SRI VENKATESWARA COLLEGE OF ENGINEERING ,Sriperumbudur.

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Reflection Report

Of

Two Days Workshop

On

Blockchaining & Internet of Things

(15th & 16th October 2018)

COORDINATORS

Mr. K. Kumanan , *AP/CS*

Mr. C.S.Sanoj, *AP/CS*

Mr. B. Praveen Kumar, *AP/CS*

Table of Contents

Introduction

Blockchaining :

A blockchain, originally block chain, is a growing list of records, called blocks, which are linked using cryptography. Each block contains a cryptographic hash of the previous block, a timestamp, and transaction data (generally represented as a merkle tree root hash).

By design, a blockchain is resistant to modification of the data. It is "an open, distributed ledger that can record transactions between two parties efficiently and in a verifiable and permanent way". For use as a distributed ledger, a blockchain is typically managed by a peer-to-peer network collectively adhering to a protocol for inter-node communication and validating new blocks. Once recorded, the data in any given block cannot be altered retroactively without alteration of all subsequent blocks, which requires consensus of the network majority. Although blockchain records are not unalterable, blockchains may be considered secure by design and exemplify a distributed computing system with high Byzantine fault tolerance. Decentralized consensus has therefore been claimed with a blockchain.

Blockchain was invented by a person using the name Satoshi Nakamoto in 2008 to serve as the public transaction ledger of the cryptocurrencybitcoin. The identity of Satoshi Nakamoto is unknown. The invention of the blockchain for bitcoin made it the first digital currency to solve the double-spending problem without the need of a trusted authority or central server. The bitcoin design has inspired other applications, and blockchains which are readable by the public are widely used by cryptocurrencies. Blockchain is considered a type of payment rail. Private blockchains have been proposed for business use. Sources such as Computerworld called the marketing of such blockchains without a proper security model "snake oil".

Internet of things (IoT) :

The **Internet of things (IoT)** is the network of devices such as vehicles, and home appliances that contain electronics, software, sensors, actuators, and connectivity which allows these things to connect, interact and exchange data. The IoT involves extending Internet connectivity beyond standard devices, such as desktops, laptops, smart phones and tablets, to any range of traditionally dumb or non-internet-enabled physical devices and everyday objects. Embedded with technology, these devices can communicate and interact over the Internet, and they can be remotely monitored and controlled.

An IoT ecosystem consists of web-enabled smart devices that use embedded processors, sensors and communication hardware to collect, send and act on data they acquire from their environments. IoT devices share the sensor data they collect by connecting to an IoT gateway or other edge device where data is either sent to the cloud to be analyzed or analyzed locally. Sometimes, these devices communicate with other related devices and act on the information they get from one another. The devices do most of the work without human intervention, although people can interact with the devices -- for instance, to set them up, give them instructions or access the data. The connectivity, networking and communication protocols used with these web-enabled devices largely depend on the specific IoT applications deployed.

This program has provided opportunities for student researchers and faculties to upgrade their knowledge in the area of Blockchian and IoT technologies. Considering the growing importance of these technologies and its potential in different sectors, the two day workshop is planned and sessions has been delivered by experts. The program has equiped the participants to use and teach these technologies and explore the challenges in research.

❖ RESOURCE PERSON

1. **Dr.N.Bhalaji**–Associate Professor/IT, SSN College of Engineering, Chennai.

2. **Mr.K.Kabilan**–AP/IT, SSN College of Engineering, Chennai.

3. **Mr.E.Sakthivel**–AP/IT, Sri Venkateswara College of Engineering, Chennai.

4. **Mr.T.Kumaran**–AP/CS, Sri Venkateswara College of Engineering, Chennai.

5. **Mr.AR.GuruGokul**–AP/IT, Sri Venkateswara College of Engineering, Chennai.

❖ REGISTRATION FEE

Students / Research Scholars/Faculty– **Rs. 200/-**

Registration Fee is payable by demand draft (DD) drawn in favour of **"The Principal, Sri Venkateswara College of Engineering"** payable at Chennai or Cash.

❖ Topics

- Blockchaining Technologies
- Understanding SHA 256
- Immutable Ledger
- Distributed Networks
- Consensus Protocol
- Blockchain Demo
- BitCoin & Smart Contract
- Introduction to IoT
- IoT Software & Hardware
- IoT Routing Protocol
- IoT Simulator - Demo

❖ HOW TO APPLY

Application in the attached format, duly recommended by the Head of the Department / Institute may be sent to the coordinator on or before **15th October, 2018**. Since limited seats are available, Candidates will be selected on First come First serve basis and they would be informed through email.

