SELVAM COLLEGE OF TECHNOLOGY
PONNUSAMY NAGAR, SALEM ROAD(NH-44), NAMAKKAL - 637003. TAMILNADU.
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1.3.3 List of students undertaking project work/field work/ internships

B.E-COMPUTER SCIENCE AND ENGINEERING

ACADEMIC YEAR 2020-2021							
S.NO	**REGISTER NUMBER**	**NAME LIST**	**Year I,II,III,IV**	**Project Work**	**Mini Project**	**Field Work**	**Internship**
1	622517104001	ABITHA A	IV	✓			
2	622517104002	AISWARIYA K	IV	✓			
3	622517104003	ARULJOTHI C	IV	✓			
4	622517104005	CHANDRU S	IV	✓			
5	622517104006	CHANDRU V	IV	✓			
6	622517104007	DAISY P	IV	✓			
7	622517104008	DEVARAJU R	IV	✓			
8	622517104009	DINESH MK	IV	✓			
9	622517104010	DINESHKUMAR R	IV	✓			
10	622517104011	DIVYA N	IV	✓			
11	622517104012	GOBIKRISHNAN M	IV	✓			
12	622517104013	HAKKIM IBRAHIM M	IV	✓			
13	622517104015	JANAKI C	IV	✓			

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14	622517104017	JOHN BAPTIST A	IV	✓			
15	622517104018	KARTHI A	IV	✓			
16	622517104021	KARTHIKA M	IV	✓			
17	622517104022	KARTHIKRAJ N	IV	✓			
18	622517104023	KEERTHIKA S	IV	✓			
19	622517104024	KIRANKUMAR M	IV	✓			
20	622517104025	KIRUBA V	IV	✓			
21	622517104027	MAHALAKSHMI S	IV	✓			
22	622517104028	MANIKANDAN C	IV	✓			
23	622517104030	MONISHPRABHU R	IV	✓			
24	622517104031	MOWNIKA R	IV	✓			
25	622517104032	MYVILY J	IV	✓			
26	622517104034	NAVEEN A	IV	✓			
27	622517104035	NAVEENKUMAR B	IV	✓			
28	622517104038	NIVEDHA R	IV	✓			
29	622517104039	PARVATHI N	IV	✓			
30	622517104041	PRADEEPKUMAR B	IV	✓			
31	622517104042	PRAVINKUMAR M	IV	✓			
32	622517104044	RAJESHWARI T	IV	✓			
33	622517104045	SAMBATH KUMAR K	IV	✓			

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34	622517104047	SASIKUMAR R	IV	✓			
35	622517104048	SATHISHKUMAR P	IV	✓			
36	622517104049	SHALINI P	IV	✓			
37	622517104050	SHARUMATHI M	IV	✓			
38	622517104051	SHYAM SUNDAR R	IV	✓			
39	622517104053	SINTHUJA M	IV	✓			
40	622517104054	SOUNDARIYA V	IV	✓			
41	622517104057	SURIYA G	IV	✓			
42	622517104059	THIRUNAVUKARASU P	IV	✓			
43	622517104060	VENKATESH M	IV	✓			
44	622517104062	VIJAY PRASATH M	IV	✓			
45	622517104063	YAMUNA P	IV	✓			
46	622517104701	SUBHASHINI R	IV	✓			
47	622517104302	MANJULA V	IV	✓			
48	622518104001	ABISHEK G	III		✓		
49	622518104002	ARUN K	III		✓		
50	622518104003	BHUVANESHWARAN R	III		✓		✓
51	622518104004	BHUVANESHWARI G	III		✓		
52	622518104005	BOOBALAN V	III		✓		
53	622518104006	CHANDRU C	III		✓		

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54	622518104008	DEEBITHKUMAR D	III		✓		
55	622518104009	DEEPIKA N	III		✓		
56	622518104010	DHARSANA G	III		✓		
57	622518104011	DHARUN K	III		✓		✓
58	622518104012	DHINESHKUMAR R	III		✓		
59	622518104013	ESAKKI SELVI S	III		✓		✓
60	622518104014	GOKULRAM L	III		✓		
61	622518104015	GOWRI A	III		✓		✓
62	622518104016	GOWTHAM V	III		✓		
63	622518104017	HARIKARAN A	III		✓		
64	622518104018	HARITHA D	III		✓		✓
65	622518104019	HEMNATH V	III		✓		
66	622518104020	INDHUJA M	III		✓		✓
67	622518104021	INDUMATHI D	III		✓		✓
68	622518104022	JANSIRANI S	III		✓		✓
69	622518104023	JEEVITHA R	III		✓		✓
70	622518104025	KALAISELVI P	III		✓		✓
71	622518104026	KARTHIGA A	III		✓		
72	622518104027	KARTHIK R	III		✓		
73	622518104028	KAVITHA R	III		✓		✓

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74	622518104030	MADHESH KUMAR M	III		✓		✓
75	622518104031	MANIKANDAN K	III		✓		✓
76	622518104032	MARUTHUPANDI M	III		✓		
77	622518104033	MAYEKKALAI R	III		✓		
78	622518104035	MOHANAPRIYA S	III		✓		
79	622518104037	MONISHA V	III		✓		
80	622518104038	MURALI P	III		✓		✓
81	622518104039	NAGA PRIYA C	III		✓		✓
82	622518104040	POOMANI S	III		✓		✓
83	622518104041	PRABAVATHI R	III		✓		✓
84	622518104042	PRAVEENKUMAR S	III		✓		
85	622518104043	RAJI SWETHA R	III		✓		
86	622518104045	RUBA R	III		✓		
87	622518104046	SANJAI K	III		✓		✓
88	622518104047	SARANYA S	III		✓		✓
89	622518104049	SEGUVERA A	III		✓		
90	622518104050	SNEHA R	III		✓		✓
91	622518104051	SOUNDHARARAJAN L	III		✓		
92	622518104052	SOWMITHIRA S	III		✓		
93	622518104053	SUBASRI S	III		✓		

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94	622518104054	SUJI L	III		✓		✓
95	622518104055	SURIYA V	III		✓		
96	622518104056	SURUTHI K	III		✓		
97	622518104057	TAMIL SELVI M	III		✓		
98	622518104058	THAVASI N	III		✓		
99	622518104059	THENMOZHI N	III		✓		
100	622518104060	VAISHNAVI S	III		✓		✓
101	622518104062	VENKATESHWARAN R	III		✓		✓
102	622518104063	YOGESH D	III		✓		
103	622518104301	MAHESHKUMAR C	III		✓		
104	622518104302	NIVASHINI K	III		✓		

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B.E-COMPUTER SCIENCE AND ENGINEERING
PROJECT BATCH LIST (2020-2021)

S.NO	B.No.	REGISTER NUMBER	NAME OF THE STUDENTS	PROJECT TITLE	PROJECT GUIDE
1	B1	622517104062	VIJAY PRASATH M	FTP SECURITY SYSTEMS IMPLEMENTATION	Mr.T.Sathish
2		622517104028	MANIKANDAN C		
3		622517104030	MONISHPRABHU R		
4		622517104047	SASIKUMAR R		
5	B2	622517104002	AISWARIYA K	FOREST FIRE ALERTING SYSTEM WITH GPS CO-ORDINATES USING IOT	Mr.R.Mohanabharathi
6		622517104011	DIVYA N		
7		622517104015	JANAKI C		
8		622517104007	DAISY P		
9	B3	622517104054	SOUNDARIYA V	A SURVEY ON ATTRIBUTE-BASED USER REVOCABLE DATA INTEGRITY FOR SECURE OUTSOURCED STORAGE	Mrs.R.Bhuvaneswari
10		622517104063	YAMUNA P		
11		622517104044	RAJESHWARI T		
12		622517104032	MYVILY J		
13	B4	622517104006	CHANDRU V	ACCIDENT DETECTION AND PREVENTION IN IOT BASED	Mrs.M.Vanitha
14		622517104005	CHANDRU S		
15		622517104008	DEVARAJU R		
16		622517104010	DINESHKUMAR R		
17	B5	622517104049	SHALINI P	PRIVACY PERSERVING ATTRIBUTE BASED KEYWORDS SEARCH IN MULTI OWNER SETTING	Mrs.S.Revathi
18		622517104701	SUBHASHINI R		
19		622517104050	SHARUMATHI M		
20		622517104302	MANJULA V		
21	B6	622517104012	GOBIKRISHNAN M	ENERGY EFFICIENT SUSTAINABLE CHARGING IN WIRELESS POWER TRANSFER ON IOT BASED DEVICES	Mrs.M.Vanitha
22		622517104060	VENKATESH M		
23		622517104041	PRADEEPKUMAR B		
24		622517104024	KIRANKUMAR M		

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25	B7	622517104042	PRAVINKUMAR M	SMART AIR QUALITY DETECTION SYSTEM	Mr.P.Rajendran
26		622517104051	SHYAM SUNDAR R		
27		622517104045	SAMBATH KUMAR K		
28		622517104059	THIRUNAVUKARASU P		
29	B8	622517104003	ARULJOTHI C	VERIFIABLE AND MULTIKEYWORD DATA SHARING PROTOCOL TO MINIMIZE SECURITY AND PRIVACY RISKS METHOD FOR CLOUD STORAGE.	Mr.R.Mohanabharathi
30		622517104001	ABITHA A		
31		622517104021	KARTHIKA M		
32		622517104025	KIRUBA V		
33	B9	622517104013	HAKKIM IBRAHIM M	PATIENT MANAGEMENT SYSTEM USING AUGMENTED REALITY VISUALIZATION	Mrs.S.Revathi
34		622517104048	SATHISHKUMAR P		
35		622517104057	SURIYA G		
36		622517104021	KARTHIKRAJ		
37	B10	622517104009	DINESH MK	CATERING WEBPAGE DEVELOPMENT	Mrs.R.Bhuvaneswari
38		622517104034	NAVEEN A		
39		622517104035	NAVEENKUMAR B		
40		622517104018	KARTHI A		
41	B11	622517104038	NIVEDHA R	SECURE DATA GROUP SHARING CONDITION DISSEMINATION WITH MULTI OWNER IN CLOUD COMPUTING	Mr.T.Sathish
42		622517104027	MAHALAKSHMI S		
43		622517104031	MOWNIKA R		
44		622517104039	PARVATHI N		
45	B12	622517104017	JOHN BAPTIST A	ONLINE BOOK ORDERING AND BOOK AVAILABILITY CHECKING APP IN YOUR NEAR BOOK STORES	Mr.P.Rajendran
46		622517104053	SINTHUJA M		
47		622517104023	KEERTHIKA S		

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B.E-COMPUTER SCIENCE AND ENGINEERING
MINI PROJECT BATCH LIST (2020-2021)

S.NO	B.No.	NAME OF THE STUDENTS	PROJECT TITLE	PROJECT GUIDE
1	B1	HEMNATH V	GROCERY HELPER	Mr.R.Mohanabharathi
2		KARTHIGA A		
3		MAHESHKUMAR C		
4		VENKATESHWARAN R		
5	B2	INDUMATHI D	TRACING AN IP ADRESS BEHIND VPN/PROXY	Mrs.M.Vanitha
6		RAJI SWETHA R		
7		RUBA R		
8		SUJI L		
9	B3	GOWRI V	COVID-19 FUTURE FORECASTING USING MACHINE LEARNING MODELS	Mrs.R.Bhuvaneswari
10		INDHUJA M		
11		PRABAVATHI R		
12		SNEHA R		
13	B4	DEEPIKA N	ONLINE EVENT PLANNER WEBPAGE	Mrs.R.Tamilselvi
14		JANSIRANI S		
15		KAVITHA R		
16		SUBASRI S		
17	B5	HARITHA D	COVID CASES TRACKING SYSTEM	Mrs.R.Bhuvaneswari
18		JEEVITHA R		
19		TAMILSELVI M		
20		VAISHNAVI S		
21	B6	ESAKKISELVI S	MOBILE APP FOR 24X7 LOCAL HOME SERVICES	Mr.P.Rajendran
22		KALAISELVI P		
23		SARANYA S		
24		SURUTHI K		

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25	B7	CHANDRU C	FACE MASK DETECTION	Mr.M.Suresh
26		DEEBITHKUMAR D		
27		GOKULRAM L		
28		MANIKANDAN K		
29	B8	ABISHEK G	SECURITY BUG FINDER IN WEBPAGES	Mrs.S.Revathi
30		BHUVANESHWARAN R		
31		SEGUVERA A		
32		THAVASI N		
33	B9	MADHESH KUMAR M	NATIONAL WEB POTAL FOR JOB ORIENTED COURSES	Mrs.M.Vanitha
34		MURALI P		
35		SOWMITHRA		
36		SURIYA V		
37	B10	BOOBALAN V	GENIE PLAY STORE	Mrs.S.Revathi
38		KARTHIK R		
39		PRAVEENKUMAR S		
40		YOGESH D		
41	B11	GOWTHAM V	AUTO DRIVING SYSTEM	Mr.M.Suresh
42		MARUTHUPANDI M		
43		MAYEKKALAI R		
44		SOUNDHARARAJAN L		
45	B12	DHARUN K	REAL-TIME COST MINIMIZATION OF FOGCOMPUTING IN MOBILE-BASE-STATIONNETWORKED DISASTER AREAS	Mr.P.Rajendran
46		DHARSANA G		
47		HARIKARAN A		
48	B13	BHUVANESHWARI G	CREDIT CARD DETECTION USINGADABOOST AND MAJOR VOTING	Mrs.R.Tamilselvi
49		MOHANAPRIYA S		
50		NAGA PRIYA C		
51		NIVASHINI K		
52	B14	MONISHA V	ASPECT LEVEL SENTIMENT ANALYSIS	Mrs.S.Revathi
53		POOMANI S		
54		THENMOZHI N		
55	B15	ARUN K	WEB ATTACH DETECTION IN EDGE DEVICES	R.Mohanabharathi
56		DHINESHKUMAR R		
57		SANJAI K		

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B.E-COMPUTER SCIENCE AND ENGINEERING

INTERNSHIP DETAILS 2020-2021

S.NO	REGISTER NUMBER	NAME LIST	DEPARTMENT	YEAR OF STUDY	NAME OF THE COMPANY	LOCATION	DATE
1	622518104003	BHUVANESHWARAN R	CSE	2021	TECKZEAL PRIVATE LIMITED	BANGALORE	02 Jan 2021-30 June 2021
2	622518104018	HARITHA D	CSE	2021	MAXPRO INFOTECH	SALEM	24th March 2021 to 02th May2021
3	622518104022	JANSIRANI S	CSE	2021	MAXPRO INFOTECH	SALEM	24th March 2021 to 02th May2021
4	622518104028	KAVITHA R	CSE	2021	MAXPRO INFOTECH	SALEM	24th March 2021 to 02th May2021
5	622518104060	VAISHNAVI S	CSE	2021	MAXPRO INFOTECH	SALEM	24th March 2021 to 02th May2021
6	622518104054	SUJI L	CSE	2021	DLK CAREER DEVELOPMENT IT SERVICES TECHNOLOGY CONSULTING	NAMAKKAL	17th May 2021 to 22th May 2021.
7	622518104021	INDUMATHI D	CSE	2021	DLK CAREER DEVELOPMENT IT SERVICES TECHNOLOGY CONSULTING	NAMAKKAL	17th May 2021 to 22th May 2021.
8	622518104039	NAGA PRIYA C	CSE	2021	DLK CAREER DEVELOPMENT IT SERVICES TECHNOLOGY CONSULTING	NAMAKKAL	17th May 2021 to 22th May 2021.
9	622518104046	SANJAI K	CSE	2021	DLK CAREER DEVELOPMENT IT SERVICES TECHNOLOGY CONSULTING	NAMAKKAL	17th May 2021 to 22th May 2021.
10	622518104011	DHARUN K	CSE	2021	INNOVATORS AND YOU	TRICHY	02nd of July 2021 to 25th of July2021
11	622518104013	ESAKKI SELVI S	CSE	2021	SD PRO SOLUTIONS	TRICHY	15th September to 20th September 2021
12	622518104015	GOWRI A	CSE	2021	SD PRO SOLUTIONS	TRICHY	16th September to 20th September 2021
13	622518104020	INDHUJA M	CSE	2021	SD PRO SOLUTIONS	TRICHY	17th September to 20th September 2021
14	622518104025	KALAISELVI P	CSE	2021	SD PRO SOLUTIONS	TRICHY	18th September to 20th September 2021
15	622518104030	MADHESH KUMAR M	CSE	2021	SD PRO SOLUTIONS	TRICHY	19th September to 20th September 2021

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16	622518104031	MANIKANDAN K	CSE	2021	SD PRO SOLUTIONS	TRICHY	20th September to 20th September 2021
17	622518104038	MURALI P	CSE	2021	SD PRO SOLUTIONS	TRICHY	21st September to 20th September 2021
18	622518104039	NAGA PRIYA C	CSE	2021	SD PRO SOLUTIONS	TRICHY	22nd September to 20th September 2021
19	622518104041	PRABAVATHI R	CSE	2021	SD PRO SOLUTIONS	TRICHY	23rd September to 20th September 2021
20	622518104047	SARANYA S	CSE	2021	SD PRO SOLUTIONS	TRICHY	24th September to 20th September 2021
21	622518104050	SNEHA R	CSE	2021	SD PRO SOLUTIONS	TRICHY	25th September to 20th September 2021
22	622518104302	NIVASHINI K	CSE	2021	SD PRO SOLUTIONS	TRICHY	26th September to 20th September 2021
23	622518104023	JEEVITHA R	CSE	2021	AICL LEARNING SIMPLIFIED	CHENNAI	04th October to 22th October 2021

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CS8591 **COMPUTER NETWORKS**

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OBJECTIVES:

- To understand the protocol layering and physical level communication.
- To analyze the performance of a network.
- To understand the various components required to build different networks.
- To learn the functions of network layer and the various routing protocols.
- To familiarize the functions and protocols of the Transport layer.

UNIT I INTRODUCTION AND PHYSICAL LAYER **9**

Networks – Network Types – Protocol Layering – TCP/IP Protocol suite – OSI Model – Physical Layer: Performance – Transmission media – Switching – Circuit-switched Networks – Packet Switching.

UNIT II DATA-LINK LAYER & MEDIA ACCESS **9**

Introduction – Link-Layer Addressing – DLC Services – Data-Link Layer Protocols – HDLC – PPP - Media Access Control - Wired LANs: Ethernet - Wireless LANs – Introduction – IEEE 802.11, Bluetooth – Connecting Devices.

UNIT III NETWORK LAYER **9**

Network Layer Services – Packet switching – Performance – IPV4 Addresses – Forwarding of IP Packets - Network Layer Protocols: IP, ICMP v4 – Unicast Routing Algorithms – Protocols – Multicasting Basics – IPV6 Addressing – IPV6 Protocol.

UNIT IV TRANSPORT LAYER **9**

Introduction – Transport Layer Protocols – Services – Port Numbers – User Datagram Protocol – Transmission Control Protocol – SCTP.

UNIT V APPLICATION LAYER **9**

WWW and HTTP – FTP – Email –Telnet –SSH – DNS – SNMP.

TOTAL : 45 PERIODS

OUTCOMES:

On Completion of the course, the students should be able to:

- Understand the basic layers and its functions in computer networks.
- Evaluate the performance of a network.
- Understand the basics of how data flows from one node to another.
- Analyze and design routing algorithms.
- Design protocols for various functions in the network.
- Understand the working of various application layer protocols.

TEXT BOOK:

1. Behrouz A. Forouzan, Data Communications and Networking, Fifth Edition TMH,2013.

REFERENCES

1. Larry L. Peterson, Bruce S. Davie, Computer Networks: A Systems Approach, Fifth Edition, Morgan Kaufmann Publishers Inc., 2012.
2. William Stallings, Data and Computer Communications, Tenth Edition, Pearson

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Education, 2013.
3. Nader F. Mir, Computer and Communication Networks, Second Edition, Prentice Hall, 2014.
4. Ying-Dar Lin, Ren-Hung Hwang and Fred Baker, Computer Networks: An OpenSource Approach, McGraw Hill Publisher, 2011.
5. James F. Kurose, Keith W. Ross, Computer Networking, A Top-Down ApproachFeaturing the Internet, Sixth Edition, Pearson Education, 2013.

