

**SIES Graduate School of Technology**  
**Department of Computer Engineering**  
Organizing  
Student Development Program and Internship  
**Blockchain Technologies and Applications**  
**Dec 2-7, 2019, 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.

### Objectives:

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

### 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 fabric
- Creating Blockchain applications using Hyperledger Composer platform

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

**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 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 problem associated with the third party inclusion in transaction.
- This SDP will give insight on various tools used for Blockchain technology.
- This SDP will provide base for certification in the professional in the Blockchain technology.

### 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.pampattiwari@siesgst.ac.in, 9819370257

## Day wise schedule

Day	Session1 9:30-10:30	Session2 10:30-1	Session3 2:00-3:30	Session 4 3:30-5:00
02/12/2019	Introduction to Blockchain	Bitcoin and Blockchain	Hyperledger fabric Composer	Quiz
03/12/2019	Cryptography required for Blockchain	Public key cryptography	Markeley tree and Hash function	Quiz
04/12/2019	Introduction to solidity	Remix IDE framework	Sample contract	Quiz
05/12/2019	More examples in solidity	Banking Example	Currency exchange contract	Quiz
06/12/2019	Building a Blockchain using javascript	Accessing Blockchain using API	Consensus algorithms	Quiz
07/12/2019	Case study on Blockchain Identifying entities and other constructs		Selecting project title for internship	



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

## **Event Report**

Student **Development Program on Blockchain Technologies and Applications**

### **Event Information**

**Event Type:** Student Development Program

**Event Title:** Blockchain Technologies and Applications

**Resource Persons:** Dr. Rizwanashaikh, Prof. Masooda Modak, Prof. Kalyani Pampattiwar, Prof. Namrata Patel

**Event Date:** 02/12/2019 to 07/12/2019

**Organized for:** SE, TE Students

**Organized by:** Computer Engineering, SIES GST

**Target Audience (Branch & Nos.):** Undergraduate Students (CE : 25 students)

**Attachments:** 1. Photographs (JPEG/PNG)  
2. Attendance Report  
3. Feedback Report

## Event Description

Department of Computer Engineering of SIES GST organized an SDP from 02/12/2019 to 07/12/2019 for SE/TE students.

