Office file. Copy to: ① Exam cell ② Coordinator, Workshops. ③ All HODs.

Off: 22357077173
22357074
Fax / Dir : 22352272

CENTRE FOR ACADEMIC COURSES
ANNA UNIVERSITY
CHENNAI – 600 025

Dr. SANJIB KUMAR PATTANAIK
DIRECTOR

CARE GROUP OF INSTITUTIONS ★ TRICHY-620 009 ★ 84 27/11/19

Letter No.4118/AU/VA/CAC/2019

21.11.2019

To
The Controller of Examinations
Anna University
Chennai - 25.

Sir,

Sub : AU - CAC – Affiliated Institutions - Value Added Courses - Reg.
Ref : Letter No. CARE/VA Course-UG/2019-20/50, dated 07.11.2019.

******

With reference to the letter cited above, the following Value Added Course offered by Care Group of Institutions, Affiliated Institutions is allotted the course code as detailed below.

S. No	Code Allotted	Title	L T P C
1.	CVA017	Computer Applications in Civil Engineering	2 0 0 2

This is for your kind information and necessary action at your end.

Yours faithfully,

27/11/19
DIRECTOR

21/11/19

Copy to:
1. The Chairperson, Faculty of Civil Engineering, Anna University, Chennai - 25.
2. The Principal, Care Group of Institutions, #27, Thayanaur, Trichy – 620 009.
3. The Stock File

CARE
Center for Applied Research & Education

CARE Exam Cell <examcell@care.ac.in>

Fwd: corrected Syllabus for VAC

1 message

P.V. Premalatha <p.v.premalatha@care.ac.in> Tue, Nov 26, 2019 at 10:46 AM
To: ExamCell <examcell@care.ac.in>, Care director <director@care.ac.in>

--------- Forwarded message ---------
From: **P.V. Premalatha** <p.v.premalatha@care.ac.in>
Date: Sat, Nov 9, 2019, 4:25 PM
Subject: corrected Syllabus for VAC
To: <cacannauniv@gmail.com>
Cc: Care Director <director@care.ac.in>

Sir/Madam,

I am Dr.P.V.Premalatha, Co-ordinator for Value added courses, CARE Group of Institutions, Tiruchirappalli.
As per the suggestions received from 'Centre for academic courses', Anna University, we are herewith submitting the corrected copy of syllabus for Civil and Mechanical Engineering Department.
As we are waiting for the suggestions from your end for ECE and CSE departments, we will do the needful once received.

thanking you,
–
Dr.P.V.Premalatha
Professor and Head
Department of Civil Engineering

CARE Group of Institutions
27 Thayanur, Trichy 620 009
0431-2690505
www.care.ac.in

staad Civil VAC.pdf
1005K

COMPUTER APPLICATIONS IN CIVIL ENGINEERING

L	T	P	C
2	0	0	2

PREAMBLE:

To make the students to design various concept of reinforced concrete structures using STAAD pro

PREREQUISITES:

Design of RC structures

COURSE OBJECTIVES:

CO1: To make the students to design various concept of reinforced concrete structures and steel structures using STAAD Pro

CO2: The student acquires hands on experience in design and analysis of Concrete structures / steel structures in Civil Engineering practice.

UNIT I -INTRODUCTION TO STAAD PRO. **(6)**

General- Types of Structure- Unit System- Structure Geometry and Coordinate systems- Relationship between Global & Local Coordinates

UNIT II -MODELLING OF STRUCTURE **(6)**

Starting STAAD. Pro- Geometry Construction- Assigning various properties, supports, constants- Loadings- Grouping

UNIT III -ADVANCED COMMANDS USED FOR MODELLING **(6)**

Inserting Node- Translation Repeat and Circular Repeat- Mirror, Rotate and Move- Adding Beams- Cut Section- Intersect Selected Members- Renumber- Render View- Connecting Nodes- Creating Intersections

UNIT IV -MODEL CHECKING, ANALYSIS AND DESIGN **(6)**

Check Multiple Structures- Check Duplicate Nodes/Members- Check Orphan Nodes- Check for warped plates- Check improperly connected plates - Check beam plate connectivity- Check for the Loads- Analyzing the model- Concrete Design.