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SECURITY BASED FILE SHARING SYSTEM IMPLEMENTATION IN FILE TRANSFER PROTOCOL

A PROJECT REPORT

Submitted by

C.MANIKANDAN	**(622517104028)**
R.MONISHPRABU	**(622517104030)**
R.SASI KUMAR	**(622517104047)**
M.VIJAY PRASATH	**(622517104062)**

partial fulfillment for the award of the degree

of

BACHELOR OF ENGINEERING

in

COMPUTER SCIENCE AND ENGINEERING

SELVAM COLLEGE OF TECHNOLOGY, NAMAKKAL-03

ANNA UNIVERSITY: CHENNAI 600 025

MARCH 2021

SELVAM COLLEGE OF TECHNOLOGY Namakkal 637 003.

Dr. A. Natarajan, M.E., Ph.D.,
Principal
Selvam College of Technology,
Namakkal-637 003, TN.

ANNA UNIVERSITY: CHENNAI 600 025

BONAFIDE CERTIFICATE

Certificated that this project report **"SECURITY BASED FILE SHARING SYSTEM IMPLEMENTATION IN FILE TRANSFER PROTOCOL"** the bonafide work of

C.MANIKANDAN	**(622517104028)**
R.MONISHPRABU	**(622517104030)**
R.SASI KUMAR	**(622517104047)**
M.VIJAY PRASATH	**(622517104062)**

Who carried out the project work under my supervision.

SIGNATURE

Mrs.R. Bhuvaneswari,M.E.,(Ph.D).,

HEAD OF THE DEPARTMENT

Assistant Professor

Department of CSE

Selvam College of Technology

Namakkal-637003.

SIGNATURE

Mr. T.Sathish,M.E.,M.Tech,

SUPERVISOR

Assistant Professor

Department of CSE

Selvam College of Technology

Namakkal-637003.

Submitted for the University Viva-Voce examination held on .....

INTERNAL EXAMINER

EXTERNAL EXAMINER

SELVAM COLLEGE OF TECHNOLOGY Namakkal 637 003.

Dr. A. Natarajan, M.E., Ph.D.,
Principal
Selvam College of Technology,
Namakkal-637 003, TN.

ABSTRACT

There is a great need to transfer information between hosts and networks in fast with reliable and secure way this is a big challenge with open environment especially Internet and TCP based Networks. In this paper, we develop a new file transfer protocol based on UDP as a fast, reliable and secure protocol; and called FRS-FTP port protection and authentication, while the third phase to transfer files with "fast" issue under UDP. The proposed protocol is implemented using Visual Basic .Secure way to connect the FTP an android to desktop or laptop While connect to mobile phone files securly transfer in desktop and ftp login time flash messege in your android phone for conecting device name. you give permission Yes or No flash messege sending our phone you agree yes messege to connnect your FTP in any devise.

CHAPTER 8

8.CONCLUSION AND FUTURE ENHANCEMENT

8.1 CONCLUSION

FTP is a very useful software application that can have enormous benefit to a Web site or to collaborative computing in which files need to be shared between business partners. Although insecure, it is universally accessible, because FTP clients are a part of all operating systems and Web browsers. If data encryption security is of great importance to you, then you should probably consider SCP as a possible alternative.You can find more information , "Secure Remote Logins and File Copying."

8.2.FUTURE ENHANCEMENT

In this paper, complementation our experimental results, we have observed that our FTP-ADTS outperforms existing approaches by upto 95% in transferring large amounts of data in LAN, as well as significant improvements in various IB WAN scenarios. We also observed that our approach achieves peak transfer rates at much lower (up to 6 times) CPU utilization, resulting in much better scalability. Our studies demonstrates that the novel FTP design using IB advanced features can provide very efficient file transfer, thus offering the insight to design next generation high different manner. In the future we intend to explore these challenges in other communication middleware and study the impact of modern WAN interconnects on their designs.

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CS8651	INTERNET PROGRAMMING	L	T	P	C
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OBJECTIVES:

- To understand different Internet Technologies.
- To learn java-specific web services architecture

UNIT I WEBSITE BASICS, HTML 5, CSS 3, WEB 2.0 **9**

Web Essentials: Clients, Servers and Communication - The Internet - Basic Internet protocols - World wide web - HTTP Request Message - HTTP Response Message - Web Clients – Web Servers – HTML5 – Tables – Lists – Image – HTML5 control elements – Semantic elements - Drag and Drop - Audio - Video controls - CSS3 - Inline, embedded and external style sheets - Rule cascading - Inheritance - Backgrounds - Border Images - Colors - Shadows - Text - Transformations - Transitions - Animations.

UNIT II CLIENT SIDE PROGRAMMING **9**

Java Script: An introduction to JavaScript-JavaScript DOM Model-Date and Objects,-Regular Expressions- Exception Handling-Validation-Built-in objects-Event Handling-DHTML with JavaScript- JSON introduction - Syntax - Function Files - Http Request - SQL.

UNIT III SERVER SIDE PROGRAMMING **9**

Servlets: Java Servlet Architecture- Servlet Life Cycle- Form GET and POST actions-Session Handling- Understanding Cookies- Installing and Configuring Apache Tomcat Web Server- DATABASE CONNECTIVITY: JDBC perspectives, JDBC program example - JSP: Understanding Java Server Pages-JSP Standard Tag Library (JSTL)-Creating HTML forms by embedding JSP code.

UNIT IV PHP and XML **9**

An introduction to PHP: PHP- Using PHP- Variables- Program control- Built-in functions-Form Validation- Regular Expressions - File handling – Cookies - Connecting to Database. XML: Basic XML- Document Type Definition- XML Schema DOM and Presenting XML, XML Parsers and Validation, XSL and XSLT Transformation, News Feed (RSS and ATOM).

UNIT V INTRODUCTION TO AJAX and WEB SERVICES **9**

AJAX: Ajax Client Server Architecture-XML Http Request Object-Call Back Methods; Web Services: Introduction- Java web services Basics – Creating, Publishing, Testing and Describing a Web services (WSDL)-Consuming a web service, Database Driven web service from an application -SOAP.

TOTAL 45 PERIODS

OUTCOMES:

At the end of the course, the students should be able to:

- Construct a basic website using HTML and Cascading Style Sheets.
- Build dynamic web page with validation using Java Script objects and by applying different event handling mechanisms.
- Develop server side programs using Servlets and JSP.
- Construct simple web pages in PHP and to represent data in XML format.
- Use AJAX and web services to develop interactive web applications

TEXT BOOK:

1. Deitel and Deitel and Nieto, "Internet and World Wide Web - How to Program", Prentice Hall, 5th Edition, 2011.

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16

REFERENCES:

1. Stephen Wynkoop and John Burke ¯Running a Perfect Website‖, QUE, 2nd Edition,1999.
2. Chris Bates, Web Programming - Building Intranet Applications, 3rd Edition, Wiley Publications, 2009.
3. Jeffrey C and Jackson, ¯Web Technologies A Computer Science Perspective‖, Pearson Education, 2011.
4. Gopalan N.P. and Akilandeswari J., ¯Web Technology‖, Prentice Hall of India, 2011.
5. UttamK.Roy, ¯Web Technologies‖, Oxford University Press, 2011.

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Principal
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Namakkal-637 003, TN.

Online Event Planner Webpage

A PROJECT REPORT

Submitted by

DINESH M.K **(622517104009)**

KARTHI A **(622517104018)**

NAVEEN A **(622517104034)**

NAVEEN KUMAR B **(622517104035)**

in partial fulfillment for the award of the degree

of

BACHELOR OF ENGINEERING

in

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SELVAM COLLEGE OF TECHNOLOGY, NAMAKKAL - 03

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Namakkal-637 003, TN.

ANNA UNIVERSITY: CHENNAI 600 025

BONAFIDE CERTIFICATE

Certificated that this project report " **Online Event Planner Webpage** " the bonafide work of

M.K.DINESH	**(622517104009)**
A.KARTHI	**(622517104018)**
A.NAVEEN	**(622517104034)**
B.NAVEEN KUMAR	**(622517104035)**

Who carried out the project work under my supervision.

SIGNATURE

Mrs.R. Bhuvaneswari.,M.E.,(Ph.D).,

HEAD OF THE DEPARTMENT

Assistant Professor

Department of CSE

Selvam College of Technology

Namakkal-637003.

SIGNATURE

Mrs.R. Bhuvaneswari.,M.E.,(Ph.D).,

SUPERVISOR

Assistant Professor

Department of CSE

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Submitted for the University Viva-Voce examination held on .....

INTERNAL EXAMINER

EXTERNAL EXAMINER

SELVAM COLLEGE OF TECHNOLOGY Namakkal 637 003.

Dr. A. Natarajan, M.E., Ph.D.,
Principal
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Namakkal-637 003, TN.

ABSTRACT

The "Online Event Planner Webpage" services are the most and fast growing in this modern world. The society needs an event manager to plan and execute their office events like conferences, office meeting and personal events like birthday parties, marriage function and other null events. This system helps the customer to utilize service online by sitting in their place. This system supports book place, event type, catering service and can save timing through online. In order to improve the operational efficiency of restaurant and catering enterprises by using modern information technology, this paper develops an E-commerce on-line catering reserving and ordering system based on mobile intelligent terminal, which is based on Android platform. The system integrates with wireless communications, artificial intelligence, and database technologies and achieves many functions, such as reserving, ordering, evaluation, recommending, restaurants navigation, scheduling, information displaying, and ordering records management, etc. Catering management is a based on database utility system which fetches all information from a centralized database. The customer uses web application which contains the menu details. The customer application and admin application connects directly with each other through same database. This application is user-friendly, improves efficiency for caterers by saving time, reduces human errors and provides customer feedback. This system is made for user so that he can book the things for catering that he requires, very easily. When people gather together for several hours, they will definitely require food and beverages.

CHAPTER 9

CONCLUSION AND FUTURE ENHANCEMENT

9.1 Conclusion

Our project is only a humble venture to satisfy the needs to manage their project work. Several user friendly coding have also adopted. This package shall prove to be a powerful package in satisfy all requirements of the user. The objective of the software planning is to provide a framework that enable the manager to make reasonable estimate made within a limited time frame at the beginning of the software project and should be update regularly as the project regularly. At the end it is concluded that we have made effort on following point.

- A description of background and context of the project and its relation to work already done in the area.
- Made statement of the aims and objectives of the project.
- The description of the purpose scope and applicability.
- We define the project on which we are working in project.
- We describe the requirement specifications of the system and actions that can be done on these things.
- We designed user interface and security related to system.
- Finally the system is implemented and tested according to the test cases.

9.2 Future Enhancement

This application is user-friendly, improves efficiency for caterers by saving time, reduces human errors and provides customer feedback. This system is made for user so that he can book the things for catering that he requires, very easily.

When people gather together for several hours, they will definitely require food and beverages.

This typical method is kind of wasting of time and energy when there are a lot of customers at that time. This system requires the customer to make an order through their web based application. It also will give an extra-work to the cashier to record all the transaction Therefore, the research has been done to develop a system which will give a lot more benefit to both catering owner and customers.

DLK
Career Development

DLK CAREER DEVELOPMENT
IT SERVICES TECHNOLOGY CONSULTING

Date : 22 / May / 2021

To
Department of Computer Science,
Head of Department,
Selvam College of Technology, Namakkal - 637003.

Sub: Letter of Internship Completion

This is to certify that **Mr Sanjai.K** (**Reg No : 622518104046**) Third year students of has Successfully Completed his 1 Week Internship at **Web Development** duration from **17th May 2021** to **22th May 2021.**
During the Period of his internship Programmed with us he was Found punctual, hardworking and inquisitive

We wish him every success in life

Yours Sincerely,

Velmurugan
Project Team Head
DLK CAREER DEVELOPMENT

DLK CAREER DEVELOPMENT CHENNAI

Admin Office: Door No: 66, Ground Floor, No. 172, Raahat Plaza, Arcot Road,
Vadapalani, Chennai - 26.Tamil Nadu, INDIA.
www.freeinternshipinchennai.co.in | Phone: 044-42032818

SELVAM COLLEGE OF TECHNOLOGY Namakkal 637 003.

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Namakkal-637 003, TN.

DLK
Career Development

DLK CAREER DEVELOPMENT
IT SERVICES TECHNOLOGY CONSULTING

Date : 22 / May / 2021

To

Department of Computer Science,

Head of Department,

Selvam College of Technology, Namakkal - 637003.

Sub: Letter of Internship Completion

This is to certify that **Ms Suji.L** **(Reg No : 622518104054)** Third year students of has Successfully Completed her 1 Week Internship at **Web Development** duration from **17th May 2021** to **22th May 2021.**

During the Period of her internship Programmed with us she was Found punctual, hardworking and inquisitive

We wish her every success in life

Yours Sincerely,

Velmurugan

Project Team Head

DLK CAREER DEVELOPMENT

DLK CAREER DEVELOPMENT CHENNAI

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Principal
Selvam College of Technology
Namakkal-637 003. T.N.

15

DLK
Career Development

DLK CAREER DEVELOPMENT
IT SERVICES TECHNOLOGY CONSULTING

Date : 22 / May / 2021

To
Department of Computer Science,
Head of Department,
Selvam College of Technology, Namakkal - 637003.

Sub: Letter of Internship Completion

This is to certify that **Ms Indumathi D (Reg No : 622518104021)** Third year students of has Successfully Completed her 1 Week Internship at **Web Development** duration from **17th May 2021 to 22th May 2021.**
During the Period of her internship Programmed with us she was Found punctual, hardworking and inquisitive

We wish her every success in life

Yours Sincerely,

Velmurugan
Project Team Head
DLK CAREER DEVELOPMENT

DLK CAREER DEVELOPMENT CHENNAI

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SELVAM COLLEGE OF TECHNOLOGY Namakkal 637 003.

Dr. A. Natarajan, M.E., Ph.D.,
Principal
Selvam College of Technology,
Namakkal-637 003, TN.

AICL
Learning Simplified

TO WHOM IT MAY CONCERN

This is to certify that Mr/Ms JEEVITHA R (622518104023) a student of SELVAM COLLEGE OF TECHNOLOGY, NAMAKKAL (CSE FINAL YEAR) has successfully completed 15 days (From 4th October 2021 to 22nd October 2021) WEB DESIGN INTERNSHIP PROGRAM at AICL, CHENNAI.

During the period of his/her internship program with us he/she was found, punctual, hardworking and inquisitive.

We wish his/her every success in life.

INTERNSHIP CERTIFICATE

Ref: 202110-AICL-WEBB9-18120

Date: 25-10-2021

Vice President - Training, AICL

3rd Floor, EA Chambers (Express Avenue) No 49 & 50 L, Whites Road, Royapettah, Chennai 600014, Tamil Nadu, India.
Ph: 91 95979 40880 Mail: support@aicl.training
URL: www.aicl.training

SELVAM COLLEGE OF TECHNOLOGY Namakkal 637 003.

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Namakkal-637 003, TN.

65
17

DLK
Career Development

DLK CAREER DEVELOPMENT
IT SERVICES TECHNOLOGY CONSULTING

Date : 22 / May / 2021

To
Department of Computer Science,
Head of Department,
Selvam College of Technology, Namakkal - 637003.

Sub: Letter of Internship Completion

This is to certify that **Ms Nagapriya.C (Reg No : 622518104039)** Third year students of has Successfully Completed her 1 Week Internship at **Web Development** duration from **17th May 2021** to **22th May 2021.**
During the Period of her internship Programmed with us she was Found punctual, hardworking and inquisitive

We wish her every success in life

Yours Sincerely,

Velmurugan
Project Team Head
DLK CAREER DEVELOPMENT

DLK CAREER DEVELOPMENT CHENNAI

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Principal
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Namakkal-637 003, TN.

Online Event Planner Webpage

MINI PROJECT REPORT

Submitted By

DEEPIKA N **(622518104009)**

JANSIRANI S **(622518104022)**

KAVITHA R **(622518104028)**

SUBASRI S **(622518104053)**

in partial fulfillment for the award of the degree

of

BACHELOR OF ENGINEERING

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SELVAM COLLEGE OF TECHNOLOGY, NAMAKKAL - 03

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ANNA UNIVERSITY: CHENNAI 600 025

BONAFIDE CERTIFICATE

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DEEPIKA N	**(622518104009)**
JANSIRANI S	**(622518104022)**
KAVITHA R	**(622518104028)**
SUBASRI S	**(622518104053)**

Who carried out the project work under my supervision.

SIGNATURE

Mrs.R. Bhuvaneswari.,M.E.,(Ph.D).,

HEAD OF THE DEPARTMENT

Assistant Professor

Department of CSE

Selvam College of Technology

Namakkal-637003.

SIGNATURE

Mrs.R. TamilSelvi.,M.E.,

SUPERVISOR

Assistant Professor

Department of CSE

Selvam College of Technology

Namakkal-637003.

Submitted for the University Viva-Voce examination held on .....

INTERNAL EXAMINER

EXTERNAL EXAMINER

SELVAM COLLEGE OF TECHNOLOGY Namakkal 637 003.

Dr. A. Natarajan, M.E., Ph.D.,
Principal
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Namakkal-637 003, TN.

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The "Online Event Planner Webpage" services are the most and fast growing in this modern world. The society needs an event manager to plan and execute their office events like conferences, office meeting and personal events like birthday parties, marriage function and other null events. This system helps the customer to utilize service online by sitting in their place. This system supports book place, event type, catering service and can save timing through online. In order to improve the operational efficiency of restaurant and catering enterprises by using modern information technology, this paper develops an E-commerce on-line catering reserving and ordering system based on mobile intelligent terminal, which is based on Android platform. The system integrates with wireless communications, artificial intelligence, and database technologies and achieves many functions, such as reserving, ordering, evaluation, recommending, restaurants navigation, scheduling, information displaying, and ordering records management, etc. Catering management is a based on database utility system which fetches all information from a centralized database. The customer uses web application which contains the menu details. The customer application and admin application connects directly with each other through same database. This application is user-friendly, improves efficiency for caterers by saving time, reduces human errors and provides customer feedback. This system is made for user so that he can book the things for catering that he requires, very easily. When people gather together for several hours, they will definitely require food and beverages.

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CHAPTER 9

CONCLUSION AND FUTURE ENHANCEMENT

Conclusion

Our project is only a humble venture to satisfy the needs to manage their project work. Several user friendly coding have also adopted. This package shall prove to be a powerful package in satisfy all requirements of the user. The objective of the software planning is to provide a framework that enable the manager to make reasonable estimate made within a limited time frame at the beginning of the software project and should be update regularly as the project regularly. At the end it is concluded that we have made effort on following point.

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CS8601 **MOBILE COMPUTING** **L T P C**
3 0 0 3

OBJECTIVES:

- To understand the basic concepts of mobile computing.
- To learn the basics of mobile telecommunication system .
- To be familiar with the network layer protocols and Ad-Hoc networks.
- To know the basis of transport and application layer protocols.
- To gain knowledge about different mobile platforms and application development.

UNIT I INTRODUCTION **9**

Introduction to Mobile Computing – Applications of Mobile Computing- Generations of Mobile Communication Technologies- Multiplexing – Spread spectrum -MAC Protocols – SDMA- TDMA- FDMA- CDMA

UNIT II MOBILE TELECOMMUNICATION SYSTEM **9**

Introduction to Cellular Systems - GSM – Services & Architecture – Protocols – Connection Establishment – Frequency Allocation – Routing – Mobility Management – Security – GPRS- UMTS – Architecture – Handover - Security

UNIT III MOBILE NETWORK LAYER **9**

Mobile IP – DHCP – AdHoc– Proactive protocol-DSDV, Reactive Routing Protocols – DSR, AODV , Hybrid routing –ZRP, Multicast Routing- ODMRP, Vehicular Ad Hoc networks (VANET) –MANET Vs VANET – Security.