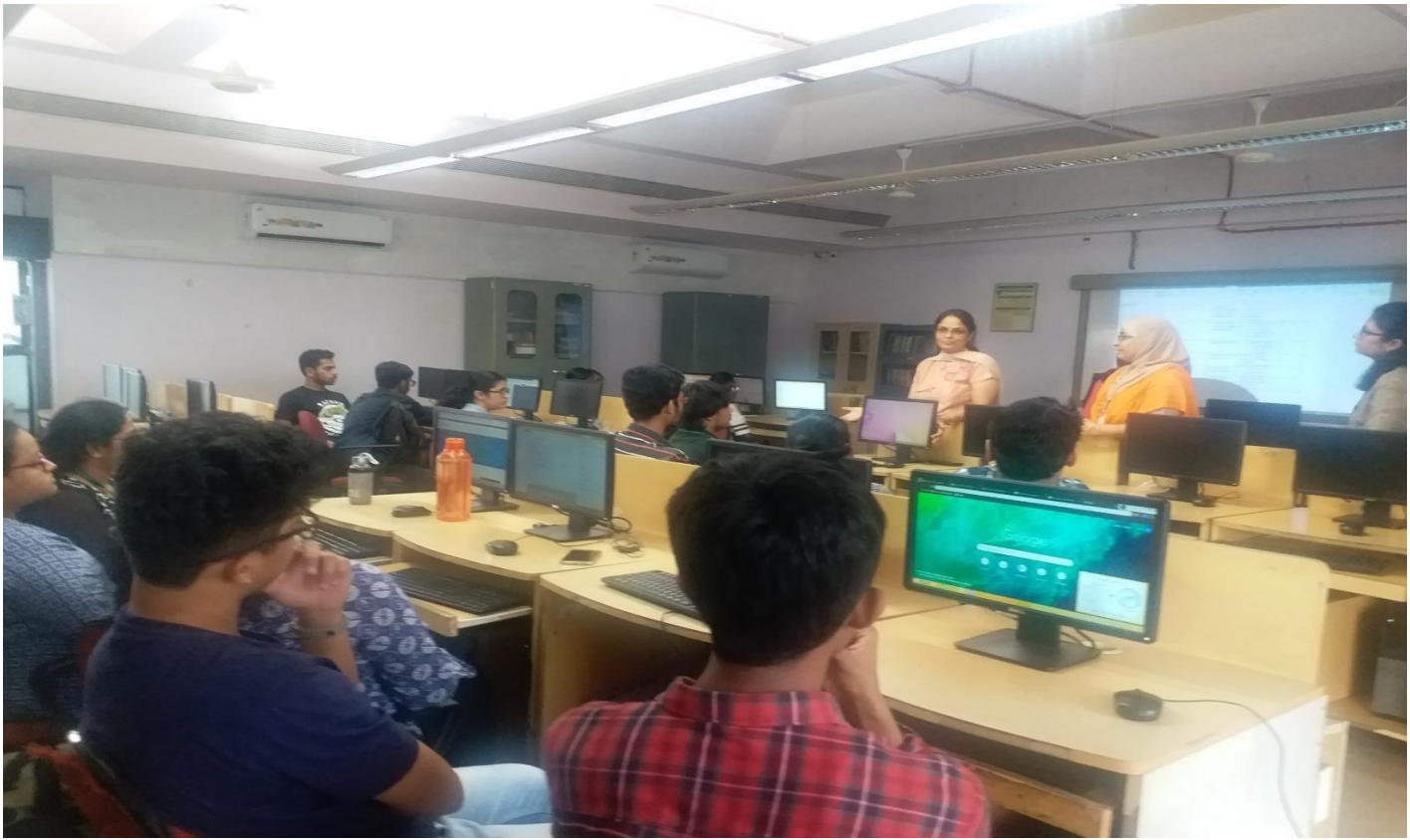
Dr. Aparna Bannore, HOD CE has addressed the students about the overview of program and internship to be conducted. She explained the benefits of learning security and blockchain. Also various career opportunities available in the field of security.

Around 25 participants from SE and TE attended the SDP . Entire program was carried out in six days span. Everyday's session is divided into two halves morning and afternoon.

The Sessions started with covering basics of Security and need of Blockchain. Various tools were identified and studied along with the demonstration. A sample project in the form of mini project is the expected outcome of the course.

The first day morning session conducted by Dr.Rizwanashaikh. She has covered Introduction to blockchain, followed by afternoon session by Prof.Kalyani P on Cryptography required for Blockchain. She continued the session on second day based on Public key cryptography and Markeley tree and Hash function. Day 2 afternoon session conducted by Dr. Rizwana on Hyperledger fabric Composer. Day 3 session was conducted by prof. MasoodaModak on Introduction to solidity, Remix IDE framework and Sample contract. Day 4 session was continued by her on More examples in solidity, banking example and Currency exchange contract.Day 5 session was delivered by Prof. Namrata Patel on Building a Blockchain using javascript, Accessing Blockchain using API and Consensus algorithms. Day 6 was conducted by Dr. Rizwana Shaikh on Case study on Blockchain and at the end intership project topics were discussed with students. Students have been given 15 days time to complete their project. Vote of thanks was presented by HOD CE, Dr. Aparna Bannore.

**1. Photographs (in JPEG/PNG):**







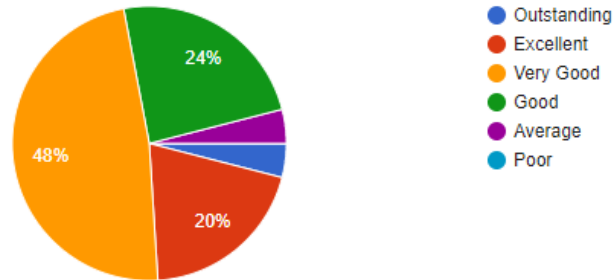




## Feedback Analysis

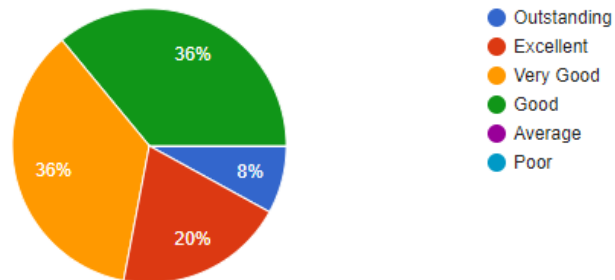
1. General impression about the content of the course?

