



VIGNAN'S INSTITUTE OF MANAGEMENT AND TECHNOLOGY FOR WOMEN

Sponsored by Lavu Educational Society, Approved by AICTE, New Delhi & Affiliated to JNTUH, Hyderabad.
Kondapur (V), Ghatkesar (M), Medchal - Malkajgiri (D) - 501 301 Phone: +91 96529 10002/3



INSTITUTIONAL PROGRAM BROCHURE, CIRCULAR, SYALLBUS, REPORT

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DEPARTMENT OF BASIC SCIENCE AND HUMANITIES

VMTW/ECE/AOC/2020-21/II/01

Date: 04-05-2021

CIRCULAR

This is to inform all the I B. Tech ECE students that, the Department organizing an Add on course on "Programming Logic with C and Python". Department Advisory Committee has been identified Mr.R.Krishna Naik, Associate Professor in CSE Dept. as a resource person for this course. This course is scheduled for 35 hours which will take from 10-05-2021 to 15-05-2021 in online mode. This course is organized by Department of Electronics and Communication Engineering.

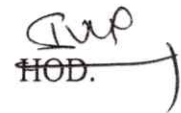
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I.B. Tech Students

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Head of the Department
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ABOUT THE COURSE

Python and C language have been at work for a couple of decades to provide developers and programmers with the ability to write code easily. There are many differences that lie in between the two, and thus, you need to have insights into Python vs C language. This blog is aimed at providing you with complete information regarding the comparison between Python and C programming language.

COURSE OBJECTIVES

- To learn Assemble, Install and replace different parts of computer
- To demonstrate the basic functionalities of different types of Operating Systems with the knowledge of installation and configuration of Windows / Linux Operating System.
- To perform conversion of different number systems and do arithmetic operation
- To write 'C' Programs using Loop, function, Arrays, Structure, & Pointers.
- To write simple Python program using Python string processing functions and methods, also involving dictionaries & related operations.

EXPECTED OUTCOMES

At the end of the course, students will have the ability to:

- Learn Assemble, Install and replace different parts of computer
- Demonstrate the basic functionalities of different types of Operating Systems with the knowledge of installation and configuration of Windows / Linux Operating System.
- Perform conversion of different number systems and do arithmetic operation.
- Write 'C' Programs using Loop, function, Arrays, Structure, & Pointers.
- Write simple Python program using Python string processing functions and methods, also involving dictionaries & related operations.

Resource Person:
Mr. R. Krishna Naik,
Associate Professor,
Department of CSE.



Coordinator:
Mrs. Sushmitha,
Assistant Professor,
Department of ECE,
Contact No: +91 6302849402

LAST DATE FOR REGISTRATION: 7TH MAY, 2021



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ADD-ON COURSE ON
“PROGRAMMING LOGIC
WITH C AND PYTHON”
10TH TO 15TH MAY, 2021

Duration of the Course : **35 Hrs**

<https://meet.google.com/gfs-niuh-qzn>

ORGANIZED BY:

DEPARTMENT OF ELECTRONICS AND
COMMUNICATION ENGINEERING

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Programming Logic with C and Python –Syllabus

Academic Year: 2020-2021

B.Tech I-II SEM

SECTION: ECE

Course Objectives:

- To learn Assemble, Install and replace different parts of computer
- To demonstrate the basic functionalities of different types of Operating Systems with the knowledge of installation and configuration of Windows / Linux Operating System.
- To perform conversion of different number systems and do arithmetic operation
- To write 'C' Programs using Loop, function, Arrays, Structure, & Pointers.
- To write simple Python program using Python string processing functions and methods, also involving dictionaries & related operations.

UNIT-I: Introduction to Computers:

Introduction to Computers, Evolution of computers, computer hardware generations, Classification of Computers DRAFT SYLLABUS, Basic Computer Organization, computer System: Hardware, Software, Data and People, Applications of computers in modern society Memory and Storage Systems 1. Cache Memory 2. Primary memory: RAM, ROM 3. Secondary memory: Hard disks, CD Rom, DVD Rom, and USB Flash drive etc. Input and Output Devices 1. Input Devices: Keyboard, Pointing devices, Handheld devices, Optical devices etc. 2. Output Devices: Monitors, Projectors, Printers, Plotters etc. 3. Study of Motherboard, SMPS, HDD

UNIT-II: Software and Languages

Software and Languages , Definition and Functions of software Types of software ,System Software : Operating System, Utility Programs, Device Drivers, Language Translator, Linker, Loader Application Software: General purpose and Application purpose software Operating System Definition and Functions of OS ,Types of OS . Booting, Buffering, Concept of Virtual memory. Directory and file structure. DOS commands and their uses. MS Windows OS. UNIX Commands and uses Programming Languages 1. Generation of Comp. Language 2. Classification of Language: Machine language, Assembly language and High level language

UNIT-III: Number System

Positional number system: Decimal, Binary, Octal and Hexadecimal number system. Conversion between these number systems. Arithmetic: Addition, subtraction of these numbers, Multiplication and Division for binary system only. Negative No. representation: Signed magnitude, 1's complement and 2's complement. Subtraction using complements. Various binary codes: BCD, EBCDIC, ASCII, Gray code. Fixed and Floating point Nos. Boolean Algebra and Logic Gates




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UNIT-IV: Programming in C

Programming in C: Introductory concept of programming. Algorithm and Flowchart. Introduction to C. Character set, Keywords, Constants, Variables, Data Types in C. Operators in C. Header Files Statements in C. Assignment Statement, Input/ Output statement, Control statement, Loop or Jump control statements . Arrays and Strings. Functions (User defined and common library functions). Structures of C. Basic concept of Pointer

UNIT-V: Introduction to Python

Introduction to Python: Getting started with Python. Process of writing a simple program (interactive and script mode), running it, and print statement. Python fundamentals: Character set, Token & Identifiers, Keywords, Literals, and Operators. Barebones of a Python program. Variables & Assignments. Simple input and output. Python data types, operators and Expression. Introduction to Python standard Library modules. Flow of control: if, if-else, if-else-if statement, Iteration/Looping statements – for loop, while loop, loop else statements, Jump statements String Manipulation: String operators, String functions and methods List manipulation: Creating and accessing lists, list operators, list functions and methods. Tuples: Creating and accessing tuples, tuple operations, tuple functions and methods. Dictionaries: Dictionary-Key: Value Pairs: Creating and accessing dictionary, working with dictionaries, Dictionary functions and methods

Text Books:

E. Balaguruswamy, "Programming in ANSI C", 8th Edition, 2019, McGraw Hill Education, ISBN: 978-93-5316-513-0.

2. Learning with Python by Allen Downey


Reference Books:

1. Pradip Dey, Manas Ghosh, "Programming in C", 2nd Edition, 2018, Oxford University Press, ISBN: 978-01-9949-147-6.

2. Kernighan B.W and Dennis M. Ritchie, "The C Programming Language", 2nd Edition, 2015, Pearson Education India, ISBN: 978-93-3254-944-9

3. Core Python Programming: Covers fundamentals to advanced topics like OOPS, Exceptions, Data structures, Files, Threads, Net, 3ed by R. Nageswara Rao


CO ORDINATOR


RESOURCE PERSON


HOD

Head of the Department
Electronics and Communication Engineering
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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ADD ON COURSE NAME: **Programming Logic with C and Python**

DAY WISE SCHEDULE SHEET

Academic Year: 2020-2021

Date: 04-05-2021

B.Tech I-II SEM

BFF-6

SECTION : ECE

S.No	Day	Topic	Timings	Duration
1	10-05-2021	Introduction to Computers	09:00am to 04:00pm	7 hour
2	11-05-2021	Software and Languages	09:00am to 04:00pm	7 hour
3	12-05-2021	Number System	09:00am to 04:00pm	7 hour
4	13-05-2021	Programming in C	09:00am to 04:00pm	7 hour
5	15-05-2021	Introduction to Python	09:00am to 04:00pm	7 hour
Total – 35 hours				


COORDINATOR


HOD

Head of the Department
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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Date:17-05-2021

PROGRAM REPORT

Name of the Add on Course: Programming Logic with C and Python

Day/Duration: 35 hours

Time: 9:00am to 4:00pm

Resource Person: Mr.R.Krishna Naik, Associate Professor, VMTW, Hyderabad.

Name of the Coordinator: Mrs.G.Sushmitha, Assistant Professor, VMTW, Hyderabad.

Number of the Participants: 45

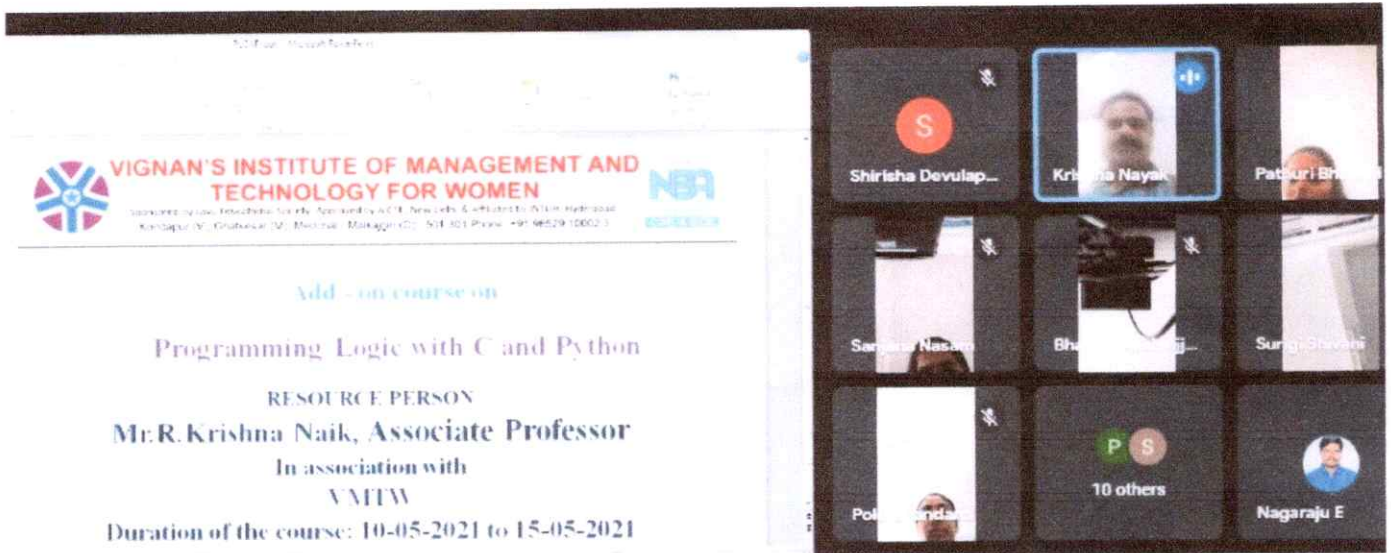
Topics covered: The following topics covered in this program

Course Outcomes:

COs	At the end of the course, students will have the ability to:	Pos Mapped	Strength of mapping
CO1	Learn Assemble, Install and replace different parts of computer	PO3,PO4	3
CO2	Demonstrate the basic functionalities of different types of Operating Systems with the knowledge of installation and configuration of Windows / Linux Operating System	PO2,PO5	2
CO3	Perform conversion of different number systems and do arithmetic operation	PO4, PO6	2
CO4	Write 'C' Programs using Loop, function, Arrays, Structure, & Pointers	PO2, PO3	3
CO5	Write simple Python program using Python string processing functions and methods, also involving dictionaries & related operations	PO2,PO4	1




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Programming Logic with C and Python

: Add on course explained by Mr.R.Krishna Naik, Associate Professor, VMTW, Hyderabad

Hence, Students understood the concept on main logic of Programming logic with C and Python. They learnt how to programming with basic C and python concepts. Students practiced programs practically in lab and understood the basic concepts of C & Python ,I am thankful for the department for conduct such type of informative events.

Assessment Procedure: The assessment of the Add on course is conducted in Multiple Choice Questions through Online Mode.

COORDINATOR

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DEPARTMENT OF BASIC SCIENCE AND HUMANITIES

VMTW/BSH/AOC/2020-21/II/02

Date: 05-05-2021

CIRCULAR

This is to inform all I-II B.Tech students that add-on course on "LISP Programming Language" will be held from 10-05-2021 to 15-05-2021 by Mr.P.Rajendra Prasad, Asst. Prof, Dept of CSE, VMTW. All students are welcome to participate in this Add-on course. Interested students can register for this course through the program coordinator Mr.S.Sandeep Babu, Dept of CSE, VMTW accordingly. This course will be conducted through online mode.

RUP
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COURSE MODULES

Module- I: Preliminary Concepts: Reasons for studying concepts of programming languages, programming domains, language evaluation criteria, influences on language design, language categories, language design trade-offs, implementation methods, programming environments.

Module- II: Names, Bindings, and Scopes: Introduction, names, variables, concept of binding, scope, scope and lifetime, referencing environments, named constants.

Module- III: General semantics of calls and returns, implementing simple subprograms, implementing subprograms with stack-dynamic local variables, nested subprograms, blocks, implementing dynamic scoping.

Module- IV: Object Oriented Programming: Design issues for OOP, OOP in Smalltalk, C++, Java, Ada 95, Ruby, Implementation of Object-Oriented constructs.

Module- V: Pragmatics, Key Concepts, Case Study : Python – Values and Types, Variables , Storage and Control, Bindings and Scope, Procedural Abstraction, Data Abstraction..

COURSE OBJECTIVES

1. To Design the various programming paradigms.
2. To understand the evolution of programming languages.
3. To understand the concepts of OO languages, functional languages, logical and scripting languages.

4. To introduce the principles and techniques involved in design and implementation of modern programming languages.

5. To introduce the notations to describe the syntax and semantics of programming languages.

EXPECTED OUTCOMES

At the end of the course, students will have the ability to:

- Understand basics of LISP and installation.
- Implement the structure and components of a LISP program.
- Interpret how to write and implement functions in program.
- Create programs involving arrays and strings.
- Develop programs related to file operations.



Resource Person:
Mr. P. Rajendra Prasad,
Assistant Professor,
Department of CSE.

Co-ordinator:

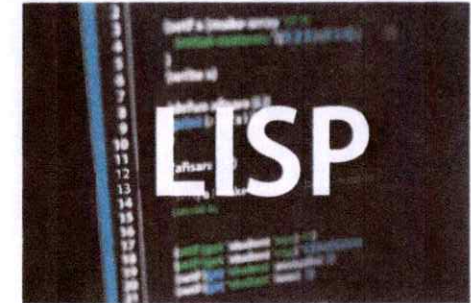
Mr. S .Sandeep Babu,
Assistant Professor,
Department of CSE,
Contact No: +91 9885323519

LAST DATE FOR REGISTRATION: 8TH MAY, 2021

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ADD-ON COURSE ON "LISP PROGRAMMING LANGUAGE"

10TH TO 15TH MAY, 2021

Duration of the Course : 36 Hrs

<https://meet.google.com/skej-mks-sjt>

ORGANIZED BY:
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING





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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ADDON COURSE SYLLABUS

ADDON COURSE: LISP Programming

Course objectives:

1. To Design the various programming paradigms.
2. To understand the evolution of programming languages.
3. To understand the concepts of OO languages, functional languages, logical and scripting languages.
4. To introduce the principles and techniques involved in design and implementation of modern programming languages.
5. To introduce the notations to describe the syntax and semantics of programming languages.

Module- I : Preliminary Concepts: Reasons for studying concepts of programming languages, programming domains, language evaluation criteria, influences on language design, language categories, language design trade-offs, implementation methods, programming environments.

Module- II: Names, Bindings, and Scopes: Introduction, names, variables, concept of binding, scope, scope and lifetime, referencing environments, named constants.

Module- III: General semantics of calls and returns, implementing simple subprograms, implementing subprograms with stack-dynamic local variables, nested subprograms, blocks, implementing dynamic scoping.

Module- IV: Object Oriented Programming: Design issues for OOP, OOP in Smalltalk, C++, Java, Ada 95, Ruby, Implementation of Object-Oriented constructs.

Module- V: Pragmatics, Key Concepts, Case Study : Python – Values and Types, Variables , Storage and Control, Bindings and Scope, Procedural Abstraction, Data Abstraction.

Text Book

1. Concepts of Programming Languages, Robert .W. Sebesta 10th edition, Pearson Education.


COORDINATOR




HOD


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Head of the Department
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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

DAY WISE SCHEDULE SHEET

Addon Course: LISP Programming Language

DAY	Topic	Timings	Duration
10-05-2021	Preliminary Concepts: Reasons for studying concepts of programming languages, programming domains, language evaluation criteria, influences on language design, language categories, language design trade-offs, implementation methods, programming environments.	09:00 am to 03:30 pm	6 hrs
11-05-2021	Names, Bindings, and Scopes: Introduction, names, variables, concept of binding, scope, scope and lifetime, referencing environments, named constants.	09:00 am to 03:30 pm	6 hrs
12-05-2021	General semantics of calls and returns, implementing simple subprograms, implementing subprograms with stack-dynamic local variables,	09:00 am to 03:30 pm	6 hrs
13-05-2021	Nested subprograms, blocks, implementing dynamic scoping, Object Oriented Programming: Design issues for OOP, OOP in Smalltalk, C++, Java, Ada 95	09:00 am to 03:30 pm	6 hrs
14-05-2021	Ruby, Implementation of Object-Oriented constructs, Pragmatics, Key Concepts.	09:00 am to 03:30 pm	6 hrs
15-05-2021	Case Study: Python – Values and Types, Variables , Storage and Control, Bindings and Scope, Procedural Abstraction, Data Abstraction.	09:00 am to 03:30 pm	6 hrs
Total 36 hours			

Sandeep Babu
COORDINATOR



Ada
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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Date: 17-05-2021

Addon course Report

Name of the Add on Course: LISP Programming Language

Day/Duration: 10-05-2021 to 15-05-2021 6 (Days) – 36 Hrs

Time: 09:00am to 03:30pm

Name of the Coordinator: Mr.S.Sandeep Babu, Asst. Prof. Dept of CSE, VMTW.

Number of the Participants: 148

Topics covered: The following topics covered in this program:

- Concepts of programming languages, programming domains, language evaluation criteria, influences on language design.
- Binding, scope, scope and lifetime, referencing environments.
- Subprograms with stack-dynamic local variables, nested subprograms, blocks, implementing dynamic scoping.
- Design issues for OOP, OOP in Smalltalk, C++, Java.
- Case Study : Python – Values and Types, Variables , Storage and Control.

Course Outcomes

COs	At the end of the course, students will have the ability to:	Pos Mapped	Strength of mapping
CO1	Understand basics of LISP and installation	PO1	2
CO2	Implement the structure and components of a LISP program	PO3	3
CO3	Interpret how to write and implement functions in program	PO4	4



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CO4	Create programs involving arrays and strings	PO5	4
CO5	Develop programs related to file operations	PO3	3

Resource Person: Mr.P.Rajendra Prasad, Asst. Prof. Dept of CSE, VMTW



Sandeep Babu
COORDINATOR

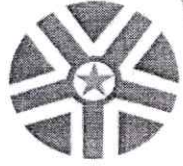
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DEPARTMENT OF BASIC SCIENCE AND HUMANITIES

VMTW/BSH/AOC/CIR/2020-21/II/03

Date: 01.07.2021

CIRCULAR

We are delighted to introduce an add-on course titled "**Introduction to Computational Thinking & Programming**," exclusively tailored for our esteemed B. Tech. Information Technology and CSE (AI&ML) students. This course aims to provide you with a strong foundation in computational thinking and programming concepts, equipping you with essential skills for problem-solving and logical reasoning. The Add on course is organizing by the department of Information Technology. We are pleased to inform you that **Mrs. V. Rupa**, Assistant Professor, Department of IT, VMTW, Hyderabad has been identified by the department advisory committee as the esteemed resource person for this course. We are delighted to share that **Mrs. V. Rupa** have graciously accepted our invitation to conduct the classes, providing you with a comprehensive learning experience. The course is scheduled to run for 32 days from 05.07.2021 to 11.08.2021. Participating students will be awarded Certificates of Course Completion. Throughout the duration, you will have the opportunity to engage with the speaker and other participants through case study discussions, fostering interactive learning. The Add on course is going to conduct in Virtual Mode (Google Meet). If you are interested in joining this course, kindly fill out the registration form and secure your spot for this exciting learning opportunity.


