

List of SDP Conducted in AY 2019-20:

1. Embedded System Design Using Arduino
2. Embedded system-Arm Mbed and Node MCU
3. FPGA design using VHDL
4. Introduction to Arduino, IoT and Interfacing using Simulator software
5. Machine Learning and Image Processing using Python
6. C, C++ and Java coding skills
7. Blockchain Technology
8. Network Security & Ethical Hacking
9. Ethical Hacking & Security
10. Hands on Training on Introduction to R
11. web technology
12. Datascience with R
13. Advance C
14. Advanced web technology
15. Software Design
16. Skill Development Training
17. Data Mining and Analytics
18. CCNA Routing and Switching
19. Heat Transfer and Fluid Flow Analysis using Ansys Fluent
20. Industrial drawing and modeling using AutoCAD and Solid works
21. Modeling Robot Kinematics using Python Programming
22. Universal Human Values

SIES Graduate School of Technology

Department of Electronics and Telecommunication
Hands on Training on

Workshop on Embedded System Design Using Arduino-
Uno

17th December 2019 To: 31st December 2019

10 AM to 4.00 PM

Who will be benefited?

1. Engineering branch students who are interested in microcontroller and embedded systems

Prerequisite

Background of Digital electronics

Objectives:

- ☐ To develop the background knowledge and core expertise of an embedded system design.
- ☐ Introduction to Arduino Board.
- ☐ To know the importance of different peripheral devices and their interfacing to microcontrollers.
- ☐ To know the sensor interfacing and its programming.
- ☐ To write C/C++ language programs for Arduino board for various applications.
- ☐ To know the working of different sensors and their use in an embedded systems

Outcomes:

Students will be able to design embedded systems based on microcontroller and arduino board.

By the end of the course, the learner can:

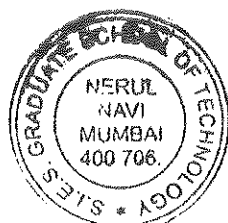
Design embedded systems based on microcontroller and arduino board.

Contact for Registration:

Prof. Vishal Gaikwad,
Mob. - 9665779359
Email ID : gaikwad.vishal@siesgst.ac.in

Note:

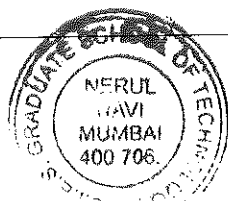
1. Workshop is free of cost for SIES GST students
2. Workshop is for all branches of engineering



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Sector-V, Nerul, Navi Mumbai-400706

Day wise Schedule of Workshop

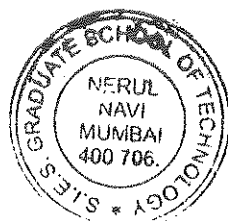
Day	Activity
Day 1 17/12/2019	➤ Introduction to Micro-controller and Microprocessor, I/O operations of micro-controller
Day 2 18/12/2019	➤ Types of microcontroller(MC) (8bit,16bit,32 bit) ➤ Concept of Compiler, Assembler,HEX file, Opcode and Machine code
Day 3 19/12/2019	➤ Introduction to Arduino Uno Board, Features and PIN description of board
Day 4 20/12/2019	➤ Simple LED blinking programming ➤ Introduction to Arduino IDE, Basic programming concepts of Arduino IDE.
Day 5 21/12/2019	➤ LDR, Accelerometer Sensor Interfacing and Programming
Day 6 23/12/2019	➤ Ultrasonic & MQ3 Sensor Interfacing and Programming
Day 7 24/12/2019	➤ PIR Sensor Interfacing and Programming ➤ DHT11 Sensor Interfacing and Programming
Day 8 26/12/2019	➤ Seven segment & 16*2 LCD Interfacing and Programming ➤ Displaying of sensor data on LCD Importing of program libraries from internet
Day 9 27/12/2019	➤ Bluetooth interfacing and its programming ➤ ESP8266 interfacing and data uploading on thingspeak



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Day 10 30/12/2019	➤ Mini project and related discussion
Day 11 31/12/2019	➤ Mini project and related discussion



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SIES Graduate School of Technology**Department of Electronics and Telecommunication****Presents****Internship on****Embedded Systems - ARM Mbed Platform and Node MCU****6th-20th December 2019, 9.30 AM to 4.00 PM**

There is difference between education and knowledge. Education provides learning. While knowledge translates that learning into a career that earns a living. But the truth is, our education system is largely structured around academic learning, leaving the task of turning it into a career to the individual. For the less-privileged though, the only barrier that stands between them and a technocrat is knowledge of practical aspects of technology. This course is meant to be a hands-on type course, giving students a chance to hear and read about embedded system topics, and then put those concepts to work by developing and debugging embedded system hardware and firmware.

**Objectives**

- i) Learn about Embedded systems and ARM Mbed platform
- ii) Interfacing various devices like 7 segment display, LCD display.
- iii) Interfacing various sensors like accelerometer, LDR, temperature sensor etc.
- iv) Learn basics of Node MCU and its interfacing with sensors and IOT application designing.

Course Contents

Module 1: Introduction to microprocessor and microcontroller, Introduction to Embedded systems, Introduction to ARM Mbed platform.

Module 2: Simple programs like LED blinking, use of BusOut and PwmOut function.

Module 3: Basics of 7 segment display and LCD and their interfacing with freedom board.

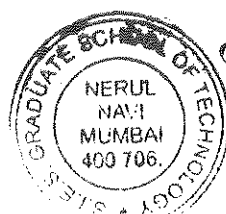
Module 4: Basics of accelerometer, LDR, potentiometer and its interfacing with freedom board.

Module 5: Basics of Node MCU, its interfacing with various Sensor, Designing of IOT applications based on Node MCU.

Faculties

Prof. Pushkar Sathe

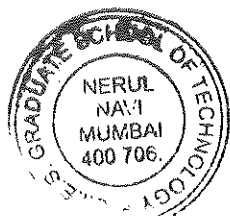
Prof. Vaishali Mangrulkar

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 Sri Chandrasekarendra Saraswathy Vidyapuram,
 Sector-7, ITD, Mumbai-400707

Day wise Schedule of Workshop

Day	Activity
Day 1 6/12/2019	Introduction to microcontroller and microprocessor
	Introduction to embedded system Programs of LED blink and Interfacing of sensors like LDR, potentiometer
Day 2 7/12/2019	Introduction to touch sensor and Programming of touch sensor
	Interfacing of seven segment display with freedom board. Interfacing of LCD with freedom board Basics and program of accelerometer.
Day 3 9/12/2019	Basics of Node MCU and types of different sensors
	Interfacing of sensor with Node MCU Control of device via we page
Day 4 10/12/2019	Basics of networking and basics of Thingspeak
	Uploading LDR sensor data on thingspeak cloud Uploading of DHT sensors data on cloud
Day 5 11/12/2019	Introduction to Blynk app. And installation of Blynk app
	Reception of notification on phone using blynk app. Applications using NodeMcU
Day 6 To Day 15 12/12/2019 To 20/12/2019	Mini projects : 1.Implementation of soil moisture monitoring 2.Implementation of weather station monitoring 3.Distance measurement using freedom board 4.Air mouse using freedom board 5.mplementation of liquid level monitoring 6.Home automation using IoT 7.Two digit adder subtractor using freedom board



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SIES Graduate School of Technology

Department of Electronics and Telecommunication
Hands on Training on
FPGA Design using
VHDL

10 – 27 December 2019, 10 AM to 4.00 PM

Who will be benefited?

1. Students who want to develop project in the domain of VLSI
2. Students who want to enroll for higher studies in VLSI
3. Students who want to join VLSI industry as Analog or digital engineer.

Prerequisite

Background of Digital and analog electronics
Basics of flip flop, counter.

Objectives:

- To bridge the gap between industry requirements and academic by providing project based internship using VHDL.
- To aware students with VHDL design

Outcomes:

By the end of the course, the learner can:

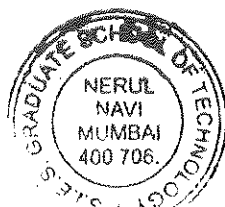
1. Implement combinational circuits using VHDL
2. Implement sequential circuits using VHDL
3. Design of Finite State Machine & its implementation on FPGA using VHDL.