UNIT V -POST PROCESSING **(6)**

Checking Results- Report Generation- Printing Reports- methods to check Results- Shear Force Bending Moment Check.

TOTAL:30 PERIODS.

COURSE ACTIVITY:

Exercise 1: Shear Force and Bending Moment diagram for simple beams
Exercise 2: 2D portal frame
Exercise 3: Analysis of a 2D multistoried building frame
Exercise 4: Analysis of a 3D multistoried building frame

COURSE OUTCOME:

1. Utilize the tools for assigning properties, supports and loadings for a structural model
2. Analyze Simply Supported Beam and Framed Structure
3. Design RC Beam and Columns

TEXT BOOK:

1. Staad Pro V8i for Beginners Paperback – August 22, 2014 by T.S Sarma.

2. Structural Analysis and Design using STAAD.Pro V8i by SivakumarNaganathan

REFERENCES:

1. STAAD.Pro V8i Manual – Dr.P.V.Premalatha

To.
The Exam Cell.
Copy to. All HODs.

07/01/2020

Off: 22357077 / 73
22357074
Fax / Dir : 22352272

CENTRE FOR ACADEMIC COURSES

ANNA UNIVERSITY
CHENNAI – 600 025

Dr. S.HOSIMIN THILAGAR
DIRECTOR
Letter No.2810/AU/VA/CAC/FICE/2021

CARE COLLEGE OF ENGINEERING ★TRICHY-9★ 21 7.1.2021

4 .01.2021

To
The Controller of Examinations
Anna University
Chennai - 25.

Sir,

Sub: A.U. - CAC - Affiliated Institutions - Value Added Courses - Reg.
Ref: (i) Letter No. CARE/VAC/Dec2020/23, dated:19.11.2020
(ii) Mail received from the Professor CARE Group of Institutions, dated:18.12.2020

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With references to the letter cited, the following Value Added Courses offered by CARE Group of Institutions, Affiliated Institutions is allotted the course code as detailed below.

SI. NO.	CODE ALLOTTED	TITLE	CREDITS			
			L	T	P	C
1.	IVA072	Augmented and Virtual Reality	1	0	2	2

This is for your kind information and necessary action at your end.

Yours faithfully,

4/1/2021
DIRECTOR

Tue 04/01

Copy to:

1. The Principal, CARE Group of Institutions, Thayanoor Village, Trichy – 620 009.
2. The Chairperson, Faculty of Information and Communication Engineering, A.U., Chennai -25.
3. The Stock File.

AL

Director – CARE College of Engineering <director@care.ac.in>

Value Added Course - Reg

1 message

HOD - CSE <hod.cse@care.ac.in> Sat, Dec 12, 2020 at 10.15 AM To: director@care.ac.in

Dear Sir,
As a part of Anna University curriculum, it is decided to conduct value added courses for our III and IV CSE for the academic year 2020-21. For this, I appointed **Mrs. R. Sasikala (AP/CSE)** as course incharge. I can also plan to conduct a meeting with the following Board of Members to frame the course title with syllabus. In this regard, I need your kind permission to conduct the meeting and also, I wish you to join the meeting.

Board of members:
1. Dr.J.Suresh - HOD/CSE, CARE College of Engineering
2. Dr.M. Ramakrishnan - Dean (Affairs), CARE College of Engineering
3. Dr.R. Thanuja - Assistant Professor (Sr. Grade I) - SASTRA Deemed University

The details of meeting are as follows:
Meeting Link: http://google/ajd-jht-jjj
Date and Time: 18/12/2020 (2pm)

With Regards,
Dr.J. Suresh M.E., Ph.D.,
HOD / CSE
CARE College of Engineering,
Thayanur, Tiruchirappalli - 620009

Director – CARE College of Engineering <director@care.ac.in> Wed, Dec 16, 2020 at 3:42 PM

HOD - CSE <hod.cse@care.ac.in>

Dear Sir,
Happy to receive your mail and I permit you to conduct this meeting. My best wishes to the team.