HOD

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ABOUT THE COURSE

"Introduction to Computational Thinking & Programming" is a course or educational program that introduces individuals to the fundamental concepts and principles of computational thinking and programming. It aims to develop the skills required to solve problems using a computer and to write programs to automate tasks and manipulate data..

COURSE OBJECTIVES

- Introduce students to the principles of computational thinking and its application in problem-solving.
- Develop a fundamental understanding of programming concepts and logical reasoning.
- Enhance problem-solving skills through hands-on programming exercises and projects.
- Foster creativity, critical thinking, and algorithmic reasoning abilities.
- Prepare students for advanced programming courses and future technological advancements.

EXPECTED OUTCOMES

- Understanding of Computational Thinking
- Proficiency in Programming Fundamentals
- Problem-Solving and Algorithmic Reasoning
- Hands-on Programming Skills
- Debugging and Troubleshooting Proficiency

Resource Person:
Mrs. V. Rupa,
Assistant Professor,
Department of IT.

Co-ordinator:
Mr. K. Bharath Reddy,
Assistant Professor, Dept. of IT,
Contact No: +91 89854 41753

Students are instructed to register the given below link:

https://docs.google.com/forms/d/e/1FAIpQLSdTp1_cdMhGnYQVONjedNm-ZsRb4I-43zBwOmjRIUGGWw5Ajw/viewform

Class starts from **05.07.2021 to 11.08.2021** at 5 PM – 6 PM.

Google Meet Link: <https://meet.google.com/www-bmcp-ggi>

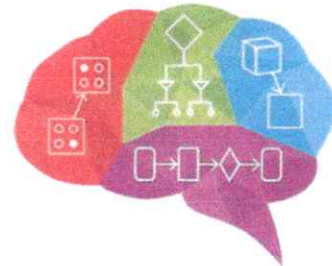
LAST DATE FOR REGISTRATION: 4TH JULY, 2021

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ADD-ON COURSE ON "INTRODUCTION TO COMPUTATIONAL THINKING & PROGRAMMING"

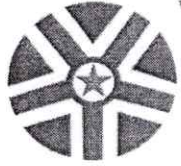
5TH JUL TO 11TH AUG, 2021

DURATION OF THE COURSE: **32 HRS**

ORGANIZED BY:
**DEPARTMENT OF
INFORMATION TECHNOLOGY**




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DEPARTMENT OF INFORMATION TECHNOLOGY

ADD ON COURSE SYLLABUS: INTRODUCTION TO COMPUTATIONAL THINKING & PROGRAMMING

Academic Year: 2020-21

B. Tech. I - II SEM SYLLABUS

COURSE OBJECTIVES:

1. Introduce students to the principles of computational thinking and its application in problem-solving.
2. Develop a fundamental understanding of programming concepts and logical reasoning.
3. Enhance problem-solving skills through hands-on programming exercises and projects.
4. Foster creativity, critical thinking, and algorithmic reasoning abilities.
5. Prepare students for advanced programming courses and future technological advancements.

COURSE OUTCOME:

- 1: Understanding of Computational Thinking
- 2: Proficiency in Programming Fundamentals
- 3: Problem-Solving and Algorithmic Reasoning
- 4: Hands-on Programming Skills
- 5: Debugging and Troubleshooting Proficiency

Unit 1: Introduction to Computational Thinking, Understanding the core principles of computational thinking, analyzing problems and designing algorithmic solutions, Introduction to Programming Concepts.

Unit 2: Basics of programming languages and syntax, Variables, data types, and control structures Problem-Solving and Algorithm Design, Approaching problems using step-by-step algorithms, Flowcharts and pseudocode for logical problem-solving, Introduction to a Programming Language (e.g., Python).

Unit 3: Basic programming constructs and commands, Hands-on programming exercises and assignments Data Structures and Manipulation.

Unit 4: Arrays, lists, and dictionaries for data storage and manipulation, Techniques for searching, sorting, and filtering data




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Unit 5: Debugging and Troubleshooting, Identifying and resolving programming errors, Debugging techniques and best practices.

Reference:

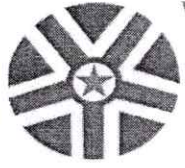
1. "Introduction to the Theory of Computation" by Michael Sipser
2. "Grokking Algorithms: An Illustrated Guide for Programmers and Other Curious People" by Aditya Bhargava
3. "Python Crash Course: A Hands-On, Project-Based Introduction to Programming" by Eric Matthes
4. "The Art and Science of Java" by Eric S. Roberts


COORDINATOR


HOD
Head of the Department
Information Technology
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DEPARTMENT OF INFORMATION TECHNOLOGY

ADD ON COURSE NAME: INTRODUCTION TO COMPUTATIONAL THINKING & PROGRAMMING

Academic Year: 2020-21

Date: 01.07.2021

B. Tech. I - II SEM DAY WISE SCHEDULE SHEET

Venue: Online Google meet

SI. No.	DAY	Topic	Timings	Duration
1	5/7/2021	Introduction to Computational Thinking	05.00 p.m. to 06.00 p.m.	01 hour
2	6/7/2021	Algorithms and Problem Solving	05.00 p.m. to 06.00 p.m.	01 hour
3	7/7/2021	Data Types and Variables	05.00 p.m. to 06.00 p.m.	01 hour
4	8/7/2021	Control Structures: Conditionals and Loops	05.00 p.m. to 06.00 p.m.	01 hour
5	9/7/2021	Functions and Procedures	05.00 p.m. to 06.00 p.m.	01 hour
6	10/7/2021	Input and Output Operations	05.00 p.m. to 06.00 p.m.	01 hour
7	12/7/2021	Arrays and Lists	05.00 p.m. to 06.00 p.m.	01 hour
8	13/7/2021	String Manipulation	05.00 p.m. to 06.00 p.m.	01 hour
9	14/7/2021	Mathematical Operations and Expressions	05.00 p.m. to 06.00 p.m.	01 hour
10	15/7/2021	File Handling and Manipulation	05.00 p.m. to 06.00 p.m.	01 hour
11	16/7/2021	Recursion and Recursive Functions	05.00 p.m. to 06.00 p.m.	01 hour
12	17/7/2021	Object-Oriented Programming (OOP) Concepts	05.00 p.m. to 06.00 p.m.	01 hour
13	19/7/2021	Classes and Objects	05.00 p.m. to 06.00 p.m.	01 hour
14	20/7/2021	Inheritance and Polymorphism	05.00 p.m. to 06.00 p.m.	01 hour
15	22/7/2021	Exception Handling	05.00 p.m. to 06.00 p.m.	01 hour
16	23/7/2021	Debugging Techniques and Strategies	05.00 p.m. to 06.00 p.m.	01 hour
17	24/7/2021	Testing and Quality Assurance	05.00 p.m. to 06.00 p.m.	01 hour
18	26/7/2021	Software Development Life Cycle (SDLC)	05.00 p.m. to 06.00 p.m.	01 hour
19	27/7/2021	Introduction to Web Development	05.00 p.m. to 06.00 p.m.	01 hour
20	28/7/2021	Introduction to Databases and SQL	05.00 p.m. to 06.00 p.m.	01 hour



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21	29/7/2021	Data Structures: Stacks and Queues	05.00 p.m. to 06.00 p.m.	01 hour
22	30/7/2021	Data Structures: Linked Lists	05.00 p.m. to 06.00 p.m.	01 hour
23	31/7/2021	Data Structures: Trees and Graphs	05.00 p.m. to 06.00 p.m.	01 hour
24	2/8/2021	Searching and Sorting Algorithms	05.00 p.m. to 06.00 p.m.	01 hour
25	3/8/2021	Introduction to Artificial Intelligence (AI)	05.00 p.m. to 06.00 p.m.	01 hour
26	4/8/2021	Introduction to Machine Learning (ML)	05.00 p.m. to 06.00 p.m.	01 hour
27	5/8/2021	Introduction to Internet of Things (IoT)	05.00 p.m. to 06.00 p.m.	01 hour
28	6/8/2021	Ethical Considerations in Programming	05.00 p.m. to 06.00 p.m.	01 hour
29	7/8/2021	Performance Optimization and Efficiency	05.00 p.m. to 06.00 p.m.	01 hour
30	9/8/2021	Software Security and Vulnerability	05.00 p.m. to 06.00 p.m.	01 hour
31	10/8/2021	Version Control Systems and Collaboration Tools	05.00 p.m. to 06.00 p.m.	01 hour
32	11/8/2021	Real-world Application Case Studies	05.00 p.m. to 06.00 p.m.	01 hour
Total				32 hours


COORDINATOR


HOD
Head of the Department
Information Technology
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DEPARTMENT OF INFORMATION TECHNOLOGY PROGRAM REPORT

Add-on Course on Introduction to Computational Thinking & Programming

Course Duration: 05th July 2021 to 11th August 2021 (32 days)

Time : 05-00 p.m. to 06.00 p.m. (1 hour)

Resource Person: Mrs. V. Rupa

Course Coordinator: Mrs. K. Bharath Reddy

Number of Participants: 45 IT and 47 AIML B. Tech I-II students

Introduction:

We are pleased to present the conclusion report for the add-on course titled "Introduction to Computational Thinking & Programming," which was conducted from 05th July 2021 to 11th August 2021. The course aimed to provide students with a strong foundation in computational thinking and programming concepts, empowering them with essential skills for problem-solving and logical reasoning.

Course Delivery and Activities:

The course was delivered through a series of interactive lectures, practical coding sessions, hands-on exercises, and project assignments. Mrs. V. Rupa, a highly experienced resource person, facilitated engaging learning experiences and provided valuable insights into computational thinking and programming concepts. Mrs. K. Bharath Reddy, the course coordinator, ensured smooth organization and coordination of course activities.

Course Completion:

We are proud to announce that all 45 IT and 47 AIML B. Tech 1st Year 2nd Semester students who participated in the course have successfully completed the requirements and have been awarded the course completion certificate. We congratulate all the participants for their dedication and commitment throughout the course.

Achievements and Learning Outcomes:

1. Students gained a strong understanding of computational thinking principles and their application in problem-solving.




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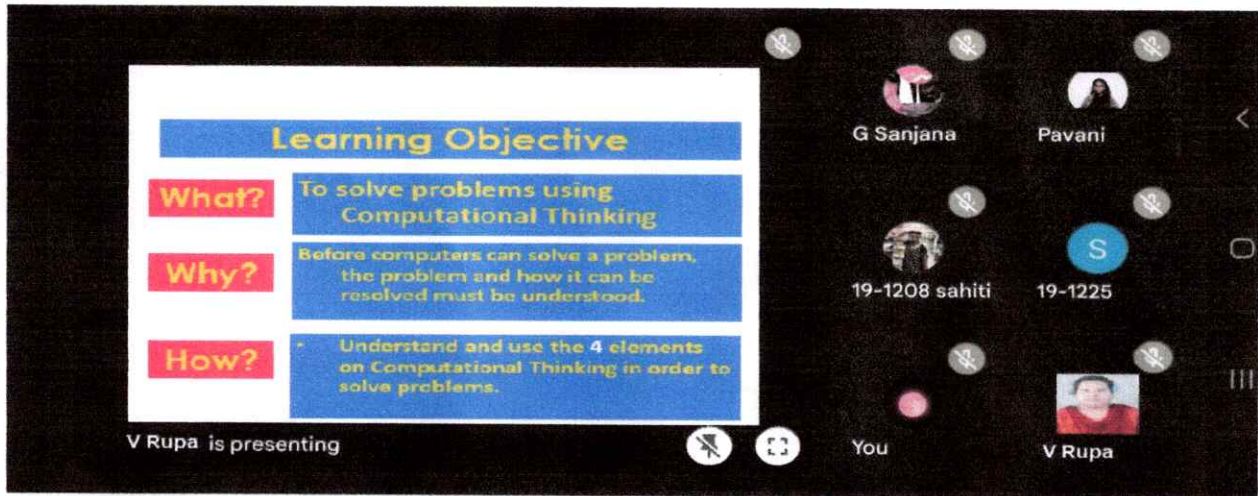
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2. They developed proficiency in programming fundamentals, including variables, data types, control structures, and syntax.
3. Students demonstrated their ability to solve problems using logical algorithms and flowcharts.
4. The course enhanced their hands-on programming skills and proficiency in a programming language (e.g., Python).
5. Participants acquired debugging and troubleshooting proficiency to identify and resolve programming errors effectively.

Course Outcome:

Course Outcomes (CO)	Program Outcomes (PO)	Strength of Mapping
CO1: Understanding of Computational Thinking	PO1, PO3	3
CO2: Proficiency in Programming Fundamentals	PO2, PO4	4
CO3: Problem-Solving and Algorithmic Reasoning	PO3, PO5	3
CO4: Hands-on Programming Skills	PO4, PO3	5
CO5: Debugging and Troubleshooting Proficiency	PO5, PO3	4



Conclusion:

The add-on course on Introduction to Computational Thinking & Programming was a resounding success, providing students with a strong foundation in computational thinking and programming concepts. We are confident that the knowledge and skills gained during this course will prove beneficial in their academic pursuits and future careers.



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HOD
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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

VMTW/EEE/AOC/2020-21/I/01

18-08-2020.

CIRCULAR

This is to inform all the IV B. Tech EEE students that there will be an Add on course on "Application of Electric drive system ", the proposed add on course is scheduled in VIRTUAL mode through GOOGLE MEET. The resource person for the course is Dr. T Rama Subba Reddy, Professor and Head of Electrical & Electronics Engineering Department, VGNT from 21-08-2020 to 25-09-2020 All students are invited to take part in this course. The participating students will be honored with certificates of participation. During the course you will be encouraged to interact with the speaker and the other participants through the case study discussions

Copy To

The Principal for kind information,
IQAC
IV B. Tech EEE Students
Department File

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Head of the Department
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ABOUT THE COURSE

Electrical drive technology converts electrical energy from the power supply system or from a battery into mechanical energy and transmits the resulting force into motion. Many applications that make our daily lives easier – like lifts, escalators, gate drives, washing machines, mixers, electric razors.

COURSE OBJECTIVES

Describe the structure of Electric Drive systems and their role in various applications such as flexible production systems, energy conservation, renewable energy, transportation etc., making Electric Drives an enabling technology.

EXPECTED OUTCOMES

Clearly learn to use space vectors presented on a physical basis to describe the operation of an ac machine. 10. Understand the basic principles of Permanent Magnet AC (Self-Synchronous AC) drives.

Resource Person:

Dr. T. Rama Subba Reddy,

Professor, Head of the Dept.

Department of EEE, VITS, Hyderabad.

Co-ordinator:

Mr. T. Rambabu,

Assistant Professor, Dept. of EEE,

Contact No: +91 86868 72624

Students are instructed to register the given below link:

https://docs.google.com/forms/d/e/1NAHpQLSecfRJE19PQTrwk417Xl3t35lpMNjlpY2M_Mfv92t-g5SQ/viewform

Class starts from **21-08-2020 to 25-09-2020** at **4 PM – 5 PM.**

Google Meet Link: <https://meet.google.com/zdk-whkn-jwg>

LAST DATE FOR REGISTRATION: 18TH AUG, 2020



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ADD-ON COURSE ON “APPLICATION OF ELECTRICAL DRIVE SYSTEMS”

21ST AUG TO 25TH SEP, 2020

DURATION OF THE COURSE: **31 HRS**

ORGANIZED BY:

**DEPARTMENT OF ELECTRICAL AND
ELECTRONICS ENGINEERING**



Principal
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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

ADD ON COURSE SYLLABUS: Application of Electric Drive System

Academic Year: 2020-21

B.Tech: IV

Branch: EEE

Course objectives:

To expose students to the operation, application and control of power conversion systems employing electric drive to cater to industrial needs.

To familiarize the operation principles and design of starting, braking, and speed control arrangements for electric motors and their applications.

To provide strong foundation to assess performance of different industrial drives considering issues such as, energy efficiency, power quality, economic justification, environmental issues, and practical viabilities.

Design torque, speed and position controller of motor drives.

Get an appreciation of power quality issues in powering electric drives

Syllabus

Module 1: Electric Drive:

Concept, classification, parts and advantages of electrical drives. Types of Loads, Components of load torques, Fundamental torque equations, Equivalent value of drive parameters for loads with rotational and translational motion. Determination of moment of inertia, Steady state stability, Transient stability. Multi-quadrant operation of drives. Load equalization.

Module 2: Motor power rating:

Thermal model of motor for heating and cooling, classes of motor duty, determination of motor rating for continuous, short time and intermittent duty, equivalent current, torque and power methods of determination of rating for fluctuating and intermittent loads. Effect of load inertia & environmental factors.

Module 3: Stating of Electric Drives:

Effect of starting on Power supply, motor and load. Methods of starting of electric motors. Acceleration time Energy relation during starting, methods to reduce the Energy loss during starting.

Braking of Electric Drives: Types of braking, braking of DC motor, Induction motor and Synchronous motor, Energy loss during braking.




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Module 4: DC motor drives:

Modeling of DC motors, State space modeling, block diagram & Transfer function, Single phase, three phases fully controlled and half controlled DC drives. Dual converter control of DC drives. Power factor, supply harmonics and ripple in motor current chopper controlled DC motor drives.

Module 5: Induction motor drives:

Stator voltage variation by three phase controllers, Speed control using chopper resistance in the rotor circuit, slip power recovery scheme. Pulse width modulated inverter fed and current source inverter fed induction motor drive. Volts/Hertz Control, Vector or Field oriented control.