Contact for Registration:

Prof. Pranavi Mhatre
Pranavi.mhatre@siesgst.ac.in
9870201503

Note:

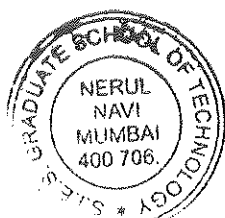
1. Workshop is free of cost for SIES GST students
2. Workshop is for all branches of engineering



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Day wise Schedule of Workshop

Day	Activity
Day 1 10/12/2019	<ul style="list-style-type: none"> ➤ Introduction to FPGA ➤ Basics of FPGA ➤ Basics of VHDL ➤ Programs on basic VHDL ➤ Program for different modelling style. <p>Interfacing with FPGA board and execution of programs</p>
Day 2 11/12/2019	<ul style="list-style-type: none"> ➤ Basics of combinational circuits ➤ Introduction to when else and with select loop ➤ Programs based on loop ➤ Programs for MUX, DEMUX, SSD ➤ Interfacing with FPGA board and execution of programs.
Day 3 12/12/2019	<ul style="list-style-type: none"> ➤ Basics of process ➤ Basics of Sequential circuits ➤ Introduction to if else and case select loop ➤ Basics of synchronous /asynchronous reset. ➤ Programs based on loop, synchronous /asynchronous reset ➤ Interfacing with FPGA board and execution of programs
Day 4 13/12/2019	<ul style="list-style-type: none"> ➤ Basics of counter ➤ Programs on MOD counter, UP-Down Counter. ➤ Interfacing with FPGA board and execution of programs
Day 5 16/12/2019	<ul style="list-style-type: none"> ➤ Introduction to FSM ➤ PROGRAM ON FSM ➤ Interfacing with FPGA board and execution of programs ➤ Mini project discussion
Discussion and Project Assignment	



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SIES Graduate School of Technology

Department of Electronics and Telecommunication

Presents

Training on

Introduction to Arduino, IoT and Interfacing using Simulator software

Duration 15 June 2020 To 26 June 2020

Skill Development Cell under the Department of Electronics and telecommunication, SIESGST organizing workshop to provide training by simulation combining theoretical and practical knowledge using simulator on Arduino board and IoT. This will provide simulation of Arduino board with different sensors, actuators and displays devices to fulfil the gap between academic and industry. Candidates will have the opportunity to gain practical knowledge using simulation. This course will help the candidates to improve the technical skills and give them a better understanding of an Arduino board and Internet of Things.

Objectives

- i) To gain knowledge of an Arduino board..
- ii) To know the importance of different peripheral devices and their interfacing to microcontrollers
- iii) To know the sensor interfacing and its programming.
- iv) To know the working of different sensors and their interfacing with Arduino board.
- v) To understand the basic concept of IoT and its implementation

Course Contents

Module 1: Introduction to microprocessor and microcontroller, microcontroller interfacing, introduction to Arduino uno, IDE

Module 2: Configuration of GPIO pins of Arduino as an input or output for interfacing of different devices. Introduction to simulator and interfacing of sensor with Arduino board

Module 3: Introduction to potentiometer, LDR sensors and its interfacing with Arduino. Implementation of program using simulator

Module 4: Introduction to ultrasonic sensor and PIR sensor and its interfacing with Arduino board. Implementation of program using simulator

Module 5: Introduction to IoT, and Designing of IOT applications using simulator.

Who Should Attend

Any student from FE, SE (EXTC/IT/CE/MECH/PPT)

Registration Fees

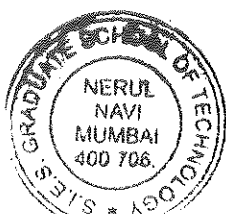
Course Fees: Free

Contact for Registration

Register here - <https://docs.google.com/forms/d/19LxlyCcBYHBbTP3yn8PRosMEgshpLXX-anfWqc4rj-0>
Prof. Vaishali Mangrulkar, Prof. Vishal Gaikwad, Prof. Pratibha Joshi

Mobile: 9930116119

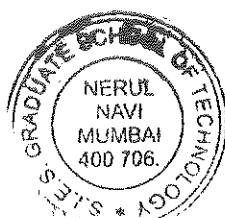
Mail Id: vaishali.mangrulkar@siesgst.ac.in



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Day wise schedule of workshop

Day	Activity
Day 1 15/6/2020	Introduction to Arduino Uno, Introduction to IDE
	Introduction to Tinkercad simulator and its demonstration
Day 2 16/6/2020	GPIO Pins of Arduino, Configuration of GPIO pins of Arduino as an input or output for interfacing of different devices, Configure GPIO to blink LED
	Simulation of program of LED Blink Screen reader support enabled.
Day 3 17/6/2020	Introduction to Arduino programming and basic commands
	Program for traffic light and its simulation
Day 4 18/6/2020	Ultrasonic sensor and PIR sensor
	Interfacing of ultrasonic sensor and simulation of program using ultrasonic sensor
Day 5 19/6/2020	Piezo sensor and Temperature sensor
	Interfacing of Temperature sensor and simulation of program using temperature sensor
Day 6 22/6/2020	Ambient light sensor, IR sensor
	Interfacing of IR sensor and simulation of program using IR sensor
Day 7 23/6/2020	Input and output components of Tinkercad
	Program to build application using sensors, input and output components
Day 8 24/6/2020	Introduction to packet tracer
	Implementation of small projects like basic switch set up, connection between different devices etc
Day 9 25/6/2020	Theory and Topology of wired and wireless Router using packet tracer
	Implementation of smart home using Cisco packet Tracer
Day 10 26/6/2020	Project: on simulation of fire sprinkler using smoke detection
	project: on simulation of Automate a web camera using motion sensor using wired and wireless connection



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SIES Graduate School of Technology

Department of Electronics and Telecommunication

Presents

12 days Hands on Training on

Machine learning and image processing using python

15/ 06 / 2020 to 27/06/2020

There is difference between education and knowledge. Education provides learning. While knowledge translates that learning into a career that earns a living. But the truth is, our education system is largely structured around academic learning, leaving the task of turning it into a career to the individual. For the less-privileged though, the only barrier that stands between them and a technocrat is knowledge of practical aspects of technology. This course is meant to be a hands-on type course, giving students a chance to learn python and its applications in image processing and Machine learning which is considered to be a current trend of technology.

Objectives

- i) Learn about Python language basics
- ii) Learns basics of image processing
- iii) Implement basic image processing using python
- iv) Learn concepts of machine learning
- v) Apply knowledge of python in machine learning

Course Contents

Module 1: Basics of python

Overview of python, python data types, builds in data structure, Lists, tuples, dictionaries, string built in methods.

Module 2: Applications in image processing

Histogram of image, splitting color image into RGB, histogram Equalization, edge detection using simple operators.

Module 3 : Applications in Machine learning

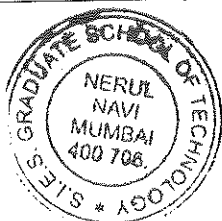
Introduction to machine learning, data manipulation and pre-processing, data visualization, linear and logistic regression, support vector machines, decision tree, classification using KNN

Who Should Attend

Any student from SE to BE (EXTC/IT/CE) - First come first serve

Link for Registration

https://docs.google.com/forms/d/e/1FAIpQLSdxXzeigY01YIZaw0kwexthk1Lcc2kZFzw_5HCkcm5zvDp3fA/viewform?usp=sf_link



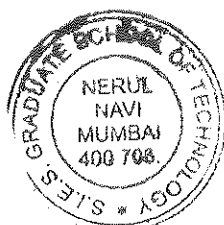
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Department of Electronics and Telecommunication

Event Report

Internship on Machine Learning & Image Processing using Python (15/6/2020 to 27/6/2020)

Event Information	
Event Type: SDP	
Event title: Embedded system – Machine Learning & Image Processing using Python	
Resource Person: Pushkar Sathe, Shyamala Mathi, Swati Rane, Kintu Patel	
Event date: From: 15/6/2020 To: 27/6/2020	
Organized for: Student	
Organized by: EXTC Department	
Target audience (branch & nos.): EXTC, ME, CE, IT, FE – 41 students	
Attachments: 1. Photographs (in JPEG/PNG)	
2. Attendance report	
3. Feedback	
4. Certificate	



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Event Description

Day_1 (15th June 2020):

- Introduction to Python, datatypes, Numpy
- Hands on the datatypes and Numpy

Day_2 (16th June 2020):

