Stack Components	PPT	Assessments(Periodic tests/Quiz/Assignments)
5	2	6	Setting Up the Development Environment Installing Node.js and npm	PPT	Assessments(Periodic tests/Quiz/Assignments)
6	1	7	Introduction to MongoDB and Setting Up a Database	PPT	Assessments(Periodic tests/Quiz/Assignments)
7	1	8	Setting Up Code Editors (VS Code)	PPT	Assessments(Periodic tests/Quiz/Assignments)
8	1	9	Node.js Fundamentals	PPT	Assessments(Periodic tests/Quiz/Assignments)
9	1	10	Understanding Node.js Architecture	PPT	Assessments(Periodic tests/Quiz/Assignments)
10	1	11	Asynchronous Programming with Callbacks and Promises	PPT	Assessments(Periodic tests/Quiz/Assignments)
11	1	12	Using npm Packages	PPT	Assessments(Periodic tests/Quiz/Assignments)



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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

12	1	13	Building RESTful APIs with Express.js	PPT	Assessments(Periodic tests/Quiz/Assignments)
13	1	14	Introduction to Express.js	PPT	Assessments(Periodic tests/Quiz/Assignments)
14	1	15	Creating a Basic Express Application	PPT	Assessments(Periodic tests/Quiz/Assignments)
15	1	16	Routing and Middleware in Express	PPT	Assessments(Periodic tests/Quiz/Assignments)
16	1	17	MongoDB Basics	PPT	Assessments(Periodic tests/Quiz/Assignments)
17	1	18	Introduction to NoSQL Databases	PPT	Assessments(Periodic tests/Quiz/Assignments)
18	1	19	CRUD Operations in MongoDB	PPT	Assessments(Periodic tests/Quiz/Assignments)
19	1	20	Mongoose ODM: Defining Schemas and Models	PPT	Assessments(Periodic tests/Quiz/Assignments)
20	1	21	Connecting Express with MongoDB	PPT	Assessments(Periodic tests/Quiz/Assignments)
21	1	22	Integrating MongoDB with Express	PPT	Assessments(Periodic tests/Quiz/Assignments)
22	1	23	Building APIs to Interact with MongoDB	PPT	Assessments(Periodic tests/Quiz/Assignments)
23	1	24	Data Validation and Error Handling	PPT	Assessments(Periodic tests/Quiz/Assignments)
24	1	25	React Basics	PPT	Assessments(Periodic tests/Quiz/Assignments)
25	1	26	Introduction to React and its Concepts	PPT	Assessments(Periodic tests/Quiz/Assignments)
26	1	27	Creating Components and Props	PPT	Assessments(Periodic tests/Quiz/Assignments)



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					tests/Quiz/Assignments)
27	2	29	State Management in React- Advanced React and Routing	PPT	Assessments(Periodic tests/Quiz/Assignments)
28	1	30	React Hooks (useState, useEffect)	PPT	Assessments(Periodic tests/Quiz/Assignments)
29	1	31	Using React Router for Navigation	PPT	Assessments(Periodic tests/Quiz/Assignments)
30	1	32	Fetching Data from APIs in React	PPT	Assessments(Periodic tests/Quiz/Assignments)
31	1	33	Connecting Front-End and Back-End	PPT	Assessments(Periodic tests/Quiz/Assignments)
32	1	34	Integrating React with Express APIs	PPT	Assessments(Periodic tests/Quiz/Assignments)
33	1	35	Managing State with Context API or Redux (optional)	PPT	Assessments(Periodic tests/Quiz/Assignments)
34	2	37	Implementing Authentication (JWT or Session-based) Deployment and Best Practices	PPT	Assessments(Periodic tests/Quiz/Assignments)
35	2	39	Deployment Options for MERN Apps (Heroku, Vercel, etc.)	PPT	Assessments(Periodic tests/Quiz/Assignments)
36	1	40	Environment Variables Management- Best Practices for Code Quality and Security	PPT	Assessments(Periodic tests/Quiz/Assignments)

Note: Delivery Mode- 1. Participative learning-Interaction between staff and students during lecture(Seminar/Quiz etc..)
2. Flipped Classroom- Discussion of content circulated through Google Classroom
3. Experiential Learning- Lab or Field based demonstrative learning.
4. Model/Project based learning- Demonstration done using models/Projects

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CLASS: III CSE

VAC 29 MERN Stack Development

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3	963521104003	ABINESH.R.M
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6	963521104006	ABISHEK W
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10	963521104010	ANISH J
11	963521104011	AROCKIA KUVINSTON
12	963521104012	ARTHIKA M
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14	963521104014	BAVITHRA.A
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16	963521104016	DONALIKA C S
17	963521104017	GURU RAHUL R U
18	963521104018	HELINA VENSUS V
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23	963521104023	JEFRIN BABISH J H
24	963521104024	JENIFER J
25	963521104026	JENISHIYA J
26	963521104027	JEYA VIHASH P R
27	963521104028	JOEL.K
28	963521104029	JUTLINE RESHMAN H
29	963521104030	KARTHIKA DEVI .M
30	963521104031	KARUPPASAMY K
31	963521104032	KAVIN BRYLO.M
32	963521104033	KINGSHIYA K S
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34	963521104035	LEJU B
35	963521104036	LINGSHA SHAMLX
36	963521104037	MAHISHA T
37	963521104038	MARIMUTHU L
38	963521104039	MARY SHERINA.P
39	963521104040	MOHAMED ALTHAF
40	963521104041	MOHAMMED AMEEN M
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42	963521104044	NIVEATHAN S
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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

45	963521104047	RITHICK SHABU R C
46	963521104048	SAHAYA BERSIYA V
47	963521104049	SHAJINI.M
48	963521104050	SHARON R
49	963521104051	SHENIHA C S
50	963521104052	SHERIN S
51	963521104053	SHIBU MON J
52	963521104054	SHIMIYON RAJ R
53	963521104055	SHIVA V
54	963521104056	SIVITHRA.M
55	963521104057	SNEKHA D
56	963521104058	SOBIKA R
57	963521104059	SREEJA S
58	963521104060	THANGA NIVETHA.B
59	963521104061	THANYA.S
60	963521104062	THULASI J
61	963521104063	VIGNESH R
62	963521104301	JOSHVA.S
63	963521104302	SUJAIKUMAR.T
64	963521104303	SUJITH.R.J
65	963521104304	VIVEK.A

Supriya

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

VALUE ADDED COURSE

ODD 2023-2024

COURSE NAME: Overview of Devops tools and technologies

RESOURCE PERSON: Mr.C.Senthil Kumar

CLASS: S7/IV CSE

COURSE DESCRIPTION:

DevOps tools and technologies are essential for automating and streamlining the software development lifecycle. These tools facilitate collaboration between development and operations teams, enabling continuous integration, continuous delivery, and infrastructure automation. Popular version control tools like Git and platforms such as GitHub or GitLab help manage source code and track changes. Continuous Integration (CI) tools like Jenkins automate the building and testing of code, ensuring faster releases. Configuration management tools like Ansible, Puppet, and Chef automate infrastructure provisioning and configuration. Docker and Kubernetes enable containerization and orchestration for scalable application deployment. Infrastructure as Code (IaC) tools, including Terraform, help provision cloud resources and infrastructure efficiently. Monitoring tools like Prometheus, Grafana, and ELK Stack provide insights into system performance, while collaboration tools like Slack and Jira enhance team communication. With these technologies, DevOps ensures faster, reliable, and secure software delivery.

COURSE OUTCOME:

After completing this course, students will be able to:

CO1 Understand the core principles and practices of DevOps

CO2 Master Version Control and Continuous Integration (CI) tools

CO3 Implement Continuous Delivery (CD) and automation using relevant tools

CO4 Apply Infrastructure as Code (IaC) principles for cloud environments

CO5 Utilize monitoring, logging, and collaboration tools to ensure efficient DevOps operations



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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

DETAILED SYLLABUS

Unit 1: Introduction to DevOps and Core Concepts

Overview of DevOps: Definition and history of DevOps-DevOps vs traditional software development models (Waterfall, Agile)-The DevOps lifecycle: Plan, Develop, Build, Test, Release, Deploy, Operate, Monitor-Benefits of adopting DevOps practices: speed, quality, collaboration, and reliability-Core DevOps Principles: Continuous Integration (CI)-Continuous Delivery (CD)-Infrastructure as Code (IaC)-Monitoring and Logging-Collaboration and communication

Unit 2: Version Control and Continuous Integration (CI) Tools

Version Control Systems (VCS):-Introduction to Git-Git workflows (feature branches, GitFlow, forking model)-GitHub, GitLab, Bitbucket-Continuous Integration (CI) Tools:-Jenkins: Installation, configuration, and pipeline creation-GitLab CI/CD-CircleCI, Travis CI, and other CI tools-Automating builds, tests, and deployments in a CI pipeline-Code Quality and Security in CI: Static code analysis tools (SonarQube)-Security scanning tools (Snyk, Dependabot)

Unit 3: Continuous Delivery/Continuous Deployment (CD) and Automation Tools

Continuous Delivery (CD) Concepts: Difference between Continuous Delivery and Continuous Deployment-Setting up a CD pipeline-Rollback strategies and Blue/Green deployments-Configuration Management Tools: Ansible: Automation and configuration management-Puppet: Infrastructure automation and orchestration-Chef: Infrastructure as code and automation-Containerization and Orchestration: Docker: Building, managing, and running containers-Kubernetes: Container orchestration, pods, and services-Docker Compose for multi-container applications

Unit 4: Infrastructure as Code (IaC) and Cloud Platforms

Infrastructure as Code (IaC): Introduction to IaC and its role in DevOps-Benefits of IaC in automation and scalability IaC Tools: Terraform: Infrastructure provisioning and



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management-AWS CloudFormation: Infrastructure as code for AWS-Ansible for provisioning and configuration management-Cloud Platforms for DevOps:Overview of public clouds (AWS, Azure, Google Cloud)-Key DevOps services on cloud platforms (e.g., AWS CodePipeline, Azure DevOps)-Hybrid and multi-cloud strategies

Unit 5: Monitoring, Logging, and Collaboration Tools

Monitoring and Logging Tools:Prometheus and Grafana for monitoring and alerting-ELK Stack (Elasticsearch, Logstash, Kibana) for logging and log aggregation-New Relic, Datadog, and Splunk for monitoring and analytics-Collaboration Tools:-Slack, Microsoft Teams, and their role in DevOps collaboration-Jira, Trello for task management in DevOps teams-Documentation and knowledge sharing (Confluence, GitLab Wiki):Security and Compliance in DevOps:DevSecOps: Integrating security into the DevOps lifecycle-Security tools (OWASP, Aqua Security)-Automated compliance checks

COURSE ARTICULATION MATRIX

CO	Bloom's taxonomy level	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8	P O 9	P O 10	P O 11	P O 12	P S O 1	P S O 2	P S O 3	Assessments(Periodic tests/Quiz/Assignments)
CO1	3	3	3	2	2	3	1	1	1	2	2	1	1	3	2	3	Quiz/Assignments
CO2	4	3	3	2	2	3	1	1	1	2	2	1	1	3	2	3	Quiz/Assignments
CO3	4	2	3	3	3	3	2	2	2	2	2	2	2	3	2	2	Quiz/Assignments
CO4	5	2	3	2	3	3	2	2	2	2	2	2	2	2	2	2	Quiz/Assignments
CO5	6	2	3	3	3	3	2	2	2	2	2	2	2	3	3	2	Quiz/Assignments



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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

COURSE PLAN

Overview of DevOps tools and technologies

S.NO	No of periods required to handle	No of periods handled (cumulative)	Course Content	Delivery mode	Assessments(Periodic tests/Quiz/Assignments)
1	1	1	Overview of DevOps:Definition and history of DevOps, DevOps vs traditional software development models (Waterfall, Agile)	PPT	Assessments(Periodic tests/Quiz/Assignments)
2	1	2	The DevOps lifecycle: Plan, Develop, Build, Test, Release, Deploy, Operate, Monitor	PPT	Assessments(Periodic tests/Quiz/Assignments)
3	1	3	Benefits of adopting DevOps practices: speed, quality, collaboration, and reliability	PPT	Assessments(Periodic tests/Quiz/Assignments)
4	1	4	Core DevOps Principles:Continuous Integration (CI), Continuous Delivery (CD)	PPT	Assessments(Periodic tests/Quiz/Assignments)
5	2	6	Infrastructure as Code (IaC), Monitoring and Logging	PPT	Assessments(Periodic tests/Quiz/Assignments)
6	1	7	Collaboration and communication	PPT	Assessments(Periodic tests/Quiz/Assignments)
7	1	8	Version Control Systems (VCS):-Introduction to Git- Git workflows (feature branches, GitFlow, forking model)	PPT	Assessments(Periodic tests/Quiz/Assignments)



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8	1	9	GitHub, GitLab, Bitbucket-Continuous Integration (CI) Tools	PPT	Assessments(Periodic tests/Quiz/Assignments)
9	1	10	Jenkins: Installation, configuration, and pipeline creation	PPT	Assessments(Periodic tests/Quiz/Assignments)
10	1	11	GitLab CI/CD, CircleCI, Travis CI, and other CI tools	PPT	Assessments(Periodic tests/Quiz/Assignments)
11	1	12	Automating builds, tests, and deployments in a CI pipeline	PPT	Assessments(Periodic tests/Quiz/Assignments)
12	1	13	Code Quality and Security in CI:Static code analysis tools (SonarQube)	PPT	Assessments(Periodic tests/Quiz/Assignments)
13	1	14	Security scanning tools (Snyk, Dependabot)	PPT	Assessments(Periodic tests/Quiz/Assignments)
14	1	15	Continuous Delivery (CD) Concepts:Difference between Continuous Delivery and Continuous Deployment	PPT	Assessments(Periodic tests/Quiz/Assignments)
15	1	16	Setting up a CD pipeline-Rollback strategies and Blue/Green deployments	PPT	Assessments(Periodic tests/Quiz/Assignments)
16	1	17	Configuration Management Tools:Ansible: Automation and configuration management-	PPT	Assessments(Periodic tests/Quiz/Assignments)
17	1	18	Puppet: Infrastructure automation and orchestration	PPT	Assessments(Periodic tests/Quiz/Assignments)



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18	1	19	Chef: Infrastructure as code and automation	PPT	Assessments(Periodic tests/Quiz/Assignments)
19	1	20	Containerization and Orchestration	PPT	Assessments(Periodic tests/Quiz/Assignments)
20	1	21	Docker: Building, managing, and running containers	PPT	Assessments(Periodic tests/Quiz/Assignments)
21	1	22	Kubernetes: Container orchestration, pods, and services	PPT	Assessments(Periodic tests/Quiz/Assignments)
22	1	23	Docker Compose for multi-container applications	PPT	Assessments(Periodic tests/Quiz/Assignments)
23	1	24	Infrastructure as Code (IaC):Introduction to IaC and its role in DevOps	PPT	Assessments(Periodic tests/Quiz/Assignments)
24	1	25	Benefits of IaC in automation and scalability IaC Tools:Terraform: Infrastructure provisioning and management	PPT	Assessments(Periodic tests/Quiz/Assignments)
25	1	26	AWS CloudFormation: Infrastructure as code for AWS	PPT	Assessments(Periodic tests/Quiz/Assignments)
26	1	27	Ansible for provisioning and configuration management-Cloud	PPT	Assessments(Periodic tests/Quiz/Assignments)
27	2	29	Platforms for DevOps:Overview of public clouds (AWS, Azure, Google Cloud)	PPT	Assessments(Periodic tests/Quiz/Assignments)
28	1	30	Key DevOps services on cloud platforms (e.g., AWS CodePipeline,	PPT	Assessments(Periodic tests/Quiz/Assignments)



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			Azure DevOps)-Hybrid and multi-cloud strategies		
29	1	31	Monitoring and Logging Tools:Prometheus and Grafana for monitoring and alerting-	PPT	Assessments(Periodic tests/Quiz/Assignments)
30	1	32	ELK Stack (Elasticsearch, Logstash, Kibana) for logging and log aggregation-	PPT	Assessments(Periodic tests/Quiz/Assignments)
31	1	33	New Relic, Datadog, and Splunk for monitoring and analytics-	PPT	Assessments(Periodic tests/Quiz/Assignments)
32	1	34	Collaboration Tools:-Slack, Microsoft Teams, and their role in DevOps collaboration-	PPT	Assessments(Periodic tests/Quiz/Assignments)
33	1	35	Jira, Trello for task management in DevOps teams-	PPT	Assessments(Periodic tests/Quiz/Assignments)
34	2	37	Documentation and knowledge sharing (Confluence, GitLab Wiki):Security and Compliance in DevOps:	PPT	Assessments(Periodic tests/Quiz/Assignments)
35	2	39	DevSecOps: Integrating security into the DevOps lifecycle-	PPT	Assessments(Periodic tests/Quiz/Assignments)
36	1	40	Security tools (OWASP, Aqua Security)-Automated compliance checks	PPT	Assessments(Periodic tests/Quiz/Assignments)

Note: Delivery Mode- 1. Participative learning-Interaction between staff and students during lecture(Seminar/Quiz etc.)
2. Flipped Classroom- Discussion of content circulated through Google Classroom
3.Experiential Learning- Lab or Field based demonstrative learning.
4. Model/Project based learning- Demonstration done using models/Projects


COURSE COORDINATOR


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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

COURSE CODE/ COURSE NAME: Overview of Devops tools and technologies

CLASS: IV CSE

S.NO	Register No.	Name of the Student
1	963520104001	AANI MONCY.M
2	963520104002	AARTHI.R
3	963520104003	AASHIMA.A
4	963520104004	AATHIRA.S.P
5	963520104005	ADLIN ABI.R.S
6	963520104006	AJAY.R
7	963520104007	AKIL.M
8	963520104008	AKNEL REFANCY.U
9	963520104009	ALBERT.G
10	963520104010	ANDREA CHANDRASHEKAR
11	963520104011	ANTRIES JIRCY.A
12	963520104012	AROCKIA JESIN.J
13	963520104013	ARUN.J
14	963520104014	ASHIKA.M
15	963520104015	ASLIN.R
16	963520104016	ASWATHY.G
17	963520104017	ASWIN.V.S
18	963520104018	ASWINI.P
19	963520104019	BERLIN NIMISHA JIO.F