REFERENCE BOOKS:

1. Fundamental of Electrical Drives, G.K. Dubey, New Age International Publication
2. Electric Drives, Vedam Subrahmanyam, TMH
3. A first course on Electrical Drives, S.K. Pillai, , New Age International Publication

Ravi
Coordinator

Ravishubra
Resource Person

[Signature]
HOD
Head of the Department
Electrical and Electronics Engineering
Vignn's Institute of Management and Technology for Women
Kondapur (V), Ghatkesar (M), Dist-501 301



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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

ADD ON COURSE: APPLICATION OF ELECTRIC DRIVE SYSTEM

Academic year: 2020 – 21

Date: 18.08.2020

B. Tech. IV-I SEM

DAY WISE SCHEDULE SHEET

Room number- AFF-2

Sl. No.	Day	Topic	Timings	Duration
1	21-08-2020	Concept, classification, parts and advantages of electrical drives	4.00 p.m. to 5.00 p.m.	1 hour
2	22-08-2020	Types of Loads, Components of load torques	4.00 p.m. to 5.00 p.m.	1 hour
3	24-08-2020	Fundamental torque equations	4.00 p.m. to 5.00 p.m.	1 hour
4	25-08-2020	Equivalent value of drive parameters for loads with rotational and translational motion	4.00 p.m. to 5.00 p.m.	1 hour
5	26-08-2020	Determination of moment of inertia	4.00 p.m. to 5.00 p.m.	1 hour
6	27-08-2020	Steady state stability	4.00 p.m. to 5.00 p.m.	1 hour
7	28-08-2020	Transient stability	4.00 p.m. to 5.00 p.m.	1 hour
8	29-08-2020	Multi-quadrant operation of drives	4.00 p.m. to 5.00 p.m.	1 hour
9	31-08-2020	Load equalization	4.00 p.m. to 5.00 p.m.	1 hour
10	1/9/2020	Thermal model of motor for heating and cooling	4.00 p.m. to 5.00 p.m.	1 hour
11	2/9/2020	Classes of motor duty	4.00 p.m. to 5.00 p.m.	1 hour
12	3/9/2020	Determination of motor rating for continuous	4.00 p.m. to 5.00 p.m.	1 hour
13	4/9/2020	Short time and intermittent duty	4.00 p.m. to 5.00 p.m.	1 hour
14	5/9/2020	Equivalent current	4.00 p.m. to 5.00 p.m.	1 hour
15	7/9/2020	Torque and power methods of determination of rating for fluctuating and intermittent loads	4.00 p.m. to 5.00 p.m.	1 hour
16	8/9/2020	Effect of load inertia & environmental factors	4.00 p.m. to 5.00 p.m.	1 hour
17	9/9/2020	Effect of starting on Power supply	4.00 p.m. to 5.00 p.m.	1 hour
18	10/9/2020	Acceleration time Energy relation during starting	4.00 p.m. to 5.00 p.m.	1 hour
19	11/9/2020	Methods to reduce the Energy loss during starting	4.00 p.m. to 5.00 p.m.	1 hour



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20	12/9/2020	Types of braking, braking of DC motor	4.00 p.m. to 5.00 p.m.	1 hour
21	14-09-2020	Induction motor and Synchronous motor	4.00 p.m. to 5.00 p.m.	1 hour
22	15-09-2020	Energy loss during braking	4.00 p.m. to 5.00 p.m.	1 hour
23	16-09-2020	Modeling of DC motors	4.00 p.m. to 5.00 p.m.	1 hour
24	17-09-2020	State space modeling, block diagram & Transfer function	4.00 p.m. to 5.00 p.m.	1 hour
25	18-09-2020	Single phase	4.00 p.m. to 5.00 p.m.	1 hour
26	19-09-2020	Three phases fully controlled and half controlled DC drives	4.00 p.m. to 5.00 p.m.	1 hour
27	21-09-2020	Stator voltage variation by three phase controllers	4.00 p.m. to 5.00 p.m.	1 hour
28	22-09-2020	Pulse width modulated inverter fed and current source inverter fed induction motor drive	4.00 p.m. to 5.00 p.m.	1 hour
29	23-09-2020	Introduction to Solar and Battery Powered Drive	4.00 p.m. to 5.00 p.m.	1 hour
30	24-09-2020	Drive consideration for Textile mills	4.00 p.m. to 5.00 p.m.	1 hour
31	25-09-2020	Machine tools. Cranes & hoist drives	4.00 p.m. to 5.00 p.m.	1 hour

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COORDINATOR

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HOD

Head of the Department
Electrical and Electronics Engineering
Vignans Institute of Management and Technology for Women
Kondapur (V), Ghatkesar (M), S.R. Dist-501 301



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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Date: 26-09-2020.

PROGRAM REPORT

Name of the Add on Course: Application of Electric Drive System

Day/Duration: 31 hours

Time: 4: 00 PM to 5:00 PM

Resource Person: Dr. T Rama Subba Reddy, Professor and Head of Electrical & Electronics Engineering department, VGNT, Hyderabad

Name of the Coordinator: Mr. T. Rambabu, Assistant Professor, VMTW, Hyderabad

Number of the Participants: 30

Topics covered: The following topics covered in this program

- Electric Drives
- Static Drives
- Machine control
- Types of Loads,
- Control of Drives
- Adaptive control strategies
- Automation of Electric Drives
- Advanced driver systems

Course Outcomes:

COs	At the end of the course, students will have the ability to:	Pos Mapped	Strength of mapping
CO1	Examine various applications in industrial and domestic areas where use of electric drives are essential	PO1,PO3	3




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CO2	Classify types of electric drives systems based on nature of loads, control objectives, performance and reliability	PO1	2
CO3	Combine concepts of previously learnt courses such as, electrical machines, Control and power electronics to cater to the need of automations in industry.	PO3, PO2	3
CO4	Design torque, speed and position controller of motor drives.	PO2	1
CO5	Get an appreciation of power quality issues in powering electric drives	PO1, PO3	2

Assessment Procedure: The assessment of the Add on course is conducted in Multiple Choice Questions through online Mode.


Coordinator


EEE, HOD
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Vignans Institute of Management and Technology for Women
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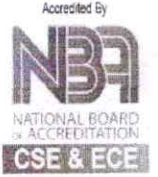



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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

VMTW/ECE/AOC/CIR/2020-21/I-SEM/01

Date: 03-09-2020

CIRCULAR

This is to inform all the II B.Tech ECE students that there will be an Add on course on "**Applications of Deep Learning for Computer Vision**" in association with Truchip from **10-09-2020 to 15-10-2020**. All students are invited to take part in this course. The participating students will be honored with certificates of participation. During the course you will be encouraged to interact with the speaker and the other participants through the case study discussions. This course is scheduled in online mode through Google Meet.


HOD

Head of the Department
Electronics and Communication Engineering
Vignan's Institute of Management & Technology For Women
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II.B. Tech students

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ABOUT THE COURSE

Deep Learning, also known as deep neural learning or deep neural network, is an aspect of artificial intelligence that depends on data representations rather than task-specific algorithms. It allows the user to run supervised, semi-supervised, and unsupervised learning.

COURSE OBJECTIVES

Introduce to the basic concepts of neural networks. Identify and analyze the various types of neural networks and models of neuron and apply accordingly. Introduce the concept of deep learning and its types. Explore the concepts of applications of deep learning.

EXPECTED OUTCOMES

Upon completing this course students will be able to:
Analyze and apply the basic concepts of neural networks.
Analyze various types of neural networks and use various activation functions to solve complex problems. Relate the concept of deep learning and its architecture. Design and carry out empirical analysis for various types of applications of deep learning systems.

Resource Person:

Mr. M. Achyuth Reddy,

Technical Manager, Truechip, Noida.

Co-ordinator:

Mr. T. Pullaiah,

Assistant Professor,

Dept. of ECE,

Contact No: +91 92937 93986

Students are instructed to register the given below link:

https://docs.google.com/forms/d/e/1FAIpQLSecfRJLeI9NWTrwk4-17Xl3t35lpCHjIpy2M_Mfv92t--g5SQ/viewform

Class starts from **10-09-2020** to **15-10-2020** at **3 PM – 4PM**.

Google Meet Link: <https://meet.google.com/vqt-xvoh-ksi>

LAST DATE FOR REGISTRATION: 7TH SEP, 2020



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ADD-ON COURSE ON “APPLICATIONS OF DEEP LEARNING FOR COMPUTER VISION” 10TH SEP TO 15TH OCT, 2020

In association with:



DURATION OF THE COURSE: **32 HRS**

ORGANIZED BY:

**DEPARTMENT OF ELECTRONICS AND
COMMUNICATION ENGINEERING**



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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Applications of Deep Learning for Computer Vision

Syllabus

Academic Year : 2020-2021

B.Tech II-I SEM

SECTION : ECE-A&B

Course Objectives:

- To learn the introduction of Deep Learning.
- To understand the Common architectural principles of Deep Networks
- To introduce the concept of deep learning and its types.
- To design the Convolution Neural Networks (CNNs)
- To learn Recursive neural networks

UNIT- I

INTRODUCTION TO NEURAL NETWORKS: Characteristics of Neural Networks, Historical Development of Neural Networks Principles, Artificial Neural Networks: Terminology, Models of Neuron, Topology, Basic Learning Laws, Pattern Recognition Problem, Basic Functional Units, Pattern Recognition Tasks by the Functional Units. Introduction, Analysis of pattern Association Networks, Analysis of Pattern Classification Networks, Analysis of pattern storage Networks. Analysis of Pattern Mapping Networks.

UNIT - II

Feedback Neural Networks: Introduction, Analysis of Linear Auto associative FF Networks, Analysis of Pattern Storage Networks. Competitive Learning Neural Networks & Complex pattern Recognition Introduction, Analysis of Pattern Clustering Networks, Analysis of Feature Mapping Networks, Associative Memory.

UNIT- III

Fundamentals of Deep Learning: Defining Deep Learning, Common architectural principles of Deep Networks, Building Blocks of Deep Networks, and Major architectures of Deep Networks: Unsupervised Pretrained Networks, Convolution Neural Networks (CNNs), Recurrent Neural Networks.

UNIT- IV



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Convolution Neural Networks: The convolution operation, motivation, pooling, Convolution and Pooling as an Infinitely Strong Prior, Applications of deep learning: Large scale deep learning, Computer vision, Speech Recognition, Natural Processing, other applications.

UNIT – V

Sequential Modelling: Recurrent neural networks: Recursive neural networks, The long short – term Memory, explicit memory, Auto encoders: Under complete, regularised, Stochastic Encoders and Decoders, Denoising Auto encoders

TEXT BOOKS:


1. Artificial Neural Networks B. Yagna Narayana, PHI. (Chapter 1,2 and 3)
2. Deep Learning: A Practitioner's Approach by Josh Patterson, Adam Gibson.
3. Bengio, Yoshua, Ian J. Goodfellow, and Aaron Courville. "Deep learning." An MIT Pressbook in preparation. (2015)-<http://www.deeplearningbook.org/>

REFERENCES:

1. Neural Networks by Simon Haykin PHI
2. Deep learning (Adaptive computation & Machine learning) by Ian Good Fellow, Yoshua Bengio, Aran Courville.
3. Fundamentals of Neural Networks: Architectures, Algorithms and Applications, by Fausett


CO ORDINATOR


RESOURCE PERSON


HOD

Head of the Department
Electronics and Communication Engineering
Vignn's Institute of Management & Technology For Women
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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING ADD ON COURSE NAME: Applications of Deep Learning for Computer

DAY WISE SCHEDULE SHEET

Academic Year: 2020-2021

Date: 03-09-2020

B.Tech IV-I SEM

SECTION : ECE-A&B

Online Mode

DAY	Topic	Timings	Duration
10-09-20	Image representation: Types of Images	03:00pm to 04:00pm	1 hour
11-09-20	Image acquisition, Fundamental steps in Image processing	03:00pm to 04:00pm	1 hour
12-09-20	Image enhancement, Filtering in spatial and frequency domains	03:00pm to 04:00pm	1 hour
14-09-20	Segmentation: Edge Detection,	03:00pm to 04:00pm	1 hour
15-09-20	Region based segmentation	03:00pm to 04:00pm	1 hour
16-09-20	Motion in segmentation	03:00pm to 04:00pm	1 hour
17-09-20	Image Morphology: Need of morphology	03:00pm to 04:00pm	1 hour
18-09-20	Morphological applications Image	03:00pm to 04:00pm	1 hour
19-09-20'	Compression: lossy and lossless compression technique	03:00pm to 04:00pm	1 hour
20-09-20'	JPEG standard	03:00pm to 04:00pm	1 hour
21-09-20'	Reconstruction from projections	03:00pm to 04:00pm	1 hour
22-09-20'	Thermal imaging	03:00pm to 04:00pm	1 hour
23-09-20'	Color Image Processing Case studies	03:00pm to 04:00pm	1 hour
24-09-20'	Image Processing Applications	03:00pm to 04:00pm	1 hour
25-09-20	Introduction: Machine learning, Terminologies in ml	03:00pm to 04:00pm	1 hour
26-09-20	Types of machine learning: supervised, unsupervised,	03:00pm to 04:00pm	1 hour
28-09-20	Discriminative Models: Least Square Regression	03:00pm to 04:00pm	1 hour
29-09-20	28 Gradient Descent Algorithm	03:00pm to 04:00pm	1 hour
30-09-20	Univariate and Multivariate Linear Regression	03:00pm to 04:00pm	1 hour
01-10-20	Prediction Model	03:00pm to 04:00pm	1 hour
02-10-20	Probabilistic interpretation	03:00pm to 04:00pm	1 hour
03-10-20	Regularization	03:00pm to 04:00pm	1 hour
04-10-20	Logistic regression, multi class classification	03:00pm to 04:00pm	1 hour
05-10-20	Support Vector Machines- Large margin classifiers	03:00pm to 04:00pm	1 hour
06-10-20	Nonlinear SVM, kernel functions	03:00pm to 04:00pm	1 hour
07-10-20	SMO algorithm	03:00pm to 04:00pm	1 hour
08-10-20	Gaussian models: Multivariate Gaussian distributions	03:00pm to 04:00pm	1 hour




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09-10-20	Logic and Knowledge Representation -	03:00pm to 04:00pm	1 hour
10-10-20	Basics of utility theory, decision theory	03:00pm to 04:00pm	1 hour
13-10-20	Artificial Intelligence programming techniques	03:00pm to 04:00pm	1 hour
14-10-20	Planning: planning as search	03:00pm to 04:00pm	1 hour
15-10-20	Test Conducted & Feedback form	03:00pm to 04:00pm	1 hour
Total – 32 hours			


COORDINATOR


HOD

Head of the Department
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Vignan's Institute of Management & Technology For Women
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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Date: 19-10-2020

PROGRAM REPORT

Name of the Add on Course: Applications of Deep Learning for Computer Vision

Day/Duration: 32 hours

Time: 3:00pm to 4:00pm

Resource Person: Mr.M.Achyuth Reddy, Technical Manager, Truechip, Noida

Name of the Coordinator: Mr.T.Pullaiyah, Associate Professor, VMTW, Hyderabad

Number of the Participants: 94

Topics covered: The following topics covered in this program

- Deep Learning
- CNN
- RNN
- Mapping Networks
- Pattern Recognition

Course Outcomes:

COs	At the end of the course, students will have the ability to:	Pos Mapped	Strength of mapping
CO1	Learn the introduction of Deep Learning	PO2,PO4	2
CO2	Design the Convolution Neural Networks (CNNs), Recurrent Neural Networks	PO3,PO5	3
CO3	Understand the Common architectural principles of Deep Networks	PO2,PO4	3
CO4	Introduce the concept of deep learning and its types	PO3,PO5	2
CO5	Learn Recursive neural networks	PO2,PO5	1




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**Add-on course on
APPLICATIONS OF DEEP LEARNING FOR COMPUTER
VISION**

RESOURCE PERSON

Mr. ACHYUTH REDDY, M Sr. Engineer

In association with

BRAIN O VISION

Duration of the course : 10-09-2020 To 15-10-2020



Applications of Deep Learning for Computer Vision : Add on course explained by

Mr.M.Achyuth Reddy, Technical Manager, Truechip, Noida

Hence, they have understood the concept on main features of the Deep Learning Applications and also learnt how to map deep learning techniques..So, I am thankful for the department for conduct such type of informative events and Students also asking to conduct such types of events further.

Assessment Procedure: The assessment of the Add on course is conducted in Multiple Choice Questions through Online Mode.


COORDINATOR


HOD

**Head of the Department
Electronics and Communication Engineering
Vignan's Institute of Management & Technology For Women
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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

VMTW/ECE/AOC/CIR/2020-21/I-SEM/02

Date: 03-09-2020

CIRCULAR

This is to inform all the III B. Tech ECE students that, the Department organizing an Add on course on "Design and Implementation of Smart Home Appliances using Arduino". Department Advisory Committee has been identified Mr. T. Pullaiah, Associate Professor, ECE as a resource person for this course. This course is scheduled for 33 days which will take place from 11-09-2020 to 17-10-2020 in online mode through Google Meet.


HOD.

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III.B. Tech students

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Head of the Department
Electronics and Communication Engineering
Vignans Institute of Management & Technology For Women
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Telangana State



ABOUT THE COURSE

Arduino is the physical programmable board. A wide array of sensors can be attached with this board and many third-party libraries can be linking with an Arduino sketch. Arduino hardware components are cheaper in relation with other controller architecture and programming language is easy. Arduino has greater academic applications. In this paper, the roles of Arduino among microcontroller boards are investigated. First, different types of Arduino boards are identified. Second, different Arduino applications are identified from the literature reported in the literature are surveyed and analyzed. In the last we will also summarize the work done.

COURSE OBJECTIVES

Arduino is a prototype platform based on an easy-to-use hardware and software. It consist of a circuit board, which can be programmed and already-made software called Arduino IDE, which is used to write and upload the computer code to the physical board. Arduino provides a standard form factor that breaks the functions of the micro-controller into a more accessible package.

EXPECTED OUTCOMES

Students will be able to Learn the basics of electronics, including reading schematics Learn the Arduino programming language and IDE, program basic Arduino examples. Prototype circuits and connect them to the Arduino. Program the Arduino microcontroller to make the circuits work. Connect the Arduino microcontroller to a serial terminal to understand communication and stand-alone use. Explore the provide examples code and online resources for extending knowledge about the capailities of the Arduino microcontroller.

Resource Person:

Mr. T. Pullaiah,

Associate Professor, ECE.

Co-ordinator:

Mr. J. Sunil Kumar,

Assistant Professor, Dept. of ECE,

Contact No: +91 83747 17668

Students are instructed to register the given below link:

<https://docs.google.com/forms/d/e/1FAIpQLSfaUMOAMWK6gqsCGcE4qJz3wbKtEcF6ON0UD7J3hGN8cEmWLg/viewform>

Class starts from **11-09-2020** to **17-10-2020** at **4 PM – 5 PM.**

Google Meet Link: <https://meet.google.com/vqt-xvoh-ksi>

LAST DATE FOR REGISTRATION: 8TH SEP, 2020



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ADD-ON COURSE ON “DESIGN AND IMPLEMENTATION OF SMART HOME APPLIANCES USING ARDUINO”

11TH SEP TO 17TH OCT, 2020

DURATION OF THE COURSE: **33 HRS**

ORGANIZED BY:

**DEPARTMENT OF ELECTRONICS AND
COMMUNICATION ENGINEERING**



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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Design and Implementation of Smart Home Appliances using Arduino-Syllabus

Academic Year : 2020-2021

B.Tech III-I SEM

SECTION : ECE-A&B

Course Objectives:

- To learn the Introduction of Arduino and Arduino data types
- To design the Pin configuration and Architecture
- To remember the applications, advantages and disadvantages
- To explain the variables and constants, Operators, Control Statements
- To learn Arduino Interfacing Board

UNIT-I: INTRODUCTION

Introduction to embedded system, Understanding Embedded System, Overview of basic electronics and digital electronics. Microcontroller vs Microprocessor, Common features of Microcontroller, Comparison between the two, Different types of microcontrollers.

UNIT-II: GETTING STARTED WITH ARDUINO

Introduction to Arduino, Pin configuration and Architecture, Device and platform features, Concept of digital and analog ports, Familiarizing with Arduino Interfacing Board, Introduction to Embedded C and Arduino platforms.

UNIT-III: REVIEW OF BASIC CONCEPTS

Arduino data types, Variables and constants, Operators, Control Statements, Arrays, Functions

UNIT-IV : ARDUINO I/O FUNCTIONS

Pins Configured as INPUT, Pull-up Resistors, Pins Configured as OUTPUT, pinMode () Function, digitalWrite() Function, analog Read() Function, Arduino interrupts

UNIT-V : Arduino Applications

Incorporating Arduino into Applications, Advantages and Disadvantages



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TEXT BOOKS

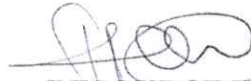
Programming Arduino: Getting Started With Sketches (second edition) ... Arduino
Workshop: A Hands-On Introduction with 65 Projects 1st Edition. .