Regards,

Dr.N.Meikandan, M.E., Ph.D.
Director
CARE College of Engineering,
Thayanur, Tiruchirappalli - 620009
Cell: 9894659883

[Quoted text hidden]

CARE COLLEGE OF ENGINEERING

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

VALUE ADDED COURSES

IVA072- AUGMENTED AND VIRTUAL REALITY

SYLLABUS

UNIT I – INTRODUCTION

Introduction to Virtual Reality – Fundamental concepts and components – Displays and tracking technologies-Primary Features and Present Development on Virtual Reality.

UNIT II – DISPLAY DEVICES

Computer graphics, Real time computer graphics, Flight Simulation, Virtual environment requirement, benefits of virtual reality, Historical development of VR-VR Project

UNIT III – AUGMENTATION TECHNIQUES

Basic concepts and components - technology and features of augmented reality, difference between AR and VR, Challenges with AR-AR systems and functionality, augmented reality methods, visualization techniques for augmented reality-AR Project-Geometric Modelling – Kinematics Modelling –Physical Modelling –Behaviour Modelling – Model Management Project

UNIT IV – PERIPHERAL DEVICES

Input device characteristics, Desktop input devices, Tracking Devices, 3D Mice, Special Purpose Input Devices, Direct Human Input Home-Brewed Input Devices, and Choosing Input Devices for 3D Interfaces -Development of a project with stereoscopy

UNIT V – VR DATABASES

VR Environment-VR Database, Tessellated Data, LODs, Cullers and Occluders, Lights and Cameras, Scripts, Interaction-Simple, Feedback, Graphical User Interface - Control Panel, 2D Controls, Hardware Controls, Room / Stage / Area Descriptions, World Authoring and Playback, VR toolkits, Available software in the market

To. Office file.

Copy to. (1) Exam Cell.
(2) HOD - ECE
(3) VAC Co-ordinator.

Off: 22357077 / 73
22357074
Fax / Dir : 22352272

CENTRE FOR ACADEMIC COURSES
ANNA UNIVERSITY
CHENNAI – 600 025

Dr. SANJIB KUMAR PATTANAIK
DIRECTOR
Letter No.4129/AU/VA/CAC/FICE/2019

CARE GROUP OF INSTITUTIONS 93 6/12/19 TRICHY-620 009

03.12.2019
07

To
The Controller of Examinations
Anna University
Chennai - 25.

Sir,

Sub: A.U. - CAC - Affiliated Institutions - Value Added Courses - Reg.
Ref: Letter No.CARE/VA Course – UG/2019-20/50, dated 07.11.2019 and syllabus received in this office on 03.12.2019

******

With reference to the letter cited, the following Value Added Courses offered by Care Group of Institutions, Affiliated Institutions is allotted the course code as detailed below.

SI.NO	CODE ALLOTTED	TITLE	CREDITS			
			L	T	P	C
1	IVA038	Smart Home – Theory and Practices	1	0	2	2

This is for your kind information and necessary action at your end.

Yours faithfully,

DIRECTOR 4129

Copy to:
1. The Principal, Care Group of Institutions, No.27, Thayanur, Trichy – 620 009.
2. The Chairperson, Faculty of Information and Communication Engineering, A.U., Chennai -25.
3. The Stock File.

SG-07

IVA038 / Smart Home – Theory and Practices

L	T	P	C
2	0	0	2

Pre-requisites:

Electronics and Devices Circuits, Embedded systems, ComputerNetworks

Course Outcomes:

At the end of the Course, the Student will be able to:

CO 1 Understand the building blocks ofIoT and its characteristics.
CO 2 Understand the application areas ofIoT.
CO 3 Realize the difference between M2M and IoT.
CO 4 Develop IoTs& Logical Design using Python.
CO 5 Develop smart homes using Raspberry Pi.