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20	963520104020	BIBIN KISHORE.M
21	963520104021	DENISHLIN HERSHO.M
22	963520104022	DHUSNY RAJ.P
23	963520104023	DIVYA DHARSHIN.L.R
24	963520104024	DURSHIKA.K.J
25	963520104025	EUNEAK.E
26	963520104026	GIRINATH.R
27	963520104027	HARISH SURESH KUMAR.S
28	963520104028	HOLIN.R.NINO
29	963520104029	JINCY.A
30	963520104030	JOEL XAVIER
31	963520104031	JOEVIN STANY.L
32	963520104032	JOSHUA.J
33	963520104033	MINISHA.P
34	963520104034	NITHEESH.R.P
35	963520104035	NITHIN.A
36	963520104036	POOJA.J.P
37	963520104037	PRIDNLM
38	963520104038	RAHINI.I
39	963520104039	RATHEESH KUMAR.R
40	963520104040	RISHIKA.G
41	963520104041	ROSHAN LAL.J
42	963520104042	RUFUS JACKSON.J



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43	963520104043	SAHAYA ASHIK.S
44	963520104044	SANJAL.M.I
45	963520104045	SHAJAN SANTOSH.A
46	963520104046	SHERIN.S
47	963520104048	SREEBA.S
48	963520104049	SUBITHA.S.K
49	963520104050	TAMIL.M
50	963520104051	THARUN.V
51	963520104052	UVASREE.U.V
52	963520104053	VINOTH.R
53	963520104054	VINUSHA.V.S
54	963520104302	ANILA. T
55	963520104303	ANTONY VINO K
56	963520104305	JOEL JOHNSON
57	963520104306	JOHN DIXON.W
58	963520104307	KALAIX.K
59	963520104308	KARTHIKEYAN.S
60	963520104309	KISHORE KUMAR.M
61	963520104310	LIBIN.R
62	963520104311	NELSON SOLOMON FERNANDES
63	963520104312	VIJESH.G


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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

VALUE ADDED COURSE

EVEN 2023-2024

COURSE CODE/ COURSE NAME: VAC 30-Power BI

RESOURCE PERSON: Mrs. Mary Nathusiya.B, Mr. M. Rajeshkumar

CLASS:S4/II CSE A, B

COURSE DESCRIPTION:

Power BI is a business analytics tool developed by Microsoft that enables users to visualize and share insights from their data. It provides a comprehensive set of tools for transforming, analyzing, and visualizing data through interactive dashboards and reports. Power BI integrates seamlessly with various data sources, including Excel, SQL Server, and cloud services like Azure. Users can create real-time dashboards, perform data analysis with built-in AI capabilities, and collaborate on reports. It offers both cloud-based and on-premises solutions, catering to businesses of all sizes. Power BI's intuitive interface and powerful features make it a popular choice for data-driven decision-making.

COURSE OUTCOME:

CO1: Proficiency in Data Import and Transformation Using Power Query

CO2: Mastery of Data Modeling and Relationships in Power BI

CO3: Expertise in Using DAX for Data Analytics

CO4: Ability to Design Interactive and Effective Data Visualizations

CO5: Competence in Report Publishing and Sharing in Power BI Service

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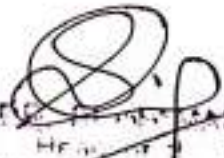
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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

DETAILED SYLLABUS

Sl. No	Topic	Lecture Hours
1	Module 1 Basics of Power BI Importing Data and Power Query Fundamentals—Connecting to a Folder as a Data Source—Table Types and Relational Data Modeling—Common Data Transformations with Power Query—Adding New Columns with Power Query—Merging Tables with Power Query- Intelligent Data Filtering with Power Query.	14
2	Module 2 Data Modeling and Relationships Data Modeling and Relationships—Understanding the Data View in Power BI—Column Settings and Hierarchies In Power BI—Data—Data Analytics with DAX Measures—Report View Walkthrough—Creating Basic DAX Measures—Creating a DAX Measures Table—Referencing DAX Measures—DAX Concepts and Fundamentals.	13
3	Module 3 Data Visualization and Modern Reporting Creating Visualizations Matrix Table—Running Total Chart—Column and Line Chart - Conditional Formatting and Waterfall Charts—Card Visualizations and Title Section—Slicers and Filter Settings—Formatting and Report Design—Report Publishing and the Power BI Service—Report Publishing and the Power BI Service.	13


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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

COURSE PLAN

S.NO	No of periods required to handle	No of periods handled (cumulative)	Course Content	Delivery mode	Assessments(Periodic tests/Quiz/Assignments)
1	2	2	Basics of Power BI Importing Data and Power Query Fundamentals	PPT	Assessments(Periodic tests/Quiz/Assignments)
2	2	4	Connecting to a Folder as a Data Source	PPT	Assessments(Periodic tests/Quiz/Assignments)
3	2	6	Table Types and Relational Data Modeling	PPT	Assessments(Periodic tests/Quiz/Assignments)
4	2	8	Common Data Transformations with Power Query	PPT	Assessments(Periodic tests/Quiz/Assignments)
5	2	10	Adding New Columns with Power Query	PPT	Assessments(Periodic tests/Quiz/Assignments)
6	2	12	Merging Tables with Power Query	PPT	Assessments(Periodic tests/Quiz/Assignments)
7	2	14	Intelligent Data Filtering with Power Query.	PPT	Assessments(Periodic tests/Quiz/Assignments)
8	2	16	Data Modeling and Relationships Data Modeling and Relationships	PPT	Assessments(Periodic tests/Quiz/Assignments)
9	2	18	Understanding the Data View in Power BI	PPT	Assessments(Periodic tests/Quiz/Assignments)
10	2	20	Column Settings and Hierarchies In Power BI	PPT	Assessments(Periodic tests/Quiz/Assignments)



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11	1	21	Data-Data Analytics with DAX Measures	PPT	Assessments(Periodic tests/Quiz/Assignments)
12	1	22	Report View Walkthrough	PPT	Assessments(Periodic tests/Quiz/Assignments)
13	1	23	Creating Basic DAX Measures	PPT	Assessments(Periodic tests/Quiz/Assignments)
14	1	24	Creating a DAX Measures Table	PPT	Assessments(Periodic tests/Quiz/Assignments)
15	1	25	Referencing DAX Measures	PPT	Assessments(Periodic tests/Quiz/Assignments)
16	2	'27	DAX Concepts and Fundamentals.	PPT	Assessments(Periodic tests/Quiz/Assignments)
17	2	29	Data Visualization and Modern Reporting Creating Visualizations Matrix Table	PPT	Assessments(Periodic tests/Quiz/Assignments)
18	2	31	Running Total Chart	PPT	Assessments(Periodic tests/Quiz/Assignments)
19	2	33	Column and Line Chart	PPT	Assessments(Periodic tests/Quiz/Assignments)
20	1	34	Conditional Formatting and Waterfall Charts	PPT	Assessments(Periodic tests/Quiz/Assignments)
21	1	35	Card Visualizations and Title Section	PPT	Assessments(Periodic tests/Quiz/Assignments)
22	1	36	Slicers and Filter Settings	PPT	Assessments(Periodic tests/Quiz/Assignments)
23	1	37	Formatting and Report Design	PPT	Assessments(Periodic tests/Quiz/Assignments)
24	1	38	Report Publishing and the Power BI Service	PPT	Assessments(Periodic tests/Quiz/Assignments)



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25	2	40	Report Publishing and the Power BI Service.	PPT	Assessments(Periodic tests/Quiz/Assignments)
Note: Delivery Mode- 1. Participative learning-Interaction between staff and students during lecture(Seminar/Quiz etc..) 2. Flipped Classroom- Discussion of content circulated through Google Classroom 3.Experiential Learning- Lab or Field based demonstrative learning. 4. Model/Project based learning- Demonstration done using models/Projects					

COURSE COORDINATOR

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

COURSE CODE/ COURSE NAME: VAC 30-Power BI

CLASS: II CSE A

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4	963522104007	ABISHEK.K
5	963522104008	ABISHEK.M
6	963522104009	ABITHA.A.L
7	963522104010	ADCHUTHAN.J.R
8	963522104012	AJIN.S
9	963522104013	AJISH.M
10	963522104017	ANTONY REMANE.S
11	963522104020	ASHICK LEONUT.A
12	963522104026	ASVITHA.S
13	963522104027	ASWIN.J
14	963522104028	ATHITHYA NAREN K V
15	963522104030	AUTHAVA.V.S
16	963522104033	BELSHA EVE GOLDY.M
17	963522104034	BENNYHINN SAM.T
18	963522104036	BHARATH KANTH.R.N



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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

19	963522104037	BIJO ANNAN.B
20	963522104038	CHRISTOBHA.T
21	963522104039	FRANCINA RAJ.J
22	963522104041	FREEDA JOSE.B
23	963522104044	JAJASHIN.LJ
24	963522104049	JENISHA.M
25	963522104050	JERLIN SHABI.S.G
26	963522104051	JEROLD SUBIN.S
27	963522104057	JIJU.G
28	963522104059	JOHN SHALAMON M
29	963522104063	KARTHEESWARI.V
30	963522104064	KISHAL.M
31	963522104067	LIBIN RAJ.F
32	963522104068	LIGIN.M
33	963522104069	LUXICA BENCY.G.K
34	963522104072	MARIA BENSIYA.S
35	963522104074	MAXWELL RUBERT.B
36	963522104076	MICHEL NITHESH.S
37	963522104079	MUHAMED FATEEN.M
38	963522104082	NAVEENA.S
39	963522104084	NISHMI VINISHA.A.J
40	963522104086	PRAVEEN.T.S
41	963522104087	PRIM SAJUN.P



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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

COURSE CODE/ COURSE NAME: VAC 30-Power BI

CLASS: II CSE B

S.NO	REG NO	NAME
1	963522104001	AAKIF AKRAM.A
2	963522104011	AJAI KUMAR.R
3	963522104014	AKASNI BRUTSHIBA.C
4	963522104016	ANNIE HEMA.A
5	963522104018	ANUPREM.J
6	963522104019	ARAVIND.M
7	963522104021	ASHIKA.L
8	963522104022	ASHMLB
9	963522104023	ASHMLP
10	963522104024	ASLIN VINISH.M
11	963522104025	ASMIKA.R
12	963522104029	AUSLIN KIBHA.J
13	963522104031	AZHAR HUSSAIN.S
14	963522104032	BATHAN.J.C
15	963522104035	BERLIN.R.D
16	963522104040	FREDIC FEMIL MEBIHA.P
17	963522104042	IBANCY MICHEAL J
18	963522104043	INFANCE TONY.E
19	963522104045	JAKKULIN BRITTO.A



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20	963522104046	JEBARSHAN.J
21	963522104047	JENIBER JEYA.J
22	963522104048	JENILA.A
23	963522104052	JERSLIN BENISH.J
24	963522104053	JERSON.J
25	963522104054	JERVIN REVALDO.X
26	963522104055	JESHWIN ANTONY BENADICTUS.J
27	963522104056	JEYANTH.K.L
28	963522104058	JOEL JACKSON.J
29	963522104060	JOHNSTON ANTON.S
30	963522104061	JOSEPH RISHAN.V
31	963522104062	JUDE SHARUK.J
32	963522104065	LEJO.J
33	963522104066	LIBIN.M
34	963522104070	MAHA LAKSHMI.G
35	963522104071	MANUSHA.P
36	963522104073	MARSHA GRASIS
37	963522104075	MERCY.B
38	963522104077	MOHAMED SHAHID.S
39	963522104078	MOHAMMED RAFEEL.A.K
40	963522104080	MUHAMMED HASSAN.M.N
41	963522104081	NAGALAKSHMI.M
42	963522104083	NISHAN.E



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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

43	963522104085	NIVETHA.M.K
44	963522104089	RABISHA.R
45	963522104091	RAGUL.R (Rajakumar.P)
46	963522104090	RAGUL.R (Ramar.I)
47	963522104094	RAKESH.M
48	963522104095	REJUNE.M
49	963522104096	RESHIKAN.G
50	963522104099	RIHASHA.J
51	963522104100	RISHIKA.K
52	963522104102	ROSHAN.R.S
53	963522104103	RUBIT.G.R.SEBA
54	963522104105	SABIN.M
55	963522104107	SAHAYA MERUSHA.E
56	963522104108	SAHAYA TEENU.S
57	963522104113	SHAMILI.S
58	963522104116	SIVAN.R
59	963522104117	SREE KRISHNAN S
60	963522104118	SREE SNEHA.K.A
61	963522104119	SRI RAM.S
62	963522104121	THISHON.M
63	963522104302	BAVJITH.D


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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

VALUE ADDED COURSE

EVEN 2023-2024

COURSE CODE/ COURSE NAME: VAC 31 BIG DATA TOOLS

RESOURCE PERSON: Mrs. G. Sutheslin Subitha

CLASS: S5/III CSE

COURSE DESCRIPTION:

Big Data tools are software applications and technologies designed to process, analyze, and visualize vast amounts of data, often from various sources. These tools help organizations manage and derive valuable insights from data that is too large or complex for traditional data-processing methods. Popular Big Data tools include Hadoop, an open-source framework for distributed storage and processing; Apache Spark, which is used for fast, in-memory data processing; and NoSQL databases like MongoDB and Cassandra, which are designed for unstructured or semi-structured data. Hive and Pig provide SQL-like interfaces for data analysis on Hadoop. Apache Flink and Kafka enable real-time data streaming and processing. These tools allow businesses to manage large-scale data sets and perform advanced analytics, helping organizations make data-driven decisions. With the growing demand for data analytics, these tools are integral to handling Big Data in various industries.

COURSE OUTCOME:

After completing this course, students will be able to:

CO1: Understanding the Basics and Characteristics of Big Data

CO2: Proficiency in NoSQL Databases and MongoDB

CO3: Mastery of Hadoop Ecosystem and Resource Management

CO4: Expertise in Data Processing with MapReduce, HIVE, and Pig

CO5: Competence in Advanced Data Processing and Querying Techniques



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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

DETAILED SYLLABUS

VAC 31 BIG DATA TOOLS

Sl. No	Topic	Lecture Hours
1	Introduction to Big Data Classification of Data – Characteristics of Data – Evolution of Big Data – Characteristics of Big Data – Data warehouse Environment – Hadoop Environment – Terminologies used in Big Data Environments.	6
2	Introduction to NoSQL, Hadoop, MongoDB Types of NoSQL databases - Why NoSQL? - Use of NoSQL in Industry - SQL vs NoSQL, NewSQL - History of Hadoop - Overview of Hadoop and Hadoop Ecosystems - Versions of Hadoop, Hadoop distributions - Managing Resources and applications with Hadoop YARN MongoDB: Introduction - Why MongoDB? - Creating or generating a unique key - Support for Dynamic Queries - Storing Binary Data - Replication, Sharding, Updating information in place.	17
3	Introduction to Map Reduce, HIVE and Pig Map Reduce: Data Flow - Map, Shuffle, Sort - Reduce, Hadoop Streaming - mrjob, Installation, word count in mrjob- Executing mrjob. HIVE: Introduction: What is HIVE? - HIVE Architecture - HIVE data Types - HIVE File Formats - HIVE Query Language - RCFile implementation - SerDe- User Defined Functions. Pig: Introduction: What is Pig? The anatomy of Pig - Pig on Hadoop- Pig philosophy - Use Case for Pig - ETL Processing - Pig overview - Data types in Pig - Running Pig - Execution modes of Pig.	17
	Total	40



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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

COURSE PLAN

VAC 31 BIG DATA TOOLS

S.NO	No of periods required to handle	No of periods handled (cumulative)	Course Content	Delivery mode	Assessments(Periodic tests/Quiz/Assignments)
1	1	1	Classification of Data	PPT	Assessments(Periodic tests/Quiz/Assignments)
2	1	2	Evolution of Big Data	PPT	Assessments(Periodic tests/Quiz/Assignments)
3	1	3	Characteristics of Big Data	PPT	Assessments(Periodic tests/Quiz/Assignments)
4	1	4	Data warehouse Environment	PPT	Assessments(Periodic tests/Quiz/Assignments)
5	1	5	Hadoop Environment	PPT	Assessments(Periodic tests/Quiz/Assignments)
6	1	6	Terminologies used in Big Data Environments.	PPT	Assessments(Periodic tests/Quiz/Assignments)
7	1	7	Types of NoSQL databases	PPT	Assessments(Periodic tests/Quiz/Assignments)
8	1	8	Why NoSQL?	PPT	Assessments(Periodic tests/Quiz/Assignments)
9	1	9	Use of NoSQL in Industry	PPT	Assessments(Periodic tests/Quiz/Assignments)
10	1	10	SQL vsNoSQL, NewSQL	PPT	Assessments(Periodic tests/Quiz/Assignments)
11	1	11	History of Hadoop	PPT	Assessments(Periodic tests/Quiz/Assignments)
12	1	12	Overview of Hadoop and Hadoop Ecosystems	PPT	Assessments(Periodic tests/Quiz/Assignments)



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13	1	13	Versions of Hadoop, Hadoop distributions	PPT	Assessments(Periodic tests/Quiz/Assignments)
14	1	14	Managing Resources and applications with Hadoop YARN	PPT	Assessments(Periodic tests/Quiz/Assignments)
15	1	15	MongoDB: Introduction - Why MongoDB?	PPT	Assessments(Periodic tests/Quiz/Assignments)
16	2	17	Creating or generating a unique key	PPT	Assessments(Periodic tests/Quiz/Assignments)
17	2	19	Support for Dynamic Queries	PPT	Assessments(Periodic tests/Quiz/Assignments)
18	2	21	Storing Binary Data	PPT	Assessments(Periodic tests/Quiz/Assignments)
19	2	23	Replication, Sharding, Updating information in place.	PPT	Assessments(Periodic tests/Quiz/Assignments)
20	1	24	Map Reduce: Data Flow,Map, Shuffle, Sort	PPT	Assessments(Periodic tests/Quiz/Assignments)
21	1	25	Reduce, Hadoop Streaming	PPT	Assessments(Periodic tests/Quiz/Assignments)
22	1	26	mrjob, Installation, word count in mrjob, Executingmrjob.	PPT	Assessments(Periodic tests/Quiz/Assignments)
23	1	27	HIVE: Introduction: What is HIVE?	PPT	Assessments(Periodic tests/Quiz/Assignments)
24	1	28	HIVE Architecture, HIVE data Types	PPT	Assessments(Periodic tests/Quiz/Assignments)
25	1	29	HIVE File Formats	PPT	Assessments(Periodic tests/Quiz/Assignments)



