



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE

Approved by UGC, AICTE and Affiliated to APJ Abdul Kalam Technological University
Re-Accredited by NAAC with 'A' Grade and NBA Accredited UG Programmes (CSE and MTR)
An ISO 9001:2015 certified Institution
Email : principal.ncerc.ac.in



1.3.2 - Number of courses that include experiential learning through project work/field work/internship during the year

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NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE (Autonomous)

PAMPADY, THIRUVILWAMALA, THRISSUR, 680588

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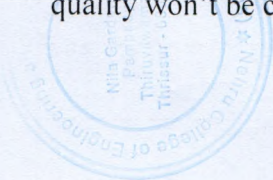
DEPARTMENT OF MCA S4 FINAL PROJECT KEY DATES AND MILESTONES 2022-24

Week	Schedule	Date (Time: 10.00)
	Initial Discussions on Project Methodology.	2024 Jan 18 <i>Whole Class session</i>
I	Selection of Topic, Feasibility analysis.	Jan 29
II	Topic Approval, Meeting of student and Scrum Master with Product Owner. Informal, preliminary discussions of requirements. Creating user stories in the rough record. Commencement of the Project.	Feb 9 <i>Meet your guide in-person.</i>
III	Identifying modules, Initial Design of Database & UI. Starting Test Driven Development. Creating an empty git repository by Scrum Master / Student. Pushing the first version of the Project along with a Readme file containing contact details of team members. Using Branch for individual members. Merging with Master.	Feb 23
IV	First Scrum Review. (Here onwards, the Scrum reviews are conducted on every other week)	Feb 26 <i>Meet your guide in-person.</i>
VII	Project Presentation - Interim Evaluation to be based on Git History	March 11 <i>Whole Class session</i>
XII	Project Presentation - Final Evaluation to be based on Git History	March 22 <i>Whole Class session</i>
XIII	Submission of Project Report, with Rough Record	April 18
	Project Report Submission in KTU Portal	April 20
	PDF file Uploading	April 20
	Viva expected date	<i>around May 2</i>

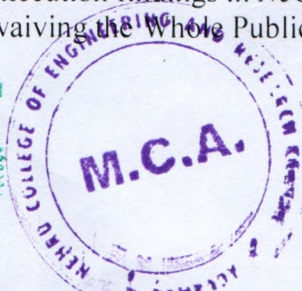
Note: All students should stay linked with their Faculty Guides/Scrum masters, and send all required communications/documents connected with the project when and where necessary.

Mandatory: Students MUST PUBLISH their project execution findings in *NeCTAR Conference Proceedings*. Department would help the process by waiving the Whole Publication Fees, but quality won't be compromised.

HOD-MCA



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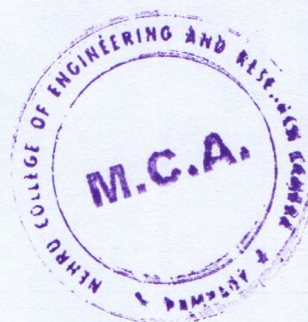


DEPARTMENT OF MCA

S4 FINAL PROJECT (20MCA246) GUIDE ALLOTMENT 2022-24

Student Roll No.s	Faculty Coordinator
NCE22MCA-2001 to NCE22MCA-2008	Dr. Sudheer S Marar
NCE22MCA-2009 to NCE22MCA-2016	Pramod K
NCE22MCA-2017 to NCE22MCA-2024	Dr. Deepa A
NCE22MCA-2025 to NCE22MCA-2033	Ashish L
NCE22MCA-2034 to NCE22MCA-2042	Divya P
NCE22MCA-2043 to NCE22MCA-2051	Sumi M
NCE22MCA-2052 to NCE22MCA-2060	Sreeji K B

HOD MCA





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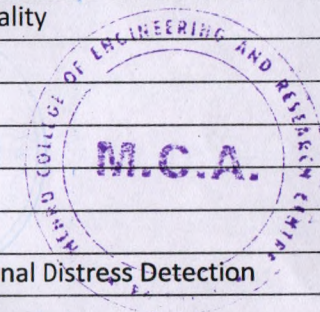


DEPARTMENT OF COMPUTER APPLICATIONS

MCA 2022-24 BATCH

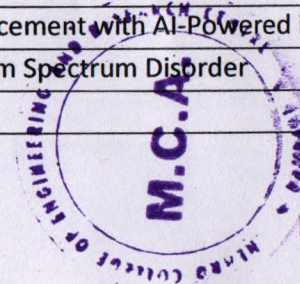
S4- MCA MAIN PROJECT

REGISTER NUMBER	NAME	GUIDE	TOPIC
NCE22MCA-2001	ABIN MATHEW	Dr. Sudheer S Marar	Hybrid Payment Security Model For E-Commerce Website
NCE22MCA-2002	AGIN C S		Property Pro Manager
NCE22MCA-2003	AJESH M		E Panchayat
NCE22MCA-2004	AJITH A		Flood Prediction
NCE22MCA-2005	AJOY JOHN		Human Resource Management Using Machine Learning
NCE22MCA-2006	AKHIL K P		MIND CARE(A Website Using MERN Stack For Mental Health Care)
NCE22MCA-2007	AKSHARA K S		Audio Steganography
NCE22MCA-2008	ALEX VARGHESE A		Leaf Diseases Prediction
NCE22MCA-2009	AMRUTHA S	Pramod K	Product Review Sentiment Analysis With Django Project
NCE22MCA-2010	ANSADALI M		Mobile Application To Streamline And Enhance The Operations Of Anganwadi Centers.
NCE22MCA-2011	ANSIRA FATHIMA M		Early Diagnosing And Identifying Tool For Specific Learning Using Decision Tree Algorithm
NCE22MCA-2012	ANUPAMA K		Score Sense Navigator
NCE22MCA-2013	APARNA A		URL Phishing Detection Using ML And Deep Learning Algorithms
NCE22MCA-2014	ARIYA SIVADAS		Credit Card Fraud Detection Using Predictive Modelling
NCE22MCA-2015	ARJUN P V		Prediction Of Football Players Performance Using Machine Learning And Deep Learning Algorithms
NCE22MCA-2016	ASWATHY R NAIR		Around The World: Enhancing Travel Experiences With Augmented Reality
NCE22MCA-2017	ASWINI M	Dr. Deepa A	Mental Health Prediction
NCE22MCA-2018	BINDUJA S B		Student Alcohol Consumption with Django
NCE22MCA-2019	DARSANA V P		Playful Path
NCE22MCA-2020	DEVIKA E P		Filtering of SMS spam using Machine learning
NCE22MCA-2021	DIVYA RAJACHANDRAN		Toxic comment or vicious prediction project
NCE22MCA-2022	FARSEENA A P		Red Alert : A personal Safety mobile application with AI-Driven emotional Distress Detection
NCE22MCA-2023	HENNA THOMAS		Anomaly Detection in network traffic using Machine Learning
NCE22MCA-2024	JAHAANA SHIRIN A K		Predicting stock Market Trends using Machine Learning and Deep Learning Algorithms
NCE22MCA-2025	JINCY J	Ashish L	A risk classification based approach for malware IP spoofing attack detection
NCE22MCA-2026	JOMIN C JOY		Easy shop - Easy shopping mechanism using App to make shopping easy
NCE22MCA-2027	KAVYA P		Virtual Mouse
NCE22MCA-2028	KAVYA Y K		Weapon detection in real time CCTV videos using deep learning