Chapter 1: Introduction & Concepts: (6)

Introduction to IoT, Physical Design of IoT, Logical Design of IoT, IoT Enabling Technologies, IoT Levels and deployment templates.

Chapter 2: Domain Specifications: (6)

Home Automation, Cities, Environment, Energy, Retail, Logistics, Agriculture, Industry, Health & Life Style.

Chapter 3: M2M &System Management with Netconf-YANG (6)

M2M, Difference between IoTand M2M, SDN and NFV for IoT, Need for IoT Systems Management, Simple Network Management Protocol, Network Operator Requirements, Netconf-YANG, IoT Systems management with Netconf-YANG.

Chapter 4: Developing IoT& Logical Design Using Python (6)

Introduction, IoT Design Methodology, Installing Python, PythonData Types & Data Structures, Control Flow, Functions, Modules,Packages, File Handling, Date / Time Operations, Classes, Python Packages of interest for IoT.

Chapter 5: IoTPhysical Devices & Endpoints: (6)

What is an IoT Device, Exemplary Device: Raspberry Pi, About the Board, Linux on Raspberry Pi, Raspberry Pi Interfaces, andProgramming Raspberry Pi with Python & other IoTDevices, Arduino.

Total hours = 30 hrs

TEXT BOOK:

Vijay Madisetti, ArshdeepBahga, "Internet of Things: AHands-On-Approach", 1st Edition, Universities Press,2014.

REFERENCS:

Adrian McEwen, Hakim Cassimally "Designing the Internet of Things", 1st Edition,Wiley Publishers, 2014.

WEB REFERENCES:

1. https://www.coursera.org/specializations/internet-of-things

2. https://www.class-central.com/tag/internet%20of%20things

Value Added Course Syllabus Framed by,

FACULTY PROFILE:

1. Dr. J.Jeyarani M.E., Ph.D.,

Designation: Associate Professor, ECE Department

CARE Group of Institutions, Tiruchirappalli 620009.

Area of Specialization: Signal Processing, Embedded Systems

Experience: Teaching – 15.11 years | Research – 6 Years

E-Mail: jeyarani@care.ac.in

2. Mr. SriramSundar S M.E.,(Ph.D).,

Designation: Assistant Professor, ECE Department

CARE Group of Institutions, Tiruchirappalli 620009.

Area of Specialization: Mixed Signal Low Power Design, RTOS

Experience: Teaching – 11 years 6 Months | Research – 1 Year 5 Months

E-Mail: ssriramsundar@care.ac.in

To. Office file.

Copy to. (1) Exam Cell
(2) Co-ordinator, Workshops-Students
(3) All HODs.

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Fax / Dir : 22352272

CENTRE FOR ACADEMIC COURSES
ANNA UNIVERSITY
CHENNAI – 600 025

CARE GROUP OF INSTITUTIONS 83 27/11/19 TRICHY-620 009

Dr. SANJIB KUMAR PATTANAIK
DIRECTOR

Letter No:4119/AU/VA/CAC/2019

22.11.2019

To

The Controller of Examinations
Anna University
Chennai - 25.

Sir,

Sub : A.U. - CAC - Affiliated Institutions - Value Added Course - Reg.
Ref : Letter No.CARE/VACOURSE-UG/2019-20/50 dated: 05.11.2019. and 15.11.2019.

******

With reference to the letter cited, the following Value Added Course offered by CARE Group of Institutions, Trichy Affiliated Institutions is allotted the Course Code as detailed below.

SL. No.	Code Allotted	Title	Credits			
			L	T	P	C
1.	MVA015	Modern Trends in Refrigeration and Air Conditioning	2	0	0	2

This is for your kind information and necessary action at your end.