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26	1	30	HIVE Query Language	PPT	Assessments(Periodic tests/Quiz/Assignments)
27	1	31	RCFile implementation	PPT	Assessments(Periodic tests/Quiz/Assignments)
28	1	32	SerDe- User Defined Functions.	PPT	Assessments(Periodic tests/Quiz/Assignments)
29	1	33	Pig: Introduction: What is Pig?	PPT	Assessments(Periodic tests/Quiz/Assignments)
30	1	34	The anatomy of Pig	PPT	Assessments(Periodic tests/Quiz/Assignments)
31	1	35	Pig on Hadoop	PPT	Assessments(Periodic tests/Quiz/Assignments)
32	1	36	Pig philosophy	PPT	Assessments(Periodic tests/Quiz/Assignments)
33	1	37	Use Case for Pig	PPT	Assessments(Periodic tests/Quiz/Assignments)
34	1	38	ETL Processing	PPT	Assessments(Periodic tests/Quiz/Assignments)
35	1	39	Pig overview - Data types in Pig	PPT	Assessments(Periodic tests/Quiz/Assignments)
36	1	40	Running Pig - Execution modes of Pig.	PPT	Assessments(Periodic tests/Quiz/Assignments)

Note: Delivery Mode- 1. Participative learning-Interaction between staff and students during lecture(Seminar/Quiz etc..)
2. Flipped Classroom- Discussion of content circulated through Google Classroom
3. Experiential Learning- Lab or Field based demonstrative learning.
4. Model/Project based learning- Demonstration done using models/Projects


Course Coordinator


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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

COURSE ARTICULATION MATRIX

VAC 31 BIG DATA TOOLS

CO	Bloom's taxonomy level	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8	P O 9	P O 10	P O 11	P O 12	P S O 1	P S O 2	P S O 3	Assessments(Periodic tests/Quiz/Assignments)
CO1	2	2	3	3	2	3	2	1	2	2	3	1	2	3	3	3	Quiz/Assignments
CO2	3	3	3	3	3	3	2	2	2	2	3	2	2	3	3	3	Quiz/Assignments
CO3	3	3	3	3	3	3	2	2	2	2	3	2	3	3	3	3	Quiz/Assignments
CO4	5	3	3	3	3	3	2	2	2	3	3	2	3	3	3	3	Quiz/Assignments
CO5	4	3	3	3	3	3	2	2	2	3	3	3	3	3	3	3	Quiz/Assignments


COURSE COORDINATOR


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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CLASS: III CSE

VAC 31 BIG DATA TOOLS

S.NO	Register Number	Name of the Student
1	963521104001	ABILAA B
2	963521104002	ABINESH M
3	963521104003	ABINESH.R.M
4	963521104004	ABISH.S
5	963521104005	ABISHEK R
6	963521104006	ABISHEK W
7	963521104007	ACHSHA STEFFINA.A
8	963521104008	ADIL AHAMED J
9	963521104009	AKSHA BERIN M
10	963521104010	ANISH J
11	963521104011	AROCKIA KUVINSTON
12	963521104012	ARTHIKA M
13	963521104013	BABISHA.M
14	963521104014	BAVITHRA.A
15	963521104015	DHANA LEKSHMI K
16	963521104016	DONALIKA C S
17	963521104017	GURU RAHUL R U
18	963521104018	HELINA VENSUS V
19	963521104019	HENIPA RAJ.P
20	963521104020	INFANT JENO J
21	963521104021	JASELIN V S



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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

22	963521104022	JEFFRY DAVID M
23	963521104023	JEFRIN BABISH J H
24	963521104024	JENIFER J
25	963521104026	JENISHIYA J
26	963521104027	JEYA VIHASH P R
27	963521104028	JOEL K
28	963521104029	JUTLINE RESHMAN H
29	963521104030	KARTHIKA DEVI .M
30	963521104031	KARUPPASAMY K
31	963521104032	KAVIN BRYLO.M
32	963521104033	KINGSHIYA K S
33	963521104034	KISHORE RAJA C
34	963521104035	LEJU B
35	963521104036	LINGSHA SHAMLX
36	963521104037	MAHISHA T
37	963521104038	MARIMUTHU L
38	963521104039	MARY SHERINA.P
39	963521104040	MOHAMED ALTHAF
40	963521104041	MOHAMMED AMEEN M
41	963521104043	NATHIM KHAN P
42	963521104044	NIVEATHAN S
43	963521104045	PRIYANSHU B
44	963521104046	RENUSHA R
45	963521104047	RITHICK SHABU R C

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

46	963521104048	SAHAYA BERSIYA V
47	963521104049	SHAJINLM
48	963521104050	SHARON R
49	963521104051	SHENIHA C S
50	963521104052	SHERIN S
51	963521104053	SHIBU MON J
52	963521104054	SHIMIYON RAJ R
53	963521104055	SHIVA V
54	963521104056	SIVITHRA.M
55	963521104057	SNEKJA D
56	963521104058	SOBIKA R
57	963521104059	SREEJA S
58	963521104060	THANGA NIVETHA.B
59	963521104061	THANYA.S
60	963521104062	THULASI J
61	963521104063	VIGNESH R
62	963521104301	JOSHVA.S
63	963521104302	SUJAIKUMAR.T
64	963521104303	SUJITH.R.J
65	963521104304	VIVEK.A


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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CERTIFICATION COURSE

UST GLOBAL, TIRUVANDRUM

COURSE CODE/ COURSE NAME: WEB DEVELOPMENT

RESOURCE PERSON: *UST Global*

CLASS:II CSE

COURSE DESCRIPTION:

Web development is the process of creating and maintaining websites and web applications. It involves a combination of coding, design, and content management to build functional, user-friendly websites. Front-end development focuses on the visual and interactive aspects of a site using technologies like HTML, CSS, and JavaScript. Back-end development handles server-side logic, databases, and application functionality. Web developers also ensure responsive design, accessibility, and performance optimization. Tools like Bootstrap and frameworks like React.js are commonly used to streamline development. Understanding media integration, navigation, forms, and APIs is essential for dynamic web applications. Web development also emphasizes usability, SEO, and security best practices. Developers must stay updated with evolving technologies and frameworks. Ultimately, web development allows businesses and individuals to establish an online presence, connecting with users worldwide.

COURSE OUTCOME:

After completing this course, students will be able to:

CO1: Master the Fundamental Concepts of Web Development with HTML, CSS, and Media Elements

CO2: Design and Develop Interactive Web Pages Using Bootstrap and JavaScript

CO3: Utilize Advanced JavaScript Features and Techniques for Efficient Coding

CO4: Understand and Implement React.js for Modern Web Development

CO5: Build Full-Stack Web Applications with Modern Tools and Frameworks



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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

S3 & S4 -WEB DEVELOPMENT

UST GLOBAL, TIRUVANDRUM

SYLLABUS

UNIT-1 HTML

Formatting tags, Quotation tags -Links, CSS intro(inline, internal, external), colors, font alignment -Types of list and Navigation bar-Text Properties -Media files(Image, Audio, Video) -Div tag, Grid & Flex, Tables, nested table -I frame & Attributes -Form Input types & Form Elements, Form Attributes & Input Attributes -Background Properties, selectors - Media Query

UNIT-2 Bootstrap & JavaScript

Introduction, color -Navigation -Responsive -Tool Tip -Grid Carousel -Animation (MDN) JavaScript Intro -Connection and Output -Selectors -Variables -Datatypes, Function -Object Properties, Methods -Object Constructor -Events -String, Method, search, Template -Array, Method, search -Array Sort, Iteration, const -Comparison -Conditional Statement (if, if else, else if) -Switch-Control Statement (For) -For in, For of -While loop -Jump Statements -Class and Inheritance -Set, Set Method -Map, Map Method -Type Conversion -Exception Handling

UNIT-3 JavaScript (ES6) & React.js

Hoisting -Template Literals -Arrow Function -Array DE structuring -Spread and Rest Operator -Asyn / Await -DOM Manipulation -React Intro and Installation -JSX -NPM- Component Architecture -State & Props -Functional Components and Class Connect API with-React App -React Routers -Server-side Render -Webpack -Redux -jQuery Basic



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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

COURSE PLAN

WEB DEVELOPMENT

S	No of periods required to handle	No of periods handled (cumulative)	Course Content	Delivery mode	Assessments(Periodic tests/Quiz/Assignments)
	1	1	Formatting tags, Quotation tags	PPT	Assessments(Periodic tests/Quiz/Assignments)
	1	2	Links, CSS intro(inline, internal, external), colors, font alignment	PPT	Assessments(Periodic tests/Quiz/Assignments)
	1	3	Types of list and Navigation bar	PPT	Assessments(Periodic tests/Quiz/Assignments)
	1	4	Text Properties	PPT	Assessments(Periodic tests/Quiz/Assignments)
	1	5	Media files(Image, Audio, Video)	PPT	Assessments(Periodic tests/Quiz/Assignments)
	1	6	Div tag, Grid & Flex, Tables, nested table	PPT	Assessments(Periodic tests/Quiz/Assignments)
	1	7	I frame & Attributes	PPT	Assessments(Periodic tests/Quiz/Assignments)
	1	8	Form Input types & Form Elements, Form Attributes & Input Attributes	PPT	Assessments(Periodic tests/Quiz/Assignments)
	1	9	Background Properties, selectors	PPT	Assessments(Periodic tests/Quiz/Assignments)
	1	10	Media Query	PPT	Assessments(Periodic tests/Quiz/Assignments)
	1	11	Introduction, color	PPT	Assessments(Periodic tests/Quiz/Assignments)
	1	12	Navigation	PPT	Assessments(Periodic tests/Quiz/Assignments)



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3	1	13	Responsive -Tool Tip -Grid Carousel	PPT	Assessments(Periodic tests/Quiz/Assignments)
4	1	14	Animation (MDN)	PPT	Assessments(Periodic tests/Quiz/Assignments)
5	1	15	JavaScript Intro	PPT	Assessments(Periodic tests/Quiz/Assignments)
6	1	16	Connection and Output	PPT	Assessments(Periodic tests/Quiz/Assignments)
7	1	17	Selectors -Variables	PPT	Assessments(Periodic tests/Quiz/Assignments)
8	1	18	DataTypes,Function,Object Properties, Methods	PPT	Assessments(Periodic tests/Quiz/Assignments)
9	1	19	Object Constructor	PPT	Assessments(Periodic tests/Quiz/Assignments)
0	1	20	Events -String, Method, search, Template	PPT	Assessments(Periodic tests/Quiz/Assignments)
1	1	21	Array, Method, search	PPT	Assessments(Periodic tests/Quiz/Assignments)
2	1	22	Array Sort, Iteration, const	PPT	Assessments(Periodic tests/Quiz/Assignments)
3	1	23	Comparison, Conditional Statement (if, if else, else if)	PPT	Assessments(Periodic tests/Quiz/Assignments)
4	1	24	Switch-Control Statement, For in, For of -While loop	PPT	Assessments(Periodic tests/Quiz/Assignments)
5	1	25	Jump Statements,Class and Inheritance	PPT	Assessments(Periodic tests/Quiz/Assignments)
6	1	26	Set, Set Method, Map, Map Method	PPT	Assessments(Periodic tests/Quiz/Assignments)
7	1	27	Type Conversion, Exception Handling	PPT	Assessments(Periodic



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					tests/Quiz/Assignments)
28	1	28	Hoisting -Template Literals	PPT	Assessments(Periodic tests/Quiz/Assignments)
29	1	29	Arrow Function -Array DEstructuring	PPT	Assessments(Periodic tests/Quiz/Assignments)
30	1	30	Spread and Rest Operator	PPT	Assessments(Periodic tests/Quiz/Assignments)
31	1	31	Asyn / Await -DOM Manipulation	PPT	Assessments(Periodic tests/Quiz/Assignments)
32	1	32	React Intro and Installation	PPT	Assessments(Periodic tests/Quiz/Assignments)
33	1	33	JSX -NPM	PPT	Assessments(Periodic tests/Quiz/Assignments)
34	1	34	Component Architecture	PPT	Assessments(Periodic tests/Quiz/Assignments)
35	1	35	State & Props	PPT	Assessments(Periodic tests/Quiz/Assignments)
36	1	36	Functional Components and Class Connect API with-React App	PPT	Assessments(Periodic tests/Quiz/Assignments)
37	1	37	React Routers	PPT	Assessments(Periodic tests/Quiz/Assignments)
38	1	38	Server-side Render	PPT	Assessments(Periodic tests/Quiz/Assignments)
39	1	39	Webpack-Redux	PPT	Assessments(Periodic tests/Quiz/Assignments)
40	1	40	jQuery Basic	PPT	Assessments(Periodic tests/Quiz/Assignments)

Note: Delivery Mode- 1. Participative learning-Interaction between staff and students during lecture(Seminar/Quiz etc..)
2. Flipped Classroom- Discussion of content circulated through Google Classroom
3. Experiential Learning- Lab or Field based demonstrative learning
4. Model/Project based learning- Demonstration done using models/Projects

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CO	Bloom's taxonomy level	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	Assessments(Periodic tests/Quiz/Assignments)
CO1	5	3	2	1	2	2	1	0	0	1	1	1	1	2	1	1	Quiz/Assignments
CO2	2	2	2	3	0	3	1	1	0	1	3	3	3	3	2	2	Quiz/Assignments
CO3	3	3	2	2	1	3	0	0	0	1	2	2	2	3	3	2	Quiz/Assignments
CO4	2	3	1	3	0	3	1	1	0	1	3	3	3	3	3	2	Quiz/Assignments
CO5	6	3	2	3	1	3	2	2	0	1	3	3	3	3	3	3	Quiz/Assignments


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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

II CSE A

WEB DEVELOPMENT

S.NO	REG NO	NAME
1	963522104003	ABINAYA.M
2	963522104005	ABISH.R
3	963522104006	ABISH.S
4	963522104007	ABISHEK.K
5	963522104008	ABISHEK.M
6	963522104009	ABITHA.A.L
7	963522104010	ADCHUTHAN.J.R
8	963522104012	AJIN.S
9	963522104013	AJISH.M
10	963522104017	ANTONY REMANE.S
11	963522104020	ASHICK LEONUT.A
12	963522104026	ASVITHA.S
13	963522104027	ASWIN.J
14	963522104028	ATHITHYA NAREN K V
15	963522104030	AUTHAVA.V.S
16	963522104033	BELSHA EVE GOLDY.M
17	963522104034	BENNYHINN SAM.T
18	963522104036	BHARATH KANTH.R.N
19	963522104037	BIJO ANNAN.B
20	963522104038	CHRISTOBHA.T



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21	963522104039	FRANCINA RAJJ
22	963522104041	FREEDA JOSE.B
23	963522104044	JAJASHINI.J
24	963522104049	JENISHA.M
25	963522104050	JERLIN SHABLS.G
26	963522104051	JEROLD SUBIN.S
27	963522104057	JJO.G
28	963522104059	JOHN SHALAMON M
29	963522104063	KARTHEESWARL.V
30	963522104064	KISHAL.M
31	963522104067	LIBIN RAJ.F
32	963522104068	LIGIN.M
33	963522104069	LUXICA BENCY.G.K
34	963522104072	MARIA BENSIYA.S
35	963522104074	MAXWELL RUBERT.B
36	963522104076	MICHEL NITTHESH.S
37	963522104079	MUHAMED FATEEN.M
38	963522104082	NAVEENA.S
39	963522104084	NISHMI VINISHA.A.J
40	963522104086	PRAVEEN.T.S
41	963522104087	PRIM SAJUN.P
42	963522104088	PRIYA DHARSHINI.S.A
43	963522104092	RAHUL.M



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44	963522104093	RAJASARATHI.K
45	963522104097	RESHMA.R
46	963522104101	RITHIKA.R
47	963522104104	RUSHMA.K
48	963522104106	SAHAYA ASMI LANIBA.P
49	963522104109	SANTHA KUMAR.R
50	963522104110	SAVIN.M
51	963522104111	SHAJILI.S
52	963522104112	SHALMA.V
53	963522104114	SHARON.A.B
54	963522104115	SHEJIN.R
55	963522104120	SURJITH.S.D
56	963522104123	VIJAY.J
57	963522104124	VIPIN SHARONE MONY.T
58	963522104125	VISHALIN.W
59	963522104301	ASHOK.M
60	963522104303	JERSIN.D
61	963522104304	LINKGAM.N


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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CLASS: II CSE B

WEB DEVELOPMENT

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1	963522104001	AAKIF AKRAM.A
2	963522104011	AJAI KUMAR.R
3	963522104014	AKASNI BRUTSHIBA.C
4	963522104016	ANNIE HEMA.A
5	963522104018	ANUPREM.J
6	963522104019	ARAVIND.M
7	963522104021	ASHIKA.L
8	963522104022	ASHMI.B
9	963522104023	ASHMI.P
10	963522104024	ASLIN VINISH.M
11	963522104025	ASMIKA.R
12	963522104029	AUSLIN KIBHA.J
13	963522104031	AZHAR HUSSAIN.S
14	963522104032	BATHAN.J.C
15	963522104035	BERLIN.R.D
16	963522104040	FREDIC FEMIL MEBIHA.P
17	963522104042	IBANCY MICHEAL J
18	963522104043	INFANCE TONY.E
19	963522104045	JAKKULIN BRITTO.A
20	963522104046	JEBARSHAN.J



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21	963522104047	JENIBER JEYA.J
22	963522104048	JENILA.A
23	963522104052	JERSLIN BENISH.J
24	963522104053	JERSON.J
25	963522104054	JERVIN REVALDO.X
26	963522104055	JESHWIN ANTONY BENADICTUS J
27	963522104056	JEYANTH.K.L
28	963522104058	JOEL JACKSON.J
29	963522104060	JOHNSTON ANTON.S
30	963522104061	JOSEPH RISHAN.V
31	963522104062	JUDE SHARUK.J
32	963522104065	LEJO.J
33	963522104066	LIBIN.M
34	963522104070	MAHA LAKSHMI.G
35	963522104071	MANUSHA.P
36	963522104073	MARSHA GRASIS
37	963522104075	MERCY.B
38	963522104077	MOHAMED SHAHID.S
39	963522104078	MOHAMMED RAFAEEK.A.K
40	963522104080	MUHAMMED HASSAN.M.N
41	963522104081	NAGALAKSHMI.M
42	963522104083	NISHAN.E
43	963522104085	NIVETHA.M.K



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44	963522104089	RABISHA.R
45	963522104091	RAGUL.R (Rajakumar.P)
46	963522104090	RAGUL.R (Ramar.I)
47	963522104094	RAKESH.M
48	963522104095	REJUNE.M
49	963522104096	RESHIKAN.G
50	963522104099	RIHASHA.J
51	963522104100	RISHIKA.K
52	963522104102	ROSHAN.R.S
53	963522104103	RUBIT.G.R.SEBA
54	963522104105	SABIN.M
55	963522104107	SAHAYA MERUSHA.E
56	963522104108	SAHAYA TEENU.S
57	963522104113	SHAMILI.S
58	963522104116	SIVAN.R
59	963522104117	SREE KRISHNAN S
60	963522104118	SREE SNEHA.K.A
61	963522104119	SRI RAM.S
62	963522104121	THISHON.M
63	963522104302	BAVJITH.D


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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CERTIFICATION COURSE

NETWORKZ SYSTEM, NAGERCOIL

COURSE CODE/ COURSE NAME: ARTIFICIAL INTELLIGENCE WITH PYTHON

RESOURCE PERSON: *A.K. InfoPark*

CLASS: III CSE

COURSE DESCRIPTION:

Artificial Intelligence (AI) with Python involves using Python programming language to develop intelligent systems that can simulate human behavior. Python is popular in AI due to its simplicity and the powerful libraries it offers, such as TensorFlow, Keras, and PyTorch. AI applications using Python can include machine learning, natural language processing, computer vision, and robotics. Through machine learning, AI systems can learn from data and make predictions or decisions without explicit programming. Python also supports deep learning, enabling neural networks to perform complex tasks like image and speech recognition. AI with Python allows developers to build applications that can understand, interpret, and respond to real-world inputs intelligently. The language's extensive libraries simplify complex algorithms and data processing, making it accessible for both beginners and experienced developers. Python's versatility and growing ecosystem make it a key tool in advancing AI technology across industries.