NCE22MCA-2029	KEERTHI S	Divya P	Currency exchange rate prediction using machine learning
NCE22MCA-2030	MANASA A S		MINDCART – AI based E-Commerce website
NCE22MCA-2031	MUHAMMED ANAS A		Steganography with advanced encryption standard symmetric encryption
NCE22MCA-2032	NIHILA M J		SLEEPWELL – Sleep, Health, Lifestyle predictor website
NCE22MCA-2033	NIKETH P S		Apex academia – A flutter based application for educational institutions
NCE22MCA-2034	NIKHIL MANIKANDAN	Divya P	Home Assistance & Service Application
NCE22MCA-2035	PALLAVI P		Garbage Management System
NCE22MCA-2036	P MALAVIEKA		Military Data Transfer Using Image Steganography
NCE22MCA-2037	PRASSY U P		Security Enhancement Of Forensic Evidences Using Dual Encryption.
NCE22MCA-2038	RANA		Enhancing Blind Navigation Through Machine Learning-Based Object Detection And Distance Prediction
NCE22MCA-2039	RESHMA K RAMESH	Divya P	Customizable Chatbot using AI
NCE22MCA-2040	RIJA R		Bridge between businessman and investor
NCE22MCA-2041	SANDEEP K		charity donations using blockchain
NCE22MCA-2042	SANDEEP S		Smart Advocate using Block chain
NCE22MCA-2043	SANDRA K		Land Registration using Block chain
NCE22MCA-2044	SANIKA DAS B	Sumi M	Government File Tracking Using Block Chain
NCE22MCA-2045	SANMANUL FARIS A		Deep fake Video and Audio Detection for social media application
NCE22MCA-2046	SARANYA K		Certificate Fraud Detection using Block Chain
NCE22MCA-2047	SAYYINA SHARO SHAIJU		Block Chain Based Management System for detecting Counterfeit Product in Supply chain
NCE22MCA-2048	S DEEPAK RADHAKRISHNAN		Accident Reporting and Analysis using MERN Stack
NCE22MCA-2049	SHAMNA S	Sumi M	Shake2Safety
NCE22MCA-2050	SHIHAM ONGALLUR		Prediction of Forest Fire Using Machine Learning
NCE22MCA-2051	SHIMJA S		Animal Alert App
NCE22MCA-2052	SHRUTHI S		An AI Based Keystroke Dynamics for User Authentication
NCE22MCA-2053	SIDHARTH K P		Harmful cosmetics Detection(Be care App)
NCE22MCA-2054	SILPA C S	Sreeji K B	Disease Prediction
NCE22MCA-2055	SNEHA C		Community Fridge
NCE22MCA-2056	SREEKALA P		Whether based electricity consumption Prediction Using Big data Analytics Model
NCE22MCA-2057	SREESHNA U		Crime management system using Block Chain
NCE22MCA-2058	SRUTHI T		Citizen's Sentinel-Enhancing motor vehicle law enforcement with AI-Powered insights
NCE22MCA-2059	UNNIMAYA U	Sreeji K B	A Machine Learning Framework for Early stage Autism Spectrum Disorder
NCE22MCA-2060	VYSAKH SANKAR P M		Drowsy Driver Distraction Detection System

Signature



Signature
HoD/MCA

MBA PPT 2022

NEHRU SCHOOL OF MANAGEMENT @ NCERC
MBA S4 PROJECT COMPANY LIST 2022-2024

Register Number	Name of the Student	PROJECT TOPIC	Specialization	SIGNATURE
NCE22MBA58	Vidya V	Effectiveness of supply chain management in KAMCO	Operations	
NCE22MBA46	Sandra P S	A Study on Innovative Promotional Tactics in the Restaurant Industry: With special reference to PKS group	Marketing	
NCE22MBA08	AMAL GANGA	A study on Customer Satisfaction of TVS Motorcycles with special reference to Prince TVS Pvt Ltd	Marketing	
NCE22MBA12	ANOOJ K H	THE PORTFOLIO MANAGEMENT OF NIPPON INDIA MUTUAL FUND	Finance	
NCE22MBA20	ATHIRA A	A study on Employees Satisfaction System	Human Resource	
NCE22MBA34	Megha M	A study on behaviour modification of employees by incentive scheme	Human Resource	
NCE22MBA22	Devika krishna j	A study on inventory management with special reference to charankattu coir manufacturing company pvt ltd Alappuzha	Operations	
NCE22MBA23	Dona Varghese	A study on training need analysis and employee welfare with special reference to N C JOHN & SONS PRIVATE LTD.	Human Resource	
NCE22MBA21	Benziya P Beninu	Sustainability in manufacturing sector	Operations	
NCE22MBA44	Aparna VM	Warehousing and distribution optimization	Operations	
NCE22MBA30	Jephin Joseph	Study on brand preference and customer perception	Marketing	
	Meghna	A Comprehensive Study on the Impact Of Artificial Intelligence On Employee Dynamics	Human Resource	
NCE22MBA42	RESINA Y	PERFORMANCE OF EMPLOYEES ON JOB	Human Resource	
NCE22MBA04	Afrak Ashref A.A	A study on employee performance appraisal systems	Human Resource	
NCE22MBA11	Anjana. P. J	Technique of stress management	Human Resource	
NCE22MBA28	Hasna P	A study on Impact of customer service on customer satisfaction and customer retention with special reference to Looco's Pizza	Marketing	
NCE22MBA56	Syam Krishna A	A STUDY ON THE EFFECTIVENESS OF TRAINING ON EMPLOYEES AT GREAT MOTORS PAZHYANNUR	Human Resource	
NCE22MBA13	ANU P LORANCE	A study on the analysis of Stress level on job satisfaction among non managerial employees.	Human Resource	
NCE22MBA54	Sujil S	Study on the effectiveness of health and safety measures	Human Resource	

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Research Centre (Autonomous)
Nila Gardsas, Pampady
Thiruvilwamala, Thrissur - 686022

Neeru College of Engineering and Research Centre (a) NSM
Faculty wise Internship List (2023-25 BATCH)

Sl. No	Guide	Student Names	Sl. No	Guide	Student Names	Sl. No	Guide	Student Names
1	Dr. Surakala	ALANUDH N	1	Mr. Sijo Chakola	ANAS T S	1	Ms. Dhanya Nair	ANJANA P JAYAN
2		ANUPAMA K R	2		APARNA C A	2		ASWIN C BALAN
3		FATHIMA ROSHNA	3		GOKUL G S	3		GOPIKA M
4		KALKKI PARVATHIR	4		MEGHA P G	4		MRIDUNA M
5		NAKUL N KUTTY	5		NANDHANA M	5		NIMISHA U
6		RAJANA P	6		RISANA K	6		ROHINI S
7		SHYAM PRAKASH	7		SREELEKHA P	7		SIYA S
8		SOORAJ S	8		SRADHALAKSHMI P S	8		SREETHA K
9		SURAJ S NAIR	9		VAISAK BALAN NAIR	9		VIDYA P V
10		GOURI M	10		ANKITHA HARI T	10		POOJA PRABHA P

Sl. No	Guide	Student Names	Sl. No	Guide	Student Names	Sl. No	Guide	Student Names
1	Mr. Alex Kuruvil	SAJITH	1	Mr. Krishna Prasad	ANJANA S	1	Dr. Shankar	AJEEFA MS
2		ANUSHA A	2		BHAVANA REMESH	2		ANUGRAHA A
3		FATHIMA SAIMA	3		GOPIKA P	3		FARSEENA C K
4		KIZHAKETHIL JOBY JOE	4		MUHSINA THASNEEM	4		JEEVAN LAL JOY P J
5		NANDANA P NAIR	5		NIMISHIYA N	5		NAIR SHREYA MOHAN
6		RAJNA FAITHIMA T D	6		SIBIL FARHAN	6		PRAJEESE KUMAR
7		SILPA M J	7		SMRUTHI K	7		SHENIYA M
8		SOWMIYA M	8		SREELAKSHMI V S	8		SONA N
9		V MAHESH MOHAN	9		VINITHA P V	9		SREERAM K
10		DHANAYA K	10		PRENESH P U	10		NAIR AADITYAANAND