UNIT IV MOBILE TRANSPORT AND APPLICATION LAYER **9**

Mobile TCP– WAP – Architecture – WDP – WTLS – WTP –WSP – WAE – WTA Architecture – WML

UNIT V MOBILE PLATFORMS AND APPLICATIONS **9**

Mobile Device Operating Systems – Special Constraints & Requirements – Commercial Mobile Operating Systems – Software Development Kit: iOS, Android, BlackBerry, Windows Phone – MCommerce – Structure – Pros & Cons – Mobile Payment System – SecurityIssues

TOTAL 45 PERIODS

OUTCOMES:

At the end of the course, the students should be able to:

- Explain the basics of mobile telecommunication systems
- Illustrate the generations of telecommunication systems in wireless networks
- Determine the functionality of MAC, network layer and Identify a routing protocol for agiven Ad hoc network
- Explain the functionality of Transport and Application layers
- Develop a mobile application using android/blackberry/ios/Windows SDK

TEXT BOOKS:

1. Jochen Schiller, —Mobile Communicationsl, PHI, Second Edition, 2003.
2. Prasant Kumar Pattnaik, Rajib Mall, —Fundamentals of Mobile Computingl, PHI Learning Pvt.Ltd, New Delhi – 2012

REFERENCES

1. Dharma Prakash Agarval, Qing and An Zeng, "Introduction to Wireless and Mobile systems",Thomson Asia Pvt Ltd, 2005.
2. Uwe Hansmann, Lothar Merk, Martin S. Nicklons and Thomas Stober, —Principles of Mobile Computingl, Springer, 2003.
3. William.C.Y.Lee,—Mobile Cellular Telecommunications-Analog and Digital Systemsl,

Dr. A. Natarajan, M.E., Ph.D.
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Second Edition,TataMcGraw Hill Edition ,2006.
4. C.K.Toh, —AdHoc Mobile Wireless Networksl, First Edition, Pearson Education, 2002.
5. Android Developers : http://developer.android.com/index.html
6. Apple Developer : https://developer.apple.com/
7. Windows Phone DevCenter : http://developer.windowsphone.com
8. BlackBerry Developer : http://developer.blackberry.com

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Namakkal-637 003, TN.

1525

ENERGY EFFICIENT SUSTAINABLE CHARGING USING WIRELESS POWER TRANSFER ON SMART PORTABLE GADGETS

A PROJECT REPORT

Submitted by

GOBIKRISHNAN M	**(622517104012)**
KIRANKUMAR M	**(622517104024)**
PRADEEPKUMAR B	**(622517104041)**
VENKATESH M	**(622517104060)**

In partial fulfillment for the award of the degree

of

BACHELOR OF ENGINEERING

IN

COMPUTER SCIENCE AND ENGINEERING

SELVAM COLLEGE OF TECHNOLOGY, NAMAKKAL - 03

ANNA UNIVERSITY:: CHENNAI 600 025

MARCH 2021

SELVAM COLLEGE OF TECHNOLOGY Namakkal 637 003.

Dr. A. Natarajan, M.E., Ph.D.,
Principal
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Namakkal-637 003, TN.

ANNA UNIVERSITY:: CHENNAI 600 025

BONAFIDE CERTIFICATE

Certified that this project report **"ENERGY EFFICIENT SUSTAINABLE CHARGING IN WIRELESS POWER TRANSFER ON SMART PORTABLE GADGETS"** the bonafide work of

GOBIKRISHNAN M	**(622517104012)**
KIRANKUMAR M	**(622517104024)**
PRADEEPKUMAR B	**(622517104041)**
VENKATESH M	**(622517104060)**

Who carried out the project work under my supervision.

Signature

Mrs. R.BHUVANESHWARI., M.E., (Ph.D).,

Head of the department

Assistant Professor

Department of CSE

Selvam College of Technology

Namakkal-637003.

Signature

Mrs. M.VANITHA., M.E.,

Supervisor

Assistant Professor

Department of CSE

Selvam College of Technology

Namakkal-637003.

Certified that this project report Submitted by the candidate was examined in the project vice-voce examination held at Selvam College of Technology, Namakkal on .....

INTERNAL EXAMINER **EXTERNAL EXAMINER**

SELVAM COLLEGE OF TECHNOLOGY Namakkal 637 003.

Dr. A. Natarajan, M.E., Ph.D.,
Principal
Selvam College of Technology,
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ABSTRACT

The Internet of Things (IOT) is expected to play an important role in the construction of next generation mobile communication services, and is currently used in various services. However, the power-hungry battery significantly limits the lifetime of IOT devices. Among the various lifetime extension techniques, this paper discusses sustainable charging, which enables wireless power transferbased on radio frequency (RF) with sustainable chargers (SCs). SCs function as traveling target IOT networks that provide energy to battery-operated IOT devices. However, SCs with an energy-constrained battery result in limitation oftravel-time. This paper formulates a problem to minimize energy consumption for charging IOT devices by determining the path of motion of an SC and efficientcharging points, and proves that the problem is NP-Hard. An efficient algorithm,named Best Charging Efficiency (BCE), is proposed to solve the problem and theupper bound of the BCE algorithm is guaranteed using the duality of linear programming. In addition, an improved BCE algorithm called Branching Second Best Efficiency (BSBE) algorithm with additional searching techniques is introduced. Finally, this paper analyzes the difference in performance among theproposed algorithms, optimal solutions, and the existing algorithm and concludesthat the performance of the proposed algorithm is near optimal, within 1% of difference ratio in terms of charging efficiency and delay.

CHAPTER 9

CONCLUSION AND FUTURE ENHANCEMENT

9.1 CONCLUSION

Recently, mobile wireless power transmission technology has attracted attention for charging battery-limited IOT devices. In this proposed system, we formulated the mobilecharging problem as a Minimum Mobile Charger Energy Problem (MMCEP), tominimize the recharging energy needed to replenish the consumed energy of all the IOT devices. In addition, the NP hardness of the MMCEP was proved. Basedon this, two efficient algorithms were proposed for the mobile charging problem, namely the Best Charging Efficiency (BCE) and Branching Second Best Efficiency (BSBE) algorithms. In order to make the BCE algorithm tractable wederived the lower bound of the algorithm using the duality of linear programming. Furthermore, this paper analyzed the reason for the degradation of the BCE algorithm when compared with the optimal solution. The BSBE algorithm was proposed to resolve the drawback and improve the performance of the BCE algorithm. Experimental results validate that the proposed BCE and BSBEalgorithms outperform the existing algorithms; and the solution derived from ourproposed algorithms was within 1% of the optimal solution in terms of chargingcost and delay.

In this paper, we have proposed an energy-aware mode switching strategy which consists of sensing mode (on-demand sensing) and charging mode (WPT) for self-sustainable operations.

CS8791 **CLOUD COMPUTING** L T P C 3 0 0 3

OBJECTIVES:

- To understand the concept of cloud computing.
- To appreciate the evolution of cloud from the existing technologies.
- To have knowledge on the various issues in cloud computing.
- To be familiar with the lead players in cloud.
- To appreciate the emergence of cloud as the next generation computing paradigm.

UNIT I INTRODUCTION 9

Introduction to Cloud Computing — Definition of Cloud — Evolution of Cloud Computing — Underlying Principles of Parallel and Distributed Computing – Cloud Characteristics – Elasticity in Cloud — On-demand Provisioning.

UNIT II CLOUD ENABLING TECHNOLOGIES 10

Service Oriented Architecture – REST and Systems of Systems – Web Services – Publish- Subscribe Model – Basics of Virtualization – Types of Virtualization – Implementation Levels of Virtualization – Virtualization Structures – Tools and Mechanisms – Virtualization of CPU – Memory – I/O Devices –Virtualization Support and Disaster Recovery.

UNIT III CLOUD ARCHITECTURE, SERVICES AND STORAGE 8

Layered Cloud Architecture Design – NIST Cloud Computing Reference Architecture – Public, Private and Hybrid Clouds - laaS – PaaS – SaaS – Architectural Design Challenges – Cloud Storage – Storage-as-a-Service – Advantages of Cloud Storage – Cloud Storage Providers – S3.

UNIT IV RESOURCE MANAGEMENT AND SECURITY IN CLOUD 10

Inter Cloud Resource Management – Resource Provisioning and Resource Provisioning Methods – Global Exchange of Cloud Resources – Security Overview – Cloud Security Challenges – Software-as-a-Service Security – Security Governance – Virtual Machine Security – IAM – Security Standards.

UNIT V CLOUD TECHNOLOGIES AND ADVANCEMENTS 8

Hadoop – MapReduce – Virtual Box -- Google App Engine – Programming Environment for Google App Engine —— Open Stack — Federation in the Cloud — Four Levels of Federation — Federated Services and Applications – Future of Federation.

TOTAL: 45 PERIODS

OUTCOMES:

On Completion of the course, the students should be able to:

- Articulate the main concepts, key technologies, strengths and limitations of cloudcomputing.
- Learn the key and enabling technologies that help in the development of cloud.
- Develop the ability to understand and use the architecture of compute and storage cloud,service and delivery models.
- Explain the core issues of cloud computing such as resource management and security.
- Be able to install and use current cloud technologies.
- Evaluate and choose the appropriate technologies, algorithms and approaches forimplementation and use of cloud.

TEXT BOOKS:

1. Kai Hwang, Geoffrey C. Fox, Jack G. Dongarra, "Distributed and Cloud Computing, FromParallel Processing to the Internet of Things", Morgan Kaufmann Publishers, 2012.

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2. Rittinghouse, John W., and James F. Ransome, —Cloud Computing: Implementation,Management and Securityl, CRC Press, 2017.

REFERENCES:

1. Rajkumar Buyya, Christian Vecchiola, S. ThamaraiSelvi, —Mastering Cloud Computingl, Tata Mcgraw Hill, 2013.
2. Toby Velte, Anthony Velte, Robert Elsenpeter, "Cloud Computing - A Practical Approachl, Tata Mcgraw Hill, 2009.
3. George Reese, "Cloud Application Architectures: Building Applications and Infrastructure in theCloud: Transactional Systems for EC2 and Beyond (Theory in Practice)l, O'Reilly, 2009.

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GENIE PLAY STORE

MINI PROJECT REPORT

Submitted By

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PRAVEEN KUMR.S	**622518104042**
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of

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In

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ABSTRACT

The project '**GENIE PLAY STORE**' allow the user to download a mobile application (app) and user get in spired by rating and review soft the mobile app. A recent study analyses that user preferences, user opinion for improvement, user sentiment about particular feature and detail with descriptions of experiences are very useful for an application developer. However many application review share very large and difficult to process manually. Star rating is given of the whole application and the developer cannot analyze the single feature. In this research, we have scrapped 282,231 user reviews through different data craping techniques. We have applied the text classification on these user reviews. We have applied different algorithms and find the precision, accuracy, F1 score and recall. In evaluated results, we have to also find the algorithm.

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CHPTER-12

CONCLUSION AND FUTURE WORK

Today's world Genie play store has become the major hub for downloading and uploading Android application. The Android application users download these applications for their personal use. Each user of the application has their own experience with the application.

Users download and use these applications and express the experience of the application in the shape of comments or reviews, also give a rating to this application on the scale of 0 -5. In this research work, we have scrapped 251661 user reviews through different data scraping techniques in an evaluated result of this research, we have applied text classification on our dataset after processing. In our research to find the accuracy, recall, precision, F1 score we are using different machine learning algorithms. After a comparison of the different attributes, we have also found the best algorithm which has the best accuracy.

CP5291	SECURITY PRACTICES	L	T	P	C
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OBJECTIVES:

- To learn the core fundamentals of system and web security concepts
- To have through understanding in the security concepts related to networks
- To deploy the security essentials in IT Sector
- To be exposed to the concepts of Cyber Security and encryption Concepts
- To perform a detailed study of Privacy and Storage security and related Issues.

UNIT I SYSTEM SECURITY 9

Building a secure organization- A Cryptography primer- detecting system Intrusion- Preventing system Intrusion- Fault tolerance and Resilience in cloud computing environments- Security web applications, services and servers.

UNIT II NETWORK SECURITY 9

Internet Security - Botnet Problem- Intranet security- Local Area Network Security - Wireless Network Security - Wireless Sensor Network Security- Cellular Network Security- Optical Network Security- Optical wireless Security.

UNIT III SECURITY MANEGEMENT 9

Information security essentials for IT Managers- Security Management System - Policy Driven System Management- IT Security - Online Identity and User Management System - Intrusion and Detection and Prevention System.

UNIT IV CYBER SECURITY AND CRYPTOGRAPHY 9

Cyber Forensics- Cyber Forensics and Incidence Response - Security e-Discovery -Network Forensics - Data Encryption- Satellite Encryption - Password based authenticated Key establishment Protocols.

UNIT V PRIVACY AND STORAGE SECURITY 9

Privacy on the Internet - Privacy Enhancing Technologies - Personal privacy Policies -Detection of Conflicts in security policies- privacy and security in environment monitoring systems. Storage Area Network Security - Storage Area Network Security Devices - Risk management - Physical Security Essentials.

TOTAL : 45 PERIODS

OUTCOMES:

Upon completion of this course the students should be able to

- Understand the core fundamentals of system security
- Apply the security concepts related to networks in wired and wireless scenario
- Implement and Manage the security essentials in IT Sector
- Able to explain the concepts of Cyber Security and encryption Concepts
- Able to attain a through knowledge in the area of Privacy and Storage security andrelated Issues.

REFERENCES:

1. John R.Vacca, Computer and Information Security Handbook, Second Edition, Elsevier2013.

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2. Michael E. Whitman, Herbert J. Mattord, Principal of Information Security, FourthEdition, Cengage Learning, 2012.
3. Richard E.Smith, Elementary Information Security, Second Edition, Jones and BartlettLearning, 2016

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ENHANCED ATTRIBUTE-BASED ANALYSIS OF USER-REVOCABLE DATA INTEGRITY FOR SAFE CLOUD STORAGE

A PROJECT REPORT

Submitted by

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BONAFIDE CERTIFICATE

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ABSTRACT

Secured storage system is a critical component in cloud computing Cloud clients use cloud auditing schemes to verify the integrity of data stored in the cloud. But with the exposure of the auditing secret key to the Cloud Service Provider, cloud auditing becomes unsuccessful, however strong the auditing schemes may before, it is essential to prevent the exposure of auditing secret keys, and even if it happens, it is necessary to minimize the damage caused. -e existing cloud auditing schemes that are strongly resilient to key exposure are based on Public Key Infrastructure and so have challenges of certificate management/verification. These schemes also incur high computation time during integrity verification of the data blocks. -e Identity-based schemes eliminate the usage of certificates but limit the damage due to key exposure, only in time periods earlier to the time period of the exposed key. Some of the key exposure resilient schemes do not provide support for batch auditing. In this paper, an Identity based Provable Data Possession scheme is proposed. It protects the security of Identity-based cloud storage auditing in time periods both earlier and later to the time period of the exposed key. It also provides support for batch auditing. Analysis shows that the proposed scheme is resistant to the replace attack of the Cloud Service Provider, preserves the data privacy against the -ird Party Auditor, and can efficiently verify the correctness of data.

CHAPTER 9

CONCLUSION AND FUTURE ENHANCEMENTS

CONCLUSION

It is used to preserve the integrity of data stored in the cloud rises with the growing demand for storage-as-a-service offering of cloud. So cloud storage auditing schemes are designed to verify the possession of cloud data but there are critical issues in these auditing schemes. -is a paper study the auditing secret key exposure problem in Identity-based cloud storage auditing schemes. Since exposure of secret key is undetectable, a better way to handle the key exposure problem is to minimize the damage caused by the exposed key. An Identity-based strong key-exposure resilient cloud auditing scheme using bilinear pairing is designed and implemented. -e proposed scheme preserves the security of cloud auditing both before and after the key exposure by forward and backward security mechanism

FUTURE ENHANCEMENTS

Batch auditing is also incorporated into the scheme to ease the workload of the auditor. -e scheme is provably secure using the computational Diffie–Hellman assumption in the random oracle model. Experimental results show that the proposed scheme is efficient in auditing the data blocks.

CS8081 **INTERNET OF THINGS** L T P C 3 0 0 3

OBJECTIVES:

- To understand Smart Objects and IoT Architectures
- To learn about various IOT-related protocols
- To build simple IoT Systems using Arduino and Raspberry Pi.
- To understand data analytics and cloud in the context of IoT
- To develop IoT infrastructure for popular applications

UNIT I FUNDAMENTALS OF IoT 9

Evolution of Internet of Things - Enabling Technologies – IoT Architectures: oneM2M, IoT World Forum (IoTWF) and Alternative IoT models – Simplified IoT Architecture and Core IoT Functional Stack -– Fog, Edge and Cloud in IoT — Functional blocks of an IoT ecosystem — Sensors, Actuators, Smart Objects and Connecting Smart Objects

UNIT II IoT PROTOCOLS 9

IoT Access Technologies: Physical and MAC layers, topology and Security of IEEE 802.15.4, 802.15.4g, 802.15.4e, 1901.2a, 802.11ah and LoRaWAN — Network Layer: IP versions, Constrained Nodes and Constrained Networks – Optimizing IP for IoT: From 6LoWPAN to 6Lo, Routing over Low Power and Lossy Networks — Application Transport Methods: Supervisory Control and Data Acquisition – Application Layer Protocols: CoAP and MQTT

UNIT III DESIGN AND DEVELOPMENT 9

Design Methodology - Embedded computing logic - Microcontroller, System on Chips - IoT system building blocks - Arduino - Board details, IDE programming - Raspberry Pi - Interfaces and Raspberry Pi with Python Programming.

UNIT IV DATA ANALYTICS AND SUPPORTING SERVICES 9

Structured Vs Unstructured Data and Data in Motion Vs Data in Rest – Role of Machine Learning – No SQL Databases – Hadoop Ecosystem – Apache Kafka, Apache Spark – Edge Streaming Analytics and Network Analytics – Xively Cloud for IoT, Python Web Application Framework – Django – AWS for IoT – System Management with NETCONF-YANG

UNIT V CASE STUDIES/INDUSTRIAL APPLICATIONS 9

Cisco IoT system - IBM Watson IoT platform — Manufacturing - Converged Plantwide Ethernet Model (CPwE) — Power Utility Industry — GridBlocks Reference Model - Smart and Connected Cities: Layered architecture, Smart Lighting, Smart Parking Architecture and Smart Traffic Control

TOTAL : 45 PERIODS

OUTCOMES:

Upon completion of the course, the student should be able to:

- Explain the concept of IoT.
- Analyze various protocols for IoT.
- Design a PoC of an IoT system using Rasperry Pi/Arduino
- Apply data analytics and use cloud offerings related to IoT.
- Analyze applications of IoT in real time scenario

TEXTBOOK:

1. David Hanes, Gonzalo Salgueiro, Patrick Grossetete, Rob Barton and Jerome Henry, —IoT Fundamentals: Networking Technologies, Protocols and Use Cases for Internet of Things, Cisco Press, 2017

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REFERENCES:

1. Arshdeep Bahga, Vijay Madisetti, —Internet of Things — A hands-on approachl, Universities Press, 2015
2. Olivier Hersent, David Boswarthick, Omar Elloumi , —The Internet of Things – Key applicationsand Protocolsl, Wiley, 2012 (for Unit 2).
3. Jan Ho" ller, Vlasios Tsiatsis , Catherine Mulligan, Stamatis , Karnouskos, Stefan Avesand. David Boyle, "From Machine-to-Machine to the Internet of Things - Introduction to a New Age of Intelligence", Elsevier, 2014.
4. Dieter Uckelmann, Mark Harrison, Michahelles, Florian (Eds), —Architecting the Internet of Thingsl, Springer, 2011.
5. Michael Margolis, Arduino Cookbook, Recipes to Begin, Expand, and Enhance Your Projects, 2nd Edition, Q'Reilly Media, 2011.

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DETECTION OF AIR QUALITY SYSTEM USING IOT

A PROJECT REPORT

Submitted by

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ABSTRACT

Nowadays Internet of Things (IOT) and cloud based concepts techniques are used in different area of research for monitoring, collecting and analysis data from instance locations. Air pollution is one of the biggest challenges for the green globalization. To ensure the supply of the safe breathing air the quality should be monitored in real time based on environment. The device consist of sensors is used to measuring air quality. We have implemented checks the quality of air in real time through sensor (one for each parameter: MQ-135). The MQ-135 sensor is used to finding the quality of the air. The measured values from the sensors can be processed by the WEMOS D1 mini. Air quality can be displayed on the LCD screen .The device can be carried anywhere. This device can be used for various purpose. This system can keep a strict check on the quality of the air and be able to provide an environment . Finally, the sensor data can be stored in cloud and viewed on mobile application.

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CHAPTER 9

CONCLUSION AND FUTURE ENHANCEMENT

9.1 Conclusion

In this project, the system will analyze the perfect quality of air using IOT which will help to the society. To implement this need to deploy the sensor devices in the environment for collecting the data and analysis. By deploying sensor devices in the environment, we can bring the environment into real life. This module will easy to interact with other objects through the network. The system can monitor air quality automatically, and it is low in cost and does not require people on duty. So the air quality testing is likely to be more economical, convenient and fast. It can access the data from anywhere using mobile application.