COURSE OUTCOME:

After completing this course, students will be able to:

CO1: Master the Fundamentals of Python for AI Development

CO2: Apply Machine Learning Techniques for Predictive Modeling

CO3: Implement Unsupervised Learning and Dimensionality Reduction

CO4: Build and Train Deep Learning Models for Complex Tasks

CO5: Explore Real-World AI Applications and Advanced AI Techniques



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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CERTIFICATION COURSE S5 & S6-ARTIFICIAL INTELLIGENCE WITH PYTHON DETAILED SYLLABUS

Module 1: Foundations of AI and Python

Introduction to AI and Python-Python Basics I- Python Basics II-Data Structures I- Data Structures II-Functions in Python-File Handling in Python- Object-Oriented Programming in Python-Python Libraries for AI-Data Handling with Pandas I-Data Handling with Pandas II-Data Visualization with Matplotlib

Module 2: Introduction to Machine Learning

Introduction to Machine Learning-Data Preprocessing I-Data Preprocessing II-Linear Regression I-Linear Regression II-Model Evaluation- Logistic Regression-Decision Trees-Naive Bayes Classifier-K-Nearest Neighbors (KNN)-Support Vector Machines (SVM)

Module 3: Unsupervised Learning Models

Clustering Algorithms-Hierarchical Clustering-Dimensionality Reduction with PCA-Association Rule Learning

Module 4: Introduction to Deep Learning

Introduction to Deep Learning-Artificial Neural Networks (ANN) I-Artificial Neural Networks (ANN) II- Convolutional Neural Networks (CNN) I- Convolutional Neural Networks (CNN) II-Recurrent Neural Networks (RNN)- Natural Language Processing (NLP) I-Natural Language Processing (NLP) II- Reinforcement Learning Basics-Advanced AI

Module 5: Real-world AI Applications

Advanced AI Topics II-AI in Natural Language Understanding-Transfer Learning-Advanced Neural Networks-Autoencoders and Variational Autoencoders (VAEs)-AI in Computer Vision-AI in Healthcare-AI in Finance-AI in Robotics-AI in Autonomous Vehicles-Advanced Trends in AI Algorithms-AI Tools and Libraries Deep Dive-Advanced AI Model Optimization


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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ARTIFICIAL INTELLIGENCE WITH PYTHON COURSE PLAN

S.NO	No of periods required to handle	No of periods handled (cumulative)	Course Content	Delivery mode	Assessments(Periodic tests/Quiz/Assignments)
1	1	1	Introduction to AI and Python	PPT	Assessments(Periodic tests/Quiz/Assignments)
2	1	2	Python Basics I, Python Basics II	PPT	Assessments(Periodic tests/Quiz/Assignments)
3	1	3	Data Structures I, Data Structures II	PPT	Assessments(Periodic tests/Quiz/Assignments)
4	1	4	Functions in Python-File Handling in Python	PPT	Assessments(Periodic tests/Quiz/Assignments)
5	1	5	Object-Oriented Programming in Python	PPT	Assessments(Periodic tests/Quiz/Assignments)
6	1	6	Python Libraries for AI	PPT	Assessments(Periodic tests/Quiz/Assignments)
7	1	7	Data Handling with Pandas I, Data Handling with Pandas II	PPT	Assessments(Periodic tests/Quiz/Assignments)
8	1	8	Data Visualization with Matplotlib	PPT	Assessments(Periodic tests/Quiz/Assignments)
9	1	9	Introduction to Machine Learning---	PPT	Assessments(Periodic tests/Quiz/Assignments)
10	1	10	Data Preprocessing I	PPT	Assessments(Periodic tests/Quiz/Assignments)
11	1	11	Data Preprocessing II	PPT	Assessments(Periodic tests/Quiz/Assignments)
12	1	12	Linear Regression I	PPT	Assessments(Periodic tests/Quiz/Assignments)



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13	1	13	Linear Regression II	PPT	Assessments(Periodic tests/Quiz/Assignments)
14	1	14	Model Evaluation	PPT	Assessments(Periodic tests/Quiz/Assignments)
15	1	15	Logistic Regression-Decision Trees	PPT	Assessments(Periodic tests/Quiz/Assignments)
16	1	16	Naive Bayes Classifier-K-Nearest Neighbors (KNN)	PPT	Assessments(Periodic tests/Quiz/Assignments)
17	1	17	Support Vector Machines (SVM)	PPT	Assessments(Periodic tests/Quiz/Assignments)
18	1	18	Clustering Algorithms	PPT	Assessments(Periodic tests/Quiz/Assignments)
19	1	19	Hierarchical Clustering	PPT	Assessments(Periodic tests/Quiz/Assignments)
20	1	20	Dimensionality Reduction with PCA	PPT	Assessments(Periodic tests/Quiz/Assignments)
21	1	21	Association Rule Learning	PPT	Assessments(Periodic tests/Quiz/Assignments)
22	1	22	Introduction to Deep Learning	PPT	Assessments(Periodic tests/Quiz/Assignments)
23	1	23	Artificial Neural Networks (ANN) I	PPT	Assessments(Periodic tests/Quiz/Assignments)
24	1	24	Artificial Neural Networks (ANN) II	PPT	Assessments(Periodic tests/Quiz/Assignments)
25	1	25	Convolutional Neural Networks (CNN) I	PPT	Assessments(Periodic tests/Quiz/Assignments)
26	1	26	Convolutional Neural Networks (CNN) II	PPT	Assessments(Periodic tests/Quiz/Assignments)
27	1	27	Recurrent Neural Networks (RNN)	PPT	Assessments(Periodic tests/Quiz/Assignments)



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28	1	28	Natural Language Processing (NLP) I	PPT	Assessments(Periodic tests/Quiz/Assignments)
29	1	29	Natural Language Processing (NLP) II	PPT	Assessments(Periodic tests/Quiz/Assignments)
30	1	30	Reinforcement Learning Basics	PPT	Assessments(Periodic tests/Quiz/Assignments)
31	1	31	Advanced AI,Advanced AI Topics II	PPT	Assessments(Periodic tests/Quiz/Assignments)
32	1	32	AI in Natural Language Understanding	PPT	Assessments(Periodic tests/Quiz/Assignments)
33	1	33	Transfer Learning, Advanced Neural Networks	PPT	Assessments(Periodic tests/Quiz/Assignments)
34	1	34	Autoencoders and Variational Autoencoders (VAEs)	PPT	Assessments(Periodic tests/Quiz/Assignments)
35	1	35	AI in Computer Vision	PPT	Assessments(Periodic tests/Quiz/Assignments)
36	1	36	AI in Healthcare-AI in Finance	PPT	Assessments(Periodic tests/Quiz/Assignments)
37	1	37	AI in Robotics-AI in Autonomous Vehicles	PPT	Assessments(Periodic tests/Quiz/Assignments)
38	1	38	Advanced Trends in AI Algorithms	PPT	Assessments(Periodic tests/Quiz/Assignments)
39	1	39	AI Tools and Libraries Deep Dive	PPT	Assessments(Periodic tests/Quiz/Assignments)
40	1	40	Advanced AI Model Optimization	PPT	Assessments(Periodic tests/Quiz/Assignments)

Note: Delivery Mode- 1. Participative learning-Interaction between staff and students during lecture(Seminar/Quiz etc..)
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CO	Bloom's taxonomy level	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	Assessments(Periodic tests/Quiz/Assignments)
CO1	5	3	2	1	2	2	1	0	0	1	1	1	1	2	1	1	Quiz/Assignments
CO2	2	2	2	3	0	3	1	1	0	1	3	3	3	3	2	2	Quiz/Assignments
CO3	3	3	2	2	1	3	0	0	0	1	2	2	2	3	3	2	Quiz/Assignments
CO4	2	3	1	3	0	3	1	1	0	1	3	3	3	3	3	2	Quiz/Assignments
CO5	6	3	2	3	1	3	2	2	0	1	3	3	3	3	3	3	Quiz/Assignments

COURSE COORDINATOR


Dr. F.R. SENTHIL KUMAR, M.Tech., Ph.D.,
Head of the Department
Department of Computer Science & Engineering
Stella Mary's College of Engineering
Aruthenganvilai, Azhikkal Post
Kanyakumari District - 629 202



STELLA MARY'S COLLEGE OF ENGINEERING

Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai and Accredited by NAAC & NBA (Mech & CSE)

Aruthenganvilai, Kallukatti Junction, Azhikal Post, Kanyakumari District - 629 202

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CLASS: III CSE

ARTIFICIAL INTELLIGENCE WITH PYTHON

S.NO	Register Number	Name of the Student
1	963521104001	ABILAA B
2	963521104002	ABINESH M
3	963521104003	ABINESH.R.M
4	963521104004	ABISH.S
5	963521104005	ABISHEK R
6	963521104006	ABISHEK W
7	963521104007	ACHSHA STEFFINA.A
8	963521104008	ADIL AHAMED J
9	963521104009	AKSHA BERIN M
10	963521104010	ANISH J
11	963521104011	AROCKIA KUVINSTON
12	963521104012	ARTHIKA M
13	963521104013	BABISHA.M
14	963521104014	BAVITHRA.A
15	963521104015	DHANA LEKSHMI K
16	963521104016	DONALIKA C S
17	963521104017	GURU RAHUL R U
18	963521104018	HELINA VENSUS V
19	963521104019	HENIFA RAJ.P
20	963521104020	INFANT JENO J



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Aruthenganvilai, Kallukatti Junction, Azhikal Post, Kanyakumari District - 629 202

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

21	963521104021	JASELIN V S
22	963521104022	JEFFRY DAVID M
23	963521104023	JEFRIN BABISH J H
24	963521104024	JENIFER J
25	963521104026	JENISHIYA J
26	963521104027	JEYA VIHASH P R
27	963521104028	JOEL.K
28	963521104029	JUTLINE RESHMAN H
29	963521104030	KARTHIKA DEVI .M
30	963521104031	KARUPPASAMY K
31	963521104032	KAVIN BRYLO.M
32	963521104033	KINGSHIYA K S
33	963521104034	KISHORE RAJA C
34	963521104035	LEJU B
35	963521104036	LINGSHA SHAMILX
36	963521104037	MAHISHA T
37	963521104038	MARIMUTHU L
38	963521104039	MARY SHERINA.P
39	963521104040	MOHAMED ALTHAF
40	963521104041	MOHAMMED AMEEN M
41	963521104043	NATHIM KHAN P
42	963521104044	NIVEATHAN S
43	963521104045	PRIYANSHU B
44	963521104046	RENUSHA R



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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

45	963521104047	RITHICK SHABU R C
46	963521104048	SAHAYA BERSIYA V
47	963521104049	SHAJINI.M
48	963521104050	SHARON R
49	963521104051	SHENIHA C S
50	963521104052	SHERIN S
51	963521104053	SHIBU MON J
52	963521104054	SHIMIYON RAJ R
53	963521104055	SHIVA V
54	963521104056	SIVITHRA.M
55	963521104057	SNEKIJA D
56	963521104058	SOBIKA R
57	963521104059	SREEJA S
58	963521104060	THANGA NIVETHA.B
59	963521104061	THANYA.S
60	963521104062	THULASI J
61	963521104063	VIGNESH R
62	963521104301	JOSHVA.S
63	963521104302	SUJAIKUMAR.T
64	963521104303	SUJITH.R.J
65	963521104304	VIVEK.A

COURSE COORDINATOR

Dr. F.R. SRINIVASAN, M.Tech., Ph.D.,
Head of Department
Department of Computer Science & Engineering
Stella Mary's College of Engineering
Aruthenganvilai, Azhikkal Post
Kanyakumari District - 629 202



STELLA MARY'S COLLEGE OF ENGINEERING

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Aruthenganvilai, Kallukatti Junction Azhikal Post, Kanyakumari District-629202, Tamil Nadu

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CIRCULAR

SMCE/ECE/CR-C15/VAC-11/2023-2024

Date: 21.09.2023

In order to keep students updated with recent developments in the field of Electronics and communication engineering, it is planned to organize a short term certificate program of duration 60hrs. All the students are instructed to go through the course content displayed in the notice board and register their names to the course-in-charge.

S.No	Year/Semester	Course Name	Course-in-Charge
1	II / 3	INTRODUCTION TO BASIC ELECTRONICS	Mrs.P.BABY SHOLA
2		ARTIFICIAL INTELLIGENCE	Mr.G.BIJU GEORGE


HOD/ECE

Circulated to :

All the students of ECE

Copy to:

1.The Principal

2.All Staff

Mr. N. MICHAEL FRANKLIN, M.E.
Head of the Department,
Department of Electronics & Communication Engineering,
Stella Mary's College of Engineering,
Aruthenganvilai, Azhikal Post,
Kanyakumari District - 629 202.



STELLA MARY'S COLLEGE OF ENGINEERING

(Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai and Accredited by NAAC & NBA (Mech & CSE))
Aruthenganyilai, Kallukatti Junction Azhikal Post, Kanyakumari District-629202, Tamil Nadu

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CIRCULAR

SMCE/ECE/CR-C15/VAC-11/2023-2024

Date: 21.09.2023

In order to keep students updated with recent developments in the field of Electronics and communication engineering, it is planned to organize a short term certificate program of duration 60hrs. All the students are instructed to go through the course content displayed in the notice board and register their names to the course-in-charge.

S.No	Year/Semester	Course Name	Course-in-Charge
1	II / 3	INTRODUCTION TO BASIC ELECTRONICS	Mrs.P.BABY SHOLA
2		ARTIFICIAL INTELLIGENCE	Mr.G.BIJU GEORGE

HOD/ECE

Circulated to :

All the students of ECE

Copy to:

1.The Principal

2.All Staff



Stella Mary's College of Engineering
Aruthengavillai, Kallukatti Junction, Azhikal Post, Kanyakumari District-629202

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

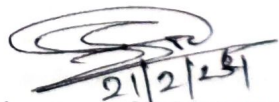
CIRCULAR

SMCE/ECE/CR-C12/VAC-12/2023-2024

Date: 19.02.2024

In order to keep students updated with recent developments in the field of Electronics and Communication Engineering, it is planned to organize a short term course of duration 36 hrs. All the students are instructed to go through the course content and register their names to the course in-charge.

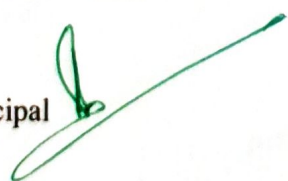
S.No	Year/Sem	Course Name	Course in-Charge
1	II/4	EMBEDDED SYSTEMS	Mrs.P.BABY SHOLA


21/2/24
Signature of HOD/ECE

Circulated to:

All the students of ECE

Copy to:

1. The Principal
 2. All Staff
- 



SMCE/CSAY-CCR-15/FM-04/RTAI/R01

STELLA MARYS COLLEGE OF ENGINEERING
Aruthenganvilal, Kallukatti Junction, Azhikal Post, Kanyakumari District-629202
CAMPUS ACTIVITY (Academic & Co-Curricular) - Request & Approval Letter

SMCE/CSAY-CCR/FM-3.1A/ - /2023

Dates: 23.09.2023

From

The Head/ Coordinator,
Department of Electronics and Communication,
Stella Mary's College of Engineering.