25 responses



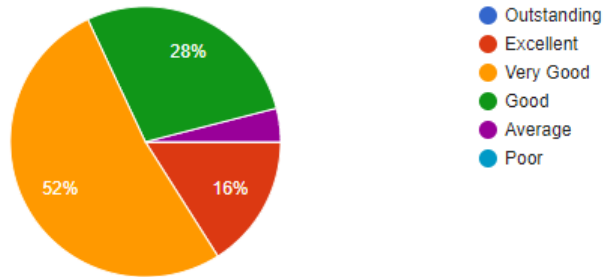
2. How well did the content address your expectations?

25 responses



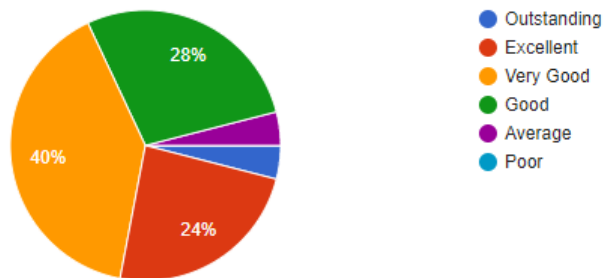
### 3. How do you rate the quality of content presented?

25 responses



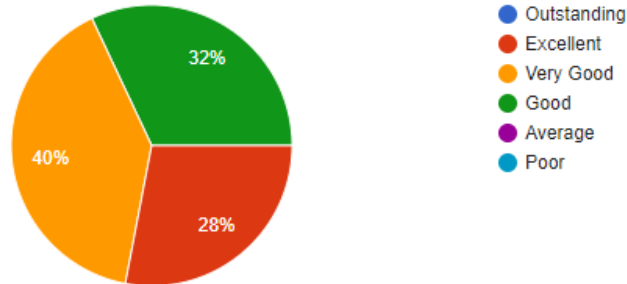
### 4. How relevant was the content to your profession?

25 responses



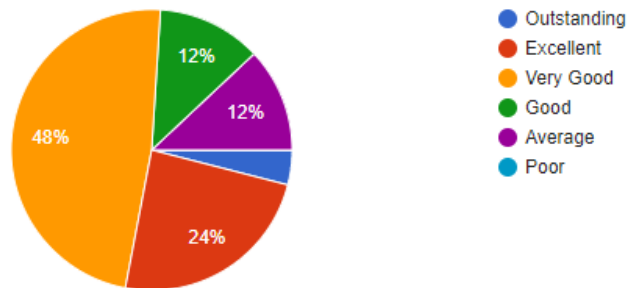
5. How do you rate the amount of content presented?

25 responses



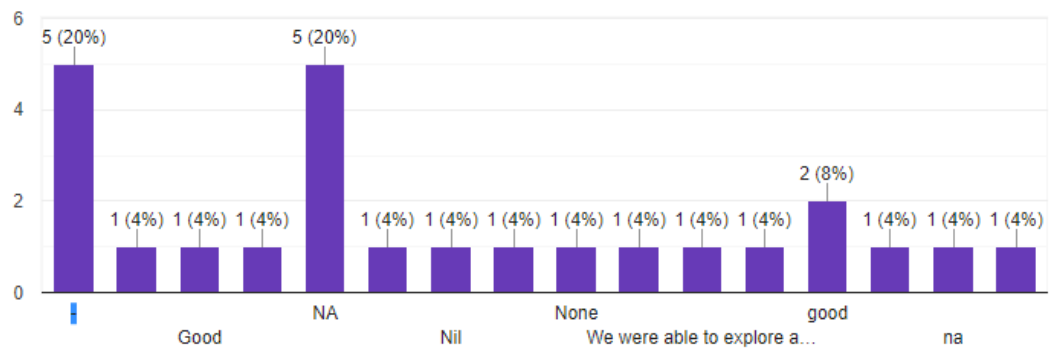
6. How do you rate hands on experience of this lab session?