9.2 Future Enhancement

In future, the system can be expanded to monitor industrial, home appliances, vehicle. The various features are added with this system which will help the government for finding solution for air pollution detection. The data collection will be used for future research purpose for controlling the human diseases. The future scope of the current work is huge. In future ,it can be executed to monitor the quality of air not only in household but for the whole quality monitoring system can be designed in the near future for the whole city or town. In future we are using nano technology for this device.

ENHANCED SURVEY ON FIRE DETECTION ALERTING SYSTEM WITH GPS CO-ORDINATES USING IOT MONITORING SYSTEM

A PROJECT REPORT

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ABSTRACT

As human advances in technology, manmade and natural disasters are increasing exponentially. It is essential to protect our environment and nature. In this modern age, the technology can be used to provide a conducive environment to live by preventing the catastrophic failure. One such nature event is the forest fire. Ensuring minimum rights and safety of the garment workers has become a burning issue nowadays. The workers of garment factories are facing some labyrinths and broken out of fire is surely one of them. The wildlife and forest departments are facing the problem of movement of animals from forest area to residential area. The number of trees has reduced drastically from the forest that creates an unhealthy environment for animals to survive in the forest. It has been found in a survey that 80% losses are caused due to fire. This could have been avoided if the fire was detected in the early stages. IOT (Internet of Things) devices and sensors allow the monitoring of different environmental variables, such as temperature, humidity, moisture etc. Arduino platform based IOT enabled fire detector and monitoring system is the solution to this problem. In this project we have built fire detector using Arduino UNO which is interfaced with a temperature sensor, a smoke sensor and a buzzer. In order to implement this project, we will be using GSM which is used to provide the final SMS to the user through the given number in the simulation program, Temperature sensor which is used to denote the temperature High and Low. Flame sensor which is used to denote the flame ranges and if it is high the forest fire will be detected in the low forest fire won't be detected. Whenever a fire occurs, the system automatically senses and alerts the user by sending.

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CHAPTER 9

CONCLUSION AND FUTURE ENHANCEMENTS

CONCLUSION

Science and technology is panacea for all our growing problems. Predicting the natural processes is highly complex and our system needs to be tested against real time conditions. Though our system is self- sustaining and standalone, other factors which would affect the hardware were tested against time. It shall be implemented in small forest areas where chances of occurrence of forest fires were high. The system needs to be robust to withstand all the climate changes which may affect its functioning. However, our system will play a crucial role in curbing the forest fires which would prevent loss of huge resources and financial losses. We have tested in forest like conditions, but real hardship which we may face is during implementation in large area in real time.

FUTURE ENHANCEMENTS

For future work, the authors aim to do further testing to assess the behaviour of the system in real world conditions as well as to develop algorithms to pinpoint the fire front in real-time, by using multiple sensor data analysis. The potential of this sensor network to serve as a source of fire risk information, integrated with the FWI, still needs to be investigated. Alternative wireless technologies should also be evaluated in order to provide redundant communication methods between Master and Slave nodes.

AN IOT BASED SMART SYSTEM TO ACCIDENT DETECTION AND PREVENTION

A PROJECT REPORT

Submitted by

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MARCH 2021

SELVAM COLLEGE OF TECHNOLOGY Namakkal 637 003.

Dr. A. Natarajan, M.E., Ph.D.,
Principal
Selvam College of Technology,
Namakkal-637 003, TN.

ANNA UNIVERSITY: CHENNAI 600 025

BONAFIDE CERTIFICATE

Certified that this project report **"AN IOT BASED SMART SYSTEM TO ACCIDENT DETECTION AND PREVENTION"** the bonafide work of

CHANDRU S	**(622517104005)**
CHANDRU V	**(622517104006)**
DEVARAJU R	**(622517104008)**
DINESH KUMAR R	**(622517104010)**

Who carried out the project work under my supervision.

SIGNATURE

Mrs.R. Bhuvaneswari, M.E.,(Ph.D).,

HEAD OF THE DEPARTMENT

Assistant Professor

Department of CSE

Selvam College of Technology

Namakkal-637003.

SIGNATURE

Mrs. M. Vanitha, M.E.,

SUPERVISOR

Assistant Professor

Department of CSE

Selvam College of Technology

Namakkal-637003.

Submitted for the University Viva-Voce examination held on .....

INTERNAL EXAMINER

EXTERNAL EXAMINER

SELVAM COLLEGE OF TECHNOLOGY Namakkal 637 003

Dr. A. Natarajan, M.E., Ph.D.,
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ABSTRACT

The increasing amount of vehicles create mismanagement in controlling traffic leading to accidents. Although accidents happen due to various factors other than traffic management, such as unstable weather, reckless driving, faulty vehicles or maybe road conditions. The most important part after an accident is to detect the accident and take immediate action upon detection. All this time we overlooked the fact that immediate aid to an accident scene can reduce the number of people getting traumatized, disabled or lose their precious lives due to lack of emergency facilities. The vehicle performance has been continuously monitored for safety purposes. All the information will be uploading to IOT and display the information through LCD display, then find the location using GPS and send message or notification using GSM . The objective of this project is to analysis the various parameters and monitor the measured parameter through the IOT system. The chances of such unfortunate events can be reduced.

CHAPTER 7

7.1 CONCLUSION

One of the common issues which people try to solve with vehicle purchasing. The increasing amount of vehicles create mismanagement in controlling traffic leading to accidents. Although accidents happen due to various factors other than traffic management, such as unstable weather, reckless driving, faulty vehicles or maybe road conditions. Thus the vehicle performance has been continuously monitored for safety purposes.All the information will be uploading to IOT and display the information through LCD display.These projects are to analysis the various parameters and monitor the measured parameter through the IOT system.

7.2 FUTURE ENHANCEMENT

In this paper, implementation is done only for an automatic alert emergency alarm or messages to send ambulance and family members. "AN IOT BASED SMART SYSTEM TO ACCIDENT DETECTION AND PREVENTION ". Implementation is done by the principal of IOT and provides security in every field such as accident, accuracy, battery life. In the future we would connect the vehicle to Artificial Intelligence and improve the software and android application.

8 APPENDIX

CP5293 **BIG DATA ANALYTICS** **L T P C**
3 0 0 3

OBJECTIVES:

- To understand the competitive advantages of big data analytics
- To understand the big data frameworks
- To learn data analysis methods
- To learn stream computing
- To gain knowledge on Hadoop related tools such as HBase, Cassandra, Pig, and Hive forbig data analytics

UNIT I INTRODUCTION TO BIG DATA **7**

Big Data — Definition, Characteristic Features — Big Data Applications - Big Data vs Traditional Data - Risks of Big Data - Structure of Big Data - Challenges of Conventional Systems - Web Data — Evolution of Analytic Scalability - Evolution of Analytic Processes, Tools and methods - Analysis vs Reporting - Modern Data Analytic Tools.

UNIT II HADOOP FRAMEWORK **9**

Distributed File Systems - Large-Scale FileSystem Organization – HDFS concepts - MapReduce Execution, Algorithms using MapReduce, Matrix-Vector Multiplication – Hadoop YARN

UNIT III DATA ANALYSIS **13**

Statistical Methods:Regression modelling, Multivariate Analysis - Classification: SVM & Kernel Methods - Rule Mining - Cluster Analysis, Types of Data in Cluster Analysis, Partitioning Methods, Hierarchical Methods, Density Based Methods, Grid Based Methods, Model Based Clustering Methods, Clustering High Dimensional Data - Predictive Analytics — Data analysis using R.

UNIT IV MINING DATA STREAMS **7**

Streams: Concepts — Stream Data Model and Architecture - Sampling data in a stream - Mining Data Streams and Mining Time-series data - Real Time Analytics Platform (RTAP) Applications - Case Studies - Real Time Sentiment Analysis, Stock Market Predictions.

UNIT V BIG DATA FRAMEWORKS **9**

Introduction to NoSQL – Aggregate Data Models – Hbase: Data Model and Implementations – Hbase Clients – Examples – .Cassandra: Data Model – Examples – Cassandra Clients – Hadoop Integration. Pig – Grunt – Pig Data Model – Pig Latin – developing and testing Pig Latin scripts. Hive – Data Types and File Formats – HiveQL Data Definition – HiveQL Data Manipulation –HiveQL Queries

TOTAL: 45 PERIODS

OUTCOMES:

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

- Understand how to leverage the insights from big data analytics
- Analyze data by utilizing various statistical and data mining approaches
- Perform analytics on real-time streaming data
- Understand the various NoSql alternative database models

REFERENCES:

1. Bill Franks, —Taming the Big Data Tidal Wave: Finding Opportunities in Huge Data

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ENHANCED PRIVACY-PRESERVING SECURE CLOUD DATA OVER KEY EXPOSURE

A PROJECT REPORT

Submitted by

SHALINI P	**(622517104049)**
SHARUMATHI M	**(622517104050)**
SUBHASHINI R	**(622517104701)**
MANJULA V	**(622517104302)**

in partial fulfillment for the award of the degree

of

BACHELOR OF ENGINEERING

in

COMPUTER SCIENCE AND ENGINEERING

SELVAM COLLEGE OF TECHNOLOGY, NAMAKKAL -03

ANNAUNIVERSITY::CHENNAI-600025

MARCH 2021

SELVAM COLLEGE OF TECHNOLOGY Namakkal 637 003.

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ANNA UNIVERSITY:CHENNAI 600025

BONAFIDE CERTIFICATE

Certificated that this project report **"ENHANCED PRIVACY-PRESERVING SECURE CLOUD DATA OVER KEY EXPOSURE"**the bonafide work of **SHALINI P (622517104049), SHARUMATHI M (622517104050),SUBHASHINI R (622517104701),MANJULA V (622517104302)** who carriedout the project work under my supervision. Certified further that to the best of my knowledge the work reported herein does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

SIGNATURE
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Assistant Professor
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Namakkal - 637003.

SIGNATURE
Mrs.S.Revathi, M.E.,
SUPERVISOR
Assistant Professor
Department of CSE
Selvam College of Technology
Namakkal - 637003.

Certified that this project report submitted by the candidate was examined in the project viva-voce examination held at Selvam College of Technology, Namakkal on_____

INTERNAL EXAMINER **EXTERNAL EXAMINER**

SELVAM COLLEGE OF TECHNOLOGY Namakkal 637 003.

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ABSTRACT

A secret-sharing scheme is a method by which a dealer distributes shares to parties such that only authorized subsets of parties can reconstruct the secret. Secret-sharing schemes are an important tool in cryptography and they are used as a building box in many secure protocols, e.g., general protocol for multiparty computation, Byzantine agreement, threshold cryptography, access control, attribute-based encryption, and generalized oblivious transfer. Once the encryption key is exposed, the only viable measure to preserve data confidentiality is to limit the attacker's access to the ciphertext. We also discuss practical insights with respect to the integration of Bastion in commercial dispersed storage systems. In addition, due to privacy concerns on access policies, most existing schemes are vulnerable to off-line keyword-guessing attacks if the keyword space is of polynomial size. Furthermore, it is difficult to identify malicious users who leak the secret keys when more than one data user has the same subset of attributes. In this paper, we present a privacy-preserving CP-ABKS system with hidden access policy in Shared Multi-owner setting (basic ABKS-SM system), and demonstrate how it is improved to support malicious user tracing (modified ABKS-SM system.

CHAPTER 9

CONCLUSION AND FUTURE ENHANCEMENTS

CONCLUSION

The addressed the problem of securing data outsourced to the cloud against an adversary which has access to the encryption key. For that purpose, we introduced a novel security definition that captures data confidentiality against the new adversary. We then proposed Bastion, a scheme which ensures the confidentiality of encrypted data even when the adversary has the encryption key, and all but two ciphertext blocks. Bastion is most suitable for settings where the ciphertext blocks are stored in multi-cloud storage systems. In these settings, the adversary would need to acquire the encryption key, and to compromise all servers, in order to recover any single block

FUTURE ENHANCEMENTS

The security of Bastion and evaluated its performance in realistic settings. Bastion considerably improves (by more than 50%) the performance of existing primitives which offer comparable security under key exposure, and only incurs a negligible overhead (less than 5%) when compared to existing semantically secure encryption modes (e.g., the CTR encryption mode). Finally, we showed how Bastion can be practically integrated within existing dispersed storage systems.

GE8151 **PROBLEM SOLVING AND PYTHON PROGRAMMING** **L T P C**
3 0 0 3

OBJECTIVES:

- To know the basics of algorithmic problem solving
- To read and write simple Python programs.
- To develop Python programs with conditionals and loops.
- To define Python functions and call them.
- To use Python data structures — lists, tuples, dictionaries.
- To do input/output with files in Python.

UNIT I ALGORITHMIC PROBLEM SOLVING **9**

Algorithms, building blocks of algorithms (statements, state, control flow, functions), notation (pseudo code, flow chart, programming language), algorithmic problem solving, simple strategies for developing algorithms (iteration, recursion). Illustrative problems: find minimum in a list, insert a card in a list of sorted cards, guess an integer number in a range, Towers of Hanoi.

UNIT II DATA, EXPRESSIONS, STATEMENTS **9**

Python interpreter and interactive mode; values and types: int, float, boolean, string, and list; variables, expressions, statements, tuple assignment, precedence of operators, comments; modules and functions, function definition and use, flow of execution, parameters and arguments; Illustrative programs: exchange the values of two variables, circulate the values of n variables, distance between two points.

UNIT III CONTROL FLOW, FUNCTIONS **9**

Conditionals: Boolean values and operators, conditional (if), alternative (if-else), chained conditional (if-elif-else); Iteration: state, while, for, break, continue, pass; Fruitful functions: return values, parameters, local and global scope, function composition, recursion; Strings: string slices, immutability, string functions and methods, string module; Lists as arrays. Illustrative programs: square root, gcd, exponentiation, sum an array of numbers, linear search, binary search.

UNIT IV LISTS, TUPLES, DICTIONARIES **9**

Lists: list operations, list slices, list methods, list loop, mutability, aliasing, cloning lists, list parameters; Tuples: tuple assignment, tuple as return value; Dictionaries: operations and methods; advanced list processing - list comprehension; Illustrative programs: selection sort,insertion sort, mergesort, histogram.

UNIT V FILES, MODULES, PACKAGES **9**

Files and exception: text files, reading and writing files, format operator; command line arguments, errors and exceptions, handling exceptions, modules, packages; Illustrative programs: word count,copy file.

TOTAL: 45 PERIODS

OUTCOMES:

Upon completion of the course, students will be able to

- Develop algorithmic solutions to simple computational problems
- Read, write, execute by hand simple Python programs.
- Structure simple Python programs for solving problems.
- Decompose a Python program into functions.
- Represent compound data using Python lists, tuples, dictionaries.
- Read and write data from/to files in Python Programs.

TEXT BOOKS:

1. Allen B. Downey, ``Think Python: How to Think Like a Computer Scientist``, 2nd edition, Updated for Python 3, Shroff/O'Reilly Publishers, 2016 (http://greenteapress.com/wp/think-python/)

2. Guido van Rossum and Fred L. Drake Jr, —An Introduction to Python – Revised and updated for Python 3.2, Network Theory Ltd., 2011.

REFERENCES:

1. John V Guttag, —Introduction to Computation and Programming Using Python", Revisedand expanded Edition, MIT Press , 2013
2. Robert Sedgewick, Kevin Wayne, Robert Dondero, —Introduction to Programming in Python: An Inter-disciplinary Approach, Pearson India Education Services Pvt. Ltd., 2016.
3. Timothy A. Budd, —Exploring Pythonl, Mc-Graw Hill Education (India) Private Ltd.,, 2015.
4. Kenneth A. Lambert, —Fundamentals of Python: First Programsl, CENGAGE Learning,2012.
5. Charles Dierbach, —Introduction to Computer Science using Python: A Computational Problem-Solving Focus, Wiley India Edition, 2013.
6. Paul Gries, Jennifer Campbell and Jason Montojo, —Practical Programming: An Introductionto Computer Science using Python 3l, Second edition, Pragmatic Programmers, LLC, 2013.

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website : www.maxproinfotech.in

CERTIFICATE FOR INTERNSHIP

To Whom It May Concern

This is to certify that **D.HARITHA (Reg No: 622518104018),** as student of B.E (Computer Science and Engineering) Pre-Final year, Selvam College Of Technology, Namakkal District, Tamilnadu has successfully completed her 10 days (24th Mar 2021 – 2nd Apr 2021) internship program at **MAXPRO INFOTECH, Salem.**

During the internship, she has showed good interest in learning new domain and made valuable queries to our programmer. She has successfully completed her internship on **"PYTHON".**

During the training, she took keen interest in the assigned work. We wish her all success in her academic endeavors and life.

Date: April 3, 2021

MAXPRO INFOTECH,

MAXPRO INFOTECH * SALEM-9 *

HR Manager

R.N. 28, Rajappa Building, Agil Medu, 7th Street, Near SG Met Hospital, Bus Stand, ERODE-1. Mobile : 97 90 22 95 58 E-mail : maxinfoerode@gmail.com

29/8C, Chinnary Vayalkadu, Near Hotel Silver Palace, ARRS Multiplex Road, Pallapatty, New Bus Stand, SALEM-9. Mobile : 90 87 65 90 80 E-mail : maxinfosalem@gmail.com

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CERTIFICATE FOR INTERNSHIP

To Whom It May Concern

This is to certify that **S.JANSIRANI (Reg No: 622518104022)**, as student of B.E (Computer Science and Engineering) Pre-Final year, Selvam College Of Technology, Namakkal District, Tamilnadu has successfully completed her 10 days (24th Mar 2021 – 2nd Apr 2021) internship program at **MAXPRO INFOTECH, Salem.**

During the internship, she has showed good interest in learning new domain and made valuable queries to our programmer. She has successfully completed her internship on **"PYTHON"**.

During the training, she took keen interest in the assigned work. We wish her all success in her academic endeavors and life.

Date: April 3, 2021

MAXPRO INFOTECH,

MAXPRO INFOTECH * SALEM-09 *

HR Manager

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CERTIFICATE FOR INTERNSHIP

To Whom It May Concern

This is to certify that **R.KAVITHA** **(Reg No: 622518104028),** as student of B.E (Computer Science and Engineering) Pre-Final year, Selvam College Of Technology, Namakkal District, Tamilnadu has successfully completed her 10 days (24th Mar 2021 – 2nd Apr 2021) internship program at **MAXPRO INFOTECH, Salem**.

During the internship, she has showed good interest in learning new domain and made valuable queries to our programmer. She has successfully completed her internship on **"PYTHON"**.

During the training, she took keen interest in the assigned work. We wish her all success in her academic endeavors and life.

Date: April 3, 2021

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MAXPRO INFOTECH * SALEM *

HR Manager

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CERTIFICATE FOR INTERNSHIP

To Whom It May Concern

This is to certify that **S.VAISHNAVI (Reg No: 622518104060)**, as student of B.E (Computer Science and Engineering) Pre-Final year, Selvam College Of Technology, Namakkal District, Tamilnadu has successfully completed her 10 days (24th Mar 2021 – 2nd Apr 2021) internship program at **MAXPRO INFOTECH, Salem**.

During the internship, she has showed good interest in learning new domain and made valuable queries to our programmer. She has successfully completed her internship on **"PYTHON"**.

During the training, she took keen interest in the assigned work. We wish her all success in her academic endeavors and life.

Date: April 3, 2021

MAXPRO INFOTECH,

MAXPRO INFOTECH SALEM-20

HR Manager

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Principal
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SD PRO SOLUTIONS

C.No: SEPV345

CERTIFICATE OF COMPLETION

This certificate is presented to

Mr./Ms. MANIKANDAN K (622518104091)

Has Successfully Completed INTERNSHIP Training Program

in "PYTHON"

During 27.09.2021 To 01.10.2021

Congratulations on a job well done!

Awarded this

SD Pro Solutions

Director

Technical Head

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CS8792	CRYPTOGRAPHY AND NETWORK SECURITY	L	T	P	C
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OBJECTIVES:

- To understand Cryptography Theories, Algorithms and Systems.
- To understand necessary Approaches and Techniques to build protection mechanisms in order to secure computer networks.