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MBA S4 PROJECT COMPANY LIST 2022-2024

NCE22MBA59	Vineetha PV	Examining the Effectiveness of Quality Management Systems in Enhancing Product Quality at universal implements shoranur	Operations	
NCE22MBA25	FATHIMATHUL IRFANA A I	A comprehensive study on rationale and effectiveness of recruitment outsourcing with respect to Combuzz HR Solutions,UAE	Human Resource	
NCE22MBA60	Vishnupriya V	The influence of labour welfare measures on job satisfaction	Human Resource	
NCE22MBA16	Ana kp	Working capital management	Finance	
NCE22MBA07	AKHIL M C	A STUDY ON CONSUMER PERCEPTION OF AGRICULTURAL MACHINERIES WITH SPECIAL REFERENCE TO KERALA AGRO MACHINERY CORPORATION LTD	Marketing	
NCE22MBA47	Sangeetha cg	A study on level of employees satisfaction towards safety and welfare measures in star plastics	Human Resource	
NCE22MBA29	Jaseela K A	A study on empowering the work force building resilient employee experience at kakkanad ayurvedic Ashramam	Human Resource	
NCE22MBA51	Sreelakshmi K P	"A STUDY ON THE IMPACT OF EMPLOYEE WORK CULTURE ON EMPLOYEE EMGAGEMENT	Human Resource	
NCE22MBA33	MARAKKAMTH ODI HAJNA	A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT WITH SPECIAL REFERENCE TO UNIVERSAL IMPLEMENTS PVT LTD	Marketing	
NCE22MBA31	Kavyaprasad R	The study on sustainable supply chain management in surgical equipment manufacturing company.	Operations	
NCE22MBA50	Shilpa sasindran	A study on influence of organisation culture on employee motivation	Human Resource	
NCE22MBA19	Aswath	warehouse management system	Operations	
NCE22MBA02	Abhay N	A Study on employee Relationship Management at grand hyundai	Human Resource	
NCE22MBA55	SWATHY M.V	A STUDY ON THE EMPLOYEE MOTIVATION AND ITS IMPACT ON EMPLOYEES PERFORMANCE AT CHATHIRI MODERN RICE MILL, VADAVANNUR	Human Resource	
NCE22MBA24	Fathima Rina K A	A Study of the impact of brand awareness among the traders in the palakkad district	Marketing	
NCE22MBA01	Aadithya ks	Study on the effectiveness of quality management system	Operations	
NCE22MBA26	Fathimath Zainab	A study on Effectiveness of Employee Retention Strategies at Trinity Super Speciality Eye Hospital	Human Resource	
NCE22MBA43	Riswana P	A study on customer buying behaviour with special reference to Royal Hypermarket, ottapalam	Marketing	

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NCE22MBA06	Aiswarya Santhesh K S	A study on cash management Enhancing liquidity position and its effectiveness	Finance	
NCE22MBA18	ASNA K Y	A study on effectiveness of quality management	Operations	
NCE22MBA21	Benziya P Beninu	The study on sustainability in KKR products and marketing Pvt. Ltd	Operations	
NCE22MBA39	Nimisha C	A study on effectiveness of training and development with special reference to Medi plan surgicals	Human Resource	
NCE22MBA09	Amaljith M	A study on the effectiveness of marketing mix with special reference to penyar food products	Marketing	
NCE22MBA49	Shibana A	Quality Management System	Operations	
NCE22MBA17	Arya Ravindran	A study on impact of performance management system on employee motivation at Borealis trading private limited company kochi	Human Resource	
NCE22MBA38	Neha k	Employee welfare measures	Human Resource	
NCE22MBA27	Harsha M	A study on impact of leadership style on employee productivity at jayon Implants private limited	Human Resource	
NCE22MBA32	Majidha Farhana	A comprehensive study of consumer behaviour of Karimbass Food Products Pvt Ltd	Marketing	
NCE22MBA53	SRUTHYMOL T L	A study on the impact of Organisational change on employee morale and job satisfaction at Foam Mattings (India) Ltd. Alappuzha	Human Resource	
NCE22MBA37	Muhsina M M	A study on employee welfare measures	Human Resource	
NCE22MBA57	V. Gopika	A study on compensation management in variety pharmaceutical pvt ltd shoranur	Human Resource	
NCE22MBA10	Anamika U	A STUDY ON THE SATISFACTION LEVEL OF EMPLOYEES IN ADAMS ENTERPRISE, KECHERI.	Human Resource	
NCE22MBA41	Pranav P	Customer loyalty programs and retention strategies in Royal Enfield	Marketing	
NCE22MBA40	Orville Don	Comparative study of social media marketing strategy of Double Horse pvt ltd with its competitors in Kerala	Marketing	
NCE22MBA05	Aiswarya K M	A Study on employee empowerment and motivation with reference to Kerala khadi industry avinissery Thrissur	Human Resource	
NCE22MBA44	RIYAS K B	Employee Job Satisfaction	Human Resource	
NCE22MBA15	Aradhitha Sathish	A study on the impact of employee benefits on employee productivity and employee engagement at deseeya ayurvedic pharmacy	Human Resource	
NCE22MBA03	ABHIJITH P U	STUDY OF IMPACT ON MOTIVATION MEASURES AT	Human Resource	

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NCE22MBA36	Mohamed mushthahak TT	PERIYAR RICE A study on brand awareness on hero motocorp ottapalam	Marketing	
NCE22MBA48	SHANMUGH DAS H	STUDY ON EMPLOYEE TRAINING AND DEVELOPMENT WITH SPECIAL REFERENCE TO PVR WHEELS	Human Resource	

June



(Prof. Dr. Krishna Kumar TP)
HOTEL GXSOT
Prof. Dr. Krishna Kumar TP

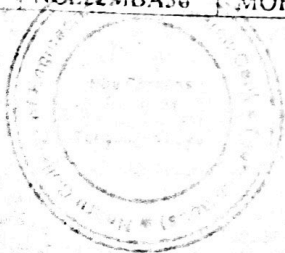
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Tamil Nadu, India - 605009

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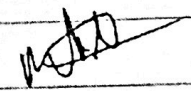
NEHRU SCHOOL OF MANAGEMENT