REFERENCE BOOKS

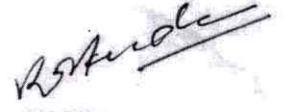
Arduino – A Technical Reference: A Handbook for Technicians, Engineers, and Makers



CO ORDINATOR



RESOURCE PERSON



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Head of the Department
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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ADD ON COURSE NAME: **Design and Implementation of Smart Home Appliances using Arduino**

DAY WISE SCHEDULE SHEET

Academic Year: 2020-2021

Date: 04-09-2020

B.Tech III-I SEM

SECTION : ECE-A&B

Online Mode

S.No	Day	Topic	Timings	Duration
1	11-09-20	Introduction to embedded system	04:00pm to 05:00pm	1 hour
2	12-09-20	Understanding Embedded System	04:00pm to 05:00pm	1 hour
3	14-09-20	Overview of basic and digital electronics	04:00pm to 05:00pm	1 hour
4	15-09-20	Microcontroller vs Microprocessor	04:00pm to 05:00pm	1 hour
5	16-09-20	Common features of Microcontroller	04:00pm to 05:00pm	1 hour
6	17-09-20	Comparison between the two, Different types of Mc	04:00pm to 05:00pm	1 hour
7	18-09-20	Introduction to Arduino, Pin configuration	04:00pm to 05:00pm	1 hour
8	19-09-20	Device and platform features	04:00pm to 05:00pm	1 hour
9	21-09-20	Concept of digital and analog ports	04:00pm to 05:00pm	1 hour
10	22-09-20	Familiarizing with Arduino Interfacing Board	04:00pm to 05:00pm	1 hour
11	21-09-20	Introduction to Embedded C and	04:00pm to 05:00pm	1 hour
12	23-09-20	Arduino platforms	04:00pm to 05:00pm	1 hour
13	24-09-20	Arduino platforms	04:00pm to 05:00pm	1 hour
14	25-09-20	Arduino data types	04:00pm to 05:00pm	1 hour
15	26-09-20	Variables and constants	04:00pm to 05:00pm	1 hour
16	28-09-20	Operators	04:00pm to 05:00pm	1 hour
17	29-09-20	Control Statements	04:00pm to 05:00pm	1 hour
18	30-09-20	Arrays, Functions	04:00pm to 05:00pm	1 hour
19	01-10-20	Pins Configured as INPUT	04:00pm to 05:00pm	1 hour
20	01-10-20	Pull-up Resistors	04:00pm to 05:00pm	1 hour
21	02-10-20	Pull-up Resistors	04:00pm to 05:00pm	1 hour
22	03-10-20	Pins Configured as OUTPUT	04:00pm to 05:00pm	1 hour
23	05-10-20	Pins Configured as OUTPUT	04:00pm to 05:00pm	1 hour
24	06-10-20	PinMode () Function,digital Write() Fn	04:00pm to 05:00pm	1 hour
25	07-10-20	PinMode () Function,digital Write() Fn	04:00pm to 05:00pm	1 hour
26	08-10-20	analog Read() Function	04:00pm to 05:00pm	1 hour
27	09-10-20	Arduino interrupts	04:00pm to 05:00pm	1 hour
28	10-10-20	Arduino interrupts	04:00pm to 05:00pm	1 hour
29	13-10-20	Incorporating Arduino time	04:00pm to 05:00pm	1 hour



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30	14-10-20	Incorporating Arduino time	04:00pm to 05:00pm	1 hour
31	15-10-20	Applications	04:00pm to 05:00pm	1 hour
32	16-10-20	Advantages and Disadvantages	04:00pm to 05:00pm	1 hour
33	17-10-20	Revision	04:00pm to 05:00pm	1 hour
Total – 33 hours				

COORDINATOR

HOD

Head of the Department
 Electronics and Communication Engineering
 Vignana's Institute of Management and Technology for Women
 Kondapur (V), Ghatkesar (M), Medchal, Dist-501301



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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Date: 20-10-2020

PROGRAM REPORT

Name of the Add on Course: Design and Implementation of Smart Home Appliances using Arduino

Day/Duration: 33 hours

Time: 4:00pm to 5:00pm

Resource Person: Mr.T.Pullaiyah, Associate Professor, VMTW, Hyderabad.

Name of the Coordinator: Mr.J.Sunil Kumar, Assistant Professor, VMTW, Hyderabad.

Number of the Participants: 95

Topics covered: The following topics covered in this program

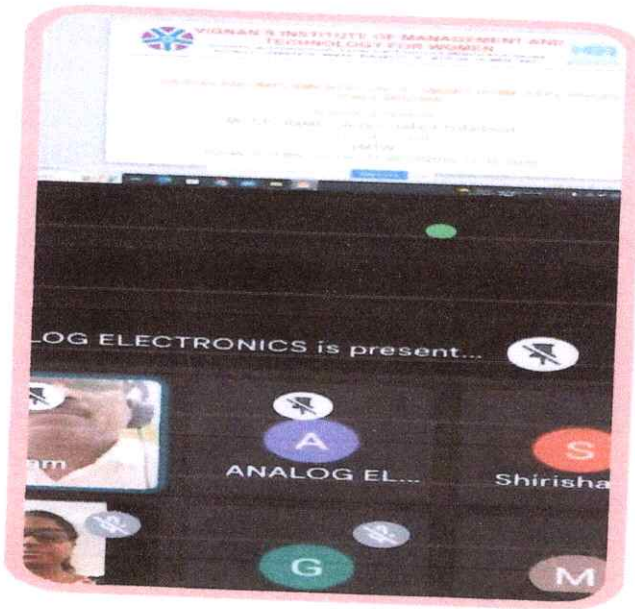
- Arduino
- Arduino Architecture
- Operators
- Configurations
- Arrays, Functions

Course Outcomes:

COs	At the end of the course, students will have the ability to:	Pos Mapped	Strength of mapping
CO1	Learn the Introduction to Arduino, Arduino data types	PO3,PO4	3
CO2	Remember the Applications, Advantages and Disadvantages	PO2,PO5	2
CO3	Design the Pin configuration and Architecture	PO4, PO6	2
CO4	Learn variables and constants, Operators, Control Statements	PO2, PO3	3
CO5	Learn Arduino Interfacing Board	PO3,PO5	1




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Design and Implementation of Smart Home Appliances using Arduino: Add on course conducted by Mr.T.Pullaiah, Associate Professor, VMTW, Hyderabad

Hence, Students understood the concept on Smart home Appliances using Arduino. This course conducted through online mode. They learnt concept of Arduino..So,I am thankful for the department for conduct such type of informative events through online and Students also very happy for this online course.

Assessment Procedure: The assessment of the Add on course is conducted in Multiple Choice Questions through Online Mode.


COORDINATOR


HOD

Head of the Department
Electronics and Communication Engineering
Vignan's Institute of Management & Technology For Women
Kondapur (V), Ghatkesar (M), Medchal-Malkajgiri (Dt.)-501301




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Kondapur (V), Ghatkesar (M), Medchal-Malkajgiri (Dt.)-501301
Telangana State



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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

VMTW/ECE/AOC/CIR/2020-21/II-SEM/03

Date: 23-03-2021

CIRCULAR

This is to inform all the II B. Tech ECE students that, the Department organizing an Add on course on “**Design and prototyping of Printed Circuit Board**”. Department Advisory Committee has been identified Mr.J. Sunil Kumar, Assistant Professor in ECE as a resource person for this course. This course is scheduled for 31 days which will take place from **29-03-2021 to 12-05-2021** in online mode through Google Meet.


HOD.

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II.B. Tech students

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Electronics and Communication Engineering
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ABOUT THE COURSE

Printed circuit board (PCB) is a highly reliable and durable physical circuit design that has become an essential component of any electronic device. Printed circuit boards are made of a very thin substrate board embedded with electronic components interconnected using thin-layer of copper interconnecting traces. The board substrate is usually made of fiberglass composite epoxy substrate or other laminate materials. The circuit will contain both active and passive components. With more advanced and smaller component availability it is possible to accommodate a very large and complex circuit in a small PCB Design.

COURSE OBJECTIVES

This course will teach teams of students how to design and fabricate PCB for prototyping as well as in an Industrial Production environment. This will help students to innovate faster with electronics technology. Students will design their own PCB for a simple product of their choice, build simple prototypes of their design, and document their PCB design and prototyping. To stimulate PCB design concepts guest lectures will be invited to present a range of design challenges. Challenge areas will include consumer products and the needs of the developing world, sustainability, and other users of non-profit organization services.

EXPECTED OUTCOMES

The students will be able to understand a single layer and multilayer PCB. To create and fabricate a PCB and Evaluate and test a PCB. To Learn advantages and disadvantages of PCB.

Resource Person:

Mr. J. Sunil Kumar,
Assistant Professor,
Department of ECE.

Co-ordinator:

Mr. G. Ganesh Reddy,
Assistant Professor, Dept. of ECE,
Contact No: +91 97059 35953

Students are instructed to register the given below link:

<https://docs.google.com/forms/d/e/1FAIpQLSeeQux48PqpeXricGE72AH-HYQWxi3nL6ulJOIEX2ADId2pyg/viewform>

Class starts from **08-02-2021 to 20-03-2021** at **4 PM – 5 PM.**

Google Meet Link: <https://meet.google.com/vqt-xvoh-ksi>

LAST DATE FOR REGISTRATION: 25TH MARCH, 2021



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VALUE ADDED COURSE ON “DESIGN AND PROTOTYPING OF PRINTED CIRCUIT BOARD” 29TH MAR TO 12TH MAY, 2021

DURATION OF THE COURSE: **31 HRS**

ORGANIZED BY:

**DEPARTMENT OF ELECTRONICS AND
COMMUNICATION ENGINEERING**



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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Design and prototyping of Printed Circuit Board

Syllabus

Academic Year : 2020-2021

B.Tech II-II SEM

SECTION : ECE-A&B

Course Objectives:

- To design and fabricate PCB for prototyping as well as in an Industrial Production environment.
- To understand a single layer and multilayer of PCB
- To stimulate PCB design concepts and to present a range of design challenges.
- To analyze the challenge areas will include consumer products and the needs of the developing world, sustainability, and other users of non-profit organization services.
- To learn PCB Mass Manufacturing Process

UNIT-I: Introduction Need for PCB, Types of PCBs : Single and Multilayer, Technology: Plated Through Hole, Surface Mount, PCB Material, Electronic Component packaging, PCB Designing, Fabrication, Production, Electronic Design Automation Tools: Proprietary tools like Eagle, Ultiboard, Orcad and Opensource tools like KiCad, Design Issues: Transmission line, Cross talk and Thermal management

UNIT-II: PCB Design Introduction to KiCad, Schematic entry / drawing, netlisting, layering, component foot print library selection & designing, design rules

UNIT- III: Component placing: Manual & automatic, track routing: automatic & manual, rules: track length, angle, joint & size, Autorouter setup. IPC standards for schematic, designing, material and documentation

UNIT- IV: PCB Prototyping and Production PCB Prototyping: CNC Machine, Photo- Lithography process, Screen Printing process and chemical etching

UNIT- V: PCB Mass Manufacturing Process: Gerber Generation, CAM, panelization, cleaning, drilling, plating, screen printing, automated optical inspection, tinning, solder resist, legend printing, pcb testing

References:

1. Jon Varteresian, Fabricating Printed Circuit Boards, Newnes, 2002
2. R. Tummala, Fundamentals of Microsystems Packaging, McGraw-Hill 2001




PRINCIPAL

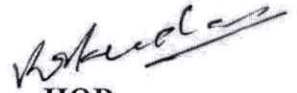
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3. Mark Madou, Fundamentals of Microfabrication, CRC Press, ISBN: 0-8493-9451-1

4. Elaine Rhodes, Developing Printed Circuit Assemblies: From Specifications to Mass Production


COORDINATOR


RESOURCE PERSON


HOD

Head of the Department
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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ADD ON COURSE NAME: **Design and prototyping of Printed Circuit Board**

DAY WISE SCHEDULE SHEET

Academic Year: 2021-2022

Date: 23-03-2021

B.Tech II-II SEM

SECTION : ECA&B

Online Mode


S.No	Day	Topic	Timings	Duration
1.	29-03-21	Introduction Need for PCB	04:00pm to 05:00pm	1 hour
2.	30-03-21	Types of PCBs : Single and Multilayer	04:00pm to 05:00pm	1 hour
3.	31-03-21	Technology: Plated Through Hole	04:00pm to 05:00pm	1 hour
4.	01-04-21	Surface Mount	04:00pm to 05:00pm	1 hour
5.	03-04-21	PCB Material, Electronic Component	04:00pm to 05:00pm	1 hour
6.	05-04-21	PCB Designing,	04:00pm to 05:00pm	1 hour
7.	06-04-21	Fabrication, Production	04:00pm to 05:00pm	1 hour
8.	07-04-21	Electronic Design Automation Tools:	04:00pm to 05:00pm	1 hour
9.	08-04-21	Ultiboard, Orcad and Opensource	04:00pm to 05:00pm	1 hour
10.	09-04-21	Transmission line,management	04:00pm to 05:00pm	1 hour
11.	10-04-21	PCB Design Introduction to KiCad	04:00pm to 05:00pm	1 hour
12.	12-04-21	Schematic entry / drawing, netlisting	04:00pm to 05:00pm	1 hour
13.	16-04-21	layering,component foot print library selection & designing, design rules	04:00pm to 05:00pm	1 hour
14.	17-04-21	Component placing: Manual & automatic	04:00pm to 05:00pm	1 hour
15.	19-04-21	track routing: automatic & manual	04:00pm to 05:00pm	1 hour
16.	20-04-21	rules: track length, angle, joint & size	04:00pm to 05:00pm	1 hour
17.	22-04-21	Autorouter setup.	04:00pm to 05:00pm	1 hour
18.	23-04-21	PCB Prototyping and Production	04:00pm to 05:00pm	1 hour
19.	26-04-21	CNC Machine, Photo-Lithography	04:00pm to 05:00pm	1 hour
20.	27-04-21	Screen Printing process	04:00pm to 05:00pm	1 hour
21.	28-04-21	PCB Mass Manufacturing Process	04:00pm to 05:00pm	1 hour



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22.	29-04-21	Gerber Generation	04:00pm to 05:00pm	1 hour
23.	30-04-21	CAM, Panelization	04:00pm to 05:00pm	1 hour
24.	03-05-21	Cleaning, drilling, plating	04:00pm to 05:00pm	1 hour
25.	04-05-21	Screen printing	04:00pm to 05:00pm	1 hour
26.	05-05-21	Etching, automated optical inspection	04:00pm to 05:00pm	1 hour
27.	06-05-21	Tinning	04:00pm to 05:00pm	1 hour
28.	08-05-21	Solder resist	04:00pm to 05:00pm	1 hour
29.	10-05-21	Legend printing	04:00pm to 05:00pm	1 hour
30.	11-05-21	PCB testing	04:00pm to 05:00pm	1 hour
31.	12-05-21	Revision	04:00pm to 05:00pm	1 hour
Total – 31 hours				


COORDINATOR


HOD

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Date: 13-05-2021

PROGRAM REPORT

Name of the Add on Course: Design and prototyping of Printed Circuit Board

Day/Duration: 31 hours

Time: 4:00pm to 5:00pm

Resource Person: Mr.J. Sunil Kumar, Assistant Professor, VMTW, Hyderabad

Name of the Coordinator: Mr. G. Ganesh Reddy, Assistant Professor, VMTW, Hyderabad.

Number of the Participants: 95

Topics covered: The following topics covered in this program

- PCB Design
- PCB Testing
- CNC Machine
- PCB Prototyping
- Photo- Lithography process

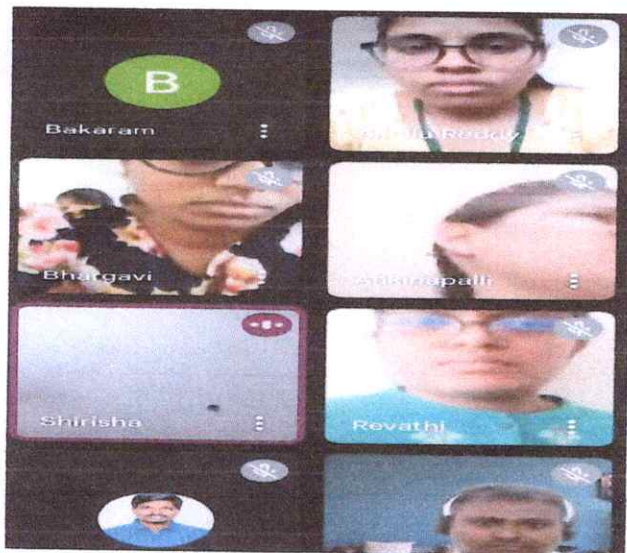
Course Outcomes:

COs	At the end of the course, students will have the ability to:	Pos Mapped	Strength of mapping
CO1	Understand the PCB Design	PO2,PO5	2
CO2	Analyze the PCB Prototyping and Production PCB Prototyping	PO3,PO4	3
CO3	Learn PCB design concepts and to present a range of design challenges	PO4,PO6	2
CO4	Analyze the PCB Testing	PO2,PO5	1
CO5	Learn PCB Mass Manufacturing Process	PO2,PO4	2




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Value Added course on
Designing and Prototyping of Printed circuit Boards

Resource Person

Mr.J.SunilKumar , Assistant Professor

In association with

VMTW

Duration of the course: 29-03-2021 to 12-05-2021


Design and prototyping of Printed Circuit Board: Add on course conducted by

Mr.J. Sunil Kumar, Assistant Professor, VMTW, Hyderabad

Hence, Students understood the concept on printed circuit board. This course conducted through online mode. They learnt concept of PCB..So, I am thankful for the department for conduct such type of informative events through online and Students also very happy for this online course.

Assessment Procedure: The assessment of the Add on course is conducted in Multiple Choice Questions through Online Mode


COORDINATOR


HOD

Head of the Department
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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

VMTW/CSE/AOC/2020-21/I/02

25-01-2021

CIRCULAR

All IV-I B. Tech CSE students are thus informed that a training session for the add-on course "Python for Data Science" will be held from 1/2/2021 to 5/2/2021. Students can enroll in this course. The training programme seeks to produce students with advanced practical knowledge, analytical, problem-solving abilities, and the capacity for effective communication in a global setting. Google Meet is used to arrange this course in an online format. Those who are interested might send their names to course coordinator Mrs.P.Prathima, Assistant Professor in that regard.


HOD

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Computer Science and Engineering
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Notice board

IV-I B.Tech Students

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ABOUT THE COURSE

In this course, you are learning Python for data science, as well as programming in general. This beginner-friendly Python course will take you from zero to programming in Python in a matter of hours. Upon its completion, you'll be able to write your own Python scripts. You'll be able to write your own Python scripts and perform basic hands-on data analysis using our Jupyter-based lab environment. This Data Science with Python course is designed to equip you with skills to work with Python Programming to achieve Data Science tasks. You will be knowledgeable about the concept of statistics in detail, followed by a case study demonstration. You will then understand data transformation, different types of distributions, and histogram. Further learn Python programming to understand some essential libraries of Python, such as NumPy, Pandas, Matplotlib, and Seaborn. This course will also teach regression models, data analytics, and data visualization concepts. Test the knowledge you gain from this course by completing the quiz and receiving a course completion certificate.