To

The Chairman,
Stella Mary's College of Engineering.
(Through The Director & Principal)

Respected Sir,

Sub: Request for permission to conduct Certification Courses -Regarding

It is proposed to conduct a 30 hours Certification Courses, in the Department. The Details are as follows

Program promoted by & Designation		Department of ECE (II YEAR / S3 ECE) ✓			
Name of the Coordinator & Designation		1.Mrs. P.BABY SHOLA, Assistant Professor, ECE ✓			
		2. Mr. N. Michael Franklin, Assistant Professor and Head, ECE			
Topic		INTRODUCTION TO BASIC ELECTRONICS			
Mode of Conduct		Conventional / Virtual			
Name, Designation, Official Address of the Expert with Contact No. & Email ID.		INSTRUMENTS INDIA , Nagercoil-629001			
Date/s of Programme		25/09/2023 to 27/09/2023 9.15 PM To 4.20 PM			
Mode of Travel		Flight/Car /Train/Bus From: To:			
Date/s of Travel		From: To: NIL	Boarding & Lodging	Inside campus /Outside/ Nil ✓	
Duration	30 Hrs	No. of Sessions	6	Venue	Circuits Laboratory (ECE Block)
Hospitality		Nil			

Encl.: 1. Budget for the Programme-Yes / No (* If yes enclose Statement)

Recommendations of

Thanking you,

Yours faithfully,

Principal

Director

Approval by

Approved / Not Approved

Vice Chairman

Chairman



SMCE/CSAY-CCR-02/PM-04.1/RTAL
STELLA MARYS COLLEGE OF ENGINEERING
Aruthenganvilal, Kallukattil Junction, Azhikal Post, Kanyakumari District-629202
DETAILED BUDGET STATEMENT **ANNEXURE 1**

Budget Line Item	No. of Days	Budget-Estimate	Proposed Sources	Head of Account
Value Added Course	3 Days	500 X 55	From Students	Department of S&H- /CSE/MECH/EEE/ECE/CL- (Association)
'Introduction to		= 27,500/-		
Basic Electronics'				
Miscellaneous (if any)				
Total:		27,500/-		

Faculty in-Charge
(with Name, Designation, Dept., & Date)

[P. Baby Shola]
APIECE
SMCE

Head
Department of ECE

Principal

Revision 01

(Office use only)

The amount Rs. _____/- sanctioned is dispersed to the Convener, Department /Committee/ Club
on _____.

Accounts Manager



STELLA MARYS COLLEGE OF ENGINEERING

Aruthenganvilal, Kallukatti Junction, Azhikal Post, Kanyakumari District-629202
CAMPUS ACTIVITY (Academic & Co-Curricular) - Request & Approval Letter

SMCE/CSAY-CCR-16/FM-04/RTAL/R01

SMCE/CSAY-CCR/FM-3.1A/ - /2023

Dates: 30.09.2023

From

The Head/ Coordinator,
Department of Electronics and Communication,
Stella Mary's College of Engineering.

To

The Chairman,
Stella Mary's College of Engineering.
(Through The Director & Principal)

Respected Sir,

Sub: Request for permission to conduct Certification Courses -Regarding

It is proposed to conduct a 30 hours Certification Courses, in the Department. The Details are as follows

Program promoted by & Designation	Department of ECE (II YEAR / S3 ECE)				
Name of the Coordinator & Designation	1.Mr.BIJU GEORGE, Assistant Professor, ECE 2. Mr. N. Michael Franklin, Assistant Professor and Head, ECE				
Topic	INTRODUCTION TO ARTIFICIAL INTELLIGENCE				
Mode of Conduct	Conventional / Virtual				
Name, Designation, Official Address of the Expert with Contact No. & Email ID.	ICONICS SOFTWARE SOLUTIONS , 154A, AKSHA COMPLEX, WEST CAR STREET, TIRUNELVELI				
Date/s of Programme	04/10/2023 to 06/10/2023				
Mode of Travel	Flight/Car /Train/Bus		From:		To:
Date/s of Travel	From:	To:	Boarding & Lodging	Inside campus /Outside/ Nil	
Duration	30 Hrs	No. of Sessions	6	Venue	Circuits Laboratory (ECE Block)
Hospitality	Nil				

Encl.: 1. Budget for the Programme-Yes / No (* If yes enclose Statement)

Recommendations of

Thanking you,

Yours faithfully,

Principal

Director

Approval by

Approved / Not Approved

Vice Chairman

Chairman



STELLA MARYS COLLEGE OF ENGINEERING
Aruthenganvilai, Kallukatti Junction, Azhikal Post, Kanyakumari District-629202
ACTIVITY (Co-Curricular) - Request & Approval Letter

Date: 19.02.2024

From

The Head/Coordinator,
Department/Club of ECE
Stella Mary's College of Engineering.

To

The Chairman,
Stella Mary's College of Engineering.
(Through The Principal)

Respected Sir,

Sub: Request for permission to conduct certification Course -Regarding

It is proposed to organize/conduct a 36 Hrs certification Course, in the department of Electronics and Communication. The Details are as follows

Program promoted by & Designation		Department of ECE (11 th YEAR /S4 ECE)			
Name of the Coordinator & Designation		1.Mrs.P.BABY SHOLA , ASSISTANT PROFESSOR , ECE 2. Mr.G.BIJU GEORGE , ASSISTANT PROFESSOR,ECE			
Topic		EMBEDDED SYSTEMS			
Mode of Conduct		Conventional / Virtual		<u>Name of Platform proposed</u>	
Name, Designation, Official Address of the Expert with Contact No. & Email ID.		CIT - Academy and Research, 10/8-11, RS Enclave, Abhi Enterprises Upstairs. Ph: 9894165501 / 7010322481			
Date/s of Programme		From <u>26.02.2024</u> To <u>04.02.2024</u> (6 Days)			
Mode of Travel		—			
Date/s of Travel		From: NIL		Boarding & Lodging	Inside campus/Outside/Nil
No. of Hours	36	No. of Sessions	6	Venue	OPTICAL LAB
Hospitality		Refreshment in the campus- Morning+Lunch+Evening Tea/Nil			

Encl.: 1. Budget for the Programme-Yes / No (* If yes enclose Statement)

Thanking you,

Recommendations of

Principal

Approval by

Approved / Not Approved

Vice Chairman

Chairman

Yours faithfully,

CC to: The IQAC

Signature

Revision-01



STELLA MARYS COLLEGE OF ENGINEERING
Aruthenganvilai, Kallukatti Junction, Azhikal Post, Kanyakumari District-629202

DETAILED BUDGET STATEMENT

Budget Line Item	No. of Days	Budget- Estimate	Proposed Source/s
VALUE ADDED COURSE	6 Days	2500*53	<i>Spent</i> <u>132500</u>
"EMBEDDED SYSTEMS"			
Miscellaneous (if any)			
Total:			132500

[Signature]
Faculty 20/08/24
(with Name, Designation, Dept., & Date)
(P. Baby Shota)
API/ECE

[Signature]
Head 21/2/24
Department of ECE

[Signature]
Principal

Revision 01

(Office use only)

The amount Rs. _____/- sanctioned

Accounts Manager

Stella Mary's College of Engineering

Department of Electronics and Communication Engineering

And

ChekInTek (CIT – Academy and Research)

On

Embedded Systems Mastery: From Theory to Innovation

Objective of the Training:

Embark on a transformative journey exploring the intricate realm of embedded systems. Dive deep into Arduino programming, sensor interfacing, and communication protocols. Harness the power of hands-on learning to develop practical skills and innovative solutions. Delve into the nuances of microcontroller architecture and unleash your creativity in project-based exploration. Engage in immersive sessions that blend theory with real-world application. Empower yourself with the knowledge to navigate the complexities of embedded systems development. Elevate your understanding of sensor technologies and their integration into diverse applications. Experience the thrill of bringing your ideas to life through collaborative project work. Embrace the challenge of problem-solving in a supportive and dynamic learning environment. Transform your passion for technology into tangible skills that propel you towards future success.

Learning Outcome :

Participants emerge equipped with advanced skills in Arduino programming, sensor integration, and project development, ready to innovate in the dynamic field of embedded systems. They gain confidence to tackle real-world challenges, driving impactful solutions and contributing to technological advancement.

Duration : 36 Hours

MODULES

Module 1: Introduction to Embedded Systems

- **Overview of Embedded Systems:** Students will learn about the definition, characteristics, and applications of embedded systems in various domains such as consumer electronics, automotive, healthcare, and more.

- **Introduction to Microcontrollers and Microprocessors:** This session will cover the difference between microcontrollers and microprocessors, their architecture, common features, and popular families like AVR, PIC, ARM, etc.
- **Basics of Digital Electronics:** Topics include logic gates, binary number system, Boolean algebra, and basic digital circuits.
- **Introduction to Arduino Platform:** Students will be introduced to the Arduino ecosystem, including Arduino boards, development environment (IDE), programming language (C/C++), and libraries.
- **Hands-on Activity:** Setting up Arduino IDE and Blinking an LED - Students will install the Arduino IDE, connect an Arduino board to their computer, write a simple program to blink an LED, and upload it to the Arduino board to verify functionality.

Module 2: Embedded C Programming

- **Basics of C Programming for Embedded Systems:** This session will cover fundamental concepts of the C programming language relevant to embedded systems development, such as data types, variables, constants, and operators.
- **Control Structures:** Students will learn about conditional statements (if-else), loops (for, while), and branching (switch-case) constructs and how to use them in embedded C programming.
- **Functions and Modular Programming:** Topics include function definition, declaration, invocation, parameters, return types, and modular programming principles.
- **Hands-on Activity:** Writing and executing simple C programs on Arduino - Students will write and execute C programs on Arduino to perform basic tasks like arithmetic operations, logic operations, and controlling external hardware such as LEDs and buzzers.

Module 3: Interfacing Sensors and Actuators

- **Introduction to Sensors and Actuators:** Students will learn about various types of sensors (analog, digital, temperature, humidity, motion, etc.) and actuators (motors, servos, relays, etc.) commonly used in embedded systems.
- **Interfacing Analog and Digital Sensors:** This session will cover interfacing analog sensors (e.g., temperature sensor, light sensor) using analog-to-digital conversion and digital sensors (e.g., motion sensor, push-button) directly to Arduino digital pins.
- **Interfacing Actuators:** Topics include controlling motors, servos, and relays using Arduino output pins and PWM (Pulse Width Modulation) technique.

- **Hands-on Activity:** Students will interface various sensors (e.g., temperature sensor, light sensor) and actuators (e.g., LED, motor) with Arduino to collect data and control external devices based on sensor inputs.

Module 4: Project Development - Part 1

- **Overview of Project Development Process:** This session will provide an overview of the project development lifecycle, including requirements gathering, planning, design, implementation, testing, and deployment.
- **Brainstorming Project Ideas:** Students will engage in brainstorming sessions to generate project ideas based on their interests, knowledge, and the concepts learned in the previous days.
- **Project Planning and Design:** Teams will select a project idea, define project requirements, create a project plan outlining tasks, allocate responsibilities, and design the system architecture.
- **Implementation Phase:** Students will begin implementing their chosen projects, setting up the hardware, wiring components, and writing the initial code structure to implement basic functionalities.
- **Hands-on Activity:** Students will work in teams to implement the initial stages of their projects, focusing on hardware setup and writing basic code to control components and perform basic operations.

Module 5: Project Development - Part 2

- **Implementation Continuation:** Teams will continue implementing their projects, completing the coding and integrating additional components and functionalities as per the project plan.
- **Testing Phase:** Students will conduct thorough testing of their projects, including functional testing, integration testing, and system testing, to ensure proper operation and identify any bugs or issues.
- **Presentation Preparation:** Teams will prepare presentations for their projects, including creating slides, rehearsing demos, and organizing their thoughts to effectively communicate their project's functionality, design, and implementation.
- **Presentation of Projects:** Each team will present their completed project to the class, demonstrating its functionality, discussing design decisions, highlighting challenges faced during development, and sharing insights and lessons learned.

Practice Projects (Optional based on Student)

- **LED Blinking:** A simple project to blink an LED on and off at regular intervals using Arduino.
- **Traffic Light Controller:** Simulate a traffic light system using LEDs to control the flow of traffic.
- **Doorbell with Buzzer:** Create a doorbell system using a buzzer that sounds when a button is pressed.
- **Distance Measurement with Ultrasonic Sensor:** Measure distance using an ultrasonic sensor and display it on an LCD or serial monitor.
- **Intruder Detection System:** Use an IR sensor to detect motion and trigger an alarm or turn on an LED.
- **Home Automation System:** Control home appliances (e.g., lights, fans) using relays and a smartphone app via a WiFi module.
- **Temperature Monitoring System:** Measure temperature using a temperature sensor and display it on an LCD or send it to a smartphone app via WiFi.
- **Smart Plant Watering System:** Monitor soil moisture using a moisture sensor and automatically water plants using a servo motor-controlled water pump.
- **Weather Station:** Measure temperature, humidity, and air pressure using sensors and display the data on an LCD or send it to a smartphone app via WiFi.
- **Automated Pet Feeder:** Dispense food for pets at scheduled times using a servo motor-controlled feeder mechanism.
- **Digital Clock with Alarm:** Build a digital clock with an alarm feature using an LCD display and a buzzer.

Discussion

- **Advanced Project Ideas:** Participants will explore cutting-edge project concepts that leverage their expertise in Arduino programming, sensor integration, and communication protocols. These projects will challenge them to tackle real-world problems and innovate solutions that push the boundaries of embedded systems technology.
- **Prototype Designing:** Through hands-on sessions, participants will learn the intricacies of designing prototypes for their embedded systems projects. They will understand the importance of prototyping in validating concepts and refining designs, and they will gain practical experience in building prototypes using Arduino boards and other hardware components.
- **Planning for a Project:** Participants will develop essential project planning skills, including defining project goals, identifying requirements, creating timelines, and managing resources effectively. They will learn how to develop comprehensive project plans that ensure successful project execution and delivery within specified constraints.
- **Paper Analysis (Literature Survey):** Engaging in paper analysis and literature survey, participants will explore current research trends and advancements in embedded systems. They will critically evaluate academic papers, journals, and technical publications to gain insights into emerging technologies and methodologies shaping the field.
- **Paper Writing Methodology:** Participants will learn the methodology and best practices for writing technical papers in the context of embedded systems. They will understand the structure, content, and formatting guidelines for effective paper writing, and they will hone their ability to communicate research findings and insights clearly and concisely.
- **Project Presentation Opportunities:** Through workshops and practice sessions, participants will develop strong presentation skills and gain opportunities to showcase their embedded systems projects to a wider audience. They will learn how to prepare engaging presentations that effectively communicate project objectives, methodologies, and outcomes to both technical and non-technical audiences.
- **Career Opportunities:** Participants will explore diverse career opportunities available in the field of embedded systems, including roles in research, development, engineering, and consulting across various industries and sectors. They will gain insights into the skill sets and qualifications required for different career paths and learn about professional development opportunities to advance their careers in embedded systems.



SMCE/CSAY-VEADCE/TG/LR-10D/RTAL

STELLA MARYS COLLEGE OF ENGINEERING

Aruthenganvilai, Kallukatti Junction, Azhikal Post, Kanyakumari District-629202

CAMPUS ACTIVITY (Value Added Course/Training Programme) -Request & Approval Letter

Date: 26/7/2023

SMCE/CSAY-VEADCE/TG/LR-10D/01/2023-2024/ODD

From

The Head,
Department of EEE
Stella Mary's College of Engineering

To

The Principal,
Stella Mary's College of Engineering

Respected Sir,

Sub: Request for permission-Certificate Program Embedded Systems Phase II Regarding;

It is proposed to conduct a Certificate Program with the motive of imparting knowledge to the

Final year students, Department of EEE. The details are as follows,

Name of the Certificate Program / Training Programme		<u>Embedded Systems Phase - II</u>	
Name, Designation, Official Address of the Expert with Contact No. & Email ID.			
Date/s of Programme		From <u>2/8/2023</u> To <u>End of Semester</u>	
No. of Students interested to participate		<u>35</u>	
Amount to be collected/ Student		Rs. <u>1500</u>	
Total Amount to be paid to the Experts		Rs. <u>52,500</u>	
Boarding & Lodging for the Experts		Yes / No	Inside campus / Outside
No. of Experts in the Team		Male: <u>2</u>	Female: <u>-</u>
Mode of Travel		Flight/Car/Train/Bus <u>NIL</u> From: _____ To: _____ & Back	
Date of Travel		Upward: _____ Downward: _____ <u>NIL</u>	
No. of Hours Required	<u>Minimum 40 hrs</u>	Distribution of Hours	<u>(Day order 5)</u> <u>3 hours per day in the day order schedule</u>
No. of Days	<u>15 days Maximum</u>	No. of Sessions	<u>1</u>
Hospitality		Refreshment in the campus (Morning Tea + Lunch + Evening Tea)	
Venue		<u>NIL</u> <u>Power system Simulation Laboratory / EEE</u>	

Encl: 1. Expert Profile and Brochure (if any) 2. Budget statement for the Programme

Thanking You,

Yours faithfully,

A. Annie Steffy Beula
AP/EEE
Approval by

Recommendations of

26/7/23
HOD/EEE

Head of Department

Department of Electrical and Electronics Engineering

STELLA MARY'S COLLEGE OF ENGINEERING

Aruthenganvilai, Azhikal Post,

Kanyakumari District - 629202, Tamil Nadu.