- Python for Data Science
- Pandas: Introduction to Pandas, Series,
- Data frames – Missing Data, Group by, merging, operations and Data i/p and o/p
- Hands on the above topics and Pandas Exercises

Day_3 (17th June 2020):

- Python for Data Visualization using Matplotlib and seaborn
- Hands on Data Visualization using Matplotlib and Seaborn. Exercises on the topics

Day_4 (18th June 2020):

- Introduction to digital image processing, image enhancement techniques
- Hands on image enhancement techniques using opencv

Day_5 (19th June 2020):

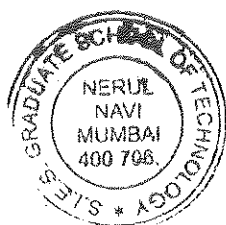
- Image segmentation, morphological processing
- Implementation of image segmentation and morphological processing techniques

Day_6 (20th June 2020):

- Image filtering, Image transform
- Implementation of filtering and transformation

Day_7 (21th June 2020):

- Basics of machine learning, simple linear regression
- Practical implementation and exercise problem of simple linear regression



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Day_8 (22nd June 2020):

- Multiple Linear Regression and Logistic Regression
- Practical Implementation and exercise problem

Day_9(23rd June 2020):

- Decision tree algorithm, support vector machine
- Practical Implementation and exercise problem

Day_10 (24th June 2020):

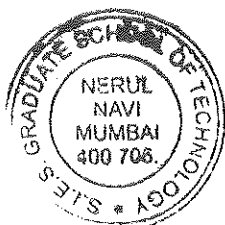
- Basic concepts of Naive Bayes
- Practical Implementation and exercise problem

Day_11(25th June 2020):

- K-means and KNN algorithms
- Practical implementation of the above mentioned topics and exercise problem

Day_12 (26th June 2020):

- Basics of neural network, types of neural network
- Practical implementation of image classifier model using neural network

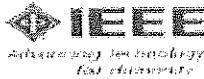


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SIES Graduate School of Technology

Department of Electronics and Telecommunication

Presents

Two Weeks Online Course and Hands on Training on C, C++ and Java coding skills

15th June – 26th June 2020, Navi Mumbai

There is a difference between the theoretical knowledge and coding skills be that matter for any programming language. Coding skills translates the theoretical knowledge based learning to solve live problems in the industry. To basically translates the class room learning into a career that earns a living. Our education system is largely structured around grooming of academic potentials; we have to groom ourselves after obtaining the academic skills for the live problems being faced by the industry. SIES Graduate School of Technology makes room for open technology and responds to market demands by its training program. EXTC, SIES Graduate School of Technology is helping students to get educated to obtain practical knowledge via hands on practice. This course will help the candidates to improve the skills required for jobs given to them by industry and provide a better understanding of some complex aspects of coding in C, C++ and Java.

Objectives

Learn how to program, troubleshoot and debug, using case studies as per the academic syllabi. Designs using simplified programming skills of case structure based and object oriented nature. A C, C++ and Java trained professionals is valued across different platforms of operating systems and the same skills can be used as the basic building blocks to learn and code in other programming languages.

Industry Skill: The training will bridge the gap between the academics and industry by providing solutions to case studies.

Affordability: The program is free of cost.

Course Contents

Module 1: Overview, Environment setup (installation), Token, Data types, Variables

Module 2: Constant and literals, Operators, Decision making Statements, Loops

Module 3: Functions, String and array

Module 4: Storage classes, Pointer, Inheritance

Module 5: Structures, file handling

Module 6: Basic concepts of Java programming

Module 7: OOPS and its applications in Java

Module 8: Arrays

Module 9: String Operations

Module 10: Inheritance

Module 11: GUI Programming – Case studies

Any student from FE AND SE (Electronics and Telecommunication) seeking a career in software industry which caters to various aspects of computers, telecommunication and hardware domain.

Registration Fees

Course Fee: Free of cost

(Cost of certificate will be applicable)

Contact for Registration

Prof. Sonal Jatkar,
Mobile: 9970286104

sonal.jatkar@siesgst.ac.in

Prof. Madhuri Kulkarni
Mobile: 9595008467

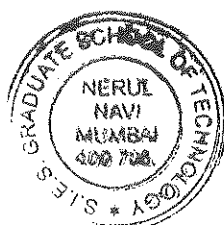
madhuri.kulkarni@siesgst.ac.in

Prof. Priyanka Kadam
Mobile: 7045410881

priyanka.kadam@siesgst.ac.in

REGISTRATION LINK:

https://docs.google.com/forms/d/e/1FAIpQLSdMD9eqzHdhzNp9hKNiIpgOyHqGRJNkCcpAOaEF8OXhSWjE0Q/viewform?usp=cf_link



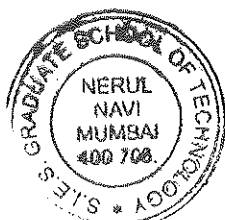
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Department of Electronics and Telecommunication
Event Report

Two Weeks Online Course and Hands on Training on C, C++ and Java coding skills
(15th June – 26th June 2020)

Event Information	
Event Type: SDP/Interenship	
Event title: Two Weeks Online Course and Hands on Training on C, C++ and Java coding skills	
Resource Person: Prof. Sonal Jatkar, Prof. Madhuri Kulkarni Prof. Priyanka Kadam (EXTC Dept, SIES GST)	
Event date: 15th June – 26th June 2020, Navi Mumbai	
Organized for: FE, SE and TE Students	
Organized by: EXTC Dept, SIES GST	
Target audience (branch & nos.): FE(31) + SE(2) + TE(1) = 34	
Attachments:	<ol style="list-style-type: none"> 1. Photographs (in JPEG/PNG) 2. Attendance report 3. Feedback and Impact Analysis 4. Certificate



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Event Description

SIES Graduate School of Technology had organized a Two Weeks Online Course and Hands on Training on C, C++ and Java coding skills on 15th June – 26th June 2020.

OBJECTIVES:

- To enhance coding skills of students
- To understand the importance of classes and objects along with constructor, Arrays and Vector.
- To understand the principal of inheritance, interface, packages and demonstrate through problem analysis.

OUTCOMES:

- To develop logic to write program
- To write code in C,C++and Java language
- To apply the knowledge of C,C++and Java programing to solve diffrent problems
- To identify classes and objects and the relationship among them for finding the solution to specific problem.

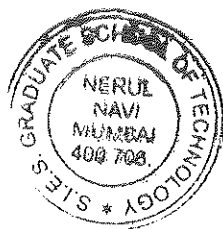
PREREQUISITE:

Basic of mathematics

SCHEDULE

WEEK 1:

Date	Day 1	Day 2	Day 3	Day 4	Day 5
Resource person	Priyanka Kadam	Madhuri Kulkarni	Priyanka Kadam	Madhuri Kulkarni	Priyanka Kadam Madhuri Kulkarni
Time	11.00 am-1.00 pm	11.00 am-1.00 pm	11.00 am-1.00 pm	11.00 am-1.00 pm	11.00 am-1.00 pm
	Overview, Environment setup (installation), Token, Data types, Variables	Constant and literals, Operators, Decision making Statements, Loops	Functions, String and array	Storage classes, Pointer, Inheritance	Structures, file handling
Time	2.00 pm to 4.00 pm	2.00 pm to 4.00 pm	2.00 pm to 4.00 pm	2.00 pm to 4.00 pm	2.00 pm to 4.00 pm
	Hands on session	Hands on session	Hands on session	Hands on session	Hands on session
	Assignment and Quiz	Assignment and Quiz	Assignment and Quiz	Assignment and Quiz	Assignment and Quiz



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Sector-V, Nerul, Navi Mumbai-400706

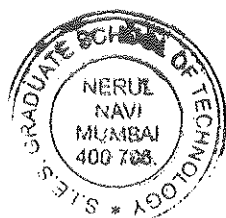
SCHEDULE

WEEK 2:

Date	Day 1	Day 2	Day 3	Day 4	Day 5
Resource person	Sonal Hutke	Sonal Hutke	Sonal Hutke	Sonal Hutke	Sonal Hutke
Time	11am-1pm	11am-1pm	11am-1pm	11am-1pm	11am-1pm
	Topic to be covered eg. Theoretical aspects of	Topic to be covered	Topic to be covered	Topic to be covered	Topic to be covered
	Basics concepts of Java programming	OOPS and its applications in Java	Arrays	String Operations, Inheritance	GUI Programming – Case studies
Time	2.00 pm to 4.00 pm	2.00 pm to 4.00 pm	2.00 pm to 4.00 pm	2.00 pm to 4.00 pm	2.00 pm to 4.00 pm
	Hands on session	Hands on session	Hands on session	Hands on session	Hands on session
	Assignment and Quiz	Assignment and Quiz	Assignment and Quiz	Assignment and Quiz	Assignment and Quiz

Registration Link:

https://docs.google.com/forms/d/e/1FAIpQLSdMD9eqzHdhzNp9hKNiIpgQyHqGRJNkCcpAOaEF8OXhSWjE0Q/viewform?usp=sf_link



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Sector-V, Nerul, Navi Mumbai-400706

SIES Graduate School of Technology
Department of Computer Engineering
Organizing
Student Development Program and Internship
Blockchain Technology
June 15-20, 2020, 10.00 AM to 5.00 PM

The widespread popularity of digital crypt-currencies has led the foundation of Blockchain, which is fundamentally a public digital ledger to share information in a trustworthy and secure way. The concept and applications of Blockchain have now spread from crypto-currencies to various other domains, including business process management, smart contracts, IoT and so on. This course covers both the conceptual as well as application aspects of Blockchain. This includes the fundamental design and architectural primitives of Blockchain, the system and the security aspects, along with various tools to implement the Blockchain for various application domains.

Course Objectives:

- Learn about the concept of Blockchain and crypto-currencies.
- Understand the importance of Blockchain technology in Business
- Use of various tools to implement the Blockchain.

Course Outcome:

After This Course the students should be able to:

- Identify the problem of security associated with the third party inclusion in transaction.
- Identifying the need for Blockchain Technology in various use cases.
- Demonstrate the various tools used for Blockchain technology.
- Implementing Blockchain in any security application.



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Course Contents:

- Basics of Blockchain Technology and Crypto-currency
- Permissioned and Permission-less Blockchain
- Consensus protocols and Algorithms.
- Implementation of Blockchain using JAVA
- Creating of SMART contract using solidity
- Design, Test and Deploy Secure Smart Contracts
- Creating of Block Chain Network using Hyperledger Composer platform
- Implementing block chain using Node JS
- Creating the Ethereum Blockchain using a Tool.

Who Should Attend: Any student from SE/TE (CE/IT)

Course Fees: Course is free of cost (only for SIES GST students)

Certification: Course completion and internship certificate is provided.

Internship: At the end of 6 days program participants will undergo 15 days internship covering developing secure web applications, identification of security threats and developing the security solution for various organizations (For ex: Bank Sector/Medical Sector/Insurance/IT Sector).

Registration link:

https://docs.google.com/forms/d/e/1FAIpQLSe-ujQPptqZNvSVhvdKSJh7brVRSqqARJYlz_ZdeB_YXDbXwA/viewform?usp=sf_link

Contact for Registration:

Prof. Rizwana Shaikh: rizwana.shaikh@siesgst.ac.in, 9619197014
Prof. Masooda Modak: masooda.modak@siesgst.ac.in 9833161007
Prof Kalyani P: kalyani.pampattiwar@siesgst.ac.in, 9819370257



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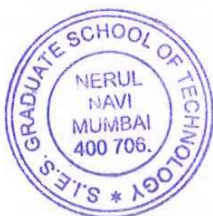
Day Wise Schedule:

Date	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6
Resource person	Dr,Rizwana Shaikh	Ms. Kalyani Pampattiwar	Ms. Masooda Modak	Ms. Namrata Patel	Dr. Rizwana Shaikh	NA
Time	10 am to 1:30 pm	10 am to 1:30 pm	10 am to 1:30 pm	10 am to 1:30 pm	10 am to 1:30 pm	10:00 am to 5:00 pm
	Introduction to Blockchain, Applications and advantages Bitcoin: Introduction Cryptocurrency and applications	Cryptography and Cryptanalysis, Use of cryptography in Blockchain, Symmetric key cryptography, Asymmetric key cryptography, RSA cryptosystem with example.	What are Smart Contracts? Key Properties of smart Contracts, Language for Smart Contracts.	Environment setup for blockchain development Constructor function explanation Prototype explanation, Creating new Transaction,	Ethereum components, features, Wallets, Transactions, Public & Private keys	



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Assignment/ Activity	Case Study of Bitcoin and Blockchain	Quiz on cryptography basics	Design of Smart Contracts	Generate hash when nonce is 7890 Current block data having two transactions George sent Jacob 345666 Shyam sent ram 34123 Take previous block hash as "23986yasjdasu dyr326gyajsd" Generate hash value by changing atleast one string in any of above value.	Implement ation of Blockchain using Ethereum, creating wallet, writing transaction, mining and generating crypto currency	
Time	1:30 pm to 5 pm	1:30 pm to 5 pm	1:30 pm to 5 pm	1:30 pm to 5 pm	1:30 pm to 5 pm	
	Components of blockchain , Types of blockchain and applications, Blockchain Structure, How Blockchain Works , Smart Contracts , Various implementat ion tools.	Cryptographic Hash function, Hash Chain, Merkle Tree, Digital signature, Cryptocurrenc y using hash, chain and digital signature.	Deploying Smart Contracts, Using Metamask for transfer of ethers	Adding hash block,Creatingan d Testing proof of work, Adding nonce and mining the transaction,Crea ting Genesis block	Projects topics to be selected for Internship after discussion with All Trainers	



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Assignment/ Activity	Hyperledger r Composer- creating blockchain network for business application	Demo of SHA256 and other cryptographi c tools, Assignment on RSA cryptosystem	Test, and deploy secure Smart Contracts	Creating Blockchain from javascript and node js	Two assignmen ts and two quizzes	
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SIES Graduate School of Technology

Organizing
Student Development Program and Internship
6 days Hands on Training on
Network Security and Ethical Hacking
Dec 16-21, 2019, 10.00 AM to 5.00 PM

The design and implementation of energy efficient future generation communication and networking technologies also require the clever research. Advances in Computer Communications and Networks: from Green, Mobile, Pervasive Networking to Big Data Computing require strong base in the area of networking. Emerging threats emphasize the need for real-world assessment of an organization's security posture. To bring awareness to our students about this most sought field in the engineering domain we are providing the platform by arranging a student's development program on Network Security and Ethical Hacking.

Objectives:

- Learn about network concept and designing of network for organization.
- Hands-on experience of Ethical Hacking tools using Kali Linux.
- Practical real time demonstration of the latest Hacking Techniques, methodologies, tools.

Course Contents:

- Introduction to Computer Network and Security
- Routing and Switching protocol.
- Introduction to Ethical hacking, Network sniffing and spoofing tools.
- Exploitation tools- Metasploit, Password cracking and Steganography.

Who Should Attend: Any student from SE (all branches)

Course Fees: Free for SIES GST students / Others Rs.1000

Certification: in collaboration with 9th Legend Inc.

Internship: At the end of 5 days program participants will undergo 15 days internship covering developing secure web applications, identification of security threats and developing the security solution for various organizations (For ex: Bank Sector/Medical Sector/Insurance/IT Sector).

Outcome: This SDP is designed to provide solution of organizations Network structure.

- This SDP will give insight on various routing and switching technology.
- This SDP will provide base for certificated ethical hacker, certified penetration tester.