COURSE OBJECTIVES

In this module, you will be introduced to statistics which comes with data problems, whereas machine learning is used to solve these problems in this first module of the course. It also discusses some real-life scenarios of problems occurring with the data in statistics. Later you will understand three steps to process the information such as descriptive, predictive, and prescriptive. Descriptive statistics means describing the data without necessarily trying to build any prediction or model into it. In this module, it will help you understand descriptive statistics by giving real-life examples. Next, you will learn the term random variable. Lastly, that will familiarize you with the case study, which will be the main objective of the next module. The case study will be carried out in Jupyter Notebook. You will also understand the descriptive analytics required to create customer profiles for the organization. You will learn briefly about the problem statement and how you can derive the solution using Numpy and Pandas libraries in the Jupyter notebook. This course describes measures of central

endency by formulating to solve for the example. It also analyzes various metrics of the solution through graphs.

EXPECTED OUTCOMES

This course provides students with wide general overview of Python a general-purpose programming language that is becoming ever more popular for data science. The focus is on the application of Python specifically for data science. The course is about ways to import, store and manipulate data, and helpful data science tools to conducting data analyses. The course is intended for students with little programming background. The learning process is facilitated with DataCamp platform. Expected Learning Outcomes are Know basic data types in Python, Know operators, how to clean and merge datasets, Know pandas library, the main methods for DataFrames, Know how to import data in Python, Know how to work in Jupyter Notebook.



Resource Person:
Mrs. B. Geetha,
Assistant Professor,
Department of CSE.

Co-ordinator:
Mrs. P. Prathima,
Assistant Professor,
Department of CSE,
Contact No: +91 8008498015

LAST DATE FOR REGISTRATION: 30TH JANUARY, 2021

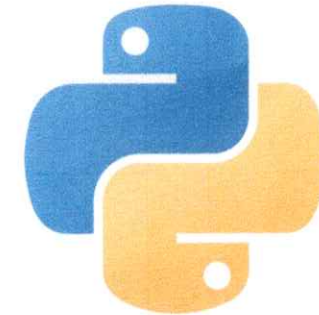


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**ADD-ON COURSE ON
"PYTHON FOR
DATA SCIENCE"
1ST TO 5TH FEB, 2021**

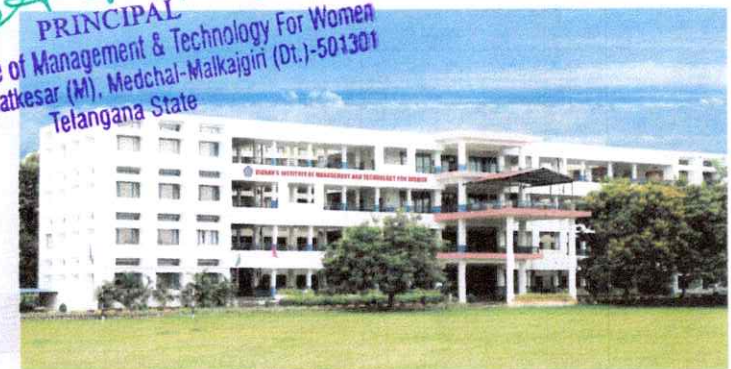
Duration of the Course : **32 Hrs**

 : <https://meet.google.com/zfj-pkfs-hxo>

ORGANIZED BY:

**DEPARTMENT OF COMPUTER SCIENCE
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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Addon Course Syllabus

Addon Course: Python for Data Science

Course objectives:

1. To expose the learners to the skills required to tackle and solve complex real-world data science problems more sensibly and effectively.
2. To develop research interest towards advances in data science techniques and algorithms.
3. To provide well-rounded insights into the data science algorithms and hands-on activities using python \
4. To Know how to import data in Python
5. To Know operators, how to clean and merge datasets

Module 1: Python: Environment set-up, Jupyter overview, Python Numpy, Python Pandas, Python Matplotlib

Module 2: R: An introduction to R, Data structures in R, Data visualization with R, Data analysis with R.

Module 3: Statistics: Important statistical concepts used in data science, Difference between population and sample, Types of variables, Measures of central tendency, Measures of variability, Coefficient of variance, Skewness and Kurtosis,

Module 4: Inferential statistics, Normal distribution, Test hypotheses, Central limit theorem, Confidence interval, T-test, Type I and II errors, Student's T distribution

Module 5: Regression and Anova: Regression, ANOVA, R square, Correlation and causation. Exploratory data analysis: Data visualization, Missing value analysis, The correction matrix, Outlier detection analysis.

Text Book: Python Data Science Handbook: Essential Tools For Working With Data by Jake VanderPlas.

Parkima
COORDINATOR

S. W. S.
HOD

Head of The Department
Computer Science and Engineering

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Kondapur (V), Ghatkesar (M), Medchal-Malkajiri (Dt)-501301
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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Addon Course Name: Python for Data Science

DAY WISE SCHEDULE SHEET

DAY	Topic	Timings	Duration
01-02-2021	Python: Environment set-up, Jupyter overview, Python Numpy, Python Pandas, Python Matplotlib.	09:00 am to 03:30 pm	6 hrs
02-02-2021	R: An introduction to R, Data structures in R, Data visualization with R, Data analysis with R.	09:00 am to 03:30 pm	6 hrs
03-02-2021	Statistics: Important statistical concepts used in data science, Difference between population and sample, Types of variables, Measures of central tendency, Measures of variability, Coefficient of variance, Skewness and Kurtosis.	09:00 am to 03:30 pm	6 hrs
04-02-2021	Inferential statistics- Normal distribution, Test hypotheses, Central limit theorem, Confidence interval, T-test, Type I and II errors, Student's T distribution.	09:00 am to 04:30 pm	7 hrs
05-02-2021	Regression and ANOVAs: Regression, ANOVA, R square, Correlation and causation, Data visualization, Missing value analysis, The correction matrix, Outlier detection analysis.	09:00 am to 04:30 pm	7 hrs
Total 32 hours			

Prathima
COORDINATOR

S. Anup
HOD, CSE

Head of The Department
Computer Science and Engineering
Vignans Institute of Management & Technology For Women
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Prathima
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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Date: 08-02-2021

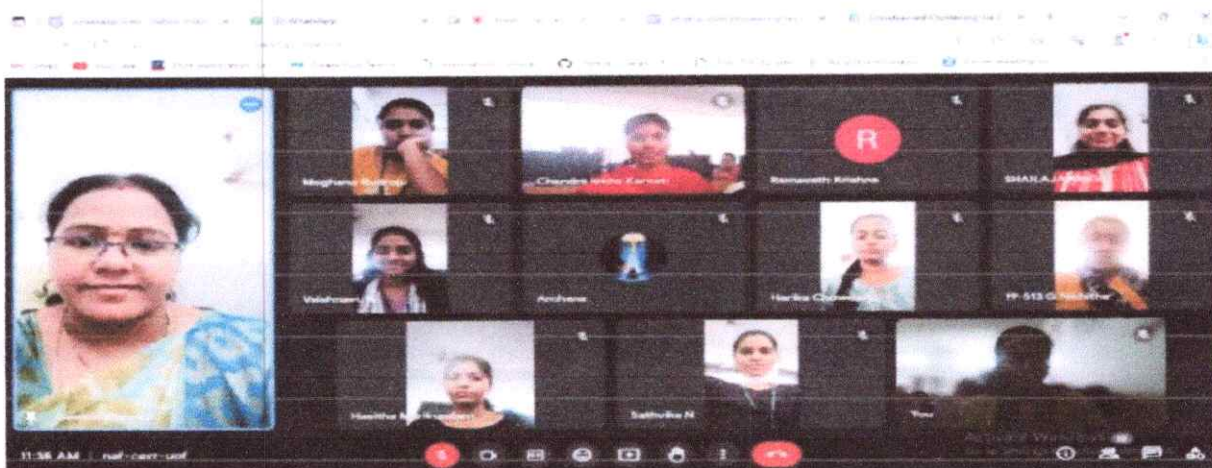
Addon course Report

Name of the Add on Course: Python for Data Science

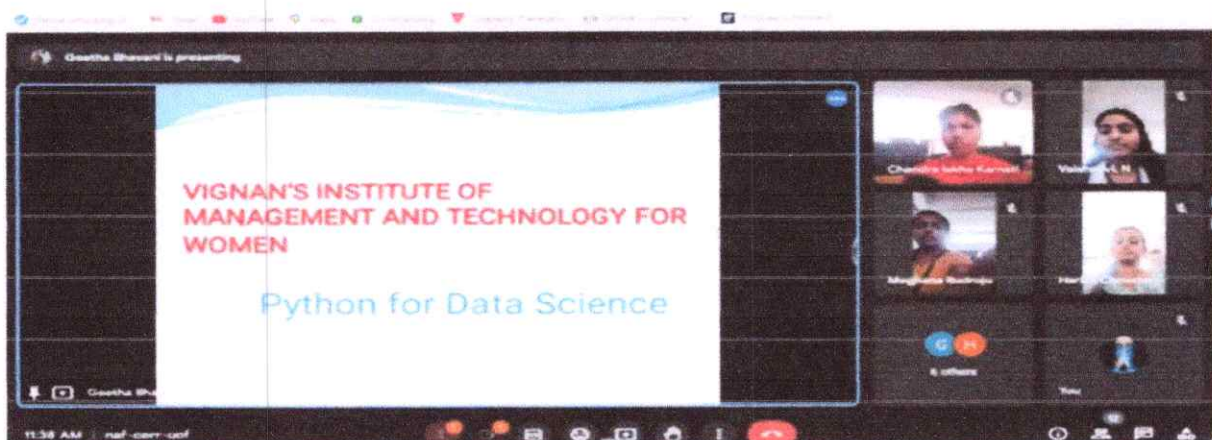
Day/Duration: 01-02-2021 to 05-02-2021 5(Days) - 32Hrs

Time: 09:00am to 04:30pm

Resource Person: Mrs.B.Geetha, Associate Professor, Dept of CSE, VMTW.



Mrs. .B. Geetha delivering add-on course on Python for Data Science through online



Mrs. .B. Geetha delivering add-on course on Python for Data Science through online



[Signature]
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Name of the Coordinator: Mrs.P.Prathima, Assistant Professor, Dept of CSE, VMTW.

Number of the Participants: 95

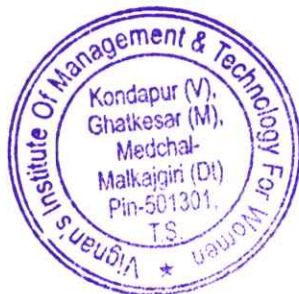
Topics covered: The following topics covered in this program

- Python Environment set-up, Jupyter overview, Python Numpy, Python Pandas, Python Matplotlib.
- Data structures in R, Data visualization with R, Data analysis with R.
- Important statistical concepts used in data science, Difference between population and sample, Types of variables, Measures of central tendency.
- Measures of variability, Coefficient of variance, Skewness and Kurtosis.

Course Outcomes:

COs	At the end of the course, students will have the ability to:	Pos Mapped	Strength of mapping
CO1	Analyze the need for data preprocessing and visualization techniques.	PO1,PO2	4
CO2	Demonstrate the performance of different supervised learning algorithms like decision Tree.	PO1,P04	3
CO3	Apply unsupervised learning algorithms like K-Means, K-Medoids.	P02	2
CO4	Formulate and use appropriate models of data analysis to solve hidden solutions to business-related challenges.	P02,PO5	3
CO5	Apply modern data science methods to one or more domains of application	PO1,P04	4

Prathima
COORDINATOR



S. @ m
HOD

Head of The Department
Computer Science and Engineering
Vignan's Institute of Management & Technology For Women
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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

VMTW/CSE/AOC/2020-21/I/01

Date: 08/12/2020

CIRCULAR

This is to inform all the III-I B. Tech CSE students that there will be an Add on course on "Design of IoT applications " from 14/12/2020 to 19/12/2020. All students are invited to take part in this course. The participating students will be honored with certificates of participation. During the course you will be encouraged to interact with the speaker and the other participants through the case study discussions. This course is scheduled in online mode through Google Meet.


HOD

Head of The Department
Computer Science and Engineering
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ABOUT THE COURSE

The Internet of Things (IoT) and smart connected devices have radically changed the way our world works and how companies operate and create new businesses. In this course, we provide an overview of the underlying IoT technologies and their business applications. This course is an introduction to IoT and explains why it is a continuously evolving concept with many industrial applications. You will learn the fundamental building blocks of IoT and the fast-changing trends to combine them suitably for a precise industrial application. You'll learn an Overview of what is Internet of Things (IoT) and how to develop a business model canvas. Description of typical IoT components and edge computing concept. Communication standards and Big data cloud infrastructure partners to choose in the case of IoT businesses. Security requirements and techniques in IoT systems. Different types of artificial intelligence (AI) technologies and edge AI systems in the context of IoT. Design thinking concept and how-to setup the business model and revenues in IoT.

COURSE OBJECTIVES

Students will be explored to the interconnection and integration of the physical world and the cyber space. They are also able to design & develop IOT Devices. This course focuses on the latest microcontrollers with application development, product design and prototyping. The Internet of Things (IOT) is the next wave, world is going to witness. Today we live in an era of connected devices (mobile phones, computers etc.), the future is of connected things (Eg: home appliances, vehicles, lamp-posts, personal accessories, industrial equipments and everything which you use in day-to-day life). Internet of Things is a term given to the attempt of connecting objects to the internet and also to each other - allowing people and objects themselves to analyze data from various sources in real-time and take necessary actions in an intelligent fashion. This course will describe the market around the Internet of Things (IoT), the technology used to build these kinds of devices, how they communicate, how they store data, and the kinds of distributed systems needed to support them. Divided into four modules, we will learn by doing to start with simple

examples and integrate the techniques. And we will learn into a class project in which we design and build an actual IoT system.

EXPECTED OUTCOMES

To understand the fundamental application areas of IOT. Able to realize the revolution of the Internet in Mobile Devices, Cloud & Sensor Networks. Able to understand the building blocks of the Internet of Things and its characteristics. After the completion of the course, the students will be able to design some IOT-based prototypes. Understand the definition and significance of the Internet of Things, Discuss the architecture, operation, and business benefits of an IoT solution, Examine the potential business opportunities that IoT can uncover, Explore the relationship between IoT, cloud computing, and big data, identify how IoT differs from traditional data collection systems. It provides advanced data collection, connectivity, and analysis of information collected by computers everywhere taking the concepts of Machine-to-Machine communication further than ever before. This course gives a foundation in the Internet of Things, including the components, tools, and analysis by teaching the concepts behind the IoT and a look at real-world solutions.



Resource Person:

Mr. P. Rajendra Prasad,
Assistant Professor,
Department of CSE.

Co-ordinator:

Mr. M. Uday Kumar,
Assistant Professor,
Department of CSE,

Contact No: +91 8555066121

LAST DATE FOR REGISTRATION: 12TH DECEMBER, 2020

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ADD-ON COURSE ON

**"DESIGN OF
IOT APPLICATIONS"**

14TH TO 19TH DEC, 2020

Duration of the Course : 36 Hrs

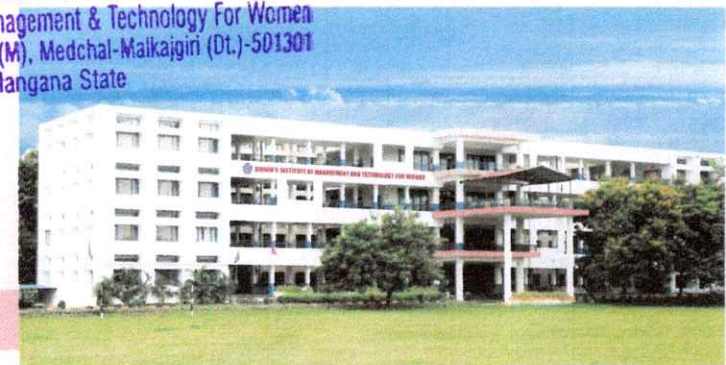
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Syllabus for the Addon course

Design of IoT applications

Course objectives:

1. To study the fundamentals about IoT
2. To study about IoT Access technologies
3. To design methodology and different IoT hardware platforms.
4. To Examine the potential business opportunities that IoT can uncover.
5. To Explore the relationship between IoT, cloud computing, and big data

Module 1 – IOT Introduction: Concepts and Definitions of The Internet of Things (IoT), History of IOT, Requirements, Functionalists, and structure of IOT, IoT enabling technologies, IoT Architecture.

Module 2 – IOT Data Acquisition & Platforms: Micro Controllers (Arduino uno/mega2560, Raspberry-Pi, ARM), Real-time systems, and embedded software, OS and Drivers (End Device Program), Hardware & Software Requirements

Module 3 – IOT Data Communication: How to transfer data by Wireless / Wired connectivity, Ipv4/Ipv6, Ethernet/GigE, MIPI, M-PHY, UniPro, SPMI, BIF, SuperSpeed USB Inter-Chip (SSIC), Relay Access Point (AP), Grouping of station, Target Wake Time (TWT)

Module 4 – IOT Data Storage & Retrieval: Overview and Role of Storage in Cloud / Server /Inhouse Storage, Databases Connectivity with IOT and uses, Case Study over Mysql / NoSql / NewSql, Case Study over Cloud Services And Administration

Module 5 – IOT Data Analytics & Visualization: Analysis Of data using the Ipython Module. Visualization and interpretation of Data
IOT Security: Attack, Defense.

Text Book:

1. Internet of Things (IoT) & Its Applications: A Complete Guide on Python Programing for IoT with Practical Exercises for Learners: by Dr V K Sachan (Author).

Uday
COORDINATOR

S. Anur
HOD

Head of The Department
Computer Science and Engineering

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Addon Course Name: Design of IoT applications

B.Tech III-I SEM

DAY WISE SCHEDULE SHEET

SECTIONS: CSE A & B

DAY	Topic	Timings	Duration
14/12/2020	IOT Introduction: Concepts and Definitions of The Internet of Things (IoT), History of IOT, Requirements, Functionalists, and structure of IOT, IoT enabling technologies, IoT Architecture.	09:00 am to 03:30 pm	6 hrs
15/12/2020	IOT Data Acquisition & Platforms: Micro Controllers (Arduino uno/mega2560, Rasberry-Pi, ARM), Real-time systems, and embedded software, OS and Drivers (End Device Program), Hardware & Software Requirements.	09:00 am to 03:30 pm	6 hrs
16/12/2020	IOT Data Communication: How to transfer data by Wireless / Wired connectivity, Ipv4/Ipv6, Ethernet/GigE, MIPI, M-PHY, UniPro.	09:00 am to 03:30 pm	6 hrs
17/12/2020	IOT Data Storage & Retrieval: Overview and Role of Storage in Cloud / Server/Inhouse Storage, Databases Connectivity with IOT and uses, Case Study over Mysql / NoSql / NewSql, Case Study over Cloud Services And Administration.	09:00 am to 03:30 pm	6 hrs
18/12/2020	IOT Data Analytics & Visualization: Analysis Of data using the Ipython Module.	09:00 am to 03:30 pm	6 hrs
19/12/2020	Visualization and interpretation of Data, IOT Security and Lab Practice.	09:00 am to 03:30 pm	6 hrs
Total 36 hours			

Uday
COORDINATOR



S. Suresh
HOD, CSE

Head of The Department
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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Date: 21/12/2020

PROGRAM REPORT

Name of the Add on Course: Design of IoT applications

Day/Duration: 14/12/2020 to 19/12/2020 6 (Days) - 36Hrs

Time: 09:00am to 03:30pm

Resource Person: Mr.P.Rajendra Prasad, Assistant Professor, Dept of CSE, VMTW.