Principal

Approved / Not Approved

Remarks (if any):



SMCE/CSAY-VEADCE/TG/LR-10D/RTAL

STELLA MARYS COLLEGE OF ENGINEERING

Aruthenganvilai, Kallukatti Junction, Azhikal Post, Kanyakumari District-629202

CAMPUS ACTIVITY (Value Added Course/Training Programme) -Request & Approval Letter

SMCE/CSAY-VEADCE/TG/LR-10D/02/2023-24/ODP

Date: 26/7/2023

From

The Head,
Department of EEE
Stella Mary's College of Engineering

To

The Principal,
Stella Mary's College of Engineering

Respected Sir,

Sub: Request for permission-Certificate Program MATLAB Phase-II Regarding;
It is proposed to conduct a Certificate Program with the motive of imparting knowledge to the
Third year students, Department of EEE. The details are as follows,

Name of the Certificate Program /Training Programme		<u>MATLAB Phase II</u>	
Name, Designation, Official Address of the Expert with Contact No. & Email ID.			
Date/s of Programme		From <u>3/8/2023</u> To <u>End of semester</u>	
No. of Students interested to participate		<u>28</u>	
Amount to be collected/ Student		Rs. <u>1500</u>	
Total Amount to be paid to the Experts		Rs. <u>42000</u>	
Boarding & Lodging for the Experts		Yes / No	Inside campus /Outside
No. of Experts in the Team		Male: <u>2</u>	Female: <u>-</u>
Mode of Travel		Flight/Car/Train/Bus <u>NIL</u> From: _____ To: _____ & Back	
Date of Travel		Upward: _____ Downward: _____ <u>NIL</u>	
No. of Hours Required	<u>Minimum 40 hours</u>	Distribution of Hours	<u>3 hours per day in the day order schedule.</u> [Day order 6
No. of Days	<u>15 days maximum</u>	No. of Sessions	<u>1</u>
Hospitality		Refreshment in the campus (Morning Tea +Lunch+ Evening Tea) <u>NIL</u>	
Venue		<u>Power system simulation lab/EEE</u>	

Encl: 1. Expert Profile and Brochure (if any) 2. Budget statement for the Programme

Thanking You,

Yours faithfully,

Annie Steffy Beula
AP/EEE
Approval by

Recommendations of

26/7/23
HOD/EEE
Head of Department

Principal

Approved / Not Approved

Department of Electrical and Electronics Engineering
STELLA MARY'S COLLEGE OF ENGINEERING
Aruthenganvilai, Azhikal Post,
Kanyakumari District - 629202, Tamil Nadu

Remarks (if any):



STELLA MARY'S COLLEGE OF ENGINEERING

(Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai and Accredited by NAAC & NBA (Mech & CSE))
Aruthenganvilai, Kallukatti Junction Azhikal Post, Kanyakumari District-629202, Tamil Nadu

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CIRCULAR

SMCE/EEE/CR/VAC-01 /2023-2024/ODD

Date: 27-07-2023

In order to keep students updated with recent developments in the field of Electrical and Electronics Engineering, it is planned to organize a short term Value Added Courses of 40 hrs. All the students are instructed to go through the course content displayed in the notice board and register their names to respective class in-charges. The venue for the conduct of certification course will be Power System Simulation Laboratory in the EEE department. The students can also bring their laptops for their convenience.

S.No	Year	Start Date	Course Name	Resource Person
1	III EEE	3-8-2023	MATLAB Phase II	AB Technologies, Nagercoil
2.	IV EEE	2-8-2023	Embedded Systems Phase II	AB Technologies, Nagercoil

Head of Department
Signature of HOD/EEE
Department of Electrical and Electronics Engineering
STELLA MARY'S COLLEGE OF ENGINEERING
Aruthenganvilai, Kallukatti Post,
Kanyakumari District - 629202, Tamil Nadu

Circulated to:

All the students of EEE

Copy to:

1. The Principal

2. All Staff EEE



SMCE/CSAY-VEADCE/TG/LR-10D/RTAL
STELLA MARYS COLLEGE OF ENGINEERING
Aruthenganvilai, Kallukatti Junction, Azhikal Post, Kanyakumari District-629202

CAMPUS ACTIVITY (Value Added Course/Training Programme) -Request & Approval Letter
Date: 28/2/2024
SMCE/CSAY-VEADCE/TG/LR-10D/ 1/2023-24/Even

From
The Head,
Department of EEE
Stella Mary's College of Engineering

To
The Principal,
Stella Mary's College of Engineering

Respected Sir,
Sub: Request for permission-Certificate Program Embedded Systems Phase I Regarding;
It is proposed to conduct a Certificate Program with the motive of imparting knowledge to the
III year students, Department of EEE. The details are as follows,

Name of the Certificate Program /Training Programme		<u>Embedded Systems Phase I .</u>	
Name, Designation, Official Address of the Expert with Contact No. & Email ID.		<u>Mr. Hariharan,</u> <u>AB Technologies, Nagercoil</u>	
Date/s of Programme		From <u>4-3-2024</u> To <u>March 2024 to April 2024</u>	
No. of Students interested to participate		<u>27</u>	
Amount to be collected/ Student		Rs. <u>1500</u>	
Total Amount to be paid to the Experts		Rs. <u>40,500/-</u>	
Boarding & Lodging for the Experts		Yes / No ☒	Inside campus /Outside <u>NIL</u>
No. of Experts in the Team		Male: <u>2</u>	Female: <u>—</u>
Mode of Travel		Flight/Car/Train/Bus <u>own vehicle.</u> From: _____ To: _____ & Back	
Date of Travel		Upward: <u>NIL</u> Downward: <u>NIL</u>	
No. of Hours Required	<u>40 hours</u>	Distribution of Hours	<u>8 hours /day</u>
No. of Days	<u>5</u>	No. of Sessions	<u>8 /day</u>
Hospitality		Refreshment in the campus (Morning Tea +Lunch+ Evening Tea) ☒	
Venue		<u>Power System Simulation Lab / EEE</u>	

Encl: 1. Expert Profile and Brochure (if any) 2. Budget statement for the Programme

Thanking You,

Yours faithfully,

28/2/2024
A. Annie Steffy Bua
AP/EEE

Approval by

Principal

Approved / Not Approved

Recommended by
HEAD OF THE DEPARTMENT
DEPT. OF ELECTRICAL & ELECTRONICS ENGINEERING
STELLA MARYS COLLEGE OF ENGINEERING
ARUTHENGANVILAI, AZHIKAL P.O. - 629 202
KANYAKUMARI DISTRICT

Remarks (if any):



SMCE/CSAY-VEADCE/TG/LR-10D/RTAL
STELLA MARYS COLLEGE OF ENGINEERING

Aruthenganvilal, Kallukatti Junction, Azhikal Post, Kanyakumari District-629202

CAMPUS ACTIVITY (Value Added Course/Training Programme) -Request & Approval Letter

SMCE/CSAY-VEADCE/TG/LR-10D/ 2/2023-24/Even

Date: 7/3/2024

From

The Head,
 Department of EEE
 Stella Mary's College of Engineering

To

The Principal,
 Stella Mary's College of Engineering

Respected Sir,

Sub: Request for permission-Certificate Program Web Designing Regarding

It is proposed to conduct a Certificate Program with the motive of imparting knowledge to the

II.....year students, Department of EEEThe details are as follows,

Name of the Certificate Program /Training Programme		<u>Web Designing</u>	
Name, Designation, Official Address of the Expert with Contact No. & Email ID.		<u>Ms. Franisha,</u> <u>Feathers Solution, Nagercoil</u>	
Date/s of Programme		From <u>11/03/2024</u> To <u>16/03/2024 (5 days)</u>	
No. of Students interested to participate		<u>40</u>	
Amount to be collected/ Student		Rs. <u>1400</u>	
Total Amount to be paid to the Experts		Rs. <u>56,000/-</u>	
Boarding & Lodging for the Experts		Yes / No	Inside campus /Outside
No. of Experts in the Team		Male: <u>1</u>	Female: <u>3</u>
Mode of Travel		Flight/Car/Train/Bus <u>own vehicle</u> From: _____ To: _____ & Back	
Date of Travel		Upward: <u>NIL</u> Downward: <u>NIL</u>	
No. of Hours Required	<u>40 hours</u>	Distribution of Hours	<u>8 hours/day</u>
No. of Days	<u>5</u>	No. of Sessions	<u>2/day</u>
Hospitality		Refreshment in the campus (Morning Tea +Lunch+ Evening Tea)	
Venue		<u>Power System Simulation Lab /EEE</u>	

Encl: 1. Expert Profile and Brochure (if any) 2. Budget statement for the Programme

Thanking You,

Yours faithfully,

[Signature] 7/3/24

HEAD OF THE DEPARTMENT
 DEPT. OF ELECTRICAL & ELECTRONICS ENGINEERING
 STELLA MARY'S COLLEGE OF ENGINEERING
 ARUTHENGANVILAI, AZHIKAL P.O. - 629 202
 KANYAKUMARI DISTRICT

Principal

Approved / Not Approved

Approval by

Remarks (if any):



STELLA MARY'S COLLEGE OF ENGINEERING

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Aruthenganvilai, Kallukatti Junction Azhikal Post, Kanyakumari District-629202, Tamil Nadu

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CIRCULAR

SMCE/EEE/CR/VAC-02 /2023-2024/EVEN

Date: 07-03-2024

In order to keep students updated with recent developments in the field of Electrical and Electronics Engineering, it is planned to organize a short term Value Added Courses of 40 hrs. The venue for the conduct of certification course will be Power System Simulation Laboratory in the EEE department. The students can also bring their laptops for their convenience.

S.No	Year	Start Date	Course Name	Resource Person
1	II EEE	11-3-2024	Web Designing	Feather Solutions, Nagercoil

Circulated to:

All the students of EEE

Copy to:

1. The Principal

2. All Staff EEE

Signature of HOD/EEE

HEAD OF THE DEPARTMENT
DEPT. OF ELECTRICAL & ELECTRONICS ENGINEERING
STELLA MARY'S COLLEGE OF ENGINEERING
ARUTHENGANVILAI, AZHIKAL P.O. - 629 202
KANYAKUMARI DISTRICT



STELLA MARY'S COLLEGE OF ENGINEERING

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Aruthenganvilai, Kallukatti Junction Azhikal Post, Kanyakumari District-629202, Tamil Nadu

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CIRCULAR

SMCE/EEE/CR/VAC-01 /2023-2024/EVEN

Date: 28-02-2024

In order to keep students updated with recent developments in the field of Electrical and Electronics Engineering, it is planned to organize a short term Value Added Courses of 40 hrs. All the students are instructed to go through the course content displayed in the notice board and register their names to respective class in-charges. The venue for the conduct of certification course will be Power System Simulation Laboratory in the EEE department. The students can also bring their laptops for their convenience.

S.No	Year	Start Date	Course Name	Resource Person
1	III EEE	4-3-2024	Embedded Systems Phase I	AB Technologies, Nagercoil

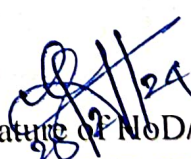
Circulated to:

All the students of EEE

Copy to:

1. The Principal

2. All Staff EEE


Signature of NoD/EEE
HEAD OF THE DEPARTMENT
DEPT. OF ELECTRICAL & ELECTRONICS ENGINEERING
STELLA MARY'S COLLEGE OF ENGINEERING
ARUTHENGANVILAI, AZHIKAL P.O. - 629 202
KANYAKUMARI DISTRICT



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S.T.Hindu College Road,
Chettikulam Jn., Nagercoil,
Kanyakumari District,
Tamilnadu - 629002.

VALUE ADDED COURSE

COLLEGE NAME : Stella Mary's College Of Engineering
DEPARTMENT : Electrical and Electronics Engineering
YEAR :
CLASS DETAILS:

- DAY 1** ➤ Introduction
- DAY 2** ➤ Introduction about Micro Controller
- DAY 3** ➤ Introduction about Micro Processor
- DAY 4** ➤ Design of Power Supply for TTL family controllers.
- DAY 5** ➤ Introduction about Arduino Micro Controller
- DAY 6** ➤ Modeling Analogies of Atmega Micro Controller.
- DAY 7** ➤ Interfacing of Power supply to Arduino Controller- Hands on Training
- DAY 8** ➤ Introduction about Arduino IDE
- DAY 9** ➤ LED Interfacing with Digital Controllers.
- DAY 10** ➤ Interfacing of Push Button Switches with Controller
- DAY 11** ➤ Hands-on Training in LCD Interfacing with Controllers.
- DAY 12** ➤ Relay Interfacing with Arduino Controllers.

28/1/24

Branch Office:

103-M, Barani Nagar,
Opposite To St. Xaviers Matriculation School,
Vannarpettai,
Tirunelveli- 627003.

No. 336, First floor,
Mudichur Road,
Tambaram West,
Chennai - 600 045.

- DAY 13**
➤ Interfacing of IR Sensor with Arduino Micro Controller for Applications
- DAY 14**
➤ Interfacing of Temperature and Humidity Sensor with Controller for Applications
- DAY 15**
➤ Interfacing of Gas Sensor with Controller for Pollution monitoring Applications
- DAY 16**
➤ Interfacing of Ultrasonic Sensor with Arduino microcontroller
- DAY 17**
➤ Interfacing of Soil moisture Sensor with Controller for agriculture monitoring Applications
- DAY 18**
➤ Interfacing of Voltage Sensor with Arduino.
- DAY 19**
➤ Interfacing of Current Sensor with Arduino.
- DAY 20**
➤ Test Session
- DAY 21**
➤ Interface IR sensor with Arduino to control AC and DC Motor.
➤ Interfacing of Temperature and Humidity Sensor with Arduino for solar power Applications.
- DAY 22**
➤ Relay Interfacing with Arduino Controllers control induction Motor and servo motor
➤ Interfacing of Voltage Sensor and Current Sensor with Arduino to Monitoring Solar and wind energy Applications.

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**TECHNOLOGIES**

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- 🌐 www.abtechnologies.in
- 📞 9840511458
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Kanyakumari District,
Tamilnadu - 629002.

DAY 23

- Study of DSPIC 30F4011 controller

DAY 24

- Study of Converters

1. BUCK CONVERTER
2. BOOST CONVERTER
3. BUCK BOOST CONVERTER
4. ZETA CONVERTER
5. SEPIC CONVERTER
6. LUO CONVERTER
7. LANDSMAN CONVERTER
8. CUK CONVERTER

- Study of Inverters

1. SINGLE PHASE INVERTER
2. THREE PHASE INVERTER
3. MULTILEVEL INVERTERS

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Kanyakumari District,
Tamilnadu - 629002.

VALUE ADDED COURSE

COLLEGE NAME : Stella Mary's College Of Engineering
DEPARTMENT : Electrical and Electronics Engineering
YEAR : III / EEE
CLASS DETAIL : Basic Study of Embedded System in
Electrical and Electronics Engineering

DAY 1

- Introduction

DAY 2

- Introduction about Micro Controller.

DAY 3

- Introduction about Micro Processor.

DAY 4

- Design of Power Supply for TTL family controllers.

DAY 5

- Introduction about Arduino Micro Controller

DAY 6

- Modeling Analogies of Atmega Micro Controller.

[Signature]
Head of Department
Department of Electrical and Electronics Engineering
STELLA MARY'S COLLEGE OF ENGINEERING
Aruthenganvilai, Azhikal Post,
Kanyakumari District - 628202, Tamil Nadu.

Branch Office:

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Kanyakumari District,
Tamilnadu - 629002.

DAY 7

- Interfacing of Power supply to Arduino Controller Hands on Training.

DAY 8

- Introduction about Arduino IDE.

DAY 9

- LED Interfacing with Arduino Controllers.

DAY 10

- Interfacing of Push Button Switches with Controller.

DAY 11

- Hands-on Training in LCD Interfacing with Controllers.

DAY 12

- Relay Interfacing with Arduino Controllers.

DAY 13

- Interfacing of IR Sensor with Arduino Micro Controller for Applications.

DAY 14

- Interfacing of Temperature and Humidity Sensor with Controller for Applications.

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Chennai - 600 045.

DAY 15

- Interfacing of Gas Sensor with Controller for Pollution monitoring Applications

DAY 16

- Interfacing of Ultrasonic Sensor with Arduino microcontroller

DAY 17

- Interfacing of Soil moisture Sensor with Controller for agriculture monitoring Applications

DAY 18

- Interfacing of Voltage Sensor with Arduino.

DAY 19

- Interfacing of Current Sensor with Arduino.

DAY 20

- Test Session

DAY 21

- Interface IR sensor with Arduino to control AC and DC Motor.

DAY 22

- Interfacing of Temperature and Humidity Sensor with Arduino for solar power Applications.

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Chennai - 600 045.

DAY 23

- Relay Interfacing with Arduino Controllers control induction Motor and servo motor.

DAY 24

- Interfacing of Voltage Sensor and Current Sensor with Arduino to Monitoring

DAY 25

- Study of Solar and wind energy Applications.

DAY 26

- Study of DSPIC 30F4011 controller.

DAY 27

- Study of Converters

DAY 28

- Study of DC-DC Converter

DAY 29

- Study of Buck Converter

DAY 30

- Study of Boost Converter

DAY 31

- Study of Buck Boost Converter

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No. 336, First floor,
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Tambaram West,
Chennai - 600 045.

DAY 32

- Study of Zeta Converter

DAY 33

- Study of Sepic Converter

DAY 34

- Study of Luo Converter

DAY 35

- Study of Landsman Converter

DAY 36

- Study of Cuk Converter

DAY 37

- Study Of Inverters

DAY 38

- Study of Single Phase Inverter

DAY 39

- Study of Three Phase Inverter

DAY 40

- Study of Multilevel Inverters

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Tirunelveli- 627003.

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Chennai - 600 045.



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Chettikulam Jn., Nagercoil,
Kanyakumari District,
Tamilnadu - 629002.

DAY 41

- Study of ESP8266 WiFi Module

DAY 42

- Study of Node MCU Interface LED

DAY 43

- Study of Node MCU Interface DC Motor

DAY 44

- Study of Node MCU Interface IR Sensor Using Induction Motor Speed Monitoring.

DAY 45

- Test Section

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Kanyakumari District,
Tamilnadu - 629002.

VALUE ADDED COURSE

COLLEGE NAME : Stella Mary's College Of Engineering
DEPARTMENT : Electrical and Electronics Engineering
YEAR : II
CLASS DETAILS:

MATLAB INTERNSHIP CLASS DETAILS

INTRODUCTION

MATLAB (an abbreviation of "Matrix Laboratory") is a proprietary multiparadigm programming language and numeric computing environment developed by Math Works. MATLAB allows matrix manipulations, plotting of functions and data, implementation of algorithms, creation of user interfaces, and interfacing with programs written in other languages. Although MATLAB is intended primarily for numeric computing, an optional toolbox uses the MuPAD symbolic engine allowing access to symbolic computing abilities. An additional package, Simulink, adds graphical multi domain simulation and model-based design for dynamic and embedded systems.

[Signature]
Head of Department
Department of Electrical and Electronics Engineering
STELLA MARY'S COLLEGE OF ENGINEERING
Aruthengannilai, Azhikal Patti,
Kanyakumari District - 629002, Tamil Nadu.

Branch Office:

103-M, Barani Nagar,
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Tirunelveli- 627003.