Contact for Registration:

Prof. Aparna Bannore: bannore.aparna@siesgst.ac.in, 9920809635

Prof. Suvarna Chaurse: suvarna.kendre@siesgst.ac.in, 9769455405



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Sri Chandrasekarendra Saraswathy Vidyapuram
Sector-V, Nerul, Navi Mumbai-400706

Students Development Program on Network Security and Ethical Hacking

(Dec 2019)

Day wise schedule

Day	Session1 9:30-11.00	Session2 11:30-1.00	Session3 1.45 - 3:30	Session 4 4:00-500	feedback
Day1 16/12/2019	Introduction to Computer Network (OSI model/TCP Model/Devices at each layer KNP	/IP addressing/Subne tting) KNP	CISCO topology built up SKP	Static routing SKP	quiz
Day 2 17/12/2019	Dynamic Routing, Switching <i>Basic configuration of Layer 2 manageable switch UNR</i>	Switching UNR	D-Link <i>Basic configuration of Layer 2 manageable switch</i> SKP		Quiz
Day 3 18/12/2019	Introduction to security Ethical hacking Aparna Bannore	Initial Commands demonstation and handson 1)Dig 2)whois 3)traceroute 4)ifconfig	Sniffing using wireshark Tcpdump +Assignment on sniffing Suvarna VChaure	Assignment on sniffing SVC	
Day4 19/12/2019	Kali linux installation Backtrack Metasploit AMB	Exploting winxp system	Virus, steganography KNP	Key logger Lab work KNP	
Day5 20/12/2019	SQL injection UNR	SQL map UNR	Vulnerability assessment using Nesses UNR	Quiz	
Day 6 21/12/2019	Network Spoofing using nmap, Zenmap Amb	Password cracking John the ripper SVC			



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Sri Chandrasekarendra Saraswathy Vidyapuram
Sector-V, Nerul, Navi Mumbai-400706

SIES Graduate School of Technology
Organizing
Student Development Program and Internship
6 days Hands-on Training on
Ethical Hacking and Security
22nd/06/20 to 27/06/20 10.00 AM to 5.00 PM



Ethical hacking is an emerging tools used by most of the organizations for testing network security. Emerging Threats Emphasize the Need for real-world assessment of an organization's security posture. Ethical hackers perform security measures on behalf of the organization owners. To bring awareness to students about this most sought field in the security domain we are providing the platform by arranging a student's development program on Ethical Hacking and Network.

Objectives:

- ☒ Learn about System and Network security
- ☒ Hands-on experience of Ethical Hacking tools using Kali Linux.
- ☒ Practical real time demonstration of the latest Hacking Techniques, methodologies, tools, and security measures.

Course Contents:

- ☒ Introduction to Ethical hacking
- ☒ Network sniffing and spoofing tools
- ☒ Server Side Hacking Tools., Client Side Hacking Tools: BACKTRACK
- ☒ Web application Exploitation tools- Metasploit
- ☒ Virus and Steganography.
- ☐ Password cracking tools.
- ☐ SQL Injection attack and Firewall security.

Who Should Attend: FE/SE/Diploma Students interested in pursuing careers in security.

Course Fee: No Charges

Certificate: In collaboration with 9th Legend Inc.

Internship: At the end of 6 days program participants will undergo 15 days internship covering identification of security threats and developing the security solution.

Outcomes:

- ☒ This SDP will give insight to organizations security parameters, threats and Solutions.
- ☒ This SDP will provide a base for certificated ethical hackers, certified penetration

tester.

- ☒ Contact for Registration: Aparna Bannore: bannore.aparna@siesgst.ac.in,

9920809635 Prof.Suvarna Chandra suvarna.kendre@siesgst.ac.in, 9769455405



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SIES Graduate School of Technology



Department of Computer Engineering
Organizes

Hands on Training on Introduction To R

16 - 21 December, 9.30 AM to 4.00 PM

Who will be benefited?

1. Students who want to develop project in the domain of data mining e.g. recommender system, predictive applications etc.
2. Students who want to enrol for higher studies in data analytics.
3. Students who want to join data science industry as data analyst.

Prerequisite

Background of C/C++/JAVA

Basics of statistics like mean, mode, median, regression etc

By the end of the course, the learner can:

1. Implement various applications using R.
2. Make efficient use of R packages.
3. Develop an end-to-end analytics solution using R language.
4. Workshop is followed with project based Internship.
5. Students will receive a certificate post successful completion of workshop and Internship.

Contact for Registration:

Prof. Pranita Mahajan

Pranita.mahajan@siesgst.ac.in

9920188940

Note:

1. Workshop is free of cost for SIES GST students
2. Workshop is for second year engineering students



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Day	Activity
Day 1 16/12/2019	Introduction and preliminaries System requirement Installation and Understanding R Environment Packages and libraries Basics of R programming
	Variables and operators <ul style="list-style-type: none"> • Vectors, Matrix, Objects • Data management with strings • Operators in R • Decision making and looping • R Functions - Inbuilt and user defined functions
	Data acquisition Reading file <ul style="list-style-type: none"> • CSV, Text, Binary, Excel, XML
	Statistical analysis with R <ul style="list-style-type: none"> • Measure of central tendency Mean, median, mode • Variance, Skewness, Kurtosis • Probability Distribution
Day 2 17/12/2019	Visualization with ggplot <ul style="list-style-type: none"> • Exporting graph • Advance plot customization
	Visualization with ggplot <ul style="list-style-type: none"> • Exporting graph • Advance plot customization
Day 5 18/12/2019	Linear Regression with R <ul style="list-style-type: none"> • Covariance and correlation and its significance • Purpose Regression Analysis • Regression model with lm in R
	Multiple - Linear Regression with R <ul style="list-style-type: none"> • Type of Multiple Regression • Residual Analysis • Multi - Collinear Regression
Day 6 19/12/2019	Logistic Regression with R <ul style="list-style-type: none"> • Generalized Linear Model (glm) • Residual Analysis
	Types of Logistic Regression with R <ul style="list-style-type: none"> • Type of Logistic Regression Analysis • Applications of Logistic Regression Analysis • Estimating the Regression coefficient
Day 3 20/12/2019	Database connectivity in R <ul style="list-style-type: none"> • Creating Tables in MySql • Dropping Tables in MySql • Inserting Data into the Tables • Retrieving data using R
Day 4 21/12/2019	Web Interfacing with Shiny Shiny package in R Installing and using package Shiny R Designing interactive web apps from R using Shiny R



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Sector-V, Nerul, Navi Mumbai-400706

SIES Graduate School of TechnologyComputer Engineering Department
OrganizingStudent Development Program and Internship
5 days Hands on Training on**Web Development Technologies****December 4 -9, 2019, 9.30 AM to 5.00 PM**

Automation is the current need in all Ecommerce field where Web development plays an important role in all aspects. Considering this objective, we will be grooming in recent web development Technologies and also providing a platform to showcase students ideas on the same.

Objectives:

This Web Development course is without a doubt the most comprehensive web development course will be taught in College. Even if student has zero programming experience, this course will take you from beginner to mastery.

Course Contents:

- HTML5
- CSS3
- JAVASCRIPT
- BOOTSRAP
- PHP
- DATABASE CONNECTIVITY
- PROJECT

Who Should Attend: Engineering Student interested in pursuing career in Web Development.

Course Fee: Free of Cost

Certificate: Yes

Internship: At the end of 5 days program participants will undergo 15 days internship covering real world projects (For ex:College/Bank Sector/Medical Sector/Insurance sector/IT Sector)

Outcomes:

- This SDP will be able to design Website and Host it on server.

Contact for Registration:

Prof.Kranti Bade: bade.kranti@siesgst.ac.in, 8169415347

Prof.Namrata Patel:namrata.patel@siesgst.ac.in,9820298932



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Sector-V, Nerul, Navi Mumbai-400706

SIES Graduate School of Technology

Department of Computer Engineering
Organizes

Hands on Training on Data Science Using R

22 – 27 June, 10 AM to 4.00 PM

Who will be benefited?

1. Students who want to develop project in the domain of data mining e.g. recommender system, predictive applications etc.
2. Students who want to enrol for higher studies in data analytics.
3. Students who want to join data science industry as data analyst.

Prerequisite

Background of C/C++/JAVA
Basics of statistics like mean, mode, median, regression etc

Objectives:

To bridge the gap between industry requirements and academic by providing project based internship using R tool.
To aware students with Data Mining models and implementation in R.

Outcomes:

By the end of the course, the learner can:

1. Implement various applications using R.
2. Make efficient use of R packages.
3. Develop an end-to-end analytics solution using R language.
4. Workshop is followed with project based Internship.
5. Students will receive a certificate post successful completion of workshop and Internship.