Name of the Coordinator: Mr.M.Uday Kumar, Assistant Professor, Dept of CSE, VMTW.

Number of the Participants: 86

Topics covered: The following topics covered in this program

- IOT Requirements, Functionalists, and structure of IOT, IoT enabling technologies, IoT Architecture, The major component of IOT (Hardware & Software), IoT communication and networking protocols.
- Platforms: Micro Controllers (Arduino uno/mega2560, Raspberry-Pi, ARM), Real-time systems, and embedded software, OS and Drivers (End Device Program), Hardware & Software Requirements.
- How to transfer data by Wireless / Wired connectivity, Ipv4/Ipv6, Ethernet/GigE, MIPI, M-PHY, UniPro, SPMI, BIF, Overview and Role of Storage in Cloud / Server/Inhouse Storage, Databases Connectivity.
- Visualization: Analysis Of data using the Ipython Module, Visualization and interpretation of Data.

Course Outcomes:

COs	At the end of the course, students will have the ability to:	Pos Mapped	Strength of mapping
CO1	Understand the basics of IoT.	PO1,PO2	4
CO2	Implement the state of the Architecture of an IoT	PO1,P04	3
CO3	Understand design methodology and hardware platforms involved in IoT	P02	2



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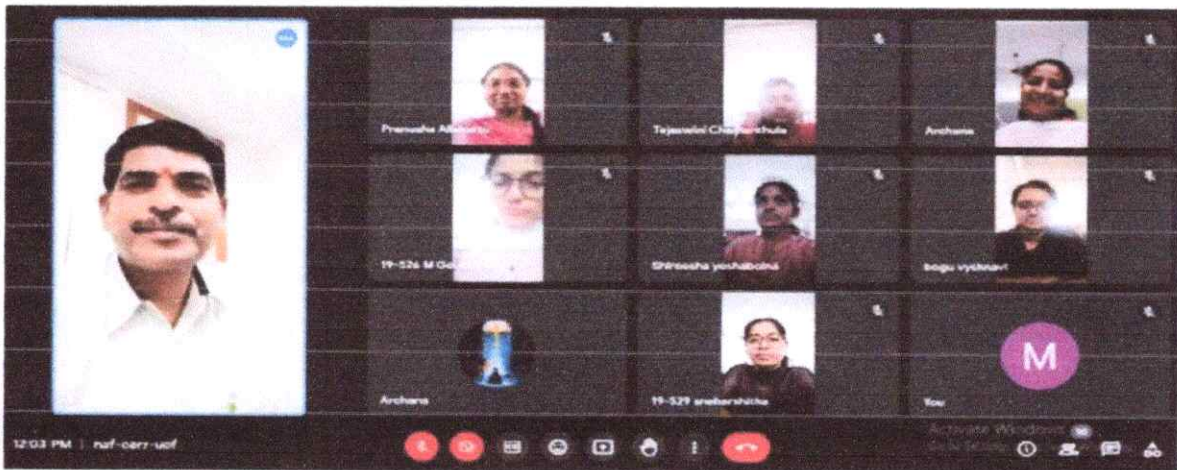


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CO4	Compare IOT Applications in Industrial & real world.	P02,PO5	3
CO5	Identify sensor technologies for sensing real world entities and understand the role of IoT in various domains of Industry	PO2	3



Mr.P.Rajendra Prasad delivering addon course on Design of IoT applications through online mode

uday
COORDINATOR

S. Arun
HOD

Head of The Department
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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

VMTW/CSE/AOC/2020-21/II/04

27-03-2021

CIRCULAR

II-II B. Tech CSE students are pleased to announce that an value added course on "Advanced Data structures using Python" will be available from 5/4/2021 to 9/4/2021. All students are invited to participate in this course. Participating students will receive a certificate of completion. This course will be scheduled in online mode. So make use of the course to improve programming skills in Python.


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ABOUT THE COURSE

This "Advanced Data Structures using Python" course provides a comprehensive explanation of different types of graph and various graph algorithms. Throughout the course, a step-by-step approach is followed to make you understand different algorithms. Through this course, you can build a strong foundation and it will help you to crack Data Structures and Algorithms in Python coding interviews questions and work on projects. A good foundation on Data Structures and Algorithms in Python interview topics helps you to attempt tricky interview questions. This Data Structures and Algorithms using Python course covers the following topics with Python implementation Trees AVL Tree, Threaded Binary Tree, Expression Tree, B Tree explained and implemented in Python. Graphs Adjacency matrix, Adjacency list, Path matrix, Warshall's Algorithm, Traversal, Breadth First Search (BFS), Depth First Search (DFS), Dijkstra's Shortest Path Algorithm, Prim's Algorithm and Kruskal's Algorithm for minimum spanning tree. The algorithms and examples are explained with figures and animations to simplify the learning of this complex topic. You will see code implementation of different data structures in Python and algorithms are explained in a step-wise manner.

COURSE OBJECTIVES

Course Objectives are the fundamental design, analysis, and implementation of basic data structures, Basic concepts in the specification and analysis of programs, Principles for good program design, especially the uses of data abstraction, Significance of algorithms in the computer field, and Various aspects of algorithm development. To impart the basic concepts of data structures and algorithms, To understand concepts about searching and sorting techniques, To Understand basic concepts about stacks, queues, lists, trees and graphs, To understanding about writing algorithms and step by step approach in solving problems with the help of fundamental data structures. This course will teach you the necessary theory and applications to properly understand the advanced data structures that are critical to various problems and how to implement them. We'll also go hands-on and reveal tips and tricks for

optimizations, identifying the right approach and presenting convincing explanations.

EXPECTED OUTCOMES

Understand the basic principles and operations of data structures. Apply Hashing, Disjoint sets and String-Matching techniques for solving problems effectively. Apply the concepts of advanced Trees and Graphs for solving problems effectively. Analyze the given scenario and choose appropriate Data Structure for solving problems. Basic ability to analyze algorithms and to determine algorithm correctness and time efficiency class, master a variety of advanced abstract data type (ADT) and data structures and their implementations, Master different algorithm design techniques (brute-force, divide and conquer, greedy, Ability to apply and implement learned algorithm design techniques and data structures to solve problems. Ability to analyze algorithms and algorithm correctness, Ability to summarize searching and sorting techniques, Ability to describe stack, queue and Finally, you'll learn how to develop complex algorithms that are easy to understand, debug, and reusable in various applications.



Resource Person
Mr. B. Phijik,
Assistant Professor,
Department of CSE.

Co-ordinator:

Mr. K. Bharath Reddy,

Assistant Professor,
Department of CSE,

Contact No: +91 89854 41753

LAST DATE FOR REGISTRATION: 18TH APRIL, 2021

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ADD-ON COURSE ON "ADVANCED DATA STRUCTURES USING PYTHON"

5TH TO 9TH APR, 2021

Duration of the Course : 32 Hrs

<https://meet.google.com/trw-jhgr-aqo>

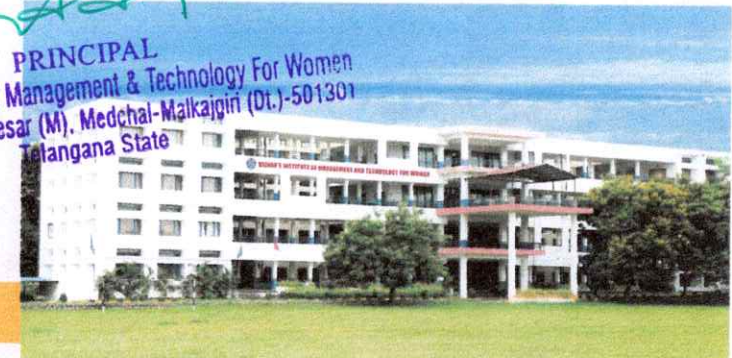
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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Addon Course Syllabus: Advanced Data structures using Python

Course objectives:

1. To Implement Object Oriented Programming concepts in Python.
2. To Understand Lists, Dictionaries and Regular expressions in Python.
3. To Understanding how searching and sorting is performed in Python
4. To learn the fundamentals of writing Python scripts.
5. To understand various data structures and algorithms (DSA) through animations

Module- I: Oops Concepts- class, object, constructors, types of variables, types of methods. Inheritance: single, multiple, multi-level, hierarchical, hybrid, Polymorphism: with functions and objects..

Module - II: Data Structures – Definition, Linear Data Structures; Non-Linear Data Structures, Python Specific Data Structures: List, Tuples, Set, Dictionaries, Comprehensions and its Types, Strings, slicing.

Module -III: Arrays - Overview, Types of Arrays, Operations on Arrays, Arrays vs List, Searching -Linear Search and Binary Search.

Module -IV: Linked Lists – Implementation of Singly Linked Lists, Doubly Linked Lists, Circular Linked Lists. Stacks - Overview of Stack.

Module -V: Graphs -Introduction, Directed vs Undirected Graphs, Weighted vs Unweighted Graphs, Representations, Breadth, First Search, Depth First Search.

Text Book:

1. Data Structures and Advanced Algorithms: Python by Rachel Xin (Author), Tony Lee (Author), Elisabeth Feng (Author).

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HOD

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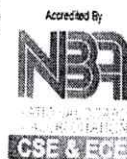
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DAY WISE SCHEDULE SHEET

Addon Course Name: Advanced Data structures using Python

DAY	Topic	Timings	Duration
05-04-2021	Oops Concepts- class, object, constructors, types of variables, types of methods. Inheritance: single, multiple, multi-level, hierarchical, hybrid, Polymorphism: with functions and objects.	09:00 am to 03:30 pm	6 hrs
06-04-2021	Data Structures – Definition, Linear Data Structures, Non-Linear Data Structures, Python Specific Data Structures: List, Tuples, Set, Dictionaries, Comprehensions and its Types, Strings, slicing.	09:00 am to 03:30 pm	6 hrs
07-04-2021	Arrays - Overview, Types of Arrays, Operations on Arrays, Arrays vs List, Searching -Linear Search and Binary Search.	09:00 am to 03:30 pm	6 hrs
08-04-2021	Linked Lists – Implementation of Singly Linked Lists, Doubly Linked Lists, Circular Linked Lists, Stacks - Overview of Stack, Implementation of Stack ,Applications of Stack Queues: Overview of Queue, Implementation of Queue, Applications of Queues.	09:00 am to 04:30 pm	7 hrs
09-04-2021	Graphs -Introduction, Directed vs Undirected Graphs, Weighted vs Unweighted Graphs, Representations, Breadth, First Search, Depth First Search.	09:00 am to 04:30 pm	7 hrs
Total 32 hours			


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Head of The Department

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Date: 10-04-2021

ADDON COURSE REPORT

Add on course for the II-year II sem B.Tech. students on Advanced Data structures using Python was organized. Here are the summary facts.

Name of the Add on Course: Advanced Data structures using Python

Day/Duration: 05-04-2021 to 09-04-2021 5(Days) - 32Hrs

Time: 09:00am to 04:30pm

Resource Person: Mr. B.Phijik. Assistant Professor, Dept of CSE.

Name of the Coordinator: Mr.K.Bharath Reddy, Assistant Professor, Dept of CSE, VMTW.

Number of the Participants: 95

Course objectives:

Topics covered: The following topics covered in this program

- OOPS Concepts- class, object, constructors, types of variables, types of methods, Inheritance.
- Data Structures- Linear Data Structures, Non-Linear Data Structures, Python Specific Data Structures: List, Tuples, Set, Dictionaries, Comprehensions and its Types, Strings, slicing.
- Types of Arrays, Operations on Arrays, Arrays vs List, Searching -Linear Search and Binary Search.
- Implementation of Singly Linked Lists, Doubly Linked Lists, Circular Linked Lists, Stacks - Overview of Stack, Implementation of Stack (List & Linked list), Applications of Stack Queues.




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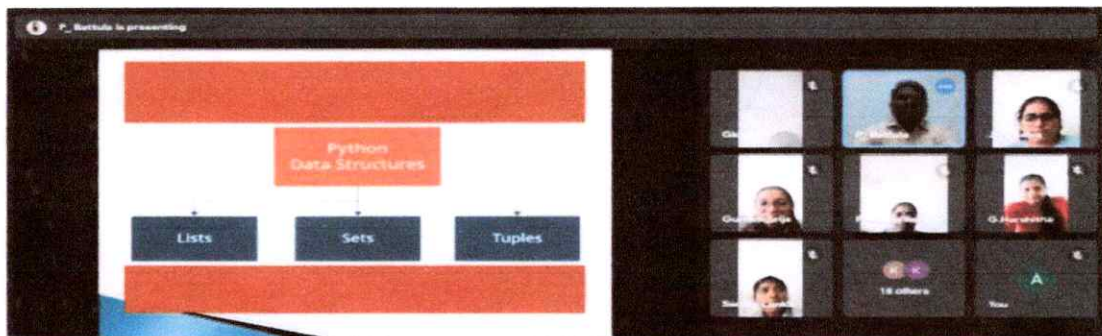
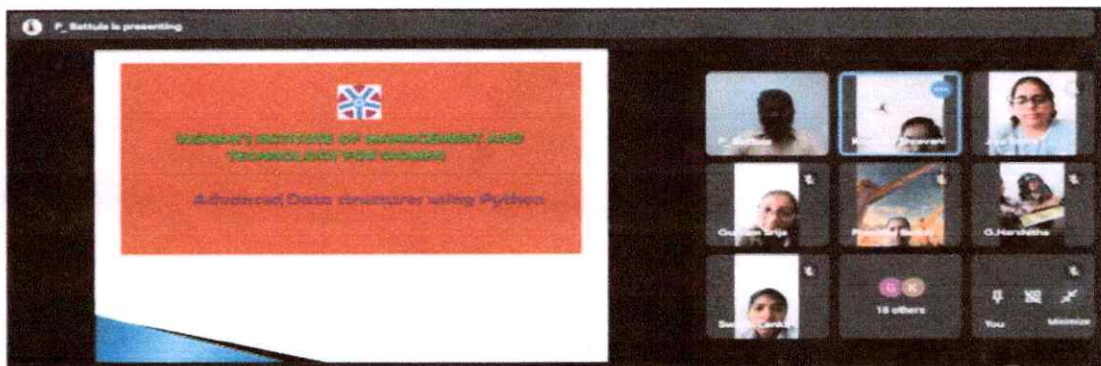
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Course Outcomes:

COs	At the end of the course, students will have the ability to:	Pos Mapped	Strength of mapping
CO1	Examine Python syntax and semantics and apply Python flow control and functions.	PO1,P02	2
CO2	Create, run and manipulate Python Programs using core data structures like Lists	P03,P05	4
CO3	Apply Dictionaries and use Regular Expressions.	PO1,P02	3
CO4	Interpret the concepts of Object-Oriented Programming as used in Python.	PO3,P04	3
CO5	Ability to have knowledge of tree and graphs concepts.	P02	4



Mr. B. Phijik instructs students in a value-added course on advanced data structures using Python.

B. Phijik
COORDINATOR

S. Anand
HOD
Head of The Department
Computer Science and Engineering
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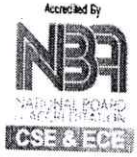


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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

VMTW/CSE/AOC/2020-21/II/03

15-03-2021

CIRCULAR

This is to inform all the IV-II B. Tech CSE college students that there will be an Addon course training program on "Full stack web development" from 22-03-2021 to 27-03-2021. All college students are invited to participate in this course. The collaborating college students could be venerated with certificate of completion. This program is scheduled in on-line mode. Students are suggested to register the course.


HOD

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ABOUT THE COURSE

Full-stack development is the process of designing, creating, testing, and deploying a complete web application from start to finish. It involves working with various technologies and tools, including front-end web development, back-end web development, and database development. Full Stack Development refers to the development of the front-end and back-end of a website. A full-stack developer is one who has good knowledge of front-end (HTML, CSS, and JavaScript) along with frameworks, and back-end (a programming language, APIs, NodeJS) integrating with databases (Oracle, MongoDB, and SQL). The front end is the UI (User Interface) part of the application, the back end takes care of the data management and servers. In this course, you will master skills like Java, Data Structures, HTML, CSS, React, Redux, Express, NodeJS, MongoDB. The advantage of being a full-stack web developer is, can master all the techniques involved in a development project, make a prototype very rapidly, provide help to all the team members, reduce the cost of the project and better understand all aspects of new and upcoming technologies.

COURSE OBJECTIVES

Students should be able to Use their learned skills, knowledge and abilities to develop web sites for the internet. Apply basic design principles to present ideas, information, products, and services on websites. Apply basic programming principles to the construction of websites. Effectively manage website projects using available resources. Demonstrate communication skills, service management skills, and presentation skills. Apply employability skills including fundamental skills, personal management skills, and teamwork skills. Design user interactions on web pages. Develop back end website applications. Create servers and databases for functionality. Develop adaptive content for multiple devices (cell phone, tablets, etc.) Ensure cross-platform optimization for mobile phones. Ensure responsiveness

applications. Work alongside graphic designers web design features. Manage a project from conception to finished product. Design and develop Application Programming Interfaces (APIs). Meet both technical and consumer needs for a web development project. Learn to research new methods of development in web applications and programming languages.

EXPECTED OUTCOMES

Structure and implement HTML/CSS, apply intermediate and advanced web development practices, implement basic JavaScript, create visualizations in accordance with UI/UX theories, Develop a fully functioning website and deploy on a web server, Find and use code packages based on their documentation to produce working results in a project. Create web pages that function using external data, Architect solutions to programming problems by combining visual components and classes, Develop JavaScript applications that transition between states. Identify mobile strategies and design for multiple operating systems. Distinguishing trends in multi-device implementation. Create visualizations in accordance with UI/UX theories. Derive information from data and implement data into applications.



Resource Person:

Dr. C. Srinivass Kumar,
Professor,
Department of CSE.

Co-ordinator:

Mr. S. Santhosh Kumar,
Assistant Professor,
Department of CSE,

Contact No: +91 8008498015

LAST DATE FOR REGISTRATION: 19TH MARCH, 2021



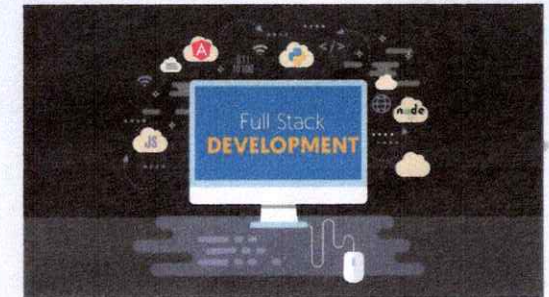
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ADD-ON COURSE ON
"FULL-STACK
WEB DEVELOPMENT"
22ND TO 27TH MAR, 2021

Duration of the Course : **36 Hrs**

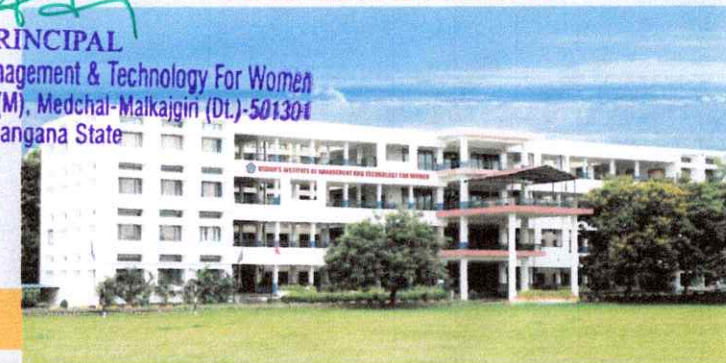
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ORGANIZED BY:

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING


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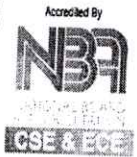
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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Addon Course Syllabus: Full stack web development

Course objectives:

1. To introduce the fundamentals of Internet, and the principles of web design.
2. To construct basic websites using HTML and Cascading Style Sheets.
3. To develop modern interactive web applications using PHP, XML and MySQL.
4. To Structure and implement HTML/CSS.
5. To Apply intermediate and advanced web development practices.