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Kanyakumari District,
Tamilnadu - 629002.

TOPICS

1. Fundamentals in Matlab.
2. Single phase half wave and full wave rectifiers.
3. Single phase half wave rectifier with R and RL load.
4. Single phase full wave rectifier with R and RL load.
5. DC-DC converters, Buck, Boost, Buck-Boost, SEPIC, CUK converters.
6. Single phase Voltage source inverter with different loads.
7. Three phase voltage source inverter with different loads.
8. PWM generation techniques including SVPWM.
9. Modelling of PV system.
10. Modelling of Wind energy system.

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STELLA MARY'S COLLEGE OF ENGINEERING

(Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai and Accredited by NAAC & NBA (Mech & CSE))
Aruthengavilal, Kallukatti Junction Azhikal Post, Kanyakumari District-629202, Tamil Nadu

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING VALUE ADDED COURSE RUBRICS DETAILS 2023-2024 ODD

Title of the Course : EECCS72324-Embedded Systems Phase II

S.No	Performance Indicator	Excellent/ Exemplary	Good	Satisfactory	Developing	Unsatisfactory
1	Problem Identification [10 Marks]	Problem identified and presented in logical, interesting and easy way. [10 Marks]	Problem identified and presented in logical way. [8 Marks]	Problem identified and presented in somewhat logical way. [6 Marks]	Problem identified and presented in less logical way. [3 Marks]	Problem identified and presented is not logical. [No Mark]
2	Coding [25 Mark]	Every line of the code is completely explained reflecting the knowledge of the experiment. [25 Marks]	Not all the lines in the code are explained reflecting the acceptable knowledge of the experiment. [20 Marks]	Not all the lines in the code are not explained and required the guidance of the faculty. [15 Marks]	The lines in the code are not explained and reflect little knowledge about the experiment as unable to rectify the errors. [10 Marks]	The lines in the code are not explained reflecting no knowledge about the experiment. Errors were available and are unable to rectify. [No Mark]
3	Hardware Tool Handling [25 Marks]	Excellent knowledge in interfacing and selection of hardware. [25 Marks]	Better knowledge in interfacing and selection of hardware. [20 Marks]	Average knowledge in interfacing and selection of hardware. [15 Marks]	Basic knowledge in interfacing and selection of hardware. [10 Marks]	Poor knowledge in interfacing and selection of hardware. [No Marks]
4	Demonstration and Result [30 Marks]	Explained the problem identified with solution and provided results by working hardware. [30 Marks]	Explained the problem identified with solution and provided results by working hardware which is not exactly controllable. [25 Marks]	Explained the problem identified with solution and provided results with not working hardware which is not exactly controllable. [20 Marks]	Explained the problem roughly with solution and provided results with not working hardware [10 Marks]	No problem explanation and results with hardware. [No Marks]
5	Viva [10 Marks]	Excellent theoretical knowledge [10 Marks]	Above average theoretical knowledge [8 marks]	Average theoretical knowledge [6 marks]	Basic theoretical knowledge [3 marks]	Poor theoretical knowledge [No marks]

*Score >70 is eligible for the certificate.

Head of Department
Department of Electrical and Electronics Engineering
STELLA MARY'S COLLEGE OF ENGINEERING
Aruthengavilal, Azhikal Post,
Kanyakumari District-629202, Tamil Nadu



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Aruthenganvilai, Kallukatti Junction Azhikal Post, Kanyakumari District-629202, Tamil Nadu

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

VALUE ADDED COURSE MARK SHEET 2023-2024 ODD

Title of the Course : EECCS72324-Embedded Systems Phase II

S.NO	YEAR	REGISTER NUMBER	STUDENT NAME	MARKS OBTAINED OUT OF 100
1	IV EEE /Sem 07	963520105001	ABINESH.A	76
2		963520105002	AJISHA.A	100
3		963520105003	ALEXPANDIAN.S	Not registered
4		963520105004	ANUSHA.S	87
5		963520105005	ASWIN.S	82
6		963520105006	BABITHA RAJILIN.R.C	72
7		963520105007	EZHIL MONISHA.M.K	100
8		963520105008	JEBA ESTHER BABITHA.S	89
9		963520105009	JETTISON ACKSNO.J	Not registered
10		963520105010	JULIUS NIWIN.L	71
11		963520105012	LEENA.K	95
12		963520105013	LIBIN. M. L	96
13		963520105015	LINSIN BEDSHO.S	77
14		963520105016	MANOJKUMAR.B	74
15		963520105017	MINISH.D	90
16		963520105018	PRABIN.S	92
17		963520105019	PRATHEEBA.V	96
18		963520105020	PRATHEEP.K	91
19		963520105021	PRATHIKA.V.G	96
20		963520105022	PRIYA.N	93
21		963520105024	RAMPRAKASH.M.V	90
22		963520105025	REXSON LESO.N	88
23		963520105027	SAHAYA LISMEN RAI.S	73
24		963520105028	SIVA.S	74
25		963520105029	SIVA SANKAR.K	74

S.NO	YEAR	REGISTER NUMBER	STUDENT NAME	MARKS OBTAINED OUT OF 100
26	V EEE Sem 07	963520105030	SUVIN.S	71
27		963520105031	VELMURUGAN.M	86
28		963520105032	VIDHYAPPRATHA.M.S	100
29		963520105033	WINCILIN RIJO.J	77
30		963520105301	ABISHEK. S	course not registered
31		963520105302	BIJO JOHNSON	course not registered
32		963520105303	JACOB THAMPI VAIDYAN	73
33		963520105304	KAMESH. S	78
34		963520105305	NASEEM. A	74
35		963520105701	VINUSHIYA N	79

Anyth
28/12/23

A. Annie Steffy Beula
AP/EEE

Certification course co-ordinator
/EEE

Anyth
28/12/23

Head of Department
Department of Electrical and Electronics Engineering
STELLA MARY'S COLLEGE OF ENGINEERING
Aruthengavilai, Azhikal Post,
Kanyakumari District - 629202, Tamil Nadu.



STELLA MARY'S COLLEGE OF ENGINEERING

(Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai and Accredited by NAAC & NBA (Mech & CSE))
Aruthenganvilai, Kallukatti Junction Azhikal Post, Kanyakumari District-629202, Tamil Nadu

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

VALUE ADDED COURSE RUBRICS DETAILS 2023-2024 ODD

Title of the Course: EECCS62324-MATLAB Programming Phase II

S.No	Performance Indicator	Excellent/ Exemplary	Good	Satisfactory	Developing	Unsatisfactory
1	Organization/ Structure [40 Marks]	Information presented in logical, interesting and easy way. All sections are correct order and completed on time. [40 Marks]	Information presented in logical way. All sections are correct order and completed on time. [35 Marks]	Information presented in somewhat logical way. All sections are correct order and completed on time. [30 Marks]	Information presented in less logical way. All sections are not exactly correct order and completed late. [20 Marks]	Information presented is not logical. All sections are not in a correct order and completed late. [No Mark]
2	Coding/Simulation and Results [60 Marks]	Every line of the code/Simulink is completely explained with results and conclusion reflecting the knowledge of the experiment. [60 Marks]	Not all the lines in the code/Simulink are explained. Results and conclusion reflecting the knowledge of the experiment. [50 Marks]	The lines in the code/Simulink are not explained. Results and conclusion reflecting the acceptable knowledge of the experiment. Warnings were available after the execution and able to rectify with the guidance of the faculty. [40 Marks]	The lines in the code/Simulink are not explained. Results and conclusion reflects little knowledge of the experiment. Warnings were available after the execution and are unable to rectify. [30 Marks]	The lines in the code/Simulink are not explained. Results and conclusion reflects no knowledge of the experiment. Errors were available and are unable to rectify. [No Mark]

*Score >70 is eligible for the certificate.

[Signature]
Head of Department
Department of Electrical and Electronics Engineering
STELLA MARY'S COLLEGE OF ENGINEERING
Aruthenganvilai, Kallukatti Junction
Kanyakumari District - 629202, Tamil Nadu



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Aruthenganvilai, Kallukatti Junction Azhikal Post, Kanyakumari District-629202, Tamil Nadu

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

VALUE ADDED COURSE MARK SHEET 2023-2024 ODD

Title of the Course : EECCS62324-MATLAB Programming Phase II

S.NO	YEAR	REGISTER NUMBER	STUDENT NAME	MARKS OBTAINED OUT OF 100
1	III EEE /Sem 05	963521105003	ABITHRAN M	78
2		963521105005	AKASH M	88
3		963521105006	ANBU MESHACH P	79
4		963521105007	ASHA R	94
5		963521105008	ASKAR A U	70
6		963521105009	ASWIN C	91
7		963521105011	BABU HUSSAIN S	95
8		963521105012	BINUMON S	82
9		963521105013	EPSIBHA S	96
10		963521105014	JAISON S	80
11		963521105015	JINOBIN S U	72
12		963521105016	KITHLIN MARESH E	74
13		963521105017	LEGAN R	70
14		963521105018	MAHESH KUMAR P	88
15		963521105019	MANIKANDAN A	91
16		963521105020	MANJU N	94
17		963521105023	PRAVIN S	81
18		963521105025	REBISHA R	100
19		963521105026	RENJITH R	70
20		963521105027	RENUKA K	100
21		963521105028	RIJO A	94
22		963521105030	SARAVANAN G	72
23		963521105032	SUTHEESH S	88
24		963521105033	SUVATHA M	98
25		963521105034	THANUSH S	71
26		963521105301	ANAND.M.P	95
27		963521105302	ARAVIND.R	79
28		963521105303	POOVARASAN.E	90

[Signature]
10/11/24
A. Annie Steffy Beela
AP/EEE
Program coordinator

[Signature]
Head of Department
Department of Electrical and Electronics Engineering
STELLA MARY'S COLLEGE OF ENGINEERING
Aruthenganvilai, Azhikal Post,
Kanyakumari District - 629202, Tamil Nadu



STELLA MARY'S COLLEGE OF ENGINEERING

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Aruthenganvilal, Kallukatti Junction Azhikal Post, Kanyakumari District-629202, Tamil Nadu

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

VALUE ADDED COURSE RUBRICS DETAILS

2023-2024 EVEN

Title of the Course : EECCS62223-Embedded Systems Phase I

S.No	Performance Indicator	Excellent/ Exemplary	Good	Satisfactory	Developing	Unsatisfactory
1	Problem Identification [10 Marks]	Problem identified and presented in logical, interesting and easy way. [10 Marks]	Problem identified and presented in logical way. [8 Marks]	Problem identified and presented in somewhat logical way. [6 Marks]	Problem identified and presented in less logical way. [3 Marks]	Problem identified and presented is not logical. [No Mark]
2	Coding [25 Mark]	Every line of the code is completely explained reflecting the knowledge of the experiment. [25 Marks]	Not all the lines in the code are explained reflecting the acceptable knowledge of the experiment. [20 Marks]	Not all the lines in the code are not explained and required the guidance of the faculty. [15 Marks]	The lines in the code are not explained and reflect little knowledge about the experiment as unable to rectify the errors. [10 Marks]	The lines in the code are not explained reflecting no knowledge about the experiment. Errors were available and are unable to rectify. [No Mark]
3	Hardware Tool Handling [25 Marks]	Excellent knowledge in interfacing and selection of hardware. [25 Marks]	Better knowledge in interfacing and selection of hardware. [20 Marks]	Average knowledge in interfacing and selection of hardware. [15 Marks]	Basic knowledge in interfacing and selection of hardware. [10 Marks]	Poor knowledge in interfacing and selection of hardware. [No Marks]
4	Demonstration and Result [30 Marks]	Explained the problem identified with solution and provided results by working hardware. [30 Marks]	Explained the problem identified with solution and provided results by working hardware which is not exactly controllable. [25 Marks]	Explained the problem identified with solution and provided results with not working hardware which is not exactly controllable. [20 Marks]	Explained the problem roughly with solution and provided results with not working hardware [10 Marks]	No problem explanation and results with hardware. [No Marks]
5	Viva [10 Marks]	Excellent theoretical knowledge [10 Marks]	Above average theoretical knowledge [8 marks]	Average theoretical knowledge [6 marks]	Basic theoretical knowledge [3 marks]	Poor theoretical knowledge [No marks]

*Score >70 is eligible for the certificate.

HEAD OF THE DEPARTMENT
DEPT. OF ELECTRICAL & ELECTRONICS ENGINEERING
STELLA MARY'S COLLEGE OF ENGINEERING
ARUTHENGANVILAI, AZHIKAL P.O. - 629 202
KANYAKUMARI DISTRICT



STELLA MARY'S COLLEGE OF ENGINEERING

(Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai and Accredited by NAAC & NBA (Mech & CSE))
Aruthenganvilal, Kallukatti Junction Azhikal Post, Kanyakumari District-629202, Tamil Nadu

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

VALUE ADDED COURSE STUDENT MARK LIST 2023-2024 EVEN

Title of the Course: EECCS62324-Embedded Systems Phase I

S.NO	YEAR	REGISTER NUMBER	STUDENT NAME	MARKS [100]
1	III EEE /Sem 06	963521105003	ABITHRAN M	81
2		963521105005	AKASH M	90
3		963521105006	ANBU MESHACH P	80
4		963521105007	ASHA R	95
5		963521105008	ASKAR A U	75
6		963521105009	ASWIN C	90
7		963521105011	BABU HUSSAIN S	96
8		963521105012	BINUMON S	85
9		963521105013	EPSIBHA S	94
10		963521105014	JAISON S	80
11		963521105015	JINOBIN S U	72
12		963521105016	KITHLIN MARESH E	70
13		963521105018	MAHESH KUMAR P	88
14		963521105019	MANIKANDAN A	91
15		963521105020	MANJU N	91
16		963521105023	PRAVIN S	83
17		963521105025	REBISHA R	98
18		963521105026	RENJITH R	70
19		963521105027	RENUKA K	98
20		963521105028	RIJO A	94
21		963521105030	SARAVANAN G	70
22		963521105032	SUTHEESH S	89
23		963521105033	SUVATHA M	95
24		963521105034	THANUSH S	73
25		963521105301	ANAND.M.P	95
26		963521105302	ARAVIND.R	82
27		963521105303	POOVARASAN.E	94

HEAD OF DEPARTMENT
DEPT. OF ELECTRICAL & ELECTRONICS ENGINEERING
STELLA MARY'S COLLEGE OF ENGINEERING
ARUTHENGANVILAI, AZHIKAL P.O. - 629 202
KANYAKUMARI DISTRICT

Signature of the Trainer



STELLA MARY'S COLLEGE OF ENGINEERING

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Aruthenganvilai, Kallukatti Junction Azhikal Post, Kanyakumari District-629202, Tamil Nadu

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

VALUE ADDED COURSE RUBRICS DETAILS 2023-2024 EVEN

Title of the Course: EECCS42324-Web Designing
Year & Sem : II & 04

	Beginning 4 points	Developing 6 points	Meets Standard 8 points	Above Standard 10 points	Score
1. Simplicity					
In terms of Web design, simplicity refers to an approach to express something in a complete and efficient way.	- web page is too busy - people reading it cannot find what they want quickly. excessive use of graphic elements	- web page is somewhat busy - people reading it will have difficulty finding what they want quickly. excessive use of graphic elements.	- content is simple and to the point. - appealing graphic elements are included appropriately. - differences in type size and/or color are used well.	- content is simple and to the point. - design is easy to understand in many ways	
2. Consistency					
The design must be consistent in the whole website. Each page must be predictable and look similar to each of the other pages in color, text format, and/ or some familiar layout.	- background, text format, and color usage are randomly chosen - pages seem unrelated	background, text format, and color usage are randomly chosen with few consistent elements throughout	background, text format, and color usage are somewhat consistent with little inappropriate variation.	background, text format, and color usage are carefully chosen to produce a consistent screen layout for all your pages.	
3. Color Schemes					
Color scheme refers to a set of colors you use on your Web components including text, background, link, visited link, active link, border, and table.	- little thought went into the choice of colors. - choice of colors and combinations are negative	- little thought went into the choice of colors. - colors do not match the character of the site	color is used somewhat appropriately to produce an atmosphere that expresses the character of the Web site.	color is appropriately used to produce an atmosphere that expresses the character of the Web site.	

	Beginning 4 points	Developing 6 points	Meets Standard 8 points	Above Standard 10 points	Score
4. Audience The audience will influence every aspect of your website's design	• tone of language not appropriate • use of graphics and/or colors is not appropriate for audience	• audience is not defined or poorly defined through confusing use of tone and language structure	• tone of language is mostly appropriate • use of graphics and colors is mostly appropriate for audience.	• tone of language appropriate for audience • use of graphics and colors is appropriate for audience. • audience is well defined.	
5. Structure/Navigation/Format Good websites are well organized. Their content is presented in a clear manner that is easy to follow. You should ensure that the readers get around your website with ease. Blocks of text and images must be of appropriate size.	• content is confusing and difficult to follow. • site is difficult to navigate. • not intuitive. • large images that take long to load.	• content is somewhat confusing and difficult to follow. • site is somewhat difficult to navigate. • too much textual information.	• content is presented in a clear manner that is easy to follow • navigation is difficult • not intuitive.	• content is presented in a clear manner that is easy to follow. • readers can get around your website with ease. • there are no blind links.	
6. Resource documentation You must always document all the resources used on your site. This means you must give credit to any websites, books, and/or other resources used.	none of the resources used are documented.	documentation is incomplete or poorly done.	documentation is mostly complete with one or two errors	all text, graphics sounds and multimedia resources are documented. correctly organized in alphabetical order	
		0-4 Needs work 5-6 Developing 7-8 Meets Standard 9-10 Above Standard			/ 60

HEAD OF THE DEPARTMENT
 DEPT. OF ELECTRICAL & ELECTRONICS ENGINEERING
 STELLA MARY'S COLLEGE OF ENGINEERING
 ARUTHENGANVILAI, AZHIKAL P.O. - 629 202
 VANDAKURAI DISTRICT



STELLA MARY'S COLLEGE OF ENGINEERING

(Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai and Accredited with NAAC, NBA
(Mech & CSE))

Aruthenganvilai, Kallukatti Junction Azhikal Post, Kanyakumari District-629202, Tamil Nadu, South India.