UNIT I INTRODUCTION 9

Security trends - Legal, Ethical and Professional Aspects of Security, Need for Security at Multiple levels, Security Policies - Model of network security – Security attacks, services and mechanisms – OSI security architecture – Classical encryption techniques: substitution techniques, transposition techniques, steganography- Foundations of modern cryptography: perfect security – information theory – product cryptosystem – cryptanalysis.

UNIT II SYMMETRIC KEY CRYPTOGRAPHY 9

MATHEMATICS OF SYMMETRIC KEY CRYPTOGRAPHY: Algebraic structures - Modular arithmetic-Euclid"s algorithm- Congruence and matrices - Groups, Rings, Fields- Finite fields- SYMMETRIC KEY CIPHERS: SDES – Block cipher Principles of DES – Strength of DES – Differential and linear cryptanalysis - Block cipher design principles – Block cipher mode of operation – Evaluation criteria for AES – Advanced Encryption Standard - RC4 – Key distribution.

UNIT III PUBLIC KEY CRYPTOGRAPHY 9

MATHEMATICS OF ASYMMETRIC KEY CRYPTOGRAPHY: Primes – Primality Testing – Factorization – Euler's totient function, Fermat's and Euler's Theorem - Chinese Remainder Theorem — Exponentiation and logarithm - ASYMMETRIC KEY CIPHERS: RSA cryptosystem — Key distribution — Key management — Diffie Hellman key exchange - ElGamal cryptosystem – Elliptic curve arithmetic-Elliptic curve cryptography.

UNIT IV MESSAGE AUTHENTICATION AND INTEGRITY 9

Authentication requirement – Authentication function – MAC – Hash function – Security of hash function and MAC – SHA –Digital signature and authentication protocols – DSS- Entity Authentication: Biometrics, Passwords, Challenge Response protocols- Authentication applications - Kerberos, X.509

UNIT V SECURITY PRACTICE AND SYSTEM SECURITY 9

Electronic Mail security — PGP, S/MIME — IP security — Web Security - SYSTEM SECURITY: Intruders – Malicious software – viruses – Firewalls.

TOTAL 45 PERIODS

OUTCOMES:

At the end of the course, the student should be able to:

- Understand the fundamentals of networks security, security architecture, threats and vulnerabilities
- Apply the different cryptographic operations of symmetric cryptographic algorithms
- Apply the different cryptographic operations of public key cryptography
- Apply the various Authentication schemes to simulate different applications.
- Understand various Security practices and System security standards

TEXT BOOK:

1. William Stallings, Cryptography and Network Security: Principles and Practice, PHI3rd Edition, 2006.

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REFERENCES:

1. C K Shyamala, N Harini and Dr. T R Padmanabhan: Cryptography and Network Security, Wiley India Pvt.Ltd
2. BehrouzA.Foruzan, Cryptography and Network Security, Tata McGraw Hill 2007.
3. Charlie Kaufman, Radia Perlman, and Mike Speciner, Network Security: PRIVATE Communication in a PUBLIC World, Prentice Hall, ISBN 0-13-046019-2

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One Step Innovation Pvt Ltd

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CHANDAN BAG, WARD NO - 39 MUNGER, Munger, Bihar, 811201

30 June 2021

Certificate Of Experience

It is our pleasure to inform you that **Mr. R Bhuvaneshwaran** has worked with us for the period of 6 months. He has worked with Teckzeal Pvt Ltd for the position of **Cybersecurity Analyst** from 02 - Jan - 2021 to 30- Jun -2021.

During the period mentioned above, Mr R Bhuvaneshwaran has remained involved with her duties and responsibilities assigned to his. We found him competent and active with sincerity and determination. He is professionally sound and hard-working whose dedication in taking contribution and initiative for the organization has proven helpful in the establishment repeatedly.

We respect her decision to terminate the services with us and wish her all the best in her future endeavours.

Ashwani Kumar

CEO, Teckzeal

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MG8591 **PRINCIPLES OF MANAGEMENT** **L T P C**
3 0 0 3

OBJECTIVES:

- To enable the students to study the evolution of Management, to study the functions and principles of management and to learn the application of the principles in an organization .

UNIT I INTRODUCTION TO MANAGEMENT AND ORGANIZATIONS **9**

Definition of Management - Science or Art - Manager Vs Entrepreneur - types of managers - managerial roles and skills - Evolution of Management - Scientific, human relations , system and contingency approaches - Types of Business organization - Sole proprietorship, partnership, company-public and private sector enterprises - Organization culture and Environment - Current trends and issues in Management.

UNIT II PLANNING **9**

Nature and purpose of planning - planning process - types of planning - objectives - setting objectives – policies – Planning premises – Strategic Management – Planning Tools and Techniques - Decision making steps and process.

UNIT III ORGANISING **9**

Nature and purpose - Formal and informal organization - organization chart - organization structure – types – Line and staff authority – departmentalization – delegation of authority – centralization and decentralization - Job Design - Human Resource Management - HR Planning, Recruitment, selection, Training and Development, Performance Management , Career planning and management

UNIT IV DIRECTING **9**

Foundations of individual and group behaviour - motivation - motivation theories - motivational techniques - job satisfaction - job enrichment - leadership - types and theories of leadership - communication - process of communication - barrier in communication - effective communication -communication and IT.

UNIT V CONTROLLING **9**

System and process of controlling - budgetary and non-budgetary control techniques - use of computers and IT in Management control - Productivity problems and management - control and performance - direct and preventive control - reporting.

TOTAL: 45 PERIODS

OUTCOMES:

- Upon completion of the course, students will be able to have clear understanding of managerial functions like planning, organizing, staffing, leading & controlling and have same basic knowledge on international aspect of management

TEXTBOOKS:

1. Stephen P. Robbins & Mary Coulter, ¯Management‖, Prentice Hall (India) Pvt. Ltd., 10th Edition, 2009.
2. JAF Stoner, Freeman R.E and Daniel R Gilbert ¯Management‖, Pearson Education, 6th Edition, 2004.

REFERENCES:

1. Stephen A. Robbins & David A. Decenzo & Mary Coulter, ¯Fundamentals of Management‖ Pearson Education, 7th Edition, 2011.
2. Robert Kreitner & Mamata Mohapatra, ¯Management‖, Biztantra, 2008.
3. Harold Koontz & Heinz Weihrich ¯Essentials of management‖ Tata McGraw Hill, 1998.
4. Tripathy PC & Reddy PN, ¯Principles of Management‖, Tata McGraw Hill, 1999

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INNOVATORS & YOU
we are the future

CERTIFICATE OF ACHIEVEMENT

THIS IS PRESENTED TO

Dharun.K

Innovators And You business Development Internship

This certificate is presented in recognition of your remarkable performance throughout the internship period from 02nd of July 2021 to 25th of July 2021 with Innovators and You. You have remained a stalwart supporter of our team. We hereby proudly present this to you for your diligent work.

Ajay Kumar

AJAY KUMAR
CEO & Founder

Reference No. - 201229704

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CS8079 **HUMAN COMPUTER INTERACTION** L T P C
3 0 0 3

OBJECTIVES:

- To learn the foundations of Human Computer Interaction.
- To become familiar with the design technologies for individuals and persons withdisabilities.
- To be aware of mobile HCI.
- To learn the guidelines for user interface.

UNIT I FOUNDATIONS OF HCI 9

The Human: I/O channels – Memory – Reasoning and problem solving; **The Computer:** Devices – Memory – processing and networks; **Interaction:** Models – frameworks – Ergonomics – styles – elements – interactivity- Paradigms. - **Case Studies**

UNIT II DESIGN & SOFTWARE PROCESS 9

Interactive Design: Basics – process – scenarios – navigation – screen design – Iteration and prototyping. **HCI in software process:** Software life cycle – usability engineering – Prototyping in practice – design rationale. **Design rules:** principles, standards, guidelines, rules. **Evaluation Techniques — Universal Design**

UNIT III MODELS AND THEORIES 9

HCI Models: Cognitive models: Socio-Organizational issues and stakeholder requirements — Communication and collaboration models-**Hypertext, Multimedia and WWW.**

UNIT IV MOBILE HCI 9

Mobile Ecosystem: Platforms, Application frameworks- **Types of Mobile Applications:** Widgets, Applications, Games- Mobile Information Architecture, Mobile 2.0, **Mobile Design:** Elements of Mobile Design, Tools. - **Case Studies**

UNIT V WEB INTERFACE DESIGN 9

Designing Web Interfaces – Drag & Drop, Direct Selection, Contextual Tools, Overlays, Inlays and Virtual Pages, Process Flow - **Case Studies**

TOTAL :45 PERIODS

OUTCOMES:

Upon completion of the course, the students should be able to:

- Design effective dialog for HCI
- Design effective HCI for individuals and persons with disabilities.
- Assess the importance of user feedback.
- Explain the HCI implications for designing multimedia/ ecommerce/ e-learning Web sites.
- Develop meaningful user interface.

TEXT BOOKS:

1. Alan Dix, Janet Finlay, Gregory Abowd, Russell Beale, —Human Computer Interactionl, 3rd Edition, Pearson Education, 2004 (UNIT I, II & III)
2. Brian Fling, —Mobile Design and Developmentl, First Edition, O'Reilly Media Inc., 2009 (UNIT –IV)
3. Bill Scott and Theresa Neil, —Designing Web Interfacesl, First Edition, O'Reilly, 2009. (UNIT-V)

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FACE MASK DETECTION

CS8611 MINI PROJECT REPORT

Submitted by

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DEEBITHKUMAR D	**(622518104008)**
CHANDRU C	**(622518104006)**
GOKULRAM L	**(622518104014)**

in partial fulfilment for the award of the degree

of

BACHELOR OF ENGINEERING

IN

COMPUTER SCIENCE AND ENGINEERING

SELVAM COLLEGE OF TECHNOLOGY,

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ANNA UNIVERSITY: CHENNAI-600025

JANUARY 2022

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BONAFIDE CERTIFICATE

Certificated that this project report **"FACE MASK DETECTION"** is the bonafide work of

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Who carried out the project work under my supervision.

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ABSTRACT

COVID-19 pandemic has rapidly affected our day-to-day life disrupting the world trade and movements. Wearing a protective face mask has become a new normal. In the near future, many public service providers will ask the customers to wear masks correctly to avail of their services. Therefore, face mask detection has become a crucial task to help global society. This paper presents a simplified approach to achieve this purpose using some basic Machine Learning packages like Tensor Flow, Keras, Open CV and Scikit-Learn. The proposed method detects the face from the image correctly and then identifies if it has a mask on it or not. As a surveillance task performer, it can also detect a face along with a mask in motion. The method attains accuracy up to 95.77% and 94.58% respectively on two different datasets. We explore optimized values of parameters using the Sequential Convolutional Neural Network model to detect the presence of masks correctly without causing over-fitting.

CHAPTER 8
CONCLUSION

In this paper, we briefly explained the motivation of the work at first.

Then, we illustrated the learning and performance task of the model. Using basic ML tools and simplified techniques the method has achieved reasonably high accuracy.

It can be used for a variety of applications. Wearing a mask may be obligatory in the near future, considering the Covid-19 crisis.

Many public service providers will ask the customers to wear masks correctly to avail of their services.

The deployed model will contribute immensely to the public health care system.

In future it can be extended to detect if a person is wearing the mask properly or not.

CS8691 **ARTIFICIAL INTELLIGENCE** **L T P C**
3 0 0 3

OBJECTIVES:

- To understand the various characteristics of Intelligent agents
- To learn the different search strategies in AI
- To learn to represent knowledge in solving AI problems
- To understand the different ways of designing software agents
- To know about the various applications of AI.

UNIT I INTRODUCTION **9**

Introduction–Definition - Future of Artificial Intelligence – Characteristics of Intelligent Agents– Typical Intelligent Agents – Problem Solving Approach to Typical AI problems.

UNIT II PROBLEM SOLVING METHODS **9**

Problem solving Methods - Search Strategies- Uninformed - Informed - Heuristics - Local Search Algorithms and Optimization Problems - Searching with Partial Observations - Constraint Satisfaction Problems – Constraint Propagation - Backtracking Search - Game Playing - Optimal Decisions in Games – Alpha - Beta Pruning - Stochastic Games

UNIT III KNOWLEDGE REPRESENTATION **9**

First Order Predicate Logic – Prolog Programming – Unification – Forward Chaining-Backward Chaining – Resolution – Knowledge Representation - Ontological Engineering-Categories and Objects – Events - Mental Events and Mental Objects - Reasoning Systems for Categories - Reasoning with Default Information

UNIT IV SOFTWARE AGENTS **9**

Architecture for Intelligent Agents – Agent communication – Negotiation and Bargaining – Argumentation among Agents – Trust and Reputation in Multi-agent systems.

UNIT V APPLICATIONS **9**

AI applications – Language Models – Information Retrieval- Information Extraction – Natural Language Processing - Machine Translation – Speech Recognition – Robot – Hardware – Perception — Planning — Moving

TOTAL :45 PERIODS

OUTCOMES:

Upon completion of the course, the students will be able to:

- Use appropriate search algorithms for any AI problem
- Represent a problem using first order and predicate logic
- Provide the apt agent strategy to solve a given problem
- Design software agents to solve a problem
- Design applications for NLP that use Artificial Intelligence.

TEXT BOOKS:

1 S. Russell and P. Norvig, "Artificial Intelligence: A Modern Approachl, Prentice Hall, Third Edition, 2009.

2 I. Bratko, —Prolog: Programming for Artificial Intelligencel, Fourth edition, Addison-Wesley Educational Publishers Inc., 2011.

REFERENCES:

1. M. Tim Jones, —Artificial Intelligence: A Systems Approach(Computer Science)l, Jonesand Bartlett Publishers, Inc.; First Edition, 2008.

2. Nils J. Nilsson, —The Quest for Artificial Intelligencel, Cambridge University Press, 2009.
3. William F. Clocksin and Christopher S. Mellish,l Programming in Prolog: Using the ISO Standardl, Fifth Edition, Springer, 2003.
4. Gerhard Weiss, —Multi Agent Systemsl, Second Edition, MIT Press, 2013.
5. David L. Poole and Alan K. Mackworth, —Artificial Intelligence: Foundations of Computational Agentsl, Cambridge University Press, 2010.

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COVID-19 FUTURE FORECASTING USING MACHINE LEARNING MODELS

CS8611 MINI PROJECT

Submitted by

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BONAFIDE CERTIFICATE

Certified that this project report **"COVID-19 FUTURE FORECASTING USING MACHINE LEARNING MODELS"** is the bonafide work of **INDHUJA.M,GOWRI.V,PRABAVATHI.R,SNEHA.R,** who carried out the project work under my supervision.Certified further that to the best of my knowledge the work reported herein does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

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ABSTRACT

Machine learning (ML) based forecasting mechanisms have proved their significance to anticipate in perioperative outcomes to improve the decision making on the future course of actions. The ML models have long been used in many application domains which needed the identification and prioritization of adverse factors for a threat. Several prediction methods are being popularly used to handle forecasting problems. This study demonstrates the capability of ML models to forecast the number of upcoming patients affected by COVID-19 which is presently considered as a potential threat to mankind. In particular, four standard forecasting models, such as linear regression (LR), least absolute shrinkage and selection operator (LASSO), support vector machine (SVM), and exponential smoothing (ES) have been used in this study to forecast the threatening factors of COVID-19. Three types of predictions are made by each of the models, such as the number of newly infected cases, the number of deaths, and the number of recoveries in the next 10 days. The results produced by the study proves it a promising mechanism to use these methods for the current scenario of the COVID-19 pandemic. The results prove that the ES performs best among all the used models followed by LR and LASSO which performs well in forecasting the new confirmed cases, death rate as well as recovery rate, while SVM performs poorly in all the prediction scenarios given the available dataset.

CONCLUSION

The precariousness of the COVID-19 pandemic can ignite a massive global crisis. Some researchers and government agencies throughout the world have apprehensions that the pandemic can affect a large proportion of the world population [26], [27]. In this study, an ML-based prediction system has been proposed for predicting the risk of COVID- 19 outbreak globally. The system analyses dataset containing the day-wise actual past data and makes predictions for upcoming days using machine learning algorithms. The results of the study prove that ES performs best in the current forecasting domain given the nature and size of the dataset. LR and LASSO also perform well for forecasting to some extent to predict death rate and confirm cases. According to the results of these two models, the death rates will increase in upcoming days, and recoveries rate will be slowed down. SVM produces poor results in all scenarios because of the ups and downs in the dataset values. It was very difficult to put an accurate hyperplane between the given values of the dataset. Overall we conclude that model predictions according to the current scenario are correct which may be helpful to understand the upcoming situation. The study forecasts thus can also be of great help for the authorities to take timely actions and make decisions to contain the COVID-19 crisis. This study will be enhanced continuously in the future course, next we plan to explore the prediction methodology using the updated dataset and use the most accurate and appropriate ML methods for forecasting.

CHAPTER 9

CREDIT CARD FRAUD DETECTION USING ADABOOST AND MAJOR VOTING

CS8611 MINI PROJECT

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CREDIT CARD FRAUD DETECTION USING ADABOOST AND MAJOR VOTING

CS8611 MINI PROJECT

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ABSTRACT

Credit card fraud is a serious problem in financial services. Machine learning algorithm based fraud detection scheme is implemented for detect the fraud card. Hybrid methods which use AdaBoost and majority voting methods are applied. To evaluate the model efficacy, a publicly available credit card data set is used. Then, a real-world credit card data set from a financial institution is analyzed.

CHAPTER 10

10. 1 CONCLUSIONS

A study on credit card fraud detection using machine learning algorithms has been presented in this paper. A number of standard models which include NB, SVM, and DL have been used in the empirical evaluation.A publicly available credit card data set has been used for evaluation using individual (standard) models and hybrid models using AdaBoost and majority voting combination methods.The MCC metric has been adopted as a performance measure, as it takes into account the true and false positive and negative predicted outcomes. The best MCC score is 0.823, achieved using majority voting.A real credit card data set from a financial institution has also been used for evaluation. The same individual and hybrid models have been employed. A perfect MCC score of 1 has been achieved using AdaBoost and majority voting methods.To further evaluate the hybrid models, noise from 10% to 30% has been added into the data samples. The majority voting method has yielded the best MCC score of 0.942 for 30% noise added to the data set. This shows that the majority voting method is stable in performance in the presence of noise.

10.2 FUTURE WORK

The methods studied in this paper will be extended to online learning models. In addition, other online learning models will be investigated. The use of online learning will enable rapid detection of fraud cases, potentially in real-time. This in turn will help detect and prevent fraudulent transactions before they take place, which will reduce the number of losses incurred every day in the financial sector.

IT8075 **SOFTWARE PROJECT MANAGEMENT** L T P C
3 0 0 3

OBJECTIVES:

- To understand the Software Project Planning and Evaluation techniques.
- To plan and manage projects at each stage of the software development life cycle (SDLC).
- To learn about the activity planning and risk management principles.
- To manage software projects and control software deliverables.
- To develop skills to manage the various phases involved in project management and people management.
- To deliver successful software projects that support organization's strategic goals.

UNIT I PROJECT EVALUATION AND PROJECT PLANNING 9

Importance of Software Project Management – Activities - Methodologies – Categorization of Software Projects – Setting objectives – Management Principles – Management Control – Project portfolio Management – Cost-benefit evaluation technology – Risk evaluation – Strategic program Management — Stepwise Project Planning.

UNIT II PROJECT LIFE CYCLE AND EFFORT ESTIMATION 9

Software process and Process Models – Choice of Process models - Rapid Application development – Agile methods – Dynamic System Development Method – Extreme Programming– Managing interactive processes – Basics of Software estimation – Effort and Cost estimation techniques – COSMIC Full function points - COCOMO II - a Parametric Productivity Model.

UNIT III ACTIVITY PLANNING AND RISK MANAGEMENT 9

Objectives of Activity planning – Project schedules – Activities – Sequencing and scheduling – Network Planning models – Formulating Network Model – Forward Pass & Backward Pass techniques – Critical path (CRM) method – Risk identification – Assessment – Risk Planning –Risk Management – – PERT technique – Monte Carlo simulation – Resource Allocation – Creation of critical paths — Cost schedules.

UNIT IV PROJECT MANAGEMENT AND CONTROL 9

Framework for Management and control – Collection of data – Visualizing progress – Cost monitoring – Earned Value Analysis – Prioritizing Monitoring – Project tracking – Change control – Software Configuration Management – Managing contracts – Contract Management.