❖ IMPORTANT DATES

Last date for receiving applications: **13th Oct 2018**
Notification of Acceptance: **14th Oct 2018**

❖ ADVISORY COMMITTEE

Dr. S. Ganesh Vaidyanathan
Principal, SVCE

Dr. R. Anitha
Professor & Head, Dept. of CSE., SVCE

❖ ADDRESS FOR CORRESPONDENCE

> **Mr. K. Kumanan**
> **Mr. C.S.Sanoj**
> **Mr. B.Praveen Kumar**

Department of Computer Science & Engineering
Sri Venkateswara College of Engineering
Sriperumbudur – 602117, Tamilnadu
Phone : 9176373069
Email : *kkumanan@svce.ac.in*

Two Days Workshop
On
Blockchaining
&
Internet Of Things

(15th & 16th October 2018)

COORDINATORS

Mr. K. Kumanan
Mr. C.S. Sanoj
Mr. B. Praveen Kumar

Organized by

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
SRI VENKATESWARA COLLEGE OF ENGINEERING
Sriperumbudur - 602117
Tamilnadu.

Registration Form

Two Days Workshop

On

Blockchaining & Internet Of Things

(15th & 16th October 2018)

Name   : ....

Designation   : .... Organization : ....

Payment Details (Cash / DD)   : ....

Official Address   : ....

Mobile   : .... e-Mail ID   : ....

Date :

Signature of the Applicant   Seal & Signature of Head of the Organization/Department

Solicit your esteemed presence for the

Two Days Workshop

on

"Blockchaining and IoT"

(15th & 16th , October 2018)

@ ALAN TURING HALL

CS Dept-SVCE

SRI VENKATESWARA COLLEGE OF ENGINEERING, Sriperumbudur.

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

"Blockchaining and IoT"
(15th & 16th , October 2018)

AGENDA

Day 1	
Session 1 : Mr. E. Sakthivel	Introduction to IoT with Live Demo
Session 2 : Mr. T. Kumaran	Introduction to Cryptography
Session 3 : Mr. AR. GuruGokul	Introduction to Blockchaining
Day 2	
Session 4 : Dr. N. Bhalaji	Blockchaining and its impact
Session 5 : Mr. K. Kabilan	IoT with its applications

Keynote Speakers

Dr. N. BHALAJI M.E., Ph.D

Associate Professor

Email: bhalajin@ssn.edu.in

Dr. N. Bhalaji, Associate Professor of Information Technology has over 14 years of teaching experience. He received his B.E. & M.E. degree both in the discipline of Computer Science and Engineering and Ph.D. specializing in Trust Based Routing approach for MANET's from Anna University, Chennai. His current research interests Application of Trust over information and communication domains namely Internet of Things and exploring Machine learning algorithms to improve quality of societal outlook. He is also a recognised supervisor of Anna university and guiding 2 full time and 8 part time scholars. He is also serving as a Doctoral Committee member for VIT, SRM and Satyabama University and as a Board of studies member in VIT Bhopal and Vels University, Chennai.

He has published over 38 research articles in refereed international journals and Conferences in the areas of Networks, Machine learning and Internet of Things. He is an active member in Professional Bodies such as IEEE, ACM, IACSIT, IAENG, ACEEE. He is also an Active reviewer for reputed publishers like Elsevier, IEEE and Springer. He is also serving as an Editorial and Technical committee member in Various Journals and conferences. He has delivered keynote talk in International conferences and delivered guest lectures in reputed institutions across Tamilnadu.

He organises regular events for the betterment of the knowledge seekers particularly in the areas of Internet of things (ITRC) and Cyber security (CCS). He is a recognised proctor of CompTIA (Global certification agency) Examinations. He is actively involved in industrial consultancy projects namely HCL Tech bee and Redington CSR.

Mr. K. KABILAN   M.Tech., (Ph.D)

Assistant Professor

Email: kabilanK@ssn.edu.in

K. Kabilan is working as Assistant Professor of Information Technology at SSN College of Engineering, Kalavakkam Chennai -603 110. He received B.Tech., in Information Technology from Krishnasamy College of Engineering and Technology, Cuddalore (Anna University, Chennai) during the year of 2006 and earned an M.Tech., in Computer Science and Engineering (Distributed Computing System) from Pondicherry Engineering College (Pondicherry University) in the year of 2009 by securing University Rank. He also received M.B.A in Human Resource Management from Anna University, Chennai. He published an International Journal on power based routing protocol in MANETs. His research interests are in Ad-Hoc networks, Databases.

Mr.E.SAKTHIVEL M.E.,
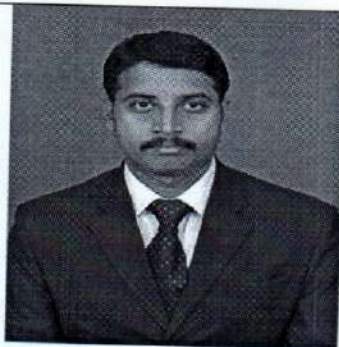
Assistant Professor

Email: sakthivele@svce.ac.in

Industry Certifications:
- Complete a workshop on "Data Analytics" organized by Infosys, Chennai.
- SPOC for Infosys Campus Connect Program throughout College
- ZoomRx Certified Faculty – Underwent training at ZoomRx Limited, Chennai and qualified as a certified trainer in Data Analytics.
- Completed a Short term course on "Introduction to Cryptography" organized by NIT, Trichy.
- CCNI(CISCO Certified Network Instructor)
- ORACLE Certified Associate
- OCJP(ORACLE Certified JAVA Programmer)

Research Area
- SDN(Software Defined Networks)
- Network Security

Area of Specialization
- Networking
- IoT
- Block Chain Techniques
- Problem Solving through Programming

Experience:
- Worked as a Senior Software Developer for 3 years 7 months.
- Working as an Assistant Professor for more than 7 years in Reputed Institutions.