Contact for Registration:

Prof. Pranita Mahajan
Pranita.mahajan@siesgst.ac.in
9920188940

Note:

1. Workshop is free of cost for SIES GST students
2. Workshop is for all branches of engineering



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Sri Chandrasekarendra Saraswathy Vidyapuram
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Day wise Schedule of Workshop

Day	Activity
Day 1 22/6/2020	Introduction with trends, applications, terminology and preliminaries System requirement Installation and Understanding R Environment Packages and libraries Basics of R programming
	Introduction to Basic programming structures of R Importance of R, Data Types and Variables in R, Operators in R, Conditional Statements in R, Loops in R, R script, Functions in R.
Day 2 23/6/2020	Visualization with ggplot Introduction to Data Visualization, Types of Visualisation, Common Data Visualization Issues Data Visualization. Data Visualization using Graphics in R, ggplot2. File Formats of Graphic Outputs.
	Statistics for DataScience Measure of Central Tendency: Mean (Arithmetic), Median, Mode, Standard deviation, Variance, Skewness, Kurtosis Probability. Distribution: Normal Distribution, Standard Normal Distribution, Standardization of Data. Data Sampling, Confidence and significance levels. Hypothesis: Null and alternate hypothesis, confidence and significance levels.
Regression Analysis	
Day 3 24/6/2020	Linear Regression What is Regression?, Covariance & Correlation, Features of r (correlation), Testing the significance of the correlation coefficient, Types of regression analysis, Purpose of regression analysis, Purpose of regression analysis, R ² coefficient determination, Coefficient of determination (R ²) and Adjusted R ²
	Multi-Linear Regression Multiple Linear Regression, Typical Applications of Regression Analysis, Residual Analysis. Multicollinear, Hetero-skedasticity, case study with R
Classification	
Day 4 25/6/2020	Logistic Regression Logistic Regression Basics, Generalized Linear Model (glm), What is logistic regression?, Types of logistic regression analysis, Applications of logistic regression analysis, Prerequisite / when & why binary logistic regression. Case Study with R
	Decision Tree What is decision tree? Why decision tree? Types of decision tree Constructing decision tree , Random forest and CART, Case Study with R
Clustering	
Day 5 26/6/2020	Clustering What is clustering?, When to use cluster analysis? Application of cluster analysis, Types of cluster analysis ,K means Case Study with R. Hierarchical Clustering Case Study with R
	Association Introduction to Association Mining, Association Rule, Apriori Algorithm, Demo Apriori Algorithms
Time series Analysis	
Day 6 27/6/2020	Time Series Analysis What is Time series, Components of Time Series, Techniques for forecasting- Simple Moving Average, Weighted Moving Average, Simple Exponential Smoothing, Double Exponential Smoothing, Triple Exponential Smoothing, Time Series Models Comparison, Use Cases, Industry Applications, Basic Concepts (acf, pacf, AR, MA), ARMA Model, ARIMA Model, Industry Applications and case study with R.
	Discussion and Project Assignment



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SCHEDULE					
WEEK 1:					
Date	Day 1 (22/6)	Day 2 (23/6)	Day 3 (24/6)	Day 4 (25/6)	Day 5 (26/6)
Resource person	Prof. Prajuli Thakre	Prof. Pranita Mahajan	Prof. Pranita Mahajan, Prof. Prajuli thakre	Prof. Prachi Shahaue	Dr. Rajesh Kadu
Time					
10:00 to 1:00	Advanced data types, type qualifiers, Advanced Control flow	Pointer, Double pointer, function pointers, void pointers	Dynamic Memory Allocation, Recursion	File handling	Data structure
2:00 to 4:00	Code Lite and visual studio environment	Hands on session on pointers	Hands on session on recursion and dynamic memory allocation	Hands on session on file handling	Hands on session on data structure
4:00 to 5:00	Quiz	Quiz	Quiz	Quiz	Quiz



SIES Graduate School of Technology
Sri Chandrasekarendra Saraswati Vidyapuram
Sector 5, Nerul, Navimumbai-400706

Department of Computer Department

Event Report

SDP ON "ADVANCED C"

Event Information
Event Type: Student Development Program (SDP)
Event Title: Advanced C
Resource Person: Dr. Rajesh Kadu, Prof. Prachi Shahane, Prof. Pranita Mahajan, Prof. Pranjali Thakre
Event Date: 22 June – 26 June 2020
Organized for: All students (FE, SE, TE)
Organized by: SIES GST Computer Dept
Target Audience (Branch & Nos.): Undergraduate Students from all branches total 45 students



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SIES Graduate School of Technology

Department of Computer Engineering
Organizes
Hands on Training on
Advanced HTML and Web Technology
08/06/20 to 13/06/20 10.00 AM to 4.00 PM

Who will be benefited?

1. Students who want to develop Website projects in the domain of Web Technologies e.g. for E-Commerce Website, Online Service providers websites etc.
2. Students who want to build their career in Web applications development.
3. Students who want to join industries which works on latest web technologies.

Prerequisite

Background of HTML basics.
Basics of Client – Server architecture of www.

Course Objectives:

1. To bridge the gap between industry requirements and academic by providing project based internship using latest web technologies.
2. To aware students with advanced dynamic website development technologies .

Course Outcome:

By the end of the course, the learner can:

3. Implement various Web applications using various Advanced HTML Tags, CSS to make web pages attractive and.
4. Developing User friendly webpages using Javascript programming .
5. Develop Server side programs using PHP and MYSQL.
6. Workshop is followed with project based Internship.
7. Students will receive a certificate post successful completion of workshop and Internship.


Contact for Registration:

1. Prof. Namrata Patel
namrata.patel@siesgst.ac.in
9820298932
2. Prof. Kranti Bade:
bade.kranti@siesgst.ac.in
8169415347

Note:

1. Workshop is free of cost for SIES GST students
2. Workshop is for all branches of engineering




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Day	Activity
Day 1 8/6/2020	Getting Started with HTML: Lists, Paragraphs, text styling, Tables, Images, Forms, Audio and Video Controls Physical and Logical Tags , HTML 5 tags
	Introduction to CSS: Internal, external CSS, element ,id,Class Selectors, Fonts , Color , Background and Borders.
Day 2 9/6/2020	Intermediate CSS: Padding, Margins, Rows and Columns ,Box Model Advanced CSS: Building the Navbar, Making Navbar Mobile responsive, Working with iframes,
	Working with Images box shadows, Working with text and image spacing, Working with header and footer
JAVASCRIPT	
Day 3 10/6/2020	Javascript: variables & strings, numbers, arrays, loops, functions, objects,
	Client side scripting such as form validations.
BOOTSTRAP	
Day 4 11/6/2020	Basic Set up of Bootstrap- Understanding Bootstrap Components, Working with Grid System
	1. Creating a Login portal using Bootstrap. 2. Displaying the same data with different templates, Use a Bootstrap modal
Github	
Day 5 12/6/2020	Github Repository Git Basics, How Version controls, Local and Remote Repositories
	PHP Basics
	PHP: Basic programming constructs, Arrays, functions, GET POST methods , Server side scripting
MYSQL	
Day 6 13/6/2020	MYSQL Database Basics and SQL queries
	PHP - Server Side Scripting , MYSQL Database Connectivity
	Project Discussion – Website Development



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SIES Graduate School of Technology

**Department of Computer Engineering
Organizes**

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**Hands on Training on
Software Design**

16 – 21 Dec, 10 AM to 4.00 PM

Who will be benefited?

Students who want to learn skills necessary for software design.

Prerequisite

Data Structures

Objectives:

1. To be able to formulate the problem by abstracting the data models, functional models of a given software design problem.
2. To be able to identify constraints, generate and evaluate alternative solutions based on a given constraints.
3. Explain the behaviour of a system using UML activity diagrams.
4. To create comprehensive and cohesive software conceptual design.
5. Evaluate the existing software design architecture.