Yours faithfully,

22/11/19

DIRECTOR

22/11/19

Copy to:

1. The Chairperson, Faculty of Mechanical Engineering, A.U., Ch -25.
2. The Principal, CARE Group of Institutions, No.27, Thayanoor Village, Trichy – 620 009.
3. The Stock File – CAC.

MODERN TRENDS IN REFRIGERATION AND AIR CONDITIONING

L T P C
2 0 0 2

COURSE OBJECTIVES:

CO1: To impart knowledge on the underlying principles of operations in different Refrigeration and Air conditioning systems and components.
CO2: To provide knowledge on the latest developments in Automotive, Railway, Aircraft and Marine air-conditioning systems.

UNIT I - INTRODUCTION (6)

Recapitulation of Thermodynamics cycles used in Refrigeration and Air conditioning systems, Air Refrigeration Cycle, Vapour Compression Refrigeration and Vapour Absorption Refrigeration systems.

UNIT II - DOMESTIC REFRIGERATION AND AIR CONDITIONING (6)

Different types of Domestic Refrigeration and Air conditioning systems -Window air conditioner, Split Air conditioner and Tower Air Conditioning-Description-working principle, Load calculation.

UNIT III - AUTOMOTIVE AIR CONDITIONING AND TOOLS (6)

Automotive Air Conditioning-Components – Measurement and control – study on construction – alternative methods –Different types of Refrigerants. Impact on Environment- Health and Safety. Usage of AC tools – Types of tools – Refrigerant Gas detector –Refrigerant recover machines for hydrocarbons

UNIT IV - AIR CONDITIONING APPLICATIONS IN AIRCRAFTS, RAILWAYS AND MARINE (6)

Types of Air conditioning systems used in Aircraft, Ship and Railway Carriages. Installation and Maintenance of On-board Conditioning and Refrigeration Systems

UNIT V - COLD STORAGE (6)

Necessity for cold Storage-Load Calculations-Types-Construction and Maintenance-Trouble shooting.

TOTAL: 30 PERIODS

COURSE OUTCOME:

On completion of this course students will be able to:

- Measure the COP of Refrigeration.
- Apply fundamentals of Refrigeration and Air Conditioning Techniques.
- Use appropriate AC tools.
- Able to describe Aircraft, Railway and Marine air conditioning applications

TEXT BOOKS:

1. Arora, C.P., "Refrigeration and Air Conditioning", 3rd edition, McGraw Hill, New Delhi, 2010.

REFERENCES:

1. ASHRAE Hand book, Fundamentals, 2010
2. Jones W.P., "Air conditioning engineering", 5th edition, Elsevier Butterworth-Heinemann, 2007
3. Roy J. Dossat, "Principles of Refrigeration", 4th edition, Pearson Education Asia, 2009.
4. Stoecker, W.F. and Jones J. W., "Refrigeration and Air Conditioning", McGraw Hill, New Delhi, 1986.
5.Dr.S.S Thipse,"Refrigeration and Air conditioning",3rd Edition,Jaico Publishing house,Mumbai,2008.
6.M.Adithan.S.C.Laroiya,"Practical Refrigeration and Air conditioning "New Age International Publisher's.

FACULTY PROFILE:

Name of the Faculty : Dr. G. Ramadoss
Designation : Professor
Specialisation : Heat Power Engineering
Experience : Teaching – 40 Years
Contact : gramadoss@care.ac.in

Name of the Faculty : Mr. P. Muthukumar (Course Coordinator)
Designation : Assistant Professor
Specialisation : Thermal Engineering
Experience : Teaching – 6 Years
Industry – 3 Years
Contact : pmuthukumarmech@care.ac.in
Mobile Phone No : 9894540161

Name of the Faculty : Mr. A. Karuppasamy (Course Co-Coordinator)
Designation : Assistant Professor
Specialisation : Thermal Engineering
Experience : Teaching – 3.5 Years
Contact : akaruppasamy@care.ac.in