Module- I: Introduction to HTML, Browsers and HTML, Editor's Offline and Online. Tags, Attribute and Elements, Doctype Element, Comments, Headings, Paragraphs, and Formatting Text, Lists and Links, Images and Tables.

Module - II: Introduction CSS, Applying CSS to HTML, Selectors, Properties and Values, CSS Colors and Backgrounds, CSS Box Model, CSS Margins, Padding, and Borders, CSS Text and Font Properties.

Module -III: Applying JavaScript (internal and external), Understanding JS Syntax, Variables and Operators .Data Types and Num Type Conversion, Math and String Manipulation, Objects and Arrays, Date and Time, Conditional Statements, Switch Case, Looping in JS.

Module -IV: Templating using JSX, Components. State and Props. Lifecycle of Components, Rendering List and Portals, Error Handling. Routers.

Module -V: Node js Overview, Node js - Basics and Setup, Node js Console, Node js Command Utilities, Node js Modules.

Text Book

1. The Full Stack Developer:Essential Guide to the Everyday Skills Expected of a Modern Full Stack Web Developer by Chris Northwood (Author)

Santosh Kumar
COORDINATOR



S. Arun
HOD

Head of The Department
Computer Science and Engineering

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

DAY WISE SCHEDULE SHEET

Addon Course Name: Full stack web development

DAY	Topic	Timings	Duration
22-03-2021	Introduction to HTML, Browsers and HTML, Editor's Offline and Online. Tags, Attribute and Elements, Doc type Element, Comments, Headings, Paragraphs, and Formatting Text, Lists and Links, Images and Tables.	09:00 am to 03:30 pm	6 hrs
23-03-2021	Introduction CSS, Applying CSS to HTML, Selectors, Properties and Values, CSS Colors and Backgrounds, CSS Box Model, CSS Margins, Padding, and Borders, CSS Text and Font Properties.	09:00 am to 03:30 pm	6 hrs
24-03-2021	Applying JavaScript (internal and external), Understanding JS Syntax, Variables and Operators, Data Types and Num Type Conversion, Math and String Manipulation, Objects and Arrays, Date and Time, Conditional Statements, Switch Case, Looping in JS.	09:00 am to 03:30 pm	6 hrs
25-03-2021	Templating using JSX, Components, State and Props, Lifecycle of Components.	09:00 am to 03:30 pm	6 hrs
26-03-2021	Node js Overview, Node js - Basics and Setup, Node js Console, Node js Command Utilities, Node js Modules.	09:00 am to 03:30 pm	6 hrs
27-03-2021	Rendering List and Portals, Error Handling, Routers, Redux and Saga, Immutable.js, Lab practice.	09:00 am to 03:30 pm	6 hrs
Total 36 hours			

Santosh Kumar
COORDINATOR

S. Arun
HOD

Head of The Department
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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Date: 29-03-2021

Addon course Report

Value Added Course: Full stack web development

Day/Duration: 22-03-2021 to 27-03-2021 6(Days) - 36Hrs

Time: 09:00am to 03:30pm

Resource Person: Dr.C. Srinivasa Kumar, Professor, Dept of CSE.

Name of the Coordinator: Mr.S.Santhosh Kumar, Assistant Professor, Dept of CSE.

Number of the Participants: 75

Topics covered: The following topics covered in this program

- Introduction to HTML, Browsers and HTML, Editor's Offline and Online. Tags, Attribute and Elements, Doctype Element, Comments, Properties and Values, CSS Colors and Backgrounds, CSS Box Model, CSS Margins, Padding.
- Applying JavaScript (internal and external), Understanding JS Syntax, Variables and Operators, Data Types and Num Type Conversion, Math and String Manipulation, Objects and Arrays.
- Components, State and Props, Lifecycle of Components, Rendering List and Portals, Error Handling, Routers, Redux and Redux Saga, Immutable.js.

Course Outcomes:

COs	At the end of the course, students will have the ability to:	Pos Mapped	Strength of mapping
CO1	Develop web pages using the HTML and CSS features with different layouts as per need of applications.	PO1,PO2	2
CO2	Use the JavaScript to develop the dynamic web pages.	PO3,PO5	4
CO3	Construct simple web pages in PHP and to represent data in XML format.	PO1,PO2	3



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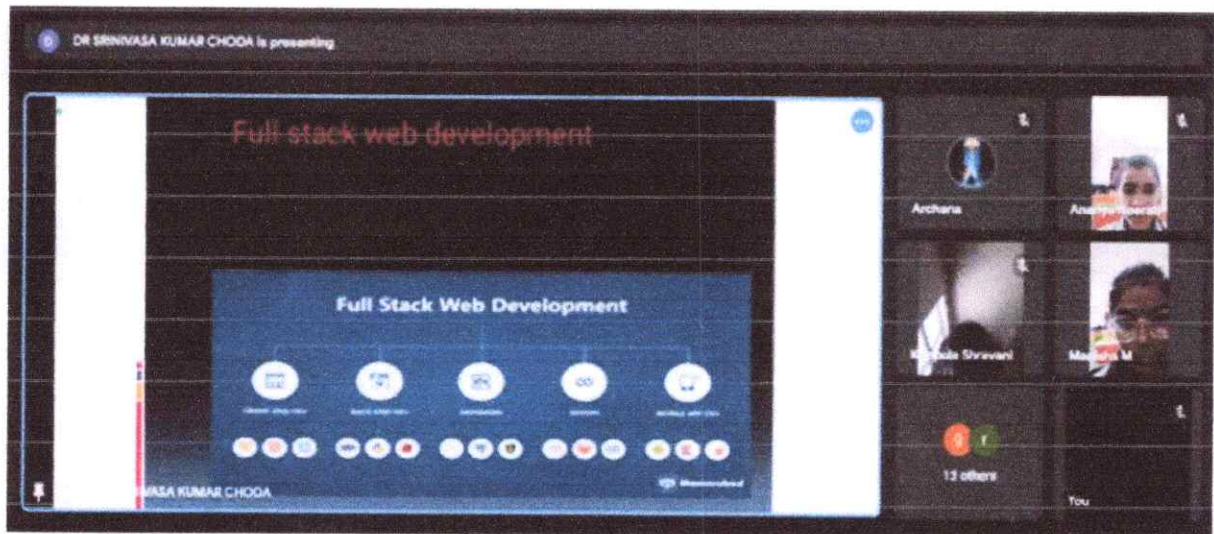
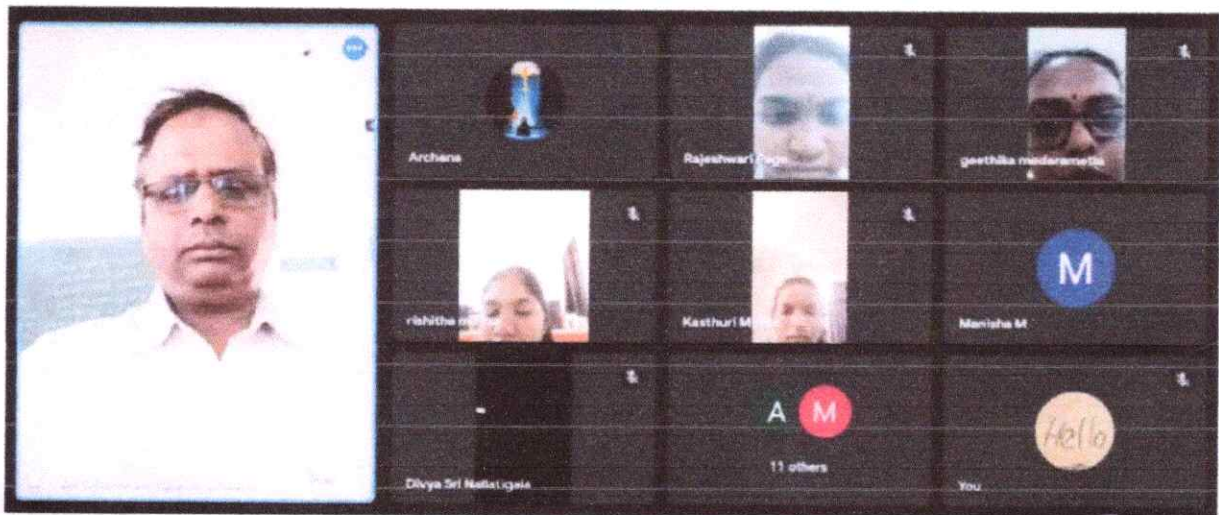


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CO4	Develop JavaScript applications that transition between states.	PO3,PO4	3
CO5	Create webpages that function using external data.	P03	4



Add-on course training sessions on "Full stack web development" by Dr.C.Srinivasa Kumar using online mode

Santosh Kumar
COORDINATOR

S. Arun
HOD



Head of The Department
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DEPARTMENT OF INFORMATION TECHNOLOGY

VMTW/IT/AOC/CIR/2020-21/I/1

Date: 19.08.2020

CIRCULAR

This is to inform an exciting opportunity to enhance your knowledge and skills in the field of Information Technology. The Department of IT at VMTW is organizing an Add-on Course on "COMPUTATIONAL GEOMETRY IN A DATA STRUCTURES" exclusively for the II-I B. Tech., IT students.

The department advisory committee has identified Mrs. A. Eenaja, Assistant Professor, Department of CSE, Holy Mary Institute of Technology & Science, Kondapur, the resource person for this course. We are delighted to inform you that Mrs. A. Eenaja has accepted our invitation to take the class for a duration of 30 days, providing you with an extensive and comprehensive learning experience and the proposed schedule from 26.08.2020 to 11.11.2020. The participating students will be honored with certificates of participation. During the course you will be encouraged to interact with the speaker and the other participants through case study discussions. This course is scheduled in online mode through Google Meet. So, interested students can fill out the Google form link provided in the brochure to register.

HOD

Head of the Department
Information Technology

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II- B. Tech., Students

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ABOUT THE COURSE

Computational Geometry is a field of computer science that focuses on the study of algorithms for solving geometric problems. It involves designing, analyzing, and implementing algorithms for processing and analyzing geometric data. Some common applications of computational geometry include computer graphics, robotics, geographic information systems (GIS), and computer-aided design (CAD).

COURSE OBJECTIVES

The objectives of a Computational Geometry for Data Structures Add-On course may include:

1. To introduce students to the fundamentals of computational geometry and its applications in computer science and engineering.
2. To provide students with an understanding of the mathematical foundations of geometric algorithms and data structures.
3. To develop students' ability to design, analyze, and implement algorithms for processing and analyzing geometric data, using data structures such as segment trees and priority search trees.
4. To enhance students' proficiency in using data structures to solve real-world problems in computer science and engineering, such as finding the convex hull of a set of points, constructing Voronoi diagrams, and finding the intersection of geometric objects.
5. To improve students' problem-solving skills, including their ability to think critically and solve complex problems both independently and as part of a team.

EXPECTED OUTCOMES

1. Gain an understanding of the fundamentals of computational geometry and its applications in computer science and engineering.
2. Learn to design, analyze, and implement algorithms for processing and analyzing geometric data, using data structures such as segment trees and priority search trees.
3. Develop proficiency in using data structures to solve real-world problems in computer science and engineering, such as finding the convex hull of a set of points, constructing Voronoi diagrams, and finding the intersection of geometric objects.
4. Acquire skills in mathematical reasoning, algorithm design, and programming, which are valuable for a wide range of careers in computer science and software engineering.
5. Enhance their ability to think critically and solve complex problems independently and as part of a team.
6. Develop an appreciation for the importance of computational geometry and its role in solving real-world problems in computer science and engineering.
7. By meeting these expectations, students who complete the Computational Geometry for Data Structures Add-On course will have a strong foundation in the field of computational geometry and be well-prepared for further study and careers in computer science and engineering.

Resource Person:

Mrs. A. Eenaja,
Assistant Professor,

Holy Mary Institute of Technology & Science,
Hyderabad.

Coordinator:

M. H. Helini,
Assistant Professor, Dept. of IT,
Contact No: 91 99089 85556

Students are instructed to register the given below link:

https://docs.google.com/forms/d/e/1FAIpQLSfytnqDV5yZl6CpyM0SCURt2epvIVbzWLiK70_oeJd6NukYeg/viewform

Class starts from **26.08.2020** to **11.11.2020** at **3 PM – 4 PM.**

Google Meet Link: <https://meet.google.com/www-bmcp-ggi>

LAST DATE FOR REGISTRATION: 19TH AUG, 2020

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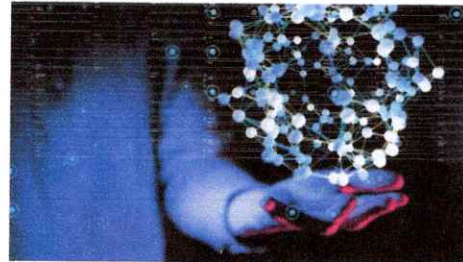
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ONLINE VALUE ADDED COURSE ON "COMPUTATIONAL GEOMETRY IN DATA STRUCTURES"

26TH AUG TO 11TH NOV, 2020

DURATION OF THE COURSE: **30 HRS**

ORGANIZED BY:

**DEPARTMENT OF
INFORMATION TECHNOLOGY**





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DEPARTMENT OF INFORMATION TECHNOLOGY

ADD ON COURSE SYLLABUS: COMPUTATIONAL GEOMETRY IN A DATA STRUCTURES

Academic Year: 2020-21

B. Tech. II-I SEM

SYLLABUS

Course Objectives:

- 1 Understand the fundamental concepts of computational geometry and its applications.
- 2 Acquire knowledge of basic geometric primitives and operations.
- 3 Develop an understanding of planar point location and line segment intersection algorithms.
- 4 Gain a comprehensive understanding of convex hulls, including their properties and applications.
- 5 Familiarize yourself with various convex hull algorithms, such as gift wrapping (Jarvis march), Graham scan, and Quickhull.

Course Outcome:

By the end of this course, students will be able to:

- 1 Understand the fundamental concepts and principles of computational geometry.
- 2 Apply basic geometric primitives and operations to solve computational geometry problems.
- 3 Analyze and compare different algorithms for solving convex hull problems.
- 4 Implement and evaluate various triangulation algorithms.
- 5 Construct and analyze Voronoi diagrams using Fortune's algorithm.

Unit 1: Introduction to Computational Geometry- Overview of computational geometry and its applications - Basic geometric primitives and operations - Planar point location and line segment intersection algorithms.

Unit 2: Convex Hull Algorithms - Introduction to convex hull and its properties - Gift wrapping (Jarvis march) algorithm - Graham scan algorithm Quickhull algorithm - Comparison and analysis of convex hull algorithms.



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Unit 3: Triangulation Algorithms - Delaunay triangulation - Ear clipping method
Incremental and divide-and-conquer triangulation algorithms - Delaunay refinement
algorithms - Applications of triangulation in computational geometry.

Unit 4: Voronoi Diagrams- Definition and properties of Voronoi diagrams -Fortune's
algorithm for constructing Voronoi diagrams - Dual relationship between Voronoi diagrams
and Delaunay triangulations - Applications of Voronoi diagrams in spatial analysis and
optimization problems.

Unit 5: Range Searching and Intersection Problems- Introduction to range searching
problems - Range tree and kd-tree data structures - Line segment intersection algorithms
Intersection of geometric objects (circles, polygons) - Applications of range searching and
intersection problems.

References:

1. Computational Geometry: Algorithms and Applications by Mark de Berg, Otfried Cheong, Marc van Kreveld, and Mark Overmars.
2. Computational Geometry: An Introduction by Franco P. Preparata and Michael Ian Shamos.
3. Computational Geometry in C by Joseph O'Rourke.


COORDINATOR




HOB

Head of the Department
Information Technology
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DEPARTMENT OF INFORMATION TECHNOLOGY

ADD ON COURSE NAME: COMPUTATIONAL GEOMETRY IN A DATA STRUCTURES

Academic Year: 2020-21

Date: 19.08.2020

B. Tech. II-I SEM

DAY WISE SCHEDULE SHEET

Google Meet Link: <https://meet.google.com/www-bmcp-ggi>

Sl.	DAY	Topic	Timings	Duration
1	26.08.2020	Overview of computational	4.30 p.m. to 5.30 p.m.	1 hour
2	01.09.2020	Applications of computational	4.30 p.m. to 5.30 p.m.	1 hour
3	02.09.2020	Geometric primitives and	4.30 p.m. to 5.30 p.m.	1 hour
4	03.09.2020	Planar point location algorithms	4.30 p.m. to 5.30 p.m.	1 hour
5	07.09.2020	Line segment intersection	4.30 p.m. to 5.30 p.m.	1 hour
6	10.09.2020	Introduction to convex hull	4.30 p.m. to 5.30 p.m.	1 hour
7	11.09.2020	Properties of convex hull	4.30 p.m. to 5.30 p.m.	1 hour
8	14.09.2020	Gift wrapping (Jarvis march)	4.30 p.m. to 5.30 p.m.	1 hour
9	16.09.2020	Graham scan algorithm	4.30 p.m. to 5.30 p.m.	1 hour
10	18.09.2020	Quick hull algorithm	4.30 p.m. to 5.30 p.m.	1 hour
11	21.09.2020	Comparison and analysis of	4.30 p.m. to 5.30 p.m.	1 hour
12	22.09.2020	Delaunay triangulation	4.30 p.m. to 5.30 p.m.	1 hour
13	24.09.2020	Ear clipping method	4.30 p.m. to 5.30 p.m.	1 hour
14	28.09.2020	Incremental triangulation	4.30 p.m. to 5.30 p.m.	1 hour
15	30.09.2020	Divide-and-conquer triangulation	4.30 p.m. to 5.30 p.m.	1 hour
16	01.10.2020	Delaunay refinement algorithms	4.30 p.m. to 5.30 p.m.	1 hour
17	05.10.2020	Applications of triangulation in	4.30 p.m. to 5.30 p.m.	1 hour
18	07.10.2020	Voronoi diagrams	4.30 p.m. to 5.30 p.m.	1 hour
19	09.10.2020	Definition and properties of	4.30 p.m. to 5.30 p.m.	1 hour
20	12.10.2020	Fortune's algorithm for	4.30 p.m. to 5.30 p.m.	1 hour
21	13.10.2020	Dual relationship between Voronoi	4.30 p.m. to 5.30 p.m.	1 hour
22	14.10.2020	Applications of Voronoi diagrams	4.30 p.m. to 5.30 p.m.	1 hour
23	16.10.2020	Range searching problems	4.30 p.m. to 5.30 p.m.	1 hour
24	19.10.2020	Range tree data structure	4.30 p.m. to 5.30 p.m.	1 hour
25	21.10.2020	kd-tree data structure	4.30 p.m. to 5.30 p.m.	1 hour
26	23.10.2020	Line segment intersection	4.30 p.m. to 5.30 p.m.	1 hour
27	26.10.2020	Intersection of geometric objects	4.30 p.m. to 5.30 p.m.	1 hour
28	28.10.2020	Applications of range searching	4.30 p.m. to 5.30 p.m.	1 hour
29	03.11.2020	Triangulation-based surface	4.30 p.m. to 5.30 p.m.	1 hour
30	11.11.2020	Spatial indexing techniques for geometric data	4.30 p.m. to 5.30 p.m.	1 hour
			Total	30 hours

COORDINATOR



HOD

Head of the Department
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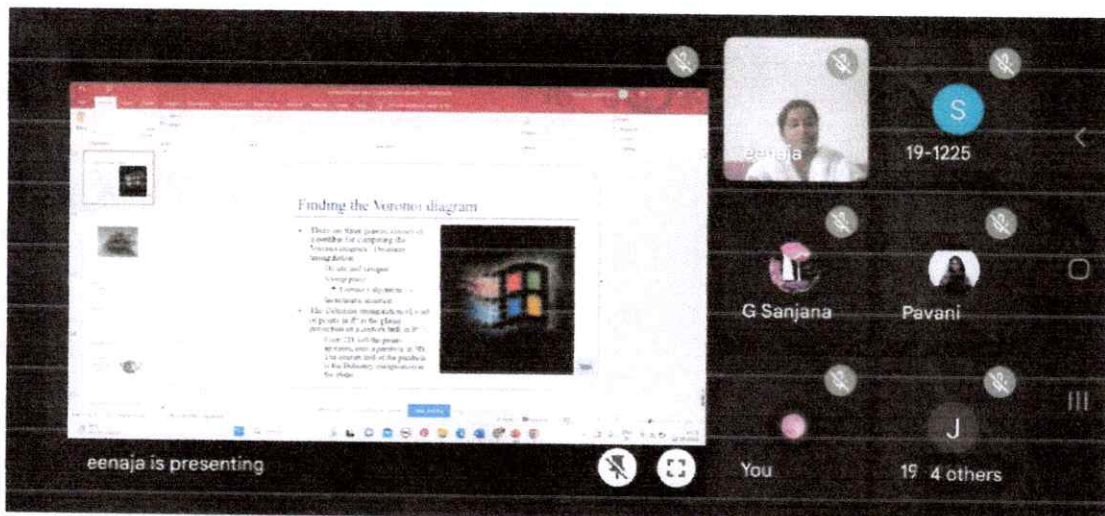
DEPARTMENT OF INFORMATION TECHNOLOGY

Date: 11.11.2020

PROGRAM REPORT

The **COMPUTATIONAL GEOMETRY IN A DATA STRUCTURE**, add-on course was conducted over a period of 30 Classes, with one-hour sessions held on 26.08.2020 TO 11.11.2020 from 4:30 p.m. to 5:30 p.m. The course was facilitated by **Mrs. Eenaja**, Assistant Professor, Department of CSE, Holy Mary Institute of Technology & Science, Kondapur.