Outcomes:

By the end of the course, the learner can:

1. To generate good quality software design architecture
2. To be able to link various UML diagrams and test for effectiveness

Contact for Registration:

Dr. Deepti Reddy

deepti.reddy@siesgst.ac.in

9323420286

Note:

1. Workshop is free of cost for SIES GST students
2. Workshop is for all branches of engineering



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Sri Chandrasekarendra Saraswathy Vidyapuram
Sector-V, Nerul, Navi Mumbai-400706

Day wise Schedule of Workshop

Day	Activity
Day 1 16/12/2020	Software design process In this module you will learn the phases of software design and the skills to be applied to formulate problem, generate alternative solutions, evaluate based on constraints and select.
Day 2 17/12/2020	Object Oriented Analysis of Complex Problems using UML In this module you will learn how to create a conceptual model of any system, know in which situations conceptual modelling is efficient and when and how to apply it successfully.
Day 3 18/12/2020	UML Architecture Diagrams In this module you will learn about software architecture. You will learn why architecture is important, what perspectives need to be considered, and how to communicate architecture using UML
Day 4 19/12/2020	Software conceptual design In this module you will learn to think and link different functions, behaviors and structures in design problem contexts, and apply this thinking in creating software designs.
Day 5 20/12/2020	Software architecture quality evaluation In this module you will learn the relationship between different design diagrams by tracing different scenarios in the design.
Day 6 21/12/2020	Discussion and Project Assignment



PRINCIPAL
S.I.E.S. GRADUATE SCHOOL OF TECHNOLOGY
Sri Chandrasekarendra Saraswathy Vidyapuram
Sector-V, Nerul, Navi Mumbai-400706



SIES Graduate School of Technology, Nerul

Department of Information Technology

Presents

Two Weeks Student Development Program

on

Skill Development Training

June, 15 to 26, 2020

(10:30 AM -12:30 PM and 1:30 PM -3:30 PM)



This student development program is meant to brush up the basic concepts of Programming in JAVA, Database Management System, Data Structures and other important subjects from placement point of view. Also quantitative aptitude will be covered along with practice tests. At the end of this SDP, students will complete one project as an internal internship.

Objectives

- Revise basics of Programming in JAVA, DBMS and Data Structures.
- Train students for quantitative aptitude
- Conduction of Practice Tests
- Implementation of an application using any of the advance technologies.

Course Contents

- **Module 1:** Object Oriented concepts and Programming with JAVA
- **Module 2:** Fundamental Concepts in Database Management Systems, SQL
- **Module 3:** Data Structures such as Stacks, Queues and linked lists, collections. Algorithms and complexity
- **Module 4:** Aptitude Training
- **Module 5:** Mini Project Implementation

Resource Persons

Prof. Savita Lohiya
Prof. Saritha L.R.
Prof. Stuti Ahuja
Prof. Amit Pandhare

Who Should Attend

Any students from TE and BE - IT/CE/EXTC

Registration Fees

Course Fees: FREE

(Cost of certificate will be applicable)

Registration Link: <https://forms.gle/QA2qbUZA9QxwjDJU6>

Contact for Registration

Prof. Stuti Ahuja
Mobile 9370997412
Email ID: ahuja.stuti@siesgst.ac.in

Prof. Amit Pandhare
Mobile 9860712712
Email ID: amit.pandhare@siesgst.ac.in



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SIES Graduate School of Technology

Department of Information Technology

Presents

Two Weeks Hands on Training

on

Data Mining and Analytics

15-26, June, 2020

(10:30 AM-12:30 PM and 1:30 PM -3:30 PM)

This student development program is meant to enhance the concepts of Database Mining as an important tool for Enterprise Data Management and as a cutting edge technology for building competitive advantage. It demonstrates an understanding of the importance of data mining and the principles of business intelligence.

Objectives

- To introduce the basic concepts of Database Mining and Analytics..
- To become familiar with the appropriate data mining techniques like classification, clustering or Frequent Pattern mining on large data sets..
- To make well versed in data mining algorithms and to impart knowledge of tools used for data mining

Course Contents

- **Module 1:** Basic Introduction of Data Mining..
- **Module 2:** Regression Analysis: Linear regression (Th+Pr)
- **Module 3:** Classification: Attribute Selection Measures : Decision Tree (Th+Pr)
- **Module 4:** Data Mining Techniques: Association: Market Basket Analysis, Frequent Itemsets.
- **Module 5:** Association Rules; Frequent Pattern Mining, Apriori Algorithm (Th +Pr)
- **Module 6:** Clustering: Partitioning Method : K-Means (Th+Pr)
- **Module 7:** Case Studies : Data analytics case studies.
- **Module 8:** Mini Project Implementation
- **Tools Used:** Python/R/Weka

Resource Persons

Prof. Mrinal Khadse

Prof. Seema Redekar

Who Should Attend

Any students from SE,TE - IT/CE

Registration Fees

Course Fees: FREE

Contact for Registration

Prof. Bushra Shaikh

Mobile:9833199844

Email ID: bushra.sk@siesgst.ac.in



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SIES Graduate School of Technology

Department of Information Technology

Presents

**5 days Hands on CCNA Routing and Switching - I,
June 27th – 2nd July, 9:00 AM to 5:00 PM**

This certification program is designed to impart knowledge about the fundamentals of Computer Networks, various protocols used in Communication, Managing and configuring Cisco Switches and Routers. It is also designed to give exposure on building a Network.

Objectives

1. To learn basics of Networking.
2. To design a Network using switches and Routers.
3. To discover problems in Routing, password recovery etc.

Course Contents

Module 1: Introduction

Module 2: Understanding, configure Router and Switch.

Module 3: Implementation of DHCP, ACL, NAT, PAT etc.

Module 4: Password Recovery, Backup of running config to startup config.

Who Should Attend

Any student from TE (EXTC/IT/CE)
(Students who have completed their IV SEM Exams)

Registration Fees

Course Fees: **FREE**

(Cost of certificate will be applicable)


Resource Person

Dr. K. Lakshmi Sudha

Mobile: 9987512269

Email ID: lakshmi.sudha@siesgst.ac.in




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Presents
Student Development program
On
Heat Transfer and Fluid Flow simulation Using Ansys Fluent
Date: 22 June-3 July 2020

Course Coordinator: Prof. Chandan D. Chaudhari
Dr. Kaustubh V. Chavan
Prof. Ajay S. Hundiwale

Prerequisite: Basics of FEA

Objectives: The objective of this course is to.....

- ✓ Explain the ANSYS capabilities, terminology, and ANSYS Interactive (GUI).
- ✓ Build Finite Element Models in ANSYS.
- ✓ Run the basic steps of performing a complete ANSYS analysis.
- ✓ Apply and test meshing Techniques
- ✓ Interpret the results of post processing

Content:

- ✓ Introduction to CAE
- ✓ General FEM Procedure involved in FEA
- ✓ GUI of Ansys Workbench
- ✓ Working on Live Project: Methodologies used to solve the FEA problem
- ✓ CAD Modelling using Ansys Workbench/ 3D Modeler/Space Claim
- ✓ Pre-processing Part: Defining and Assigning of the Materials
- ✓ Methods of Discretization/ Meshing and optimizing the model using refine mesh
- ✓ Working with various boundary conditions
- ✓ Surface and Line Modelling
- ✓ Post Processing and result validations
- ✓ Basics of CFD
- ✓ Concept of entry length and determination using CFD tool
- ✓ Mixing flow in elbow
- ✓ Heat transfer Transient flow analysis
- ✓ Laminar model and Turbulent model analysis
- ✓ VOF model analysis

Internship Duration: Two weeks

Requirements: ANSYS software

Any students from third year and final year of engineering can register the course. Certificate will be provided after successful completion of the course.

Hands on Training on
Industrial drawing and modeling using AutoCAD and Solid works 22 June to
3 July [Two weeks], 10 AM to 4.00 PM

Who will be benefited?

1. Students who want to develop project in the domain of Manufacturing
2. Students who want to enrol for higher studies in Manufacturing Technology
3. Students who want to have a better understanding of the industrial drawings

Prerequisite:

Background of AutoCAD Solid Works and Engineering drawing

Introduction:

This student development program is meant to revise basics concepts of Engineering drawing and to learn drawing software like AutoCAD and Solid Works. This program is conducted to give exposure to our students about how to understand industrial drawings.

Objectives:

- 1: Introduction to industrial drawings
- 2: How to read and understand drawings
- 3: Starting with AutoCAD and draw in AutoCAD
- 4: Working with solid works and converting 2d to 3d
- 5: Converting 3d models back to 2d using solid works

Outcomes:

By the end of the course, the learner can:

1. read and understand different Pressure vessel drawings
2. make Industrial drawings using AutoCAD
3. develop 3D drawings using Solid works

Contact for Registration:

Prof. Siddique Ahmed
Siddique.ahmed@siesgst.ac.in
9320616160



Head of Department
Mechanical Engineering Department
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Sector-V, Nerul, Navi Mumbai-400 706



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Note:

1. Workshop is free of cost for SIES GST students
2. Workshop is for all branches of engineering

Scheduled Activities:

Day 1	Day 2	Day 3	Day 4	Day 5
All Faculties	Prajakta Kane	Onkar Potadar	Onkar Potadar	Ganesh Kadam
10:00 AM	10:00 AM	10:00 AM	10:00 AM	10:00 AM
Difference between the drawings we study in our engineering and the Industrial drawings	Basics - Title Block Geometric Dimensioning and Tolerancing, Basic symbols, Welding Symbols, Symbols for surface texture	AutoCAD	AutoCAD	Assembly-Disassembly, BOM
All faculties will interact with the students and explain them the flow and the contents which we will be covered in this SDP	Notes, Sectional view, Detail Drawing, Assembly Drawing, Exploded drawing	Will teach how to use AutoCAD to draw the industrial drawings and will give assignments to based on the content	Will teach how to use AutoCAD to draw the industrial drawings and will give assignments to based on the content	Will teach concept of assembly drawing including assembly and disassembly of components, bom, etc.