UNIT V STAFFING IN SOFTWARE PROJECTS 9

Managing people – Organizational behavior – Best methods of staff selection – Motivation – The Oldham – Hackman job characteristic model – Stress – Health and Safety – Ethical and Professional concerns – Working in teams – Decision making – Organizational structures – Dispersed and Virtual teams – Communications genres – Communication plans – Leadership.

TOTAL 45 PERIODS

OUTCOMES:

At the end of the course, the students should be able to:

- Understand Project Management principles while developing software.
- Gain extensive knowledge about the basic project management concepts, framework and theprocess models.
- Obtain adequate knowledge about software process models and software effort estimation techniques.
- Estimate the risks involved in various project activities.
- Define the checkpoints, project reporting structure, project progress and tracking mechanismsusing project management principles.
- Learn staff selection process and the issues related to people management

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TEXT BOOK:

1. Bob Hughes, Mike Cotterell and Rajib Mall: Software Project Management — Fifth Edition,Tata McGraw Hill, New Delhi, 2012.

REFERENCES:

1. Robert K. Wysocki —Effective Software Project Managementl – Wiley Publication, 2011.
2. Walker Royce: —Software Project Managementl- Addison-Wesley, 1998.
3. Gopalaswamy Ramesh, —Managing Global Software Projectsl — McGraw Hill Education (India), Fourteenth Reprint 2013.

NATIONAL WEB PORTAL FOR JOB ORIENTED COURSES

MINI PROJECT REPORT

Submitted By

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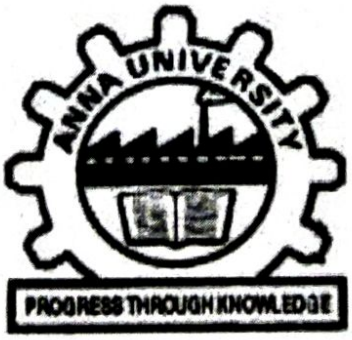

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90

ABSTRACT

The purpose of the project is to overcome the manual work makes the process slow and other problems such as inconsistency and ambiguity on operations. In order to avoid this "National web portal for job oriented courses" is the service for students or user have been developed which aims to analyze the job-oriented courses details.

This type of online course system reduces the strenuous work of physically examining of each and every student or user. The system also reduces the burden of efforts and burden of keeping and maintaining the records on a manual base, it requires a lot of space and safety to keep up such records. In this project the admin can maintain and monitor the overall process. The student or user can register and login the system using his/her user name and password. After the login process the student can search and view the job-oriented courses details.

CHAPTER 10

10.1 CONCLUSION

This project entitled as "National web portal used for designing job oriented courses with the help of human resources data and desirable skill sent from industries" has been developed to satisfy all the proposed requirements. The process of recording details about job is more simple and easy. The system reduces the possibility of errors to a great extent and maintains the data in an efficient manner. User friendliness is the unique feature of this system. The system generates the reports as and when required. The system is highly interactive and flexible for further enhancement. The coding is done in a simplified and easy to understandable manner so that other team trying to enhance the project can do so without facing much difficulty. The documentation will also assist in the process as it has also been carried out in a simplified and concise way.

10.2 FUTURE ENHANCEMENT

- In future we can develop this project in android application with extra features like online interview process and certificate verification system etc.
- It also provides knowledge about the latest technology used in developing Web enabled application and client service technology used in developing that will be demand in future.
- This will provide better opportunities and guidance in future in developing project independently.

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CS8603 **DISTRIBUTED SYSTEMS** **L T P C**
3 0 0 3

OBJECTIVES:

- To understand the foundations of distributed systems.
- To learn issues related to clock Synchronization and the need for global state in distributedsystems.
- To learn distributed mutual exclusion and deadlock detection algorithms.
- To understand the significance of agreement, fault tolerance and recovery protocols in Distributed Systems.
- To learn the characteristics of peer-to-peer and distributed shared memory systems.

UNIT I INTRODUCTION **9**

Introduction: Definition –Relation to computer system components –Motivation –Relation to parallel systems — Message-passing systems versus shared memory systems –Primitives for distributed communication –Synchronous versus asynchronous executions –Design issues and challenges. **A model of distributed computations:** A distributed program –A model of distributed executions –Models of communication networks –Global state — Cuts –Past and future cones of an event –Models of process communications. **Logical Time**: A framework for a system of logical clocks –Scalar time –Vector time – Physical clock synchronization: NTP.

UNIT II MESSAGE ORDERING & SNAPSHOTS **9**

Message ordering and group communication: Message ordering paradigms –Asynchronous execution with synchronous communication –Synchronous program order on an asynchronous system –Group communication — Causal order (CO) - Total order. **Global state and snapshot recording algorithms:** Introduction –System model and definitions –Snapshot algorithms for FIFO channels

UNIT III DISTRIBUTED MUTEX & DEADLOCK **9**

Distributed mutual exclusion algorithms: Introduction – Preliminaries – Lamport's algorithm – Ricart-Agrawala algorithm – Maekawa's algorithm – Suzuki–Kasami's broadcast algorithm. **Deadlock detection in distributed systems:** Introduction – System model – Preliminaries – Models of deadlocks – Knapp's classification – Algorithms for the single resource model, the AND model and the OR model.

UNIT IV RECOVERY & CONSENSUS **9**

Checkpointing and rollback recovery: Introduction – Background and definitions – Issues in failure recovery – Checkpoint-based recovery – Log-based rollback recovery – Coordinated checkpointing algorithm – Algorithm for asynchronous checkpointing and recovery. **Consensus and agreement algorithms:** Problem definition – Overview of results – Agreement in a failure – free system – Agreement in synchronous systems with failures.

UNIT V P2P & DISTRIBUTED SHARED MEMORY **9**

Peer-to-peer computing and overlay graphs: Introduction – Data indexing and overlays – Chord – Content addressable networks – Tapestry. **Distributed shared memory:** Abstraction and advantages – Memory consistency models –Shared memory Mutual Exclusion.

TOTAL: 45 PERIODS

OUTCOMES:

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

- Elucidate the foundations and issues of distributed systems
- Understand the various synchronization issues and global state for distributed systems.
- Understand the Mutual Exclusion and Deadlock detection algorithms in distributed systems
- Describe the agreement protocols and fault tolerance mechanisms in distributed systems.

- Describe the features of peer-to-peer and distributed shared memory systems

TEXT BOOKS:

1. Kshemkalyani, Ajay D., and Mukesh Singhal. Distributed computing: principles, algorithms,and systems. Cambridge University Press, 2011.
2. George Coulouris, Jean Dollimore and Tim Kindberg, —Distributed Systems Concepts and Designl, Fifth Edition, Pearson Education, 2012.

REFERENCES:

1. Pradeep K Sinha, "Distributed Operating Systems: Concepts and Design", Prentice Hall ofIndia, 2007.
2. Mukesh Singhal and Niranjan G. Shivaratri. Advanced concepts in operating systems. McGraw-Hill, Inc., 1994.
3. Tanenbaum A.S., Van Steen M., —Distributed Systems: Principles and Paradigmsl,Pearson Education, 2007.
4. Liu M.L., —Distributed Computing, Principles and Applicationsl, Pearson Education, 2004. Nancy A Lynch, —Distributed Algorithmsl, Morgan Kaufman Publishers, USA, 2003

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VERIFIABLE AND MULTI-KEYWORD DATA SHARING PROTOCOL TO MINIMIZE SECURITY AND PRIVACY RISKS METHOD FOR CLOUD STORAGE

A PROJECT REPORT

Submitted by

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ARULJOTHI .C (622517104003)

KARTHIKA .M (622517104021)

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BONAFIDE CERTIFICATE

Certificated that this project report **"VERIFIABLE AND MULTI-KEYWORD DATA SHARING PROTOCOL TO MINIMIZE SECURITY AND PRIVACY RISKS METHOD FOR CLOUD STORAGE"** the bonafide work of **ABITHA A (622517104001), ARULJOTHI C (622517104003), KARTHIKA M (622517104021), KIRUBA V (622517104025)** who carried out the project work under my supervision. Certified further that to the best of my knowledge the work reported herein does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

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INTERNAL EXAMINER

EXTERNAL EXAMINER

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ABSTRACT

The success of the cloud computing paradigm is due to its on-demand, self-service, and pay-by-use nature. Public key encryption with keyword search applies only to the certain circumstances that keyword cipher text can only be retrieved by a specific user and only supports single-keyword matching. In the existing searchable encryption schemes, either the communication mode is one-to-one, or only single-keyword search is supported. This paper proposes a searchable encryption that is based on attributes and supports multi-keyword search. Searchable encryption is a primitive, which not only protects data privacy of data owners but also enables data users to search over the encrypted data. Most existing searchable encryption schemes are in the single-user setting. There are only few schemes in the multiple data users setting, i.e., encrypted data sharing. Among these schemes, most of the early techniques depend on a trusted third party with interactive search protocols or need cumbersome key management. To remedy the defects, the most recent approaches borrow ideas from attribute-based encryption to enable attribute-based keyword search (ABKS).

CHAPTER 9

CONCLUSION AND FUTURE ENHANCEMENTS

CONCLUSION

In this article we proposed VMKS-ABE scheme. In our scheme, we combine the verifiable of the correctness of outsourced private key with multi-keyword search based on attribute encryption. In the general group model, the security of keyword index is proved. Under the random oracle model, the cipher text is proved to be selectively secure.

FUTURE ENHANCEMENTS

Since the security in the general group model is much weak than in the standard model, it is worth constructing verifiable and multi-keyword searchable scheme in the standard model.

IT8076 **SOFTWARE TESTING** **L T P C**
3 0 0 3

OBJECTIVES:

- To learn the criteria for test cases.
- To learn the design of test cases.
- To understand test management and test automation techniques.
- To apply test metrics and measurements.

UNIT I INTRODUCTION **9**

Testing as an Engineering Activity – Testing as a Process – Testing Maturity Model- Testing axioms – Basic definitions – Software Testing Principles – The Tester's Role in a Software Development Organization – Origins of Defects – Cost of defects – Defect Classes – The Defect Repository and Test Design –Defect Examples- Developer/Tester Support of Developing a Defect Repository.

UNIT II TEST CASE DESIGN STRATEGIES **9**

Test case Design Strategies – Using Black Box Approach to Test Case Design – Boundary Value Analysis – Equivalence Class Partitioning – State based testing – Cause-effect graphing – Compatibility testing – user documentation testing – domain testing - Random Testing – Requirements based testing – Using White Box Approach to Test design – Test Adequacy Criteria
– static testing vs. structural testing – code functional testing – Coverage and Control Flow Graphs
– Covering Code Logic – Paths – code complexity testing – Additional White box testing approaches- Evaluating Test Adequacy Criteria.

UNIT III LEVELS OF TESTING **9**

The need for Levels of Testing – Unit Test – Unit Test Planning – Designing the Unit Tests – The Test Harness – Running the Unit tests and Recording results – Integration tests – Designing Integration Tests – Integration Test Planning – Scenario testing – Defect bash elimination System Testing – Acceptance testing – Performance testing – Regression Testing – Internationalization testing – Ad-hoc testing – Alpha, Beta Tests – Testing OO systems – Usability and Accessibility testing — Configuration testing –Compatibility testing — Testing the documentation — Website testing.

UNIT IV TEST MANAGEMENT **9**

People and organizational issues in testing – Organization structures for testing teams – testing services – Test Planning – Test Plan Components – Test Plan Attachments – Locating Test Items – test management – test process – Reporting Test Results – Introducing the test specialist – Skills needed by a test specialist – Building a Testing Group- The Structure of Testing Group- .The Technical Training Program.

UNIT V TEST AUTOMATION **9**

Software test automation – skills needed for automation – scope of automation – design and architecture for automation – requirements for a test tool – challenges in automation – Test metrics and measurements – project, progress and productivity metrics.

TOTAL: 45 PERIODS

OUTCOMES:

At the end of the course the students will be able to:

- Design test cases suitable for a software development for different domains.
- Identify suitable tests to be carried out.
- Prepare test planning based on the document.
- Document test plans and test cases designed.
- Use automatic testing tools.
- Develop and validate a test plan.

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TEXT BOOKS:

1. Srinivasan Desikan and Gopalaswamy Ramesh, —Software Testing – Principles and Practicesl,Pearson Education, 2006.
2. Ron Patton, —Software Testingl, Second Edition, Sams Publishing, Pearson Education, 2007.AU Library.com

REFERENCES:

1. Ilene Burnstein, —Practical Software Testingl, Springer International Edition, 2003.
2. Edward Kit,l Software Testing in the Real World – Improving the Processl, Pearson Education, 1995.
3. Boris Beizer,l Software Testing Techniquesl – 2nd Edition, Van Nostrand Reinhold, NewYork, 1990.Aditya P. Mathur, —Foundations of Software Testing _ Fundamental Algorithms and Techniquesl, Dorling Kindersley (India) Pvt. Ltd., Pearson Education, 2008

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ASPECT LEVEL SENTIMENT ANALYSIS

MINI PROJECT REPORT

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in partial fulfillment for the award of the degree

of

BACHELOR OF ENGINEERING

in

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Abstract

Huge collections of consumer reviews for products are now available on the Web. These reviews contain rich opinionated information on various products. They have become a valuable resource to facilitate consumers in understanding the products prior to making purchasing decisions, and support manufacturers in comprehending consumer opinions to effectively improve the product offerings. However, such reviews are often unorganized, leading to difficulty in information navigation and knowledge acquisition. It is inefficient for users to gather public opinions on a product by reading through all the consumer reviews and manually analyzing opinions on each review. In this project, we can implement product reviews rating from product reviews, which aim to automatically identify important product aspects from online consumer reviews. The important aspects are identified according to two observations: the important aspects of a product are usually commented by a large number of consumers; and consumers' opinions on the important aspects greatly influence their overall opinions on the product. In particular, given consumer reviews of a product, we first identify the product aspects by labeling the reviews and determine consumers' opinions on these aspects via a sentiment classifier. The Proposed research can be implement SVM and Naive Bayes classification to identify the opinion words by simultaneously considering the reviews collection and the influence of consumers' opinions given to each aspect on their overall opinions. The experimental results on popular mobile product reviews demonstrate the effectiveness of our approach.

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CHAPTER - 6

Conclusion

Various sentiment analysis methods and its different levels of analyzing sentiments have been studied in this paper . Our ultimate aim is to come up with Sentiment Anal y sis which will efficiently categorize various reviews. Machine learning methods like SVM, NB, methods were discussed here in brief, along with some other interesting methods that can improve the analysis process in one or the other way. Semantic analysis of the text is of great consideration. Research work is carried out for better analysis methods in this area, including the semantics by considering n - gram evaluation instead of word by word analysis. We have also come across some other methods like rule based and lexicon based methods. In the world of Internet majority of people depend on social networking sites to get their valued information, analyzing the reviews from these blogs will yield a better understanding and help in their decision -making

CS8078 **GREEN COMPUTING** L T P C
3 0 0 3

OBJECTIVES:

- To learn the fundamentals of Green Computing.
- To analyze the Green computing Grid Framework.
- To understand the issues related with Green compliance.
- To study and develop various case studies.

UNIT I FUNDAMENTALS 9

Green IT Fundamentals: Business, IT, and the Environment – Green computing: carbon foot print, scoop on power — Green IT Strategies: Drivers, Dimensions, and Goals — Environmentally Responsible Business: Policies, Practices, and Metrics.

UNIT II GREEN ASSETS AND MODELING 9

Green Assets: Buildings, Data Centers, Networks, and Devices – Green Business Process Management: Modeling, Optimization, and Collaboration – Green Enterprise Architecture – Environmental Intelligence – Green Supply Chains – Green Information Systems: Design and Development Models.

UNIT III GRID FRAMEWORK 9

Virtualization of IT systems – Role of electric utilities, Telecommuting, teleconferencing and teleporting – Materials recycling – Best ways for Green PC – Green Data center – Green Grid framework.

UNIT IV GREEN COMPLIANCE 9

Socio-cultural aspects of Green IT – Green Enterprise Transformation Roadmap – Green Compliance: Protocols, Standards, and Audits – Emergent Carbon Issues: Technologies and Future.

UNIT V CASE STUDIES 9

The Environmentally Responsible Business Strategies (ERBS) – Case Study Scenarios for Trial Runs – Case Studies – Applying Green IT Strategies and Applications to a Home, Hospital, Packaging Industry and Telecom Sector.

TOTAL : 45 PERIODS

OUTCOMES:

Upon completion of the course, the students will be able to:

- Acquire knowledge to adopt green computing practices to minimize negative impacts on the environment.
- Enhance the skill in energy saving practices in their use of hardware.
- Evaluate technology tools that can reduce paper waste and carbon footprint by the stakeholders.
- Understand the ways to minimize equipment disposal requirements .

TEXT BOOKS:

1. Bhuvan Unhelkar, —Green IT Strategies and Applications-Using Environmental Intelligencel, CRC Press, June 2014.
2. Woody Leonhard, Katherine Murray, —Green Home computing for dummiesl, August 2012.

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REFERENCES:

1. Alin Gales, Michael Schaefer, Mike Ebbers, —Green Data Center: steps for the Journeyl, Shroff/IBM rebook, 2011.
2. John Lamb, —The Greening of ITl, Pearson Education, 2009.
3. Jason Harris, —Green Computing and Green IT- Best Practices on regulations & industryl, Lulu.com, 2008
4. Carl speshocky, —Empowering Green Initiatives with ITl, John Wiley & Sons, 2010.
5. Wu Chun Feng (editor), —Green computing: Large Scale energy efficiencyl, CRCPress

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REAL-TIME COST MINIMIZATION OF FOG COMPUTING IN MOBILE-BASE-STATION NETWORKED DISASTER AREAS

CS8611 MINI PROJECT

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ABSTRACT

Traditional techniques for image retrieval are not supported for the ever expansive image database.These downsides can be removed by utilizing contents of the image for image retrieval.This sort of image retrieval is called Cross Batch Redundancy Detection (CBRD).

BEES is works with CBRD is focused around the visual features like shape, color and texture.The Density- Bandwidth Energy Efficient Sharing(BEES) is a stand out amongst the most locally feature detector and descriptors which is utilized as a part of the majority of the vision programming. We focus texture,color,shape,size,string based image matching with better accuracy.

These features include Texture, Color,Shape and Region. It is a hot research area and researchers have developed many techniques to use these features for accurate retrieval of required images from the databases. In this paper we present a literature survey of the Cross Batch Redundancy Detection(CBRD) techniques based on Texture, Color, Shape and Region.We also review some of the state of the art tools developed for CBRD

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CONCLUSION

In the BEES feature extraction ,BEES transforms image data into scale-invariant coordinates virtual to local features and generates large numbers of features that compactly cover the image over the full range of scales and locations.

The low contrast points or poorly localized along an edges are removed by key point localization. A KeyPoint has been found by comparing a pixel to its neighbors and is to perform a detailed fit to the nearby data for location, scale, and ratio of key curvatures.

To make the BEES feature more compact, the bag-of-words (BoW) representation approach quantizes BEES descriptors by vector quantization technique into a collection of visual words based on a pre-defined visual vocabulary or vocabulary tree .

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CS8080 **INFORMATION RETRIEVAL TECHNIQUES** L T P C
3 0 0 3

OBJECTIVES:

- To understand the basics of Information Retrieval.
- To understand machine learning techniques for text classification and clustering.
- To understand various search engine system operations.
- To learn different techniques of recommender system.

UNIT I INTRODUCTION 9

Information Retrieval – Early Developments – The IR Problem – The User_s Task – Information versus Data Retrieval - The IR System – The Software Architecture of the IR System – The Retrieval and Ranking Processes - The Web – The e-Publishing Era – How the web changed Search — Practical Issues on the Web — How People Search — Search Interfaces Today — Visualization in Search Interfaces.

UNIT II MODELING AND RETRIEVAL EVALUATION 9

Basic IR Models - Boolean Model - TF-IDF (Term Frequency/Inverse Document Frequency) Weighting - Vector Model – Probabilistic Model – Latent Semantic Indexing Model – Neural Network Model – Retrieval Evaluation – Retrieval Metrics – Precision and Recall – Reference Collection – User-based Evaluation – Relevance Feedback and Query Expansion – Explicit Relevance Feedback.