MBA S4 PROJECT GUIDE ALLOCATION 23-24

S.NO	REG.NO	NAME	GUIDE NAME	REMARKS
1	NCE22MBA04	AFRAH ASHREF A A	MRS. ROSHINI RAJGOPAL <i>Asst Prof Krishna Prasad A</i>	<i>[Signature]</i>
2	NCE22MBA10	ANAMIKA U		
3	NCE22MBA16	ARIFA K P		
4	NCE22MBA22	DEVIKA KRISHNA J		
5	NCE22MBA28	HASNA P		
6	NCE22MBA34	MEGHA M		
7	NCE22MBA49	ORVILLE DON		
8	NCE22MBA46	SANDRA P S		
9	NCE22MBA52	SREELAKSHMI RAVI		
10	NCE22MBA58	VIDYA V		
1	NCE22MBA05	AISWARYA K M	DR.R. SURIKALA	<i>[Signature]</i>
2	NCE22MBA11	ANJANA P J		
3	NCE22MBA17	ARYA RAVINDRAN		
4	NCE22MBA23	DONA VARGHSE		
5	NCE22MBA29	JASEELA K A		
6	NCE22MBA35	MLGHNA SANTHOSH		
7	NCE22MBA41	PRANAV P		
8	NCE22MBA47	SANGEETHA C G		
9	NCE22MBA53	SRUTHYMOL T L		
10	NCE22MBA59	VINEETHA P V		
1	NCE22MBA03	ABHIJITH P U	MR. SIJO JOSEPH	<i>[Signature]</i>
2	NCE22MBA09	AMALJITH M		
3	NCE22MBA21	BENZIYA P BENINU		
4	NCE22MBA27	HARSHA M		
5	NCE22MBA02	ABHIYAN		
6	NCE22MBA39	NIMISHA C		
7	NCE22MBA15	ARADHITHA S		
8	NCE22MBA51	SREELAKSHMI K P		
9	NCE22MBA57	V GOPIKA		
1	NCE22MBA06	AISWARYA SANTHOSH K S	DR.N. SHANKAR	<i>[Signature]</i>
2	NCE22MBA20	ATHIRA A		
3	NCE22MBA18	ASNA K Y		
4	NCE22MBA24	FATHIMARINA K A		
5	NCE22MBA30	JEPHIN JOSEPH		
6	NCE22MBA48	SHANMUGH DAS H		
7	NCE22MBA54	SUJIS		
8	NCE22MBA60	VISHNUPRIYA P		
9	NCE22MBA36	MOHAMED MUSHTHAHAK T		



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Thiruvananthapuram, India - 695009

10	NCE22MBA42	T RESINA Y		
1	NCE22MBA33	MARAKKAMTHODI HAJNA	MRS.DHANYA NAIR	
2	NCE22MBA08	AMAL GANGA		
3	NCE22MBA12	ANOOJ K H		
4	NCE22MBA32	MAJIDHA FARHANA		
5	NCE22MBA26	FATHIMATH ZAINAB K M		
6	NCE22MBA38	NEHA K		
7	NCE22MBA44	RIYAS K B		
8	NCE22MBA14	APARNA V M		
9	NCE22MBA50	SHILPA SASINDRAN		
10	NCE22MBA56	SYAMKRISHNA A		
1	NCE22MBA01	AADITHYA K S	MR. ALEX KURUVILLA	
2	NCE22MBA07	AKHIL M C		
3	NCE22MBA13	ANU P LORANCE		
4	NCE22MBA19	ASWATH		
	NCE22MBA25	FATHIMATHUL IRFANA A I		
5				
6	NCE22MBA31	KAVYA PRASAD R		
7	NCE22MBA37	MUHSINA M M		
8	NCE22MBA43	RISWANA		
9	NCE22MBA49	SHIBINA		
10	NCE22MBA55	SWATHY M V		

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Thiruvilwamala, Thrissur - 686688

Continuous Counting Number with
10 is the last number

1. Need to have a meeting to
immediately after in bloom

2. Need to update Students and Meeting to be
Conducted by Individual Guide

29/11/2023



CIN: U24230KL2020PTC063710

Ventures Pvt. Ltd.

GST: 32AAICK2431L12N

Date: 02/04/2024

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Ms. Meghna Santhosh** (Reg. No. **NCE22MBA35**) year 2022-2024, student of MBA (HR and Operations) of Nehru College of Engineering and Research Centre, Pampadi, Thrissur has successfully completed her Study on "A Comprehensive study on the impact of Artificial Intelligence on employee dynamics at KEXA Ventures Private Limited" in our organization as a part of her curriculum.

For Kexa Ventures Pvt. Ltd.

Authorised Signatory



PRINCIPAL

Nehru College of Engineering and
Research Centre (Autonomous)
Nila Gardens, Pampady
Thiruvilwamala, Thrissur - 680628



Kinfra Integrated Industrial Park & Defence Park, Ottapalam, Palakkad. Pin: 679 103

Land Line : +91 466 236 9401, Mobile : +91 9633 490 401

E-mail : info@kexa.in, Website : www.kexa.in

NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
NEHRU SCHOOL OF MANAGEMENT
SUMMER INTERNSHIP MBA 2023-2025

Sl NO	REG NO	NAME OF THE STUDENT	COMPANY
1	NCE23MBA01	AFFETA M S	Titan Tech Emirates Pvt Ltd, Kochi, Ernakulam
2	NCE23MBA02	AL ANUDH N	Palana Hospital, Palakkad
3	NCE23MBA03	ANAS T S	Jeevodaya Mission Hospital, Chelakkara, Palakkad
4	NCE23MBA04	ANJANA P JAVAN	Lulu Super Market, Palakkad
5	NCE23MBA05	ANJANA S	urban cooperative bank, ottapalam, Palakkad
6	NCE23MBA06	ANKITHA HARI T	Indira Gandhi cooperative hospital, kadavanthra, Ernakulam
7	NCE23MBA07	ANUGRAHA A	ITI Kanjikoode, Palakkad
8	NCE23MBA08	ANUPAMA K R	PK DAS hospital, Vaniyankulam, Palakkad
9	NCE23MBA09	ANUSHA A	Universal implements, Shoranur, Palakkad
10	NCE23MBA10	APARNA C A	Kalladikode Service Cooperative Bank LTD, Palakkad
11	NCE23MBA11	ASWIN C BALAN	M S Motors, Vadakkencherry, Palakkad
12	NCE23MBA12	BHAVANA REMESH	Reliance Trends, Vadakkencherry, Palakkad
13	NCE23MBA13	DHANYA K	Co-operative bank, Chazhur, Thrissur
14	NCE23MBA14	FARSEENA C K	Niva Gold, Cherpulassery, Palakkad
15	NCE23MBA15	FATHIMA ROSHNA	Unibiz Multitrade pvt ltd, Thrissur
16	NCE23MBA16	FATHIMA SAJINA B	Simplex Windows and Doors, Kanjikoode Palakkad
17	NCE23MBA17	GOKUL G S	silk, steel industrials kerala govt limited palapuram, ottapalam, Palakkad
18	NCE23MBA18	GOPIKA M	Messkit Aluminium Private Limited, vaniyankulam, Palakkad
19	NCE23MBA19	GOPIKA P	Synergy Oceanic Services India Private Ltd, Kochi, Ernakulam
20	NCE23MBA20	GOURI M	KVR Green Energy PVT LTD(Ather), Palakkad
21	NCE23MBA21	JEEVANLAL JOY	Flipkart warehouse Pvt, Kolar, Bangalore
22	NCE23MBA22	KALKI PARVATHI R	LUMINAR TECHNOLOGIES, KOCHI, Ernakulam
23	NCE23MBA23	KIZHAKETHIL JOBY JOEL	B Care bakery and Kitchen Equipment Pvt Ltd, Mudicod, Thrissur
24	NCE23MBA24	MEGHA P G	Aditya Birla Sunlife AMC Ltd, Chennai
25	NCE23MBA25	IRIDUNA M	RAJIV GANDHI COOPERATIVE HOSPITAL, Palakkad
26	NCE23MBA26	IMUHSINA THASNEEM T	Rural cooperative bank, mannakkad, Palakkad
27	NCE23MBA27	NAIR AADITYA ANANDKUMAR	Steel Industrial Kerala Ltd, Athani, Thrissur
28	NCE23MBA28	NAIR SHREYA MOHANDASAN	Nahata Datacom Global Corp LLP, Mumbai

PRINCIPAL

Neeru College of Engineering and

Research Centre (Autonomous)

Neeru Gardens, Pampady

Thiruvananthapuram, Thrissur - 686028

Neeru College of Engineering and
Research Centre (Autonomous)
Neeru Gardens, Pampady
Thiruvananthapuram, Thrissur - 686028