Mrs. K. Helini, an assistant professor in the Department of Information Technology, served as the coordinator for the course.



The course aimed to provide students with a comprehensive understanding of fundamental concepts and techniques in computational geometry and their practical applications in solving real-world problems. The course had 35 students who completed it.

Topics covered: The following topics are covered in this program.

1. Overview of computational geometry
2. Introduction to convex hull
3. Delaunay triangulation
4. Voronoi diagrams
5. Range searching problems.



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CO's	At the end of the course, students will have the ability to:	PO's Mapped	Strength of mapping
CO1	Understand fundamental concepts and techniques in computational geometry	PO1, PO2	1
CO2	Apply computational geometry techniques to solve real-world problems.	PO2, PO3	3
CO3	Analyze and compare different algorithms for solving convex hull problems.	PO2, PO6	4
CO4	Implement and evaluate various triangulation algorithms	PO6, PO5	5
CO5	Construct and analyze Voronoi diagrams using Fortune's algorithm.	PO2, PO4	3

The assessment procedure for the course involved conducting online assessments consisting of multiple-choice and fill-in-the-blanks questions.

Overall, the Computational Geometry in a Data Structure add-on course aimed to equip students with the necessary knowledge and skills to apply computational geometry techniques in solving real-world problems, thereby enhancing their problem-solving abilities in the field of computer science and engineering.


COORDINATOR




HOD

Head of the Department
Information Technology
Vignans Institute of Management & Technology For Women
Kondapur (V), Ghatkesar (M) Medchal-Malkajgiri (Dt.)-501301


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DEPARTMENT OF INFORMATION TECHNOLOGY

VMTW/IT/AOC/CIR/2020-21/II/2

Date: 24.03.2021

CIRCULAR

This is to inform an exciting opportunity to enhance your knowledge and skills in the field of Information Technology. The Department of IT at VMTW is organizing an Add-on Course on "ADVANCED JAVA REFLECTION" exclusively for the II-II B. Tech., IT students. The Department advisory committee has been identified **Mrs. B. Sangeetha**, Java Developer & Data Analyst, ValueLabs LLP, Hitech Cit, Hyderabad as the resource person for this course. We are delighted to inform you that **Mrs. B. Sangeetha** has accepted our invitation to take the class for a duration of 30 days, providing you with extensive and comprehensive learning experience and the proposed schedule from 29.03.2021 to 21.05.2021. The participating students will be honored with certificates of participation. During the course you will be encouraged to interact with the speaker and the other participants through the case study discussions. This course is scheduled in online mode through Google Meet. So, interested students can fill out the Google form link provided in the brochure to register.

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Copy to

The Principal, for kind information

IQAC

Notice board

II- B. Tech., Students

Dept. file



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ABOUT THE COURSE

The "Advance Java Reflection for Java" course is a technical course that is designed for 2nd year 2nd semester IT students. This course aims to provide students with a comprehensive understanding of the Java Reflection API, which is an advanced feature of the Java programming language.

The course is likely to cover topics such as:

1. Introduction to Java Reflection: What is Java Reflection and how it works in the Java language.
2. Class Inspection: How to inspect the structure of a Java class using the Reflection API.
3. Method Invocation: How to dynamically invoke methods on a Java object using Reflection.
4. Field Access: How to access and modify the fields of a Java object using Reflection.

COURSE OBJECTIVES

The objectives of the "Advance Java Reflection for Java" course for 2nd year 2nd semester IT students can include the following:

1. To provide a comprehensive understanding of the Java Reflection API and its capabilities.
2. To equip students with the skills to dynamically inspect, modify and extend the behavior of Java objects at runtime.
3. To enable students to use the Java Reflection API to create dynamic and flexible Java applications.

EXPECTED OUTCOMES

The expected outcomes of the "Advance Java Reflection for Java" course for 2nd year 2nd semester IT students can include the following:

1. Improved knowledge and understanding of the Java Reflection API and its capabilities.
2. Enhanced ability to inspect, modify and extend the behavior of Java objects at runtime using the Reflection API.
3. Development of practical skills in using the Java Reflection API to create dynamic and flexible Java applications.
4. Increased confidence and competence in using Java Reflection to solve real-world programming problems.
5. Improved problem-solving skills through hands-on experience in working with the Reflection API.
6. Enhanced employability and competitiveness in the IT industry through advanced knowledge and skills in Java programming.
7. Increased creativity and critical thinking skills through exploration of new and innovative uses for Java Reflection.



Resource Person:

Mrs. B. Sangeetha,

Java Developer & Data Analyst

ValueLabs LLP, Hyderabad

Coordinator:

Mr. K. Narath Reddy,

Assistant Professor, Dept. of IT,

Contact No. -91 89854 41753

Students are instructed to register the given below link:

https://docs.google.com/forms/d/e/1FAIpQLScp40dkefdDEG4udW1LY9BxUYUMSIr0ysjQdFKik_2_iiRsRQ/viewform

Class starts from 29.03.2021 to 21.05.2021 at 3 PM – 4 PM.

Google Meet Link: <https://meet.google.com/www-bmcp-ggi>

LAST DATE FOR REGISTRATION: 25TH MAR, 2021

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ONLINE ADD-ON COURSE ON "ADVANCED JAVA REFLECTION" 29TH MAR TO 21ST MAY, 2021

DURATION OF THE COURSE: **30 HRS**

ORGANIZED BY:

**DEPARTMENT OF
INFORMATION TECHNOLOGY**





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DEPARTMENT OF INFORMATION TECHNOLOGY ADD ON COURSE SYLLABUS: ADVANCED JAVA REFLECTION

Academic Year: 2020-21

B. Tech. II-II SEM SYLLABUS

Course Objectives:

1. Gain a thorough understanding of Reflection in Java and its significance in software development.
2. Familiarize yourself with the Reflection API and its key components.
3. Understand the benefits and use cases of Reflection in various software development scenarios.
4. Learn how to retrieve class information using Reflection, including examining class modifiers and annotations.
5. Acquire the skills to access fields and methods dynamically using Reflection.

Course Outcome:

By the end of this course, students will be able to:

1. Demonstrate a comprehensive understanding of Reflection in Java and its role in software development.
2. Utilize the Reflection API to retrieve class information, examine class modifiers, and interpret annotations.
3. Access fields and methods dynamically using Reflection and modify field values at runtime.
4. Invoke methods dynamically using Reflection and handle exceptions in reflective method invocation.
5. Apply Reflection to work with constructors and instantiate objects dynamically.

Unit 1: Introduction to Reflection- Overview of Reflection in Java, Understanding the Reflection API, Benefits and use cases of Reflection, Retrieving Class Information using Reflection, Examining Class Modifiers and Annotations.

Unit 2: Accessing Fields and Methods, Accessing Fields using Reflection, Modifying Field Values using Reflection, Invoking Methods using Reflection, Handling Exceptions in Reflective Method Invocation, Working with Constructors and Instantiating Objects using Reflection.




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Unit 3: Dynamic Proxy and Invocation Handlers, Introduction to Dynamic Proxy, Creating Dynamic Proxies with Reflection, Implementing Invocation Handlers, Interacting with Dynamic Proxies, Proxying Interfaces and Classes using Reflection,

Unit 4: Manipulating Annotations, Overview of Annotations in Java, Accessing and Interpreting Annotations using Reflection, Modifying Annotations at Runtime, Creating Custom Annotations with Reflection, Processing Annotations using Reflection.

Unit 5: Advanced Reflection Techniques, Working with Generics and Type Information using Reflection, Dynamic Loading and Reloading of Classes, Reflective Manipulation of Enums, Controlling Security and Access with Reflection, Best Practices and Limitations of Reflection.

References:

1. "Java Reflection in Action" by Ira R. Forman and Nate Forman
2. "Java Reflection: In-Depth Guide with Examples" by Rahul Malik
3. "Java Reflection in Action: Understanding and Using Reflection" by Srijan Mitra and Koushik Kothagal


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DEPARTMENT OF INFORMATION TECHNOLOGY

ADD ON COURSE NAME: ADVANCED JAVA REFLECTION

Academic Year: 2020-21

Date: 24.03.2021

B. Tech. II-II SEM

DAY WISE SCHEDULE SHEET

Venue: meet.google.com/nyc-ytne-wsi

Sl.	DAY	Topic	Timings	Duration
1	29.03.2021	Introduction to Reflection	4.30 p.m. to 5.30 p.m.	1 hour
2	30.03.2021	Reflection API and its	4.30 p.m. to 5.30 p.m.	1 hour
3	31.03.2021	Benefits and use cases of	4.30 p.m. to 5.30 p.m.	1 hour
4	06.04.2021	Retrieving Class Information	4.30 p.m. to 5.30 p.m.	1 hour
5	07.04.2021	Examining Class Modifiers and	4.30 p.m. to 5.30 p.m.	1 hour
6	08.04.2021	Accessing Fields using Reflection	4.30 p.m. to 5.30 p.m.	1 hour
7	09.04.2021	Modifying Field Values using	4.30 p.m. to 5.30 p.m.	1 hour
8	12.04.2021	Invoking Methods using	4.30 p.m. to 5.30 p.m.	1 hour
9	15.04.2021	Handling Exceptions in Reflective	4.30 p.m. to 5.30 p.m.	1 hour
10	16.04.2021	Working with Constructors and	4.30 p.m. to 5.30 p.m.	1 hour
11	19.04.2021	Introduction to Dynamic Proxy	4.30 p.m. to 5.30 p.m.	1 hour
12	20.04.2021	Creating Dynamic Proxies with	4.30 p.m. to 5.30 p.m.	1 hour
13	22.04.2021	Implementing Invocation	4.30 p.m. to 5.30 p.m.	1 hour
14	23.04.2021	Interacting with Dynamic Proxies	4.30 p.m. to 5.30 p.m.	1 hour
15	28.04.2021	Proxying Interfaces and Classes	4.30 p.m. to 5.30 p.m.	1 hour
16	29.04.2021	Overview of Annotations in Java	4.30 p.m. to 5.30 p.m.	1 hour
17	30.04.2021	Accessing and Interpreting	4.30 p.m. to 5.30 p.m.	1 hour
18	03.05.2021	Modifying Annotations at	4.30 p.m. to 5.30 p.m.	1 hour
19	04.05.2021	Creating Custom Annotations	4.30 p.m. to 5.30 p.m.	1 hour
20	05.05.2021	Processing Annotations using	4.30 p.m. to 5.30 p.m.	1 hour
21	06.05.2021	Working with Generics and Type	4.30 p.m. to 5.30 p.m.	1 hour
22	07.05.2021	Dynamic Loading and Reloading	4.30 p.m. to 5.30 p.m.	1 hour
23	10.05.2021	Reflective Manipulation of Enums	4.30 p.m. to 5.30 p.m.	1 hour
24	11.05.2021	Controlling Security and Access	4.30 p.m. to 5.30 p.m.	1 hour
25	12.05.2021	Best Practices for using Reflection	4.30 p.m. to 5.30 p.m.	1 hour
26	13.05.2021	Limitations and considerations of	4.30 p.m. to 5.30 p.m.	1 hour
27	14.05.2021	Reflection-based Debugging	4.30 p.m. to 5.30 p.m.	1 hour
28	17.05.2021	Reflection in Unit Testing	4.30 p.m. to 5.30 p.m.	1 hour
29	18.05.2021	Reflection in Frameworks and	4.30 p.m. to 5.30 p.m.	1 hour
30	21.05.2021	Performance Optimization	4.30 p.m. to 5.30 p.m.	1 hour
Total – 30 hours				

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DEPARTMENT OF INFORMATION TECHNOLOGY

Date: 24.05.2021

PROGRAM REPORT

Name of the Add on Course: **ADVANCED JAVA REFLECTION**

Day/Duration: **30 days**

Time: **1 hour (4.30 p.m. to 5.30 p.m.)**

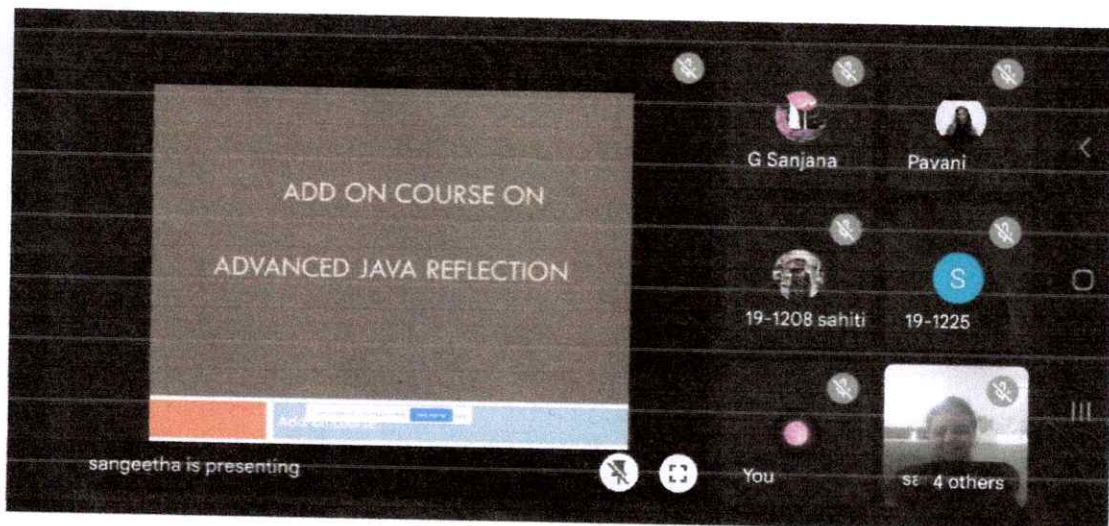
Resource Person: **Mrs. B. Sangeetha**
Java Developer & Data Analyst
ValueLabs LLP
Hitech City, Hyderabad

Name of the Coordinator: **Mr. K. Bharath Reddy**
Assistant Professor
Department of IT

Number of the Participants: **35 students**

Topics covered: The following topics are covered in this program.

- 1 Introduction to Reflection
- 2 Accessing Fields and Methods
- 3 Dynamic Proxy and Invocation Handlers
- 4 Manipulating Annotations
- 5 Advanced Reflection Techniques

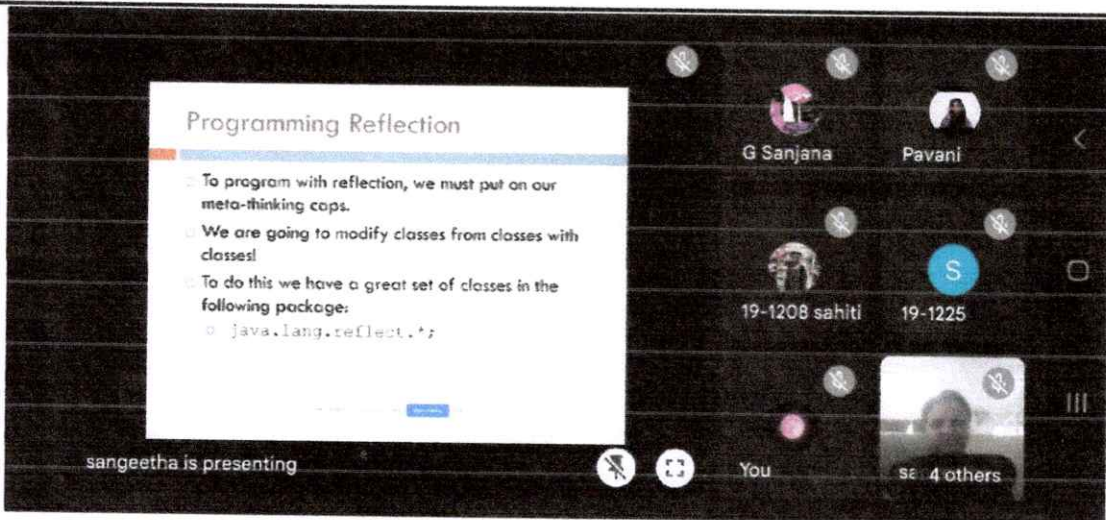


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Course Outcomes:

Cos	At the end of the course, students will have the ability to:	Pos Mapped	Strength of mapping
CO1	Develop advanced techniques and best practices for utilizing Reflection	PO2, PO3	4
CO2	Understand the fundamentals of Java Reflection	PO1, PO2	3
CO3	Access fields and methods dynamically using Reflection and modify field values at runtime.	PO2	1
CO4	Invoke methods dynamically using Reflection and handle exceptions in reflective method invocation.	PO6, PO7	5
CO5	Apply Reflection to work with constructors and instantiate objects dynamically.	PO3, PO2	4

Assessment Procedure: The assessment of the Add on course is conducted in Multiple Choice and Fill in the Blanks Questions through Online Mode.

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