UNIT III TEXT CLASSIFICATION AND CLUSTERING 9

A Characterization of Text Classification – Unsupervised Algorithms: Clustering – Naïve Text Classification – Supervised Algorithms – Decision Tree – k-NN Classifier – SVM Classifier – Feature Selection or Dimensionality Reduction – Evaluation metrics – Accuracy and Error – Organizing the classes – Indexing and Searching – Inverted Indexes – Sequential Searching – Multi-dimensional Indexing.

UNIT IV WEB RETRIEVAL AND WEB CRAWLING 9

The Web – Search Engine Architectures – Cluster based Architecture – Distributed Architectures – Search Engine Ranking – Link based Ranking – Simple Ranking Functions – Learning to Rank – Evaluations -- Search Engine Ranking – Search Engine User Interaction – Browsing – Applications of a Web Crawler – Taxonomy – Architecture and Implementation – Scheduling Algorithms – Evaluation.

UNIT V RECOMMENDER SYSTEM 9

Recommender Systems Functions – Data and Knowledge Sources – Recommendation Techniques – Basics of Content-based Recommender Systems – High Level Architecture – Advantages and Drawbacks of Content-based Filtering – Collaborative Filtering – Matrix factorization models – Neighborhood models.

TOTAL: 45 PERIODS

OUTCOMES:

Upon completion of the course, the students will be able to:

- Use an open source search engine framework and explore its capabilities
- Apply appropriate method of classification or clustering.
- Design and implement innovative features in a search engine.
- Design and implement a recommender system.

TEXT BOOKS:

1. Ricardo Baeza-Yates and Berthier Ribeiro-Neto, —Modern Information Retrieval: The Conceptsand Technology behind Search, Second Edition, ACM Press Books, 2011.
2. Ricci, F, Rokach, L. Shapira, B.Kantor, —Recommender Systems Handbookl, First Edition, 2011.

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1. C. Manning, P. Raghavan, and H. Schütze, —Introduction to Information Retrieval, CambridgeUniversity Press, 2008.
2. Stefan Buettcher, Charles L. A. Clarke and Gordon V. Cormack, —Information Retrieval:Implementing and Evaluating Search Engines, The MIT Press, 2010.

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MOBILE APP FOR 24X7 LOCAL HOME SERVICES

CS8611 MINI PROJECT

Submitted by

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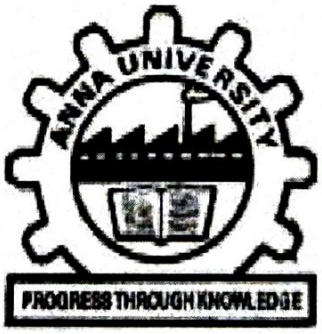

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ABSTRACT

The Mobile Application portal being designed will help to integrate different functionalities of the organization by coordinating different users of the application through the single portal. We have management systems for different applications such as electrician, plumber, mechanic etc. but our main objective is to develop a mobile-based application for home owners with **critical home repairs**, accessibility modifications, and energy-efficient upgrades. This project helps to bring the communities together in efforts to assist those in need of general home repair and improvements. In this project, the Homeowners must submit a detail with a request. Every person needs helps from the electrician, plumber, mechanic etc. Thus, this web application will enable the user to seek and call them for help. This project will also let the user find them according to their locations, so that help can always come in time when needed.

CHAPTER - 11

CONCLUSION

The project entitled as "Mobile App for 24X7 Local Home Services"concluded that can be deduced from automation of the entire system improves the efficiency it provides a friendly graphical user interface which proves to be better when compared to the existing system. It gives appropriate access to the authorized users depending on their permissions. It effectively overcomes the delay in communications. Updating of information becomes so easier. This project can be providing good interaction & communication facilities between customer & Servicer. System security, data security and reliability are the striking features. The System has adequate scope for modification in future if it is necessary.

11.1 FUTURE ENHANCEMENTS

In future, we can add the searching option with location tracking system in android application. We can directly search to the particular location. These are the enhancements that we could think of at present.

CS8088 **WIRELESS ADHOC AND SENSOR NETWORKS** **L T P C**
3 0 0 3

OBJECTIVES:

- To learn about the issues and challenges in the design of wireless ad hoc networks.
- To understand the working of MAC and Routing Protocols for ad hoc and sensor networks
- To learn about the Transport Layer protocols and their QoS for ad hoc and sensornetworks.
- To understand various security issues in ad hoc and sensor networks and thecorresponding solutions.

UNIT I MAC & ROUTING IN AD HOC NETWORKS **9**

Introduction – Issues and challenges in ad hoc networks – MAC Layer Protocols for wireless ad hoc networks – Contention-Based MAC protocols – MAC Protocols Using Directional Antennas – Multiple-Channel MAC Protocols – Power-Aware MAC Protocols – Routing in Ad hoc Networks – Design Issues – Proactive, Reactive and Hybrid Routing Protocols

UNIT II TRANSPORT & QOS IN AD HOC NETWORKS **9**

TCP"s challenges and Design Issues in Ad Hoc Networks – Transport protocols for ad hoc networks – Issues and Challenges in providing QoS – MAC Layer QoS solutions – Network Layer QoS solutions — QoS Model

UNIT III MAC & ROUTING IN WIRELESS SENSOR NETWORKS **9**

Introduction – Applications – Challenges – Sensor network architecture – MAC Protocols for wireless sensor networks – Low duty cycle protocols and wakeup concepts – Contention- Based protocols – Schedule-Based protocols – IEEE 802.15.4 Zigbee – Topology Control – Routing Protocols

UNIT IV TRANSPORT & QOS IN WIRELESS SENSOR NETWORKS **9**

Data-Centric and Contention-Based Networking – Transport Layer and QoS in Wireless Sensor Networks – Congestion Control in network processing – Operating systems for wireless sensor networks – Examples

UNIT V SECURITY IN AD HOC AND SENSOR NETWORKS **9**

Security Attacks – Key Distribution and Management – Intrusion Detection – Software based Anti-tamper techniques – Water marking techniques – Defense against routing attacks - Secure Ad hoc routing protocols – Broadcast authentication WSN protocols – TESLA – Biba – Sensor Network Security Protocols – SPINS

TOTAL :45 PERIODS

OUTCOMES:

Upon completion of the course, the students will be able to:

- Identify different issues in wireless ad hoc and sensor networks .
- To analyze protocols developed for ad hoc and sensor networks .
- To identify and understand security issues in ad hoc and sensornetworks.

TEXT BOOKS:

1. C.Siva Ram Murthy and B.S.Manoj, —Ad Hoc Wireless Networks — Architectures and Protocolsl, Pearson Education, 2006. 2
2. Holger Karl, Andreas Willing, —Protocols and Architectures for Wireless Sensor Networksl,John Wiley & Sons, Inc., 2005.

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REFERENCES

1. Subir Kumar Sarkar, T G Basavaraju, C Puttamadappa, —Ad Hoc Mobile Wireless Networksl, Auerbach Publications, 2008.
2. Carlos De Morais Cordeiro, Dharma Prakash Agrawal, —Ad Hoc and Sensor Networks: Theoryand Applications (2nd Edition)l, World Scientific Publishing, 2011.
3. Waltenegus Dargie, Christian Poellabauer, —Fundamentals of Wireless Sensor NetworksTheory and Practicel, John Wiley and Sons, 2010
4. Xiang-Yang Li , "Wireless Ad Hoc and Sensor Networks: Theory and Applicationsl, 1227th edition, Cambridge university Press,2008.

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SECURITY BUG FINDER IN WEBPAGES

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ABSTRACT

Cybersecurity encompasses a broad range of practices, tools and concepts related closely to those of information and operational technology (OT)security. Cybersecurity is distinctive in its inclusion of the offensive use of information technology to attack. Use of the term "cybersecurity" as a key challenge and a synonym for information security or IT security confuses customers and security practitioners, and obscures critical differences between these disciplines. Recommendation for security leaders is that they should use the term "cybersecurity" to designate only security practices related to the defensive actions involving or relying upon information technology and/or OT environments and systems. Within this paper, we are aiming to explain "cybersecurity" and describe the relationships among cybersecurity, information security, OT security, IT security, and other related disciplines and practices, Cyber defense, related to their implementation aligned with the planned or existing cybersecurity strategy at the national level. In the case study given example of The National Cybersecurity Strategy of the Republic of Croatia and Action plan is presented and elaborated. The Strategy's primary objective is to recognize organizational problems in its implementation and broaden the understanding of the importance of this issue in the society. Cybersecurity is the governance, development, management and use of information security, OT security, and IT security tools and techniques for achieving regulatory compliances

CHAPTER 8
CONCLUSION & FUTURE ENHANCEMENT

8.1 Conclusion

Our project is only a humble venture to satisfy the needs to manage their project work. Several user friendly coding have also adopted. This package shall prove to be a powerful package in satisfy all requirements of the user. The objective of the software planning is to provide a framework that enable the manager to make reasonable estimate made within a limited time frame at the beginning of thesoftware project and should be update regularly as the project regularly. At the endit is concluded that we have made effort on following point.

- A description of background and context of the project and its relation to work

  already done in the area.
- Made statement of the aims and objectives of the project.
- The description of the purpose scope and applicability.
- We define the project on which we are working in project.
- We describe the requirement specifications of the system and actions that canbe done on these things.
- We designed user interface and security related to system.
- Finally the system is implemented and tested according to the test cases.

OME752 **SUPPLY CHAIN MANAGEMENT** **L T P C**
3 0 0 3

OBJECTIVE:

- To provide an insight on the fundamentals of supply chain networks, tools and techniques.

UNIT I INTRODUCTION **9**

Role of Logistics and Supply chain Management: Scope and Importance- Evolution of Supply Chain - Decision Phases in Supply Chain - Competitive and Supply chain Strategies – Drivers of Supply Chain Performance and Obstacles.

UNIT II SUPPLY CHAIN NETWORK DESIGN **9**

Role of Distribution in Supply Chain - Factors influencing Distribution network design - Design options for Distribution Network Distribution Network in Practice-Role of network Design in Supply Chain – Framework for network Decisions.

UNIT III LOGISTICS IN SUPPLY CHAIN **9**

Role of transportation in supply chain - factors affecting transportations decision - Design option for transportation network - Tailored transportation - Routing and scheduling in transportation.

UNIT IV SOURCING AND COORDINATION IN SUPPLY CHAIN **9**

Role of sourcing supply chain supplier selection assessment and contracts- Design collaboration - sourcing planning and analysis - supply chain co-ordination - Bull whip effect –Effect of lack of co-ordination in supply chain and obstacles – Building strategic partnershipsand trust within a supply chain.

UNIT V SUPPLY CHAIN AND INFORMATION TECHNOLOGY **9**

The role IT in supply chain- The supply chain IT frame work Customer Relationship Management - Internal supply chain management - supplier relationship management - futureof IT in supply chain – E-Business in supply chain.

TOTAL: 45 PERIODS

OUTCOME:

- The student would understand the framework and scope of supply chain networks and functions.

TEXTBOOK:

1. Sunil Chopra, Peter Meindl and Kalra, "Supply Chain Management, Strategy, Planning, andOperation", Pearson Education, 2010.

REFERENCES:

1. Jeremy F.Shapiro, "Modeling the Supply Chain", Thomson Duxbury, 2002.
2. Srinivasan G.S, "Quantitative models in Operations and Supply Chain Management, PHI, 2010
3. David J.Bloomberg , Stephen Lemay and Joe B.Hanna, "Logistics", PHI 2002.
James B.Ayers, "Handbook of Supply Chain Management", St.Lucle press, 2000.

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GROCERY HELPER WEB APPLICATION

MINI PROJECT REPORT

Submitted By

VENKATESHWARAN R	**622518104062**
HEMNATH V	**622518104019**
MAHESH KUMAR C	**622518104301**
KARTHIGA A	**622518104026**

in partial fulfillment for the award of the degree

of

BACHELOR OF ENGINEERING

in

COMPUTER SCIENCE AND ENGINEERING

SELVAM COLLEGE OF TECHNOLOGY NAMAKKAL-637003

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BONAFIDE CERTIFICATE

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ABSTRACT

The project **'GROCERY HELPER'** is a web-based application. This application helps you to create your own monthly grocery list. This application allows you to create a list after sign up. In addition to this it allows you to share your monthly grocery list to the super market (or) to your friends as a pdf. Before this each user first makes their login to the server to show their availability. This session will be maintained by the application. This web application contains an admin panel were an admin user can add new products that are new to the market and also admin user can able to edit and delete the existing products. This web application contains a predefined list of groceries from which we can able to add it to our list by clicking on it. Once an account created by a user email will be sent to the user regarding their username and password. List will be maintain even if you logout from the web application.

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CHAPTER-8

CONCLUSION

Technology has made significant progress over the years to provide consumers a better time saving web application. Our web application is user friendly and time saving . User are more comfort to make their monthly grocery list without the use of papers and notepad. Comfort in the sense they can click and create list. They don't want to waste their time in creating list for every month. Our application helps them by saving their list and it is editable. User can delete or add products in the already existing list. Another feature is that user allows making the list as PDF a they can send it to the shopkeeper.

Future Enhancement feature in our application is:

- PDF generation of the list
- Recommendations of Products
- Improving GUI[Graphical User Interface]
- Direct sharing list to the shopkeeper[via mail-id, phone-number]

To conclude with Our project has many features like it's user friendly, Time saving User are not allowed to squander their time, Reduce many mistakes that are done by user while they creating the list. It also has many features for shopkeeper who adding the products that are going to be displayed for the user. Especially the main and the best feature for the shopkeeper is they can able to do CRUD operation over the products.

CS8494	SOFTWARE ENGINEERING	L	T	P	C
		3	0	0	3

OBJECTIVES:

- To understand the phases in a software project
- To understand fundamental concepts of requirements engineering and Analysis Modeling.
- To understand the various software design methodologies
- To learn various testing and maintenance measures

UNIT I SOFTWARE PROCESS AND AGILE DEVELOPMENT 9

Introduction to Software Engineering, Software Process, Perspective and Specialized Process Models – Introduction to Agility-Agile process-Extreme programming-XP Process.

UNIT II REQUIREMENTS ANALYSIS AND SPECIFICATION 9

Software Requirements: Functional and Non-Functional, User requirements, System requirements, Software Requirements Document — Requirement Engineering Process: Feasibility Studies, Requirements elicitation and analysis, requirements validation, requirements management- Classical analysis: Structured system Analysis, Petri Nets- Data Dictionary.

UNIT III SOFTWARE DESIGN 9

Design process — Design Concepts-Design Model– Design Heuristic — Architectural Design - Architectural styles, Architectural Design, Architectural Mapping using Data Flow- User Interface Design: Interface analysis, Interface Design –Component level Design: Designing Class based components, traditional Components.

UNIT IV TESTING AND MAINTENANCE 9

Software testing fundamentals-Internal and external views of Testing-white box testing - basis path testing-control structure testing-black box testing- Regression Testing — Unit Testing — Integration Testing — Validation Testing — System Testing And Debugging –Software Implementation Techniques: Coding practices-Refactoring-Maintenance and Reengineering-BPR model-Reengineering process model-Reverse and Forward Engineering.

UNIT V PROJECT MANAGEMENT 9

Software Project Management: Estimation – LOC, FP Based Estimation, Make/Buy Decision COCOMO I & II Model – Project Scheduling – Scheduling, Earned Value Analysis Planning – Project Plan, Planning Process, RFP Risk Management – Identification, Projection - Risk Management-Risk Identification-RMMM Plan-CASE TOOLS

TOTAL :45 PERIODS

OUTCOMES:

On Completion of the course, the students should be able to:

- Identify the key activities in managing a software project.
- Compare different process models.
- Concepts of requirements engineering and Analysis Modeling.
- Apply systematic procedure for software design and deployment.
- Compare and contrast the various testing and maintenance.
- Manage project schedule, estimate project cost and effort required.

TEXT BOOKS:

1. Roger S. Pressman, —Software Engineering – A Practitioner"s Approachl, Seventh Edition, McGraw-Hill International Edition, 2010.
2. Ian Sommerville, —Software Engineeringl, 9th Edition, Pearson Education Asia, 2011.

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REFERENCES:

1. Rajib Mall, —Fundamentals of Software Engineeringl, Third Edition, PHI LearningPrivateLimited, 2009.
2. Pankaj Jalote, —Software Engineering, A Precise Approachl, Wiley India, 2010.
3. Kelkar S.A., —Software Engineeringl, Prentice Hall of India Pvt Ltd, 2007.
4. Stephen R.Schach, —Software Engineeringl, Tata McGraw-Hill Publishing CompanyLimited,2007.
5. http://nptel.ac.in/.

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PATIENT DATA VISUALIZATION SYSTEM USING AUGMENTED REALITY

A PROJECT REPORT

Submitted by

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in

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BONAFIDE CERTIFICATE

Certificated that this project report **"Patient Data Visualization System Using Augmented Reality"** the bonafide work of **HAKKIM IBRAHIM M (622517104013), KARTHIKRAJ N (622517104022), SURIYA G (622517104057), SATHISH KUMAR P (622517104048)** Who carried out the project work under my supervision. Certified further that to the best of my knowledge the work reported herein does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

SIGNATURE

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Certified that this project report submitted by the candidate was examined in the project viva-voce examination held at Selvam College of Technology, Namakkal on .....

INTERNAL EXAMINER **EXTERNAL EXAMINER**

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ABSTRACT

The investigated online hospital management systems a tool to revolutionize medical profession. With many writers decrying how patients queue up for hours in order to receive medical treatment, and some end-up being attended to as spill over, the analyst investigated the manual system in detail with a view to finding out the need to automate the system with visualization of Augmented Reality. Subsequently, an Augmented Reality-aided program was designed to bring about improvement in the care of individual patients, taking the advantage of computer speed, storage and retrieved facilities. The application designed will take care of patient's treatment. The effective development of healthcare competencies poses great educational challenges. A possible approach to provide learning opportunities is the use of augmented reality (AR) where virtual learning experiences for the patient treatment.

CHAPTER 9

CONCLUSION AND FUTURE ENHANCEMENT

9.1 CONCLUSION

Based on the findings, the following conclusions were reached. The implementation of a patient information app for a hospital will be a big relief for medical doctors and nurses when operational. The system can be a tremendous help to hospital management. It will also serve as a tool for quick operational decision-making of the patient, thus enabling them to reach the solutions of their problem more quickly and more accurately than human beings. Thus, the overall effect of the use of apps in the medical system is that patients acquire competence, accuracy, and effectiveness within the shortest time in their operations and can break into new ground with certainty. It will help the doctors to make more decisions according to the patient's problem. Currently, this is planning to implement at Taj Polyclinic in karambakkudi. Based on the responses it will be updated in future version.

9.2 FUTURE ENHANCEMENT

Now only the user (patient) is only going to launch as the Augmented Reality. In the future, we are planning to implement IoT devices to gather direct input. As well, the complete hospital management system including the doctor and nurse's app is in the queue. The remote guiding of other doctors while doing the operation plan is also there.

CS8391 **DATA STRUCTURES** L T P C
3 0 0 3

OBJECTIVES:

- To understand the concepts of ADTs
- To Learn linear data structures – lists, stacks, and queues
- To understand sorting, searching and hashing algorithms
- To apply Tree and Graph structures

UNIT I LINEAR DATA STRUCTURES – LIST 9

Abstract Data Types (ADTs) – List ADT – array-based implementation – linked list implementation —singly linked lists- circularly linked lists- doubly-linked lists – applications of lists –Polynomial Manipulation – All operations (Insertion, Deletion, Merge, Traversal).

UNIT II LINEAR DATA STRUCTURES – STACKS, QUEUES 9

Stack ADT – Operations - Applications - Evaluating arithmetic expressions- Conversion of Infix to postfix expression - Queue ADT – Operations - Circular Queue – Priority Queue - deQueue – applications of queues.

UNIT III NON LINEAR DATA STRUCTURES – TREES 9

Tree ADT – tree traversals - Binary Tree ADT – expression trees – applications of trees – binary search tree ADT –Threaded Binary Trees- AVL Trees – B-Tree - B+ Tree - Heap – Applications of heap.

UNIT IV NON LINEAR DATA STRUCTURES - GRAPHS 9

Definition – Representation of Graph – Types of graph - Breadth-first traversal - Depth-first traversal – Topological Sort – Bi-connectivity – Cut vertex – Euler circuits – Applications of graphs.