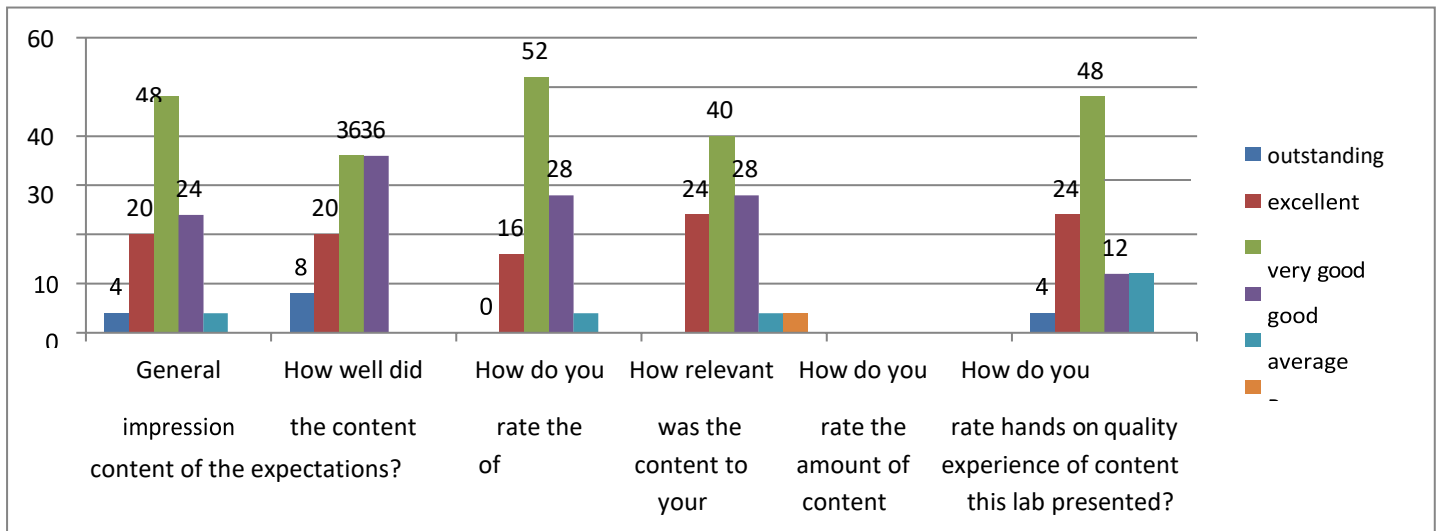
25 responses



7. Other comments about the event's content

25 responses

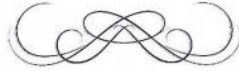




### Impact Analysis:

1. Students got exposure to upcoming applications of Blockchain technology.
2. They have learnt the concepts which are beyond their curriculum.
3. As a outcome of it in their internship students have developed a mini project based on concepts they have learnt during these six days.

9th  
Legend



CR.No.CE/S4/2019/SPP/24

# CERTIFICATE

OF COMPLETION

This is to certify that

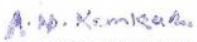
Mr./Ms. *Pradhan Sahil Amarendra*

has successfully completed the course on  
"Blockchain Technology and Applications"

and fifteen days internship from 2nd Dec to 7th Dec , 2019 held at  
SIES Graduate School of Technology. During internship he/she has successfully  
completed project titled *Supply Chain and Logistics*.

  
DR. RIZWANA SHAIKH  
COURSE COORDINATOR

  
DR. APARNA BANNORE  
HOD , CE DEPT.

  
DR. ATUL KEMKAR  
PRINCIPAL, SIES GST