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Mark Sheet – Certification Course Regarding : II & 04 [2023-2024/Even]

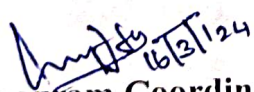
Year & Sem

Course Name

: Web Designing

Sl. No.	Register Number	Name of the Student	Marks out of 100
1	963522105001	ABINESH.K	95
2	963522105002	ADLIN RAJ.E	94
3	963522105004	AJAI.M	86
4	963522105005	AJIN.K.S	88
5	963522105006	AKASH SEENU.S	96
6	963522105007	AKASH.G.A	97
7	963522105008	AKASH.M	94
8	963522105009	AMIRTHAVARSHAN.M	90
9	963522105010	ANAND.M.S	95
10	963522105011	ANTOMUMRESHC.P	87
11	963522105012	ANTORUBERT.J	86
12	963522105013	ANU.A	85
13	963522105014	ARSHYA.A.S	98
14	963522105015	ARUL JESVIN.P	85
15	963522105017	ARUNADESH.R.K	87
16	963522105019	DHARSHINI.S	88
17	963522105020	DILIP BALAJI.J	91
18	963522105022	EANOCKSTEPHIN.R	96
19	963522105023	GEOLIN.S	95
20	963522105024	GOHUL.U	87
21	963522105025	GOWRI.M	88
22	963522105027	JENISTANRAJ.S	85
23	963522105028	JERISH.R.S	96
24	963522105029	JOSELIN JENIFFER.J	84
25	963522105030	JOTHISH.J	97

26	963522105032	KAVIN.M.R	83
27	963522105033	LAKSHMI PRIYA.K	82
28	963522105034	MAHESH KUMAR.A	91
29	963522105035	MAVIN.S	90
30	963522105036	MICHEALRAJ.S	92
31	963522105037	PRAKASH.R	94
32	963522105038	PRAVIN KUMAR.K	93
33	963522105039	RENOFIN.M	94
34	963522105040	RUBANKUMAR.K	95
35	963522105041	SAHAYAJEFIN.A.J	84
36	963522105042	SAJAN.S	83
37	963522105043	SAKTHIVEL.M	84
38	963522105044	SETHU.S	97
39	963522105046	SHALOM.S	85
40	963522105048	SHIBIYA.M.S	83
41	963522105050	SPENCER.S	84
42	963522105051	SREETHAMU.M	89
43	963522105052	SUJINMON.P	91
44	963522105053	THANUSH.A	92
45	963522105054	VENUKA.T	85
46	963522105055	VIGNESH.V	0
47	963522105056	VISHNU.R	91
48	963522105057	YOVALA	X
49	963522105301	JENILSON.S	96
50	963522105302	PRADISH.C	X
51		MANOGIN M V	95


 Program Coordinator
 A. Annie Steffy Beula
 AP/EEE


 HEAD OF THE DEPARTMENT
 DEPT. OF ELECTRICAL & ELECTRONICS ENGINEERING
 STELLA MARY'S COLLEGE OF ENGINEERING
 ARUTHENGANVILAI, AZHIKAL P.O. - 629 202
 KANYAKUMARI DISTRICT

**STELLA MARY'S COLLEGE OF ENGINEERING**

Aruthenganvilai, Kallukatti Junction, Azhikal Post, Kanyakumari District-629202

CAMPUS ACTIVITY (Co-Curricular) - Request & Approval Letter

SMCE/CSAY-CCR-14/FM-03/RTAL/R01

Date: 03/08/2024

From
Dr.J.T.Pratheesh,
Associate Professor & Head,
Management Studies,
Stella Mary's College of Engineering.

To
The Chairman
Stella Mary's College of Engineering
(Through the Principal)

Respected Sir,

Sub: Request for permission to conduct **Certificate Course-Regarding**

It is proposed to conduct a **Certificate Course**, in the Department of Management Studies. The Details are as follows

Program promoted by & Designation		Dr.J.T.Pratheesh, Associate Professor & Head,			
Name of the Coordinator & Designation		Mrs.K.Mary Asha Assistant Professor of MBA			
Topic		Certificate Course (Advanced Excel and Power BI)			
Mode of Conduct		Conventional / Virtual		<u>Name of Platform proposed</u> Conventional	
Name, Designation, Official Address of the Expert		Mr. Sanjay Kumar Chennai			
Date/s of Programme		06/08/2024 to 12/08/2024			
Mode of Travel		Flight/Car /Train/Bus		From:- Chennai To:- Aruthenganvilai	
Date/s of Travel		From: 05.08.2024 To: 12.08.2024		Boarding & Lodging	Inside campus
No. of Days	6	No. of Sessions	FN&AN	Venue	MBA Lab
Hospitality		yes			

Encl.: 1. Budget for the Programme-Yes / No (* If yes enclose Statement)

Thanking you,

Recommendations of Principal

Approval by

CEO

Approved / Not Approved

Vice Chairman

Your's faithfully,



03/08/24

Chairman

CC to: The IQAC

Signature

Revision-01



STELLA MARY'S COLLEGE OF ENGINEERING

Aruthenganvilai, Kallukatti Junction, Azhikal Post, Kanyakumari District-629202

Campus Activity Intimation Form

Date: 03.08.2024

From,
Dr.J.T.Pratheesh,
Associate Professor & Head,
Management Studies,
Stella Mary's College of Engineering

To
The Authorities Concerned,
Stella Mary's College of Engineering

Dear Sir,

Sub: Intimation of Certificate Course (Advanced Excel and Power BI) - Regarding.

As per the Approval of the Management the following campus activity will be organized in the campus by the Department of Management Studies. The details are as follows,

1	Name of Campus Activity:	Certificate Course (Advanced Excel and Power BI)
2	Date/s of Campus Activity:	06.08.2024 to 12.08.2024
3	Time of Campus Activity:	9.00 am to 4.20 pm
4	Venue of Campus Activity:	MBA Lab
5	Campus Activity coordinator/contact person:	Mrs.K.Mary Asha
6	Campus Activity requested by:	Dr.J.T.Pratheesh
7	Name of the Guest (if any):	Mr.Sanjay Kumar Chennai
8	Date & Time of Arrival:	05/08/2024 & 04.00 pm
9	Venue of Reception & Refreshment for Guest:	NA
10	Target audience	II MBA Students
11	No. of participants expected	35
12	Facility Required	Nil

Thanking you,

Your's faithfully

Principal

For
Campus Activity coordinator/ Staff in-Charge.

Information to:

1. Admin Team

2. All Heads

3. All Staff



SMCE/CSAY-CCR-14/FM-03.1/RTAL/MBA

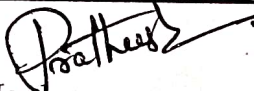
STELLA MARY'S COLLEGE OF ENGINEERING
Aruthenganvilai, Kallukatti Junction, Azhikal Post, Kanyakumari District-629202

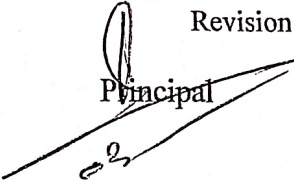
DETAILED BUDGET STATEMENT

ANNEXURE 1

Budget Line Item	No. of Days	Budget- Estimate	Proposed Source/s	Head of Account
Certificate Course (Advanced Excel and Power BI)	6	40,000	MBA Department	DEPARTMENT OF MBA
Tea and Snacks	7		College Office	
Lunch	7		College Office	
Miscellaneous (if any)				
Total:		40,000		

For 
Faculty in-Charge
(with Name, Designation, Dept., & Date)
[Ms. P.K. Anit Vinsiga
Asst Professor, MBA]


Head
Department of: MBA.

Revision 01

Principal

(Office use only)

The amount Rs. _____/- sanctioned is dispersed to the Convener, IEDC/IIC on _____


Accounts Manager



SMCE/CSAY-CCR-02/FM-7.1/INSY

STELLA MARY'S COLLEGE OF ENGINEERING
Aruthenganvilai, Kallukatti Junction, Azhikal Post, Kanyakumari District – 629202.

Campus Activity Information to Security

Department & Semester: MBA & 03

Date: 03.08.2024

Date/s of Campus Activity: From 06/08/2024 to 12/08/2024 PM

Name of the Campus Activity: Certificate Course

Details of Venue: MBA Lab

Details of Participants: Stella Mary's only / Other Institutions (* Tick the appropriate)

Details of Staff Accompanying-Other Institutions: No

Details of Vehicles from Other Institutions/Private: No

Details of Refreshment Arrangement: Stella Mary's Canteen

Details of Sound System: Yes/No (Note: If yes No. of Speakers allowed is 2 only)

Banners (if any): Yes /No (Note: If yes No. of Banners allowed is 1 only)

Dothees 3/8/24
Head Campus Activity Coordinator
(Department of... Management Studies.)

[Signature]
Principal

Security
(with Name and Date)

From

Dr.J.T.Pratheesh,
Associate Professor & Head,
Management Studies,
Stella Mary's College of Engineering,
Aruthenganvilai.

To

The Principal,
Stella Mary's College of Engineering,
Aruthenganvilai.

Respected Sir,

Sub: Providing Food and Accommodation to the resource person- Regarding.

I am writing to request your approval for providing accommodation and food for the resource person in the hostel, who will be visiting our institution for providing certificate course for our students from 06/08/2024 to 12/08/2024. So I kindly request you to do the needful.

Thank you.

Aruthenganvilai,

Date: 03.08.2024.

Sincerely,

Dr.J.T.Pratheesh. 03/08/24.

HEAD OF DEPARTMENT
Department of Management Studies
STELLA MARY'S COLLEGE OF ENGINEERING
Aruthengan Vilai, Arhikal P.O.
Kanyakumari District - 629 121



STELLA MARY'S COLLEGE OF ENGINEERING
Aruthenganvilai, Kallukatti Junction, Azhikal Post, Kanyakumari District – 629 202.

SMCE/CSAY-CCR-02/FM/7.9/RTRT

Campus Activity Information -Room Requirement (Boys Hostel)

From

Dr.J.T.Pratheesh,
Associate Professor & Head,
Management Studies,
Stella Mary's College of Engineering,

To

The Deputy Warden (Boys Hostel),
Stella Mary's College of Engineering,
(Through the Principal & Accounts Manager)

Date:03/08/2024

Respected Sir,

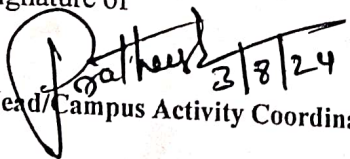
Sub: Arrangement of rooms with related facilities for Resource Person Mr. Sanjay Kumar -Boys Hostel-regarding.

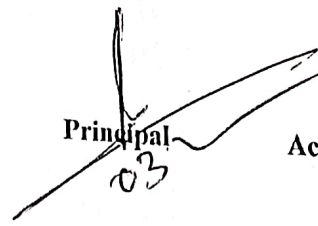
Course Certificate is scheduled from 06/08/2024 to 12/08/2024. It is required to make necessary room arrangements with related facilities for the Resource person. The requirements are as follows. Kindly do the needful.

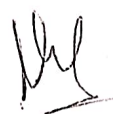
Sl. No.	Date/s	Rooms to be kept ready	Nos.
1	05/08/2024	Night	1
2	06/08/2024 to 12/08/2024		1

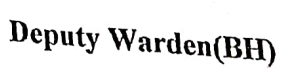
Thanking you,

Signature of


Head/Campus Activity Coordinator


Principal


Accounts Manager


Deputy Warden(BH)



STELLA MARY'S COLLEGE OF ENGINEERING
Aruthenganvilai, Kallukatti Junction, Azhikal Post, Kanyakumari District – 629 202.

Campus Activity Information -Refreshment Requirement (Hostel Mess)

From

Dr.J.T.Pratheesh,
Associate Professor & Head,
Management Studies,
Stella Mary's College of Engineering,

Date: 03/08/2024

To

The Mess In-charge,
Stella Mary's College of Engineering,
(Through the Principal & Accounts Manager)

Respected Sir,

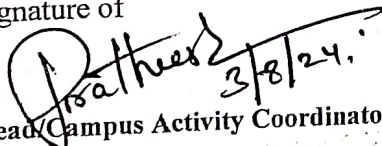
Sub: Arrangement of refreshments for Resource person Mr.Sanjay Kumar -Hostel Mess- regarding.

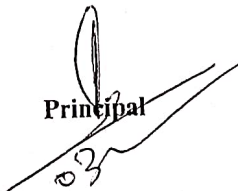
Certificate course is scheduled on/from 06/08/2024 to 12/08/2024. It is required to make necessary arrangements for food for the resource person. The requirements are as follows. Kindly do the needful.

Sl. No.	Date/s	Item required
1	05/08/2024	Dinner
	06/08/2024 to 12/08/2024	Refreshments and Food

Thanking you,

Signature of


Head/Campus Activity Coordinator


Principal


Accounts Manager

Mess in-Charge



STELLA MARY'S COLLEGE OF ENGINEERING

(Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai and Accredited with NAAC)
Aruthenganvilai, Kallukatti Junction Azhikal Post, Kanyakumari District-629202, Tamil Nadu, South India.

Circular

Subject: Certificate Course on Advanced Excel and Power BI

Date: 23/06/2024

Dear MBA Students,

We are excited to announce that the Department of Management Studies will be conducting a **Certificate Course on Advanced Excel and Power BI** from **6th August 2024 to 12th August 2024**. This course is designed to enhance your analytical and visualization skills, which are crucial for effective decision-making in today's business environment.

Course Details:

- **Duration:** 6 days
- **Mode:** Offline
- **Venue:** MBA Lab
- **Eligibility:** Open to all MBA students

Key Learning Outcomes:

1. Mastery of advanced Excel functions for data analysis.
2. Comprehensive understanding of Power BI tools and dashboards.
3. Hands-on experience in creating interactive reports and visualizations.
4. Enhanced analytical skills for managerial decision-making.

Registration:

- **Deadline for Registration:** [15/07/2024]

Certification:

Participants who complete the course successfully will be awarded a certificate, which will add value to your professional profile. We encourage all MBA students to take advantage of this opportunity to strengthen your skill set and boost your employability. Seats are limited, so register early to secure your spot.

For further details or queries, please contact: **Course Coordinator:** [Mrs Mary Asha]

Dr.J.T. PRATHEESH MBA., Ph.D.
Head of the Department,
Department of Management Studies
STELLA MARY'S COLLEGE OF ENGINEERING
Aruthengan Vilai, Azhikal Post
Kanyakumari District - 629 202

Advance Excel & power BI



Advance Excel

- Introduction to Excel interface and basic functions.
- Data entry and formatting
- Creating simple charts
- Advanced Excel Techniques
- Formulas and conditional formatting
- Lookups
- Pivot tables and data analysis



Power BI

- Overview of Power BI tools
- Data sources
- Report building
- Creating interactive visuals
- Filters and slicers
- Designing effective dashboards
- Other Excel and power bi operations



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I Year MBA

CERTIFICATE PROGRAM

ADVANCE EXCEL & POWER BI

Date 06-08-2024 to 12-08-2024 **Venue:** MBA Lab

Sl. No.	Register Number	Name of the Student
1	963523631001	Abishal.P.Mohan
2	963523631002	AbishaMary.M
3	963523631003	AfraMarcy.M
4	963523631004	Akshai.R
5	963523631005	Akshiya.J
6	963523631006	Amisha.M.S
7	963523631007	Anish.T
8	963523631009	Antony AbishekBright.L
9	963523631010	Anuba.P
10	963523631011	AnuMethra A
11	963523631012	ArockiaDelbishMelony.W
12	963523631013	Arul Roosika.K
13	963523631014	AslinStephy.D.M
14	963523631015	AswinAlex.R
15	963523631016	Aswini.M.S
16	963523631017	Athersha.S
17	963523631018	Baalasuwini.M.R
18	963523631019	Babisha.N
19	963523631020	BirishaSharukan.J
20	963523631021	BishalniWills.J
21	963523631022	BorishJohn.J.R
22	963523631023	Brijitha.L
23	963523631024	Deepesh Kumar .D
24	963523631025	DharmendraVijayaRaj.G
25	963523631026	Dharsi.J

26	963523631027	Gino Monsing.M
27	963523631028	Honest Raj.S
28	963523631029	Immanuel.T
29	963523631030	Jaginsha.J
30	963523631031	Jenifer.E
31	963523631032	Jenifer.P
32	963523631033	Jeswin.S.K
33	963523631034	Jibin Samuel
34	963523631035	Kaliyammal.K
35	963523631036	Kamalesh.K
36	963523631038	KrisiHesan.T
37	963523631040	Mahendran.R
38	963523631041	Makesh.R
39	963523631042	Manju.R
40	963523631043	Maria Abisha.A
41	963523631044	MeryShanu.K
42	963523631045	Mohamed Rashid.M
43	963523631046	Mohamed Thowfeeq.S
44	963523631047	Monisha.A
45	963523631048	MuthuKumar.M
46	963523631049	Nandhana S.R
47	963523631050	Nanthini.K.S
48	963523631051	Nithisha.R.V
49	963523631052	RahiyaBegum.M
50	963523631053	Raja Sekar.J
51	963523631054	RajithaRoja.T
52	963523631055	Reshma.M
53	963523631056	Rishmitha.E
54	963523631057	SahayaRashila.C
55	963523631058	Sahaya Simons Bro.E
56	963523631059	SahayaStephny.D
57	963523631060	SahayaVarshini.M
58	963523631061	Salomiya.N
59	963523631063	Sektheeswathi.R
60	963523631064	Shibiya.S
61	963523631065	ShivaniSharo.M

62	963523631066	Sneka.K
63	963523631068	SreeSupriya.R
64	963523631070	SweetlinRishany.I
65	963523631071	Thanisha.T
66	963523631072	Varshini.C
67	963523631073	Vidhya.M
68	963523631074	Vidhya. S
69	963523631075	Vigneshwar.A
70	963523631076	Vishnu.M



HoD/MBA

Dr.J.T. PRATHEESH MBA., Ph.D.
Head of the Department,
Department of Management Studies
STELLA MARY'S COLLEGE OF ENGINEERING
 Aruthengan Vilai, Azhikal Post
 Kanyakumari District - 629 202