29	NCE23MBA29	NAKUL N KUTTY	Triumph Syamdynamic Motorcycles Pvt Ltd, Palakkad
30	NCE23MBA30	NANDANA P NAIR	P. R. Ramavaramaraja Memorial Hospital, Alakode, Kannur
31	NCE23MBA31	NANDHANAM	VKC Plastomers pvt ltd, Kozhikode
32	NCE23MBA32	NIMISHA U	Feroke service cooperative bank, Kozhikode
33	NCE23MBA33	NIMSHYA N	NH Trading Pvt Ltd, Mannarkkad, Palakkad
34	NCE23MBA34	POOJA PRABHA P	Crescent Medical Centre LTD, Alathur, Palakkad
35	NCE23MBA35	PRAJESH KUMAR	Superart Creation, Uttarpradesh
36	NCE23MBA36	PRENEESH P U	Maruthi Suzuki Arena, Thrissur
37	NCE23MBA37	RAJANA P	CEDICOM ELECTRONICS, SHORANUR, PALAKKAD
38	NCE23MBA38	RANAFATHIMA T D	Digiskilz, Kacheripady, Ernakulam
39	NCE23MBA39	RISANA K	Rawdot Technologies, Kochi, Ernakulam
40	NCE23MBA40	ROHINI S	Selfshine Polymers India PVT LTD, Chelakkara, Palakkad
41	NCE23MBA41	SAJITH K	Futurefarm Innovations and Edupark Pvt Ltd, Ernakulam
42	NCE23MBA42	SHENIYA M	The Metal Industries Ltd, Shoranur, palakkad
43	NCE23MBA43	SHYAM PRAKASH	Hykon India Limited, Thrissur
44	NCE23MBA44	SIBILFARHAN V A	Save Town Shopping Mall, Cheruthuruthi, Thrissur
45	NCE23MBA45	SILPA M J	NextGenPro Innovations and Edupark Pvt Ltd, Palarivattom, Ernakulam
46	NCE23MBA46	SIYA S	Vinayaka Iron Traders, Vadakkencherry, Palakkad
47	NCE23MBA47	SMRUTHI K	Mentorow Technologies, Kakkanaad, Ernakulam
48	NCE23MBA48	SONA N	The palakkad service co-operative bank, Palakkad
49	NCE23MBA49	SOORAJ S	Avitis hospital, Nemmara, Palakkad
50	NCE23MBA50	SOWMYA M	Fathima Modern Ricemill Souhridham agromills, Kallepadam, Thrissur
51	NCE23MBA51	SRADHA LAKSHMI P S	Mangalodayam Pharmaceuticals Private LTD, Changaramkulam, Thrissur
52	NCE23MBA52	SREEJITHA K	Aryavaidya Pharmacy Coimbatore LTD Kanjikkode, Palakkad
53	NCE23MBA53	SREELAKSHMI V S	Ganga Jewellers, Palakkad
54	NCE23MBA54	SREELEKHA P	Vaidyamadam Vaidyasala and Nursing home, Mezhathur, Palakkad
55	NCE23MBA55	SREERAM K	Oxygen Fitness Centre, Patikkad, Thrissur
56	NCE23MBA56	SURAJ S NAIR	Nippon India Mutual Funds, Chennai
57	NCE23MBA57	VAISAK BALAN NAIR	Mahindra Manulife Mutual Fund, Chennai
58	NCE23MBA58	VIDYA P V	Mundur Service Cooperative bank, Palakkad
59	NCE23MBA59	VINITHA P V	Lakshmi hospital, Palakkad
60	NCE23MBA60	V MAHESH MOHAN	karmaki metals industries, thenur, Palakkad

PRINCIPAL

Wahru College of Engineering and
Research Centre (Autonomous)
Nile Gardens, Pampady
Thiruvilwamala, Thrissur - 686006

Wahru College of Engineering and
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Nile Gardens, Pampady
Thiruvilwamala, Thrissur - 686006



UNIBIZ MULTITRADE PVT LTD.
747/1, Kalaria, Semmath - Kunta Rd,
Above Bank of India, Daman - 396 210
(M) : info@unibizmultitrade.com
(W) : www.unibizmultitrade.com
CIN No. : U51100DD2012PTC004708

Tel. No :
+91 93776 60110
+91 99049 90110



10/07/2024

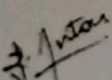
TO WHOM IT MAY CONCERN

This is to certify that **Ms. Fathima Roshna**, an MBA student of Nehru College of Engineering and Research Centre has successfully completed her 45 days (from 20th may 2024 to 03rd july 2024) of internship training in Marketing with Unibiz Multi Trade Pvt Ltd.

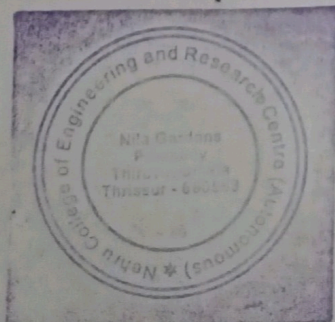
During her training **Fathima Roshna** was found to be good with the tasks assigned to her.

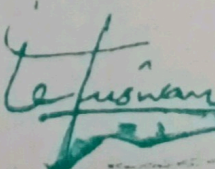
We wish her the very best in her future endeavors.

For Unibiz Multi Trade Pvt Ltd


Anton D selvin

General Manager





PRINCIPAL
Nehru College of Engineering and
Research Centre (Autonomous)
Nita Gardens, Pampady
Thiruvilwamala, Thrissur - 680588



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING



PROJECT EVALUATION COMMITTEE (2020-24)

Course Code : EED 416

Course Name : PROJECT PHASE-II

SL.NO.	NAME OF EXAMINER	DESIGNATION
1.	Dr. SOBHA MANAKKAL	HoD
2.	Dr. ANTO FRANCIS	PROFESSOR
3.	Mr. ANOOP KUMAR M.V	PROJECT COORDINATOR
4.	PROJECT SUPERVISORS	ASSISTANT PROFESSOR

[Signature]

[Signature]
HoD



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING



PROJECT TITLE (2020-24)

Course Code : EED 416

Course Name : PROJECT PHASE-II

GROUP	REGISTER NUMBER	NAME OF THE STUDENT	NAME OF THE GUIDE	PROJECT TITLE
I	NCE20EE002	AKASH V	Prof. David E	AUTOMATION FOR MEDICALLY DISABLED PERSONS USING IOT
	NCE20EE004	ASWATHY A M		
	NCE20EE011	SREERAG A		
II	NCE20EE008	MUHAMED BADHUSHA S	Prof. Saranya Nair	EV BMS WITH CHARGE MONITOR AND FIRE PROTECTION
	NCE20EE010	RIDHUL R		
	NCE20EE012	SREYA P M		
	LNCE19EE017	ANANDU PRAVEEN G		
III	NCE20EE001	ABHIRAM M	Prof. Rajesh P	UNIVERSAL FAST DC CHARGING OF ELECTRIC VEHICLES
	NCE20EE007	MIDHUN NATARAJAN		
	LNCE20EE016	ABIDH A		