Mr.T.KUMARAN M.Tech., (Ph.D)

Assistant Professor

Email: kumarant@svce.ac.in

Industry Certifications:
- Wipro Certified Faculty (WCF) – Underwent training at Wipro Limited, Bangalore and qualified as a certified trainer in J2EE.
- Red Hat Certified Professional
- Cisco Certified Network Administrator

Research Area
- Machine Learning
- Cryptography and Network Security
- Machine Learning

Area of Specialization
- Networking
- Data Analytics
- Cyber Forensics

Experience:
- Working as an Assistant Professor for more than 9 years in Reputed Institutions.

Mr.AR.GURUGOKUL M.E.,

Assistant Professor

Email: gurugokul@svce.ac.in

Industry Certifications:
- Wipro Certified Faculty (WCF) – Underwent training at Wipro Limited, Bangalore and qualified as a certified trainer in J2EE.
- Completed a Short term course on "Introduction to Cryptography" organized by NIT, Trichy.
- Participated in National Cyber Defence Summit – 2016 organised by National Cyber Safety and Security Standards.
- Microsoft Certified System Professional

Research Area
- Cryptography Network Security

Area of Specialization
- Networking
- Block Chain Techniques
- Problem Solving through Programming

Experience:
- Working as an Assistant Professor for more than 4 years in Reputed Institutions.

Two Days Workshop on Blockchaining and IoT

Date: 15th & 16th October 2018

S.No	Name of the Participant	Designation	Signature
1.	Dr. R. Anitha	Prof & Head.	
2.	Dr. T. Sukumar	AP, IT	
3.	Dr. G. Padmavathi	Prof /EC	15/10/18
4.	SUMNEET KAUR BAMRAH	ME, CSE-I	Sut
5.	KHANAGHAVALLE. G. R	ME, CSE-I	valle.
6.	M. Alamelu	ME, CSE-I	M.A
7.	A. Brightlin Raja	ME, CSE-I	
8.	P. Jayashri	ME-CSE-I	Jayash
9.	Hariharan. V	BE-CSE-IV	
10.	A SOWMYA NARAYAN	AP/IS	
11.	T. RAJASEKARAN	AP/C	T.B
12.	V. Rajaram	AP/IT	V.Raj
13.	Dr. J. M. GNANASEKAR	Prof/CS	
14.	V. selvamani	AP/U	
15.	Varsha Sarcuevasan	CSE/III	vaalooo
16.	M. SRIVARISHINI	CSE/III	M.Srivkaus
17.	M. S. Sharanth Kumar	CSE II	H.S.Sharanth
18.	G. B. SHOBHIN	CSE/II	
19.	J. Sudharsan	CSE/II	Sudharsan
20.	Sriram. S	CSE/II	
21.	Poojasaras. R	CSE/III	Phub
22.	Rajalakshmi. G.V	CSE/III	Rajif.G.v
23.	Nandhini. K	CSE/III	
24.	Pasam Pavithra	CSE/III	P.P
25.	Nandhini devi s	Cse/iii	
26.	Rudraraju Yamini Sree	CSE/III	Yamini
27.	K. Ramya	CSE/III	K.Ram
28.	V. Ranjith	IT/AP	
29.	K. Suresh.	IT/AP.	

S.No	Name of the Participant	Designation	Signature
30.	N. REVATHI	Asst. Prof.	N. R...
31.	S.K. Umamaheswari	Asst. Prof	
32.	Dr. P. Javanthavan	Asso. Prof	
33.	Dr. R. NEOVN CHELIN	Prof	
34.	Dr C. JAYAKUMAR	Prof	
35.	R. Gayathri	AP/CS	
36.	S. Kalavathi	AP/IT	
37.	A. Rohini	AP/IT	
38.	S. Rajalakshmi	AP/CS	
39.	U. Abirami	AP/CS	
40.	Swaran. I	II Yr CS 'C'	
41.	Soorya Rejkumar	II Yr CS 'C'	
42.	S. Poorani	AP/CS	
43.	S. U. Muthunagai	AP/CS	
44.	R. Pyswarya	AP/CS	
45.	Dr. R. Jayakaduri	Asso. Prof. /CS	
46.	M. P. Lakshmanakumar	AP/CS	
47.			
48.	Total No: of Registered	= 39	
49.	Participants		
50.			
51.	Amount Recieved		
52.	from registered	= 39 × 200 = 7800/-	
53.	participants		
54.			
55.			
56.			
57.			
58.			
59.			
60.			