UNIT V SEARCHING, SORTING AND HASHING TECHNIQUES 9

Searching- Linear Search - Binary Search. Sorting - Bubble sort - Selection sort - Insertion sort - Shell sort – Radix sort. Hashing- Hash Functions – Separate Chaining – Open Addressing – Rehashing — Extendible Hashing.

TOTAL: 45 PERIODS

OUTCOMES:

At the end of the course, the student should be able to:

- Implement abstract data types for linear data structures.
- Apply the different linear and non-linear data structures to problem solutions.
- Critically analyze the various sorting algorithms.

TEXT BOOKS:

1. Mark Allen Weiss, —Data Structures and Algorithm Analysis in CI, 2nd Edition, Pearson Education,1997.
2. Reema Thareja, —Data Structures Using CI, Second Edition , Oxford University Press, 2011

REFERENCES:

1. Thomas H. Cormen, Charles E. Leiserson. Ronald L.Rivest, Clifford Stein, —Introduction to Algorithms", Second Edition, Mcgraw Hill, 2002.
2. Aho, Hopcroft and Ullman, —Data Structures and Algorithmsl, Pearson Education,1983.
3. Stephen G. Kochan, —Programming in CI, 3rd edition, Pearson Education.
4. Ellis Horowitz, Sartaj Sahni, Susan Anderson-Freed, —Fundamentals of Data Structures in CI,Second Edition, University Press, 2008

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AUTO DRIVING SYSTEM

MINI PROJECT REPORT

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GOWTHAM V **622518104016**

MAYEKKALAI R **622518104033**

MARUTHUPANDI M **622518104032**

in partial fulfillment for the award of the degree

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in

COMPUTER SCIENCE AND ENGINEERING

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BONAFIDE CERTIFICATE

Certificated that this project report "**Automatic Driving System** " the bonafide work of

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Who carried out the project work under my supervision.

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ABSTRACT

Using vehicles with engaged automated driving systems (ADS) ('highly automated driving', HAD) will substantially impact on future society's mobility, yet the current understanding of human psychobiology related to HAD is still limited. Hence, we synthesized evidence on the psychobiology of subjects using HAD, informing an integrative model of the psychobiology of HAD, and providing guidance for reporting future research on this topic. We included (non-)randomized studies assessing human peripheral biology markers of in-vehicle-users in real or simulated driving environments, using vehicles with vs. without engaged ADS, published in English until April 2018. We systematically searched Web of Science, SCOPUS, and PubMed. The search consisted of a combination of terms describing HAD and psychobiological parameters. Risk of bias was assessed regarding randomization, blinding, incomplete outcome data, selective outcome reporting, and other potential causes. Heart rate tended to be reduced during HAD along with increased EDA and EMG, with no clear indication for changes in RSA. We cannot exclude substantial risk of bias, among others because the status of engagement of ADS was mostly non-randomized.

CHAPTER 9

CONCLUSION

Collision detection and avoidance systems should become more commonplace with the passage of time. People are living in a networked world and constantly feel that they have less time on their hands. It has been jokingly said, that "The more developed a country is, the more time it's citizens waste behind the steering wheel." To perfect this technique, it might take several years, but this project is surely a step in the right direction. Prevention is better than cure. So instead of treating patients after an accident, accidents should be prevented by incorporating this system. This project is very feasible as very less expensive parts are used. The most expensive component is the micro-processor which is available in the second hand market at a very low cost. This project can be improved upon in many ways. For example: Including an overtaking feature. Hopefully we will implement them in the future.

Public trust and confidence in the evolution of ADSs has the potential to advance or inhibit the testing and deployment of ADSs on public roadways. NHTSA is committed to supporting the safety of these emerging and evolutionary technological advancements, which have the potential to significantly improve roadway safety. The Voluntary Guidance, highlighting the 12 priority safety elements, and its associated Voluntary Safety Self-Assessment offer public reassurance that safety remains NHTSA's top priority. The States' Best Practices section reinforces NHTSA's willingness to assist States with the challenges they face regarding ADSs now and in the pivotal years ahead. This document will be updated periodically to reflect advances in technology, increased presence of ADSs on public roadways, and any regulatory action or statutory changes that could occur

at both the Federal and State levels. In the meantime, the information provided herein serves to aid industry as it moves forward with testing and deploying ADSs and States with drafting legislation and developing plans and policies regarding ADSs. NHTSA encourages collaboration and communication between Federal, State, and local governments and the private sector as the technology evolves, and the Agency will continue to coordinate dialogue among all stakeholders. Collaboration is essential as our Nation embraces the many technological developments affecting our public roadways. Together, we can use lessons learned to make any necessary course corrections, to prevent or mitigate unintended consequences or safety risks, and to positively transform American mobility safely and efficiently.

CS8451 **DESIGN AND ANALYSIS OF ALGORITHMS** L T P C
3 0 0 3

OBJECTIVES:

- To understand and apply the algorithm analysis techniques.
- To critically analyze the efficiency of alternative algorithmic solutions for the same problem
- To understand different algorithm design techniques.
- To understand the limitations of Algorithmic power.

UNIT I INTRODUCTION 9

Notion of an Algorithm – Fundamentals of Algorithmic Problem Solving – Important Problem Types – Fundamentals of the Analysis of Algorithmic Efficiency –Asymptotic Notations and their properties. Analysis Framework — Empirical analysis - Mathematical analysis for Recursive and Non-recursive algorithms - Visualization

UNIT II BRUTE FORCE AND DIVIDE-AND-CONQUER 9

Brute Force — Computing a^n — String Matching - Closest-Pair and Convex-Hull Problems - Exhaustive Search - Travelling Salesman Problem - Knapsack Problem - Assignment problem.

Divide and Conquer Methodology — Binary Search — Merge sort — Quick sort — Heap Sort - Multiplication of Large Integers – Closest-Pair and Convex - Hull Problems.

UNIT III DYNAMIC PROGRAMMING AND GREEDY TECHNIQUE 9

Dynamic programming – Principle of optimality - Coin changing problem, Computing a Binomial Coefficient – Floyd's algorithm – Multi stage graph - Optimal Binary Search Trees – Knapsack Problem and Memory functions.

Greedy Technique – Container loading problem - Prim's algorithm and Kruskal's Algorithm – 0/1 Knapsack problem, Optimal Merge pattern - Huffman Trees.

UNIT IV ITERATIVE IMPROVEMENT 9

The Simplex Method - The Maximum-Flow Problem — Maximum Matching in Bipartite Graphs, Stable marriage Problem.

UNIT V COPING WITH THE LIMITATIONS OF ALGORITHM POWER 9

Lower - Bound Arguments - P, NP NP- Complete and NP Hard Problems. Backtracking – n-Queen problem - Hamiltonian Circuit Problem – Subset Sum Problem. Branch and Bound – LIFO Search and FIFO search - Assignment problem – Knapsack Problem – Travelling Salesman Problem - Approximation Algorithms for NP-Hard Problems – Travelling Salesman problem – Knapsack problem.

TOTAL: 45 PERIODS

OUTCOMES:

At the end of the course, the students should be able to:

- Design algorithms for various computing problems.
- Analyze the time and space complexity of algorithms.
- Critically analyze the different algorithm design techniques for a given problem.
- Modify existing algorithms to improve efficiency.

TEXT BOOKS:

1. Anany Levitin, —Introduction to the Design and Analysis of Algorithmsl, Third Edition,Pearson Education, 2012.
2. Ellis Horowitz, Sartaj Sahni and Sanguthevar Rajasekaran, Computer Algorithms/ C++, SecondEdition, Universities Press, 2007.

REFERENCES:

1. Thomas H.Cormen, Charles E.Leiserson, Ronald L. Rivest and Clifford Stein, —Introductionto

Algorithmsl, Third Edition, PHI Learning Private Limited, 2012.
2. Alfred V. Aho, John E. Hopcroft and Jeffrey D. Ullman, —Data Structures and Algorithmsl, Pearson Education, Reprint 2006.
3. Harsh Bhasin, —Algorithms Design and Analysisl, Oxford university press, 2015.
4. http://nptel.ac.in/

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TRACING AN IPADDRESS BEHIND VPN/PROXY SERVER

CS8611 MINI PROJECT

Submitted by

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BONAFIDE CERTIFICATE

Certified that this project report"**TRACING AN IP ADDRESS BEHIND VPN/PROXY SERVER"** is the bonafide work of

INDUMATHI D (622518104021),RUBA R (622518104045),RAJI SWETHA R (622518104043),SUJI L (622518104054) who carried out the project work under my supervision.

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INTERNAL EXAMINER

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ABSTRACT

Under most circumstances, cyber criminals will commit fraudulent transactions using proxy services which hide their real IP address and physical location. This is done in an effort to avoid being tracked and prosecuted by law enforcement agencies. This paper presents the investigation of a proxy detection methodology and efforts to implement such technology into a business solution with the sole purpose of eliminating the majority of fraudulent transaction attempts. The proposes passive IP traceback (PIT) that bypasses the deployment difficulties of IP traceback techniques. PIT investigates Internet Control Message Protocol error messages (named path backscatter) triggered by spoofing traffic, and tracks the spoofers based on public available information (e.g., topology). The approach, described in identifies multiple proxy connectivity methods, and implements a multi-tiered detection technique. The result of the experiments demonstrates that the proxy methodology improves business security by identifying users who are utilizing proxies and to collect data that prevents potentially fraudulent activities.

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CHAPTER - 9

CONCLUSION

Proxy connections have many types and protocols, and with different software and technique configurations, it can be difficult to uncover a proxy connection. Although there are many existing methods to detect a proxy connection, all methods have their limitations. It is our goal to create a module that is capable of identifying as many proxy types as possible. In this paper, we have investigated and tested different detection techniques, used the knowledge attained to design a multi-tiered proxy detection module, and explained how to implement the module in a business environment. With the overall detection rate of 97% and low integration cost, our proxy detection module is an effective and efficient solution for businesses to prevent fraudulent transactions from non VPN proxy connections.

CS8492 **DATABASE MANAGEMENT SYSTEMS** **L T P C**
3 0 0 3

OBJECTIVES

- To learn the fundamentals of data models and to represent a database system using ERdiagrams.
- To study SQL and relational database design.
- To understand the internal storage structures using different file and indexing techniques which will help in physical DB design.
- To understand the fundamental concepts of transaction processing- concurrencycontrol techniques and recovery procedures.
- To have an introductory knowledge about the Storage and Query processing Techniques

UNIT I RELATIONAL DATABASES **10**

Purpose of Database System – Views of data – Data Models – Database System Architecture – Introduction to relational databases – Relational Model – Keys – Relational Algebra – SQL fundamentals – Advanced SQL features – Embedded SQL– Dynamic SQL

UNIT II DATABASE DESIGN **8**

Entity-Relationship model – E-R Diagrams – Enhanced-ER Model – ER-to-Relational Mapping – Functional Dependencies – Non-loss Decomposition – First, Second, Third Normal Forms, Dependency Preservation – Boyce/Codd Normal Form – Multi-valued Dependencies and Fourth Normal Form – Join Dependencies and Fifth Normal Form

UNIT III TRANSACTIONS **9**

Transaction Concepts – ACID Properties – Schedules – Serializability – Concurrency Control – Need for Concurrency – Locking Protocols – Two Phase Locking – Deadlock – Transaction Recovery - Save Points – Isolation Levels – SQL Facilities for Concurrency and Recovery.

UNIT IV IMPLEMENTATION TECHNIQUES **9**

RAID – File Organization – Organization of Records in Files – Indexing and Hashing –Ordered Indices – B+ tree Index Files – B tree Index Files – Static Hashing – Dynamic Hashing – Query Processing Overview – Algorithms for SELECT and JOIN operations – Query optimization using Heuristics and Cost Estimation.

UNIT V ADVANCED TOPICS **9**

Distributed Databases: Architecture, Data Storage, Transaction Processing – Object-based Databases: Object Database Concepts, Object-Relational features, ODMG Object Model, ODL, OQL - XML Databases: XML Hierarchical Model, DTD, XML Schema, XQuery – Information Retrieval: IR Concepts, Retrieval Models, Queries in IR systems.

TOTAL: 45 PERIODS

OUTCOMES:

Upon completion of the course, the students will be able to:

- Classify the modern and futuristic database applications based on size and complexity
- Map ER model to Relational model to perform database design effectively
- Write queries using normalization criteria and optimize queries
- Compare and contrast various indexing strategies in different database systems
- Appraise how advanced databases differ from traditional databases.

TEXT BOOKS:

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Namakkal-637 003, TN.

1. Abraham Silberschatz, Henry F. Korth, S. Sudharshan, —Database System Conceptsl, SixthEdition, Tata McGraw Hill, 2011.
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COVID CASES TRACKING SYSTEM

A PROJECT REPORT

Submitted by

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in partial fulfillment for the award of the

degree of

BACHELOR OF ENGINEERING

in

COMPUTER SCIENCE AND ENGINEERING

SELVAM COLLEGE OF TECHNOLOGY, NAMAKKAL - 03

ANNA UNIVERSITY:: CHENNAI - 600 025

MARCH 2021

SELVAM COLLEGE OF TECHNOLOGY Namakkal 637 003.

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BONAFIDE CERTIFICATE

Certificated that this project report **"COVID CASES TRACKING SYSTEM"** the bonafide work of

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INTERNAL EXAMINER

EXTERNAL EXAMINER

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ABSTRACT

The Corona virus Disease 2019 (COVID-19) has now become a pandemic, inflicting millions of people and causing tens of thousands of deaths. To better understand the dynamics of COVID-19, we present a comprehensive COVID-19 tracking and visualization platform that pinpoints the dynamics of the COVID- 19 worldwide. Four essential components are implemented which are Presenting the visualization map of COVID-19 confirmed cases and total counts all over the world, Showing the worldwide trends of COVID-19 at multi-grained levels, Provide multi view comparisons, including confirmed cases per million people, mortality rate and accumulative cure rate, Integrating a multi-grained view of the disease spreading dynamics in area and showing how the epidemic is taken under control in the World. This demo will further disease spreading modeling for researchers, support decision-maker, and enrich the public awareness of the spreading situations of COVID-19 worldwide. This demo offers decision-makers with accurate data-driven representations in an easy to understand format that informs them the pandemic dynamics and enables them to make timelier and cost-effective preparation and response plans. With the global spread of the novel corona virus (COVID-19), continuous monitoring of the outbreak became crucial for making informed and accurate decisions regarding the pandemic in the era of COVID-19 where timely and informed decisions should be made, data visualization can help the public, researchers, and health authorities to develop a situational awareness about the disease. To predict the infected patient number is crucially important to both individual and decision makers preparedness, and to flatten the curves. However, how to accurately predict the number of infected patients is never a trivial task. There are numerous factors contribute to this virus's propagation, such as population mobility, temperature, and medical condition.

CHAPTER 9

CONCLUSION AND FUTURE ENHANCEMENT

CONCLUSION

CTAs are not a panacea in the fight against the COVID-19 pandemic .The challenges of effectiveness, technological problems and risks to privacy and equity are considerable. CTAs should only be developed if their use is absolutely voluntary and they have inbuilt ethics compliance by design. Given that the implementation of CTAs in society is tantamount to a grand social and scientific experiment, citizens who take part in this experiment need to be protected.

FUTURE ENHANCEMENT

As the initial wave of the COVID-19 pandemic is in decline in many regions, there is already talk of a second or even repeated waves, and a realisation that even high-income countries with good healthcare systems are not immune to epidemics. Hence, there will, inevitably, be further investigation and development of tracking apps. It is vital that their use remains voluntary and that lessons are learned from the current experimental use. The findings from this experiment should be critically reviewed periodically and shared openly to enhance ethics by design and ethical implementation. Only then can trust in CTA usage be cultivated, hoping to achieve the magic 60% voluntary uptake required for effectiveness.

CS8493 **OPERATING SYSTEMS** L T P C
3 0 0 3

OBJECTIVES:

- To understand the basic concepts and functions of operating systems.
- To understand Processes and Threads
- To analyze Scheduling algorithms.
- To understand the concept of Deadlocks.
- To analyze various memory management schemes.
- To understand I/O management and File systems.
- To be familiar with the basics of Linux system and Mobile OS like iOS and Android.

UNIT I OPERATING SYSTEM OVERVIEW 7

Computer System Overview-Basic Elements, Instruction Execution, Interrupts, Memory Hierarchy, Cache Memory, Direct Memory Access, Multiprocessor and Multicore Organization. Operating system overview-objectives and functions, Evolution of Operating System.- Computer System Organization Operating System Structure and Operations- System Calls, System Programs, OS Generation and System Boot.

UNIT II PROCESS MANAGEMENT 11

Processes - Process Concept, Process Scheduling, Operations on Processes, Inter-process Communication; CPU Scheduling - Scheduling criteria, Scheduling algorithms, Multiple-processor scheduling, Real time scheduling; Threads- Overview, Multithreading models, Threading issues; Process Synchronization - The critical-section problem, Synchronization hardware, Mutex locks, Semaphores, Classic problems of synchronization, Critical regions, Monitors; Deadlock - System model, Deadlock characterization, Methods for handling deadlocks, Deadlock prevention, Deadlock avoidance, Deadlock detection, Recovery from deadlock.

UNIT III STORAGE MANAGEMENT 9

Main Memory – Background, Swapping, Contiguous Memory Allocation, Paging, Segmentation, Segmentation with paging, 32 and 64 bit architecture Examples; Virtual Memory — Background, Demand Paging, Page Replacement, Allocation, Thrashing; Allocating Kernel Memory, OS Examples.

UNIT IV FILE SYSTEMS AND I/O SYSTEMS 9

Mass Storage system — Overview of Mass Storage Structure, Disk Structure, Disk Scheduling and Management, swap space management; File-System Interface - File concept, Access methods, Directory Structure, Directory organization, File system mounting, File Sharing and Protection; File System Implementation- File System Structure, Directory implementation, Allocation Methods, Free Space Management, Efficiency and Performance, Recovery; I/O Systems — I/O Hardware, Application I/O interface, Kernel I/O subsystem, Streams, Performance.

UNIT V CASE STUDY 9

Linux System - Design Principles, Kernel Modules, Process Management, Scheduling, Memory Management, Input-Output Management, File System, Inter-process Communication; Mobile OS - iOS and Android - Architecture and SDK Framework, Media Layer, Services Layer, Core OS Layer, File System.

TOTAL : 45 PERIODS

OUTCOMES:

At the end of the course, the students should be able to:

- Analyze various scheduling algorithms.
- Understand deadlock, prevention and avoidance algorithms.
- Compare and contrast various memory management schemes.
- Understand the functionality of file systems.
- Perform administrative tasks on Linux Servers.

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- Compare iOS and Android Operating Systems.

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WEB ATTACK DETECTION IN EDGE DEVICES

CS8611 MINI PROJECT

Submitted by

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IN

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Abstract

Due to increase of cloud storage in recent years by the consumers there is a enormous popularity computer storage devices as well as in mobiles by using file syncing and sharing (FSS) services. But bring-your-own-device (BYOD) policies and greatly increasing mobile devices have in fact raised a new challenge for preventing the player/decoder abuse in the FSS service. In our approach we address the issue by using tracing and revoking traitors by using a new system model called anomaly detection and we present a new threshold cryptosystem, called Partially-ordered Hierarchical Encryption (PHE), which implements the partial-order key hierarchy, similar to role hierarchy in Hierarchical RBAC, in public-key infrastructure. Our system provides two security mechanisms which are traitor tracing and revocation to support digital forensics. The security and performance analysis shows that our construction is threshold provably secure. It consists of features like dynamic joining and revoking users, constant-size cipher texts and decryption keys, lower overloads for large-scale systems.

CHAPTER - 9

CONCLUSION

In this paper, we focus on protection the privacy of outsourcing data and preventing player abuse in file syncing and sharing services in the cloud. We highlight the development of a group-oriented cryptosystem with digital forensics, especially for tracing and revoking methods that can ensure the security of player/editor. Based on this cryptosystem, we present a new secure service model to provide a forensic analysis framework to guide investigations. In our future work, we are planning to introduce a comprehensive anomaly detection, using audit, pattern matching, and risk assessment, for identifying the suspected players.

Future Enhancement

➢ In our future work, we are planning to introduce a

–Comprehensive anomaly detection

–Using audit

–Pattern matching

Risk assessment for identifying the suspected players.