Project Coordinator

HoD



**NEHRU COLLEGE OF ENGINEERING
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Students Details: Long Term Internship-B.TECH EEE(2020-24) Academic Year:2023-24										
Sl. No	Name of College	Student Name	Department	KTU ID	CGPA	Stipend Amount	Internship Company/ Organization	Location	Internship Period	Joining Date
1	NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE	MIDHUN MADHAV K	EEE	NCE20EE006	6.46	Rs.21811/-	MOTHERSON AUTOMOTIVES PVT.LTD.	CHENNAI	6 Months	22-01-2024
2	NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE	NIBIN R	EEE	NCE20EE009	5.69	Rs.21811/-	MOTHERSON AUTOMOTIVES PVT.LTD.	CHENNAI	6 Months	22-01-2024
3	NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE	S RIDHESH	EEE	NCE20EE013	5.91	Rs.21811/-	MOTHERSON AUTOMOTIVES PVT.LTD.	CHENNAI	6 Months	22-01-2024
4	NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE	SUBIN S	EEE	NCE20EE014	5.11	Rs.21811/-	MOTHERSON AUTOMOTIVES PVT.LTD.	CHENNAI	6 Months	22-01-2024
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CLASS ADVISOR

HoD



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING



MINUTES OF PROJECT EVALUATION COMMITTEE MEETING

Year / Sem : IV/VIII

Academic Year : 2023-24

Batch : 2020-24

Course Code : EED 416

Course Name : Project Phase II

AGENDA

1. Project Norms as per KTU
2. Interim Evaluation
3. Hardware/Software Completion
4. Guide Review
5. Final Review-Tentative Date(s)

Venue: Hall No: 301

Date: January 29, 2024

Time : 12:45 pm- 01:15 pm

Members Present

1. Dr.Sobha Manakkal
2. Dr. Anto Francis
3. Prof. Anoop Kumar M V
4. Prof. P. Rajesh
5. Prof. P. Sundaramoorthi
6. Prof. David E
6. Prof. P.T.Rajeena Mol
7. Prof. Saranya Nair
8. Abhiram M- Final Year Student
9. Aswathy A M- Final Year Student

S.No	Subject	Action by	Target date
1	Project activity calendar	Prof. Anoop Kumar M V	January 22, 2024
2	Norms for evaluation	As per KTU	-
3	Interim Evaluation-I (First Review) (a) Project diary (b) Component purchase as per block diagram/circuit diagram (c) Project progress in hardware/software. (d) Interim results.	Project Evaluation Committee and students	March 11, 2024
4	Interim Evaluation-II (Second Review) (a) Project diary (b) Phase-II report progress.	Project Evaluation Committee and students	April 08, 2024

[Signature]



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING



	(c) Hardware/Software completion (d) Interim results		
5	Final Hardware Demonstration and Project Diary Submission	Students and Guides	April 19, 2024
6	Phase-II -Draft Report Submission to Guides	Students	April 22, 2024
7	Phase-II-Project Report Banded Copy submission	Students	April 25, 2024
8	Project Phase-II – Final Evaluation	Project Evaluation Committee and students	April 29, 2024

[Signature]

Project Coordinator

[Signature]
HoD

[Signature]



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING



ACTION TAKEN REPORT ON MEETING DATED JANUARY 29, 2024

Action Taken		Remarks , If any
1	Project activity calendar	January 22, 2024
2	Norms for evaluation	-
3	Interim Evaluation-I (First Review) (a) Project diary (b) Component purchase as per block diagram/circuit diagram (c) Project progress in hardware/software. (d) Interim results.	March 11, 2024
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8	Project Phase-II – Final Evaluation	April 29, 2024


Project Coordinator


HoD



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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING
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PROJECT ACTIVITY CALENDAR

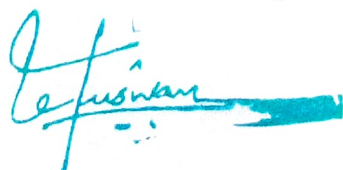
Course Code : EED 416

Course Name : Project Phase II

S.No	Activity	Target Date
1	Project activity calendar	January 22, 2024
2	Norms for evaluation	-
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Project Coordinator


HoD





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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING



FORMATION OF PROJECT GROUP

Course Code :EED 416

Course Name : Project Phase II

GROUP	REGISTER NUMBER	NAME OF THE STUDENT
I	NCE20EE001	AKASH V
	NCE20EE004	ASWATHY A M
	NCE20EE011	SREERAG A
II	NCE20EE008	MUHAMED BADHUSHA S
	NCE20EE010	RIDHUL R
	NCE20EE012	SREYA P M
	LNCE19EE017	ANANDU PRAVEEN G
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	NCE20EE007	MIDHUN NATARAJAN
	LNCE20EE016	ABIDH A

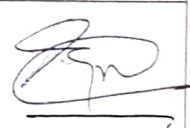

Project Coordinator


HoD

GUIDE ALLOCATION

Course Code : EED 416

Course Name : Project Phase II

GROUP	REGISTER NUMBER	NAME OF THE STUDENT	NAME OF THE GUIDE	Signature
I	NCE20EE001	AKASH V	Prof. David E	
	NCE20EE004	ASWATHY A M		
	NCE20EE011	SREERAG A		
II	NCE20EE008	MUHAMED BADHUSHA S	Prof. Saranya Nair	
	NCE20EE010	RIDHUL R		
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	NCE20EE007	MIDHUN NATARAJAN		
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Project Coordinator



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Since 1968

Students Details: Long Term Internship-B.TECH EEE(2020-24) Academic Year:2023-24										
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CLASS ADVISOR

HoD



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING



MINUTES OF PROJECT EVALUATION COMMITTEE MEETING

Year / Sem : IV/VIII

Academic Year : 2023-24

Batch : 2020-24

Course Code : EED 416

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2. Interim Evaluation
3. Hardware/Software Completion
4. Guide Review
5. Final Review-Tentative Date(s)

Venue: Hall No: 301

Date: January 29, 2024

Time : 12:45 pm - 01:15 pm

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2. Dr. Anto Francis
3. Prof. Anoop Kumar M V
4. Prof. P. Rajesh
5. Prof. P. Sundaramoorthi
6. Prof. David E
6. Prof. P.T. Rajeena Mol
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8. Abhiram M- Final Year Student
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S.No	Subject	Action by	Target date
1	Project activity calendar	Prof. Anoop Kumar M V	January 22, 2024
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[Signature]



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	(c) Hardware/Software completion (d) Interim results		
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7	Phase-II-Project Report Banded Copy submission	Students	April 25, 2024
8	Project Phase-II – Final Evaluation	Project Evaluation Committee and students	April 29, 2024

[Signature]

Project Coordinator

[Signature]
HoD

[Signature]



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ACTION TAKEN REPORT ON MEETING DATED JANUARY 29, 2024

	Action Taken	Remarks , If any
1	Project activity calendar	January 22, 2024
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Project Coordinator


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PROJECT ACTIVITY CALENDAR

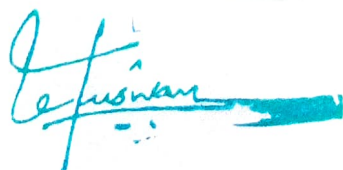
Course Code : EED 416

Course Name : Project Phase II

S.No	Activity	Target Date
1	Project activity calendar	January 22, 2024
2	Norms for evaluation	-
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 Project Coordinator


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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING



FORMATION OF PROJECT GROUP

Course Code :EED 416

Course Name : Project Phase II

GROUP	REGISTER NUMBER	NAME OF THE STUDENT
I	NCE20EE001	AKASH V
	NCE20EE004	ASWATHY A M
	NCE20EE011	SREERAG A
II	NCE20EE008	MUHAMED BADHUSHA S
	NCE20EE010	RIDHUL R
	NCE20EE012	SREYA P M
	LNCE19EE017	ANANDU PRAVEEN G
III	NCE20EE001	ABHIRAM M
	NCE20EE007	MIDHUN NATARAJAN
	LNCE20EE016	ABIDH A