Head of Department
 Mechanical Engineering Department
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Day 6	Day 7	Day 8	Day 9	Day 10
Ganesh Kadam	Prajakta Kane	Siddique Ahmed	Siddique Ahmed	All Faculties
10:00 AM	10:00 AM	10:00 AM	10:00 AM	10:00 AM
Correlevance of drawing w.r.t. CAD-CAM, RE, Analysis, etc.	AutoCAD Alternatives	Solid Works	Solid Works	
Will teach relevance of industrial drawing in terms of CAD-CAM, reverse engineering, analysis of components, etc.	Will teach how to use free open source software Free CAD to draw the industrial drawings and will give assignments to based on the content	Will teach how to use Solidworks to draw the industrial drawings and will give assignments to based on the content	Will teach how to use Solidworks to draw the industrial drawings and will give assignments to based on the content	All faculties will interact with the students and discuss what they have learnin the course and will take their dobut/suggestions




Head of Department
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Organizes
15 days Hands on Training On
Modelling Robot Kinematics using Python Programming

Date: **22 July-3 July 2020**
Mode: Online

Introduction:

Robot kinematics studies the relationship between the dimensions and connectivity of kinematic chains, the position, velocity and acceleration of each of the links in the robotic system. It will lead to plan and control movement and to compute actuator forces and torques. The manual calculation of motion parameters is difficult due to increase in number of links and joints.

This program is developed to automate the calculation of motion parameters of the robot using commonly used and platform-independent programming language, python and validation of motion parameters using a software Roboanalyzer.

Objectives:

1. To study the parameters of motion in kinematics robotics
2. To study various design principles of robotics through kinematic analysis, workspace analysis, and trajectory planning

Course outcome:

At the end of the program, learner will be able to...

1. Compute the motion parameters
2. Validate motion parameters using modelling using Roboanalyzer*
3. Validate motion parameters using python programming
4. Compute the workspace for robot
5. Compute the trajectory planning for a robot

Course Content:

- 1: Introduction to Basics of Python Programming
- 2: Introduction to Basics of Robotics
- 3: Kinematics of Robot and Roboanalyzer
- 4: Workspace Analysis and Trajectory Planning

Sr. No	Module	Content
1	Introduction to Basics of Python Programming	Installation of Python version 3.7.2. Use of print function with string, data type, variables, input function and escape character. Indexing and slicing of strings Formation of list and array. How to read and load data from files. Plotting data and chart. Formation of Matrix and various Matrix operations Creating and saving plots, Multiple plots and sub plots. Embellishing Plot.
2	Introduction to Basics of Robotics	Definition of robot, Evolution of robots, Laws of robots, International Robotic Standards, Types of robots, Selection of robots, Robot Classifications, Degrees of freedom, Robot configuration, Accuracy and repeatability, Specification of a robot
3	Kinematics of Robot	Direct Kinematics: Link coordinates D-H Representation, Direct kinematic analysis for Four axis, SCARA Robot and three, five, and six axis Articulated Robots. Programming the direct kinematics analysis using python programming Inverse Kinematics: The inverse kinematics problem, General properties of solutions, inverse kinematics of four axis SCARA robot. Programming the inverse kinematics analysis using python programming
4	Workspace Analysis and Trajectory Planning	Workspace Analysis, work envelope of a Four axis SCARA robot and five axis articulated robot Joint space technique - Continuous path motion, Interpolated motion, Straight line motion and Cartesian space technique in trajectory planning. Programming the workspace and trajectory analysis using python programming

Resource Person:
Prof. Pradip P. Patil
Prof. Prashant K. Ambadekar

Who Should Attend:

Any students from Second year, third year and final year of engineering
Certificate will be provided after successful completion of the course.

Department of Humanities & Applied Sciences
Student Development Programme on Universal Human Values
June 29 to July 11, 2020

Student Development Program on Universal Human Values is designed in order to introduce students to the Values which are Universal in Nature. This SDP will help students to gain the knowledge which is not imparted in any classroom and it is very important throughout life. In new Education Policy it is recommended as mandatory subject. Students will be able to understand the difference the desires of Self and Physical facility, the importance of Relationship in our life, What is Harmony, How to become happy by being in Harmony with Self, Family, Society and Nature, Human values like Trust, Respect, Affection Care, Reverence, Gratitude, Guidance, Love etc

OBJECTIVES

- 1) Understand what are the desires of Self and Body
- 2) Understand What is Harmony
- 3) Understand How to live in Harmony with Self, Family, Society, Nature
- 4) Understand Trust, Respect, Affection Care, Reverence, Guidance, Gratitude, Love
- 5) Understand How to overcome Stress, Anxiety, Anger, Fear, Frustration

WHO WILL BE BENEFITED?

- All the students who want to be Happy, Responsible and Balanced Human Being.

PREREQUISITE

No prerequisites.

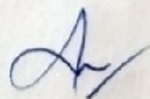
OUTCOMES

Learner will be able to:

- 1) Student will be able to understand "Self" and desires of Self
- 2) Student will be able to handle Stress, Anxiety, Frustration, Fear, Anger
- 3) Student will be able improve his overall performance
- 4) Student will be Happy, Responsible and Balanced Human Being

CONTACT PERSON

- Dr. Manasi Karkare (9967014191),
hod_fe@siesgst.ac.in
- Prof. Mrinal Khadse (9819344929)
mrinal.khadse@siesgst.ac.in
- Dr. Kanthimathi (9137372482)
kanthimathi@siesgst.ac.in



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SCHEDULE

WEEK 1:					
Date	Day 1	Day 2	Day 3	Day 4	Day 5
Resource person	Dr. Manasi Karkare	Dr. Manasi Karkare	Dr. Manasi Karkare	Dr. Manasi Karkare	Dr. Manasi Karkare
Time	11 am -12.30 pm	11 am -12.30 pm	11 am -12.30 pm	11 am -12.30 pm	11 am -12.30 pm
Topics	Understanding the need of Universal Human Values	Right Understanding	Harmony of Self with Body	Harmony in family	Me and Society
Time	3.30-5.00 pm	3.30-5.00 pm	3.30-5.00 pm	3.30-5.00 pm	3.30-5.00 pm
Topics	Assignment/ Activity/Reflection and Discussion	Assignment/ Activity	Assignment/ Activity	Assignment/ Activity	Assignment/ Activity
Resource person	Dr. G. Kanthimathi	Dr. G. Kanthimathi	Ms. Mrinal Khadse	Ms. Mrinal Khadse	Dr. G. Kanthimathi

SCHEDULE

WEEK 2:					
Date	Day 1	Day 2	Day 3	Day 4	Day 5
Resource person	Dr. Manasi Karkare	Dr. Manasi Karkare	Dr. Manasi Karkare	Yoga teacher	Dr. Manasi Karkare
Time	11 am -12.30 pm	11 am -12.30 pm	11 am -12.30 pm	11 am -12.30 pm	11 am -12.30 pm
Topics	Trust and Respect	Affection, care, Reverence, Love	Stress, Fear, Frustration, Anxiety	Breathing Techniques for overcoming Stress	True Happiness
Time	3.30-5.00 pm	3.30-5.00 pm	3.30-5.00 pm	3.30-5.00 pm	3.30-5.00 pm
Topics	Assignment/ Activity/Reflection and Discussion	Assignment/ Activity	Assignment/ Activity	Assignment/ Activity	Assignment/ Activity
Resource person	Dr. G. Kanthimathi	Ms. Mrinal Khadse	Ms. Mrinal Khadse	Dr. G. Kanthimathi	Dr. G. Kanthimathi



(Signature)

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