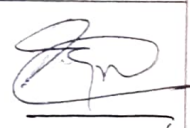

Project Coordinator


HoD

GUIDE ALLOCATION

Course Code : EED 416

Course Name : Project Phase II

GROUP	REGISTER NUMBER	NAME OF THE STUDENT	NAME OF THE GUIDE	Signature
I	NCE20EE001	AKASH V	Prof. David E	
	NCE20EE004	ASWATHY A M		
	NCE20EE011	SREERAG A		
II	NCE20EE008	MUHAMED BADHUSHA S	Prof. Saranya Nair	
	NCE20EE010	RIDHUL R		
	NCE20EE012	SREYA P M		
	LNCE19EE017	ANANDU PRAVEEN G		
III	NCE20EE001	ABHIRAM M	Prof. Rajesh P	
	NCE20EE007	MIDHUN NATARAJAN		
	LNCE20EE016	ABIDH A		



Project Coordinator



HoD





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SCHEDULE FOR PROJECT PHASE II INTERIM
EVALUATION-1

Course Code: ECD 416
Course Name: Project Phase II

Department: ECE
Semester: VIII

S.No	Register Number	Name of the Student	Date	Timing	Name of the Project Supervisors
1	NCE20EC004	ANUSREE V A	20-03-2024	9.15-09.45	Guide: Mr. P Rajkumar Co Guide: Ms. Lisa C
2	NCE20EC011	JISHNA T R	20-03-2024	9.15-09.45	Guide: Mr. P Rajkumar Co Guide: Ms. Lisa C
3	NCE20EC012	M ARUNKUMAR	20-03-2024	9.15-09.45	Guide: Mr. P Rajkumar Co Guide: Ms. Lisa C
4	NCE20EC016	SONA R	20-03-2024	9.15-09.45	Guide: Mr. P Rajkumar Co Guide: Ms. Lisa C
5	NCE20EC001	ANAKHA A	20-03-2024	09.45-10.15	Guide: Ms. Anooja B Co Guide: Mr. Vishnu Prabha N Kaimal
6	NCE20EC002	AMAL C BOSE	20-03-2024	09.45-10.15	Guide: Ms. Anooja B Co Guide: Mr. Vishnu Prabha N Kaimal
7	NCE20EC003	AMBIKA S	20-03-2024	09.45-10.15	Guide: Ms. Anooja B Co Guide: Mr. Vishnu Prabha N Kaimal
8	NCE20EC008	GOPIKA KRISHNAN A	20-03-2024	09.45-10.15	Guide: Ms. Anooja B Co Guide: Mr. Vishnu Prabha N Kaimal
9	NCE20EC005	ARYA V	20-03-2024	10.15-10.45	Guide: Ms. Sajitha A S Co Guide: Mr. Jithin Jose Kallada
10	NCE20EC006	ASWIN K P	20-03-2024	10.15-10.45	Guide: Ms. Sajitha A S Co Guide: Mr. Jithin Jose Kallada
11	NCE20EC014	PARVATHI T P	20-03-2024	10.15-10.45	Guide: Ms. Sajitha A S Co Guide: Mr. Jithin Jose Kallada

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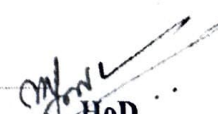


12	NCE20EC007	DARSANA ANAND	20-03-2024	10.45-11.15	Guide: Ms. Kiran M Co Guide: Mr. Vysak V
13	NCE20EC009	HARIKRISHNAN HARIDAS	20-03-2024	10.45-11.15	Guide: Ms. Kiran M Co Guide: Mr. Vysak V
14	NCE20EC010	JEESON SHAJI	20-03-2024	10.45-11.15	Guide: Ms. Kiran M Co Guide: Mr. Vysak V
15	NCE20EC018	VISHNU P NAIR	20-03-2024	10.45-11.15	Guide: Ms. Kiran M Co Guide: Mr. Vysak V
16	NCE20EC015	SANJANA P	20-03-2024	11.15-11.45	Guide: Dr. Mredhula L Co Guide: Ms. Rachel Steffna Angeline
17	NCE20EC017	VIDHYA NARAYANAN	20-03-2024	11.15-11.45	Guide: Dr. Mredhula L Co Guide: Ms. Rachel Steffna Angeline

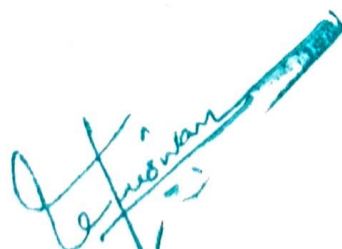
Project Evaluation Committee –Examiners

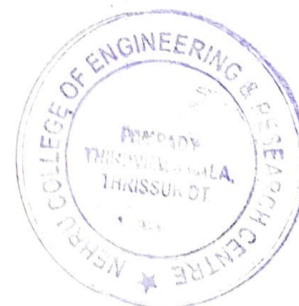
1. Dr. Mredhula L
2. Mr. Jithin Jose Kallada
3. Project Supervisors


Class Advisor


HoD

Dept. of ECE


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MedGuardian: ESP Now-Enabled IV Vigilance System

A Project Report

Submitted to APJ Abdul Kalam Technological University

In Partial Fulfillment of the requirements for the award of the Degree

Bachelor of Technology

in

ELECTRONICS AND COMMUNICATION ENGINEERING

By

DARSANA ANAND

NCE20EC007

HARIKRISHNAN HARIDAS

NCE20EC009

JEESON SHAJI

NCE20EC010

VISHNU P NAIR

NCE20EC018



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— PAMPADY, THIRUVILWAMALA, THRISSUR-680588

MAY 2024



**DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING**

NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE

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PAMPADY, THIRUVILWAMALA, THRISSUR, KERALA

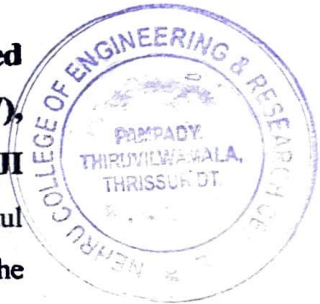
2023-2024




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CERTIFICATE

This is to certify that the report entitled '**MedGuardian: ESP Now-Enabled IV Vigilance System**' submitted by **DARSANA ANAND (NCE20EC007), HARIKRISHNAN HARIDAS (NCE20EC009), JEESON SHAJI (NCE20EC010) and VISHNU P NAIR (NCE20EC018)** to the APJ Abdul Kalam Technological University we partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in ECE, Department of Electronics and Communication Engineering is a bonafide record of the Project carried out by their under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.



Project Guide:

Ms. Kiran M

Asst. prof. ECE Dept

NCERC, Pampady

Project coordinator:

Mr Jithin Jose Kallada

Asst. prof. ECE Dept

NCERC, Pampady


Head of Department:

Dr. Mredhula L

Prof. & HOD ECE Dept

NCERC, Pampady

External Signature:



ABSTRACT

In the realm of healthcare technology, the development of an ESP Now-based IV Bag Monitoring System represents a pioneering effort to enhance patient care and streamline medical processes. This innovative system integrates cutting-edge components, including an ESP32 transmitter, a weight sensor, an LCD display, and push buttons, to create a comprehensive solution for real-time IV bag monitoring with reduced Wi-Fi dependence. The primary objective of this project is to design a robust and adaptable system that ensures accurate and continuous monitoring of IV bag parameters. The ESP32 transmitter serves as the central hub, orchestrating seamless communication between various components. The weight sensor, a critical element in the system, is tasked with providing precise measurements of the IV bag's weight, translating this data into meaningful information for healthcare providers.

The integration of push buttons introduces a user-friendly interface, allowing healthcare professionals to input and adjust the IV bag capacity with ease. This interactive feature empowers providers to customize the system according to specific patient needs, fostering a personalized approach to intravenous fluid administration.

The ESP Now protocol, known for its efficiency in low-power and reliable wireless communication, plays a pivotal role in the system's architecture. By minimizing reliance on traditional Wi-Fi infrastructure, the ESP Now-based solution becomes particularly relevant in areas with limited connectivity or resource constraints. This feature ensures the system's versatility, making it applicable in diverse healthcare settings, ranging from large hospitals to remote clinics.

The LCD display serves as a visual feedback mechanism, providing real-time information on IV bag weight, user inputs, and system status. This not only enhances the transparency of the monitoring process but also facilitates quick decision-making by healthcare providers.

In the socioeconomic context, the importance of this ESP Now-enabled IV Bag Monitoring System becomes apparent. The reduced Wi-Fi dependence addresses challenges faced by healthcare facilities in resource-constrained settings, where building and maintaining extensive network infrastructure may be financially burdensome. This affordability extends the accessibility of advanced monitoring solutions to smaller healthcare facilities, contributing to more equitable healthcare delivery.

Furthermore, the system's resilience in areas with poor Wi-Fi infrastructure, such as rural healthcare settings, ensures that patients in underserved areas receive the same level

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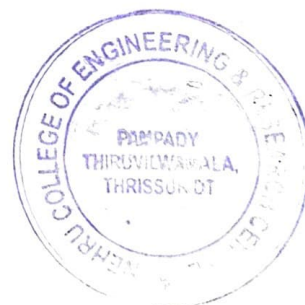


of meticulous monitoring as their urban counterparts. This adaptability aligns with broader efforts to bridge healthcare disparities and promote inclusivity.

In emergency scenarios or disaster-stricken regions, where conventional communication networks may be compromised, the ESP Now-based system stands as a beacon of reliability. The continuous monitoring it offers during crises is paramount for timely and informed decision-making, potentially saving lives in critical situations.

In conclusion, the ESP Now-based IV Bag Monitoring System embodies innovation and adaptability in healthcare technology. By leveraging advanced wireless communication, precise sensing technology, and user-friendly interfaces, it not only revolutionizes the monitoring of intravenous fluid administration but also addresses socioeconomic challenges, contributing to more inclusive and resilient healthcare systems

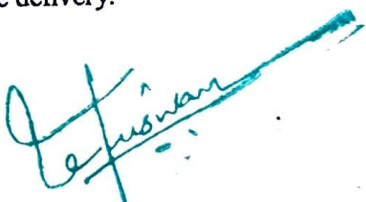

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CHAPTER -1

INTRODUCTION

Introducing the medguard: ESP Enabled IV Vigilance System, a pioneering solution at the intersection of healthcare and cutting-edge surveillance technology. Engineered to meet the evolving demands of modern healthcare, this advanced system seamlessly integrates Enhanced Security Protocol (ESP) technology into intravenous (IV) procedures, elevating patient care to unprecedented levels of safety and precision. The ESP integration ensures real-time monitoring, enabling instant responses to any anomalies during IV administrations, while the intelligent alert system keeps healthcare professionals informed about critical events, facilitating swift interventions. Medguard's data analytics capabilities contribute not only to individual patient care but also offer valuable insights for healthcare administrators. With a user-friendly interface that integrates seamlessly into existing medical workflows and robust access control measures, med guard prioritizes security, compliance, and efficiency. As a beacon of innovation in healthcare technology, medguard:ESP Enabled IV Vigilance System sets a new standard, enhancing patient safety, operational efficiency, and data security in the dynamic landscape of healthcare delivery.


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CHAPTER – 5

PROPOSED TECHNOLOGY : ESP-NOW PROTOCOL

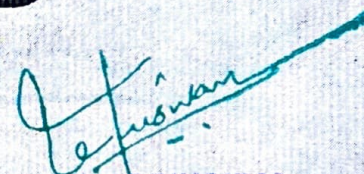
Due to wifi dependence we had replaced the new system with ESP-Now protocol. ESP-NOW is a connectionless communication protocol developed by Espressif that features short packet transmission. This protocol enables multiple devices to talk to each other in an easy way.

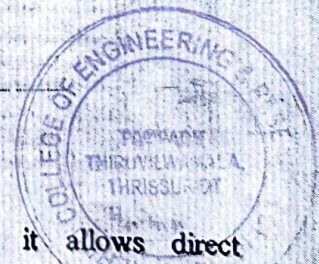
Stating the Espressif website, ESP-NOW is a “protocol developed by Espressif, which enables multiple devices to communicate with one another without using Wi-Fi. The protocol is similar to the low-power 2.4GHz wireless connectivity (...). The pairing between devices is needed prior to their communication. After the pairing is done, the connection is safe and peer-to-peer, with no handshake being required.”



Fig 5.1- ESP now

- Up to 250-byte payload can be carried
- Fast communication protocol
- Encrypted and unencrypted communication
- Range communication (220 meters in open field according to our experiments)


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5.1 How it works

Communication protocol

ESP-NOW operates as a peer-to-peer (P2P) protocol, meaning it allows direct communication between two ESP8266 or ESP32 devices without the need for a central server or access point, e.g. a Wi-Fi® router. Each ESP device has a unique MAC address which is used to identify the receiving board.

ESP-NOW can be set up in different ways:

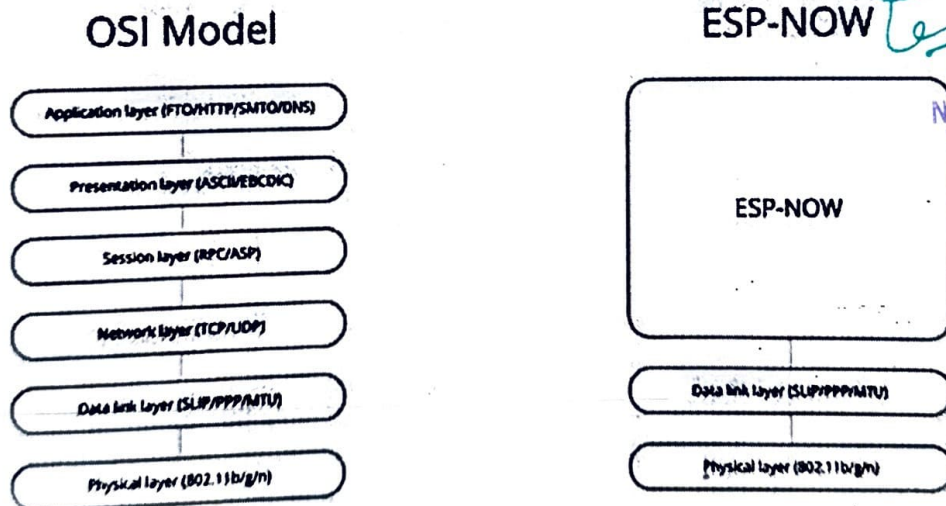
One-way communication: In one-way communication mode, one device (the sender) can send data to another device (the receiver) without expecting a response. This mode is often used for scenarios where one device provides data or commands to another device, such as remote sensor readings or control commands.

Two-way communication: In two-way communication mode, both devices can exchange data bidirectionally. This mode enables a back-and-forth exchange of information between the devices, allowing for more interactive and responsive communication. It's suitable for applications where devices need to send and receive data from each other, such as remote control systems or interactive IoT devices.

5.2 ESP-NOW Communication

Protocol Stack

ESP-NOW operates primarily at the data-link layer of the OSI model. In contrast to traditional networking protocols that involve multiple layers, ESP-NOW condenses the communication stack, streamlining the process. By reducing the protocol stack to a single layer, ESP-NOW eliminates the need for complex packet headers and unpackers on each layer. This simplicity results in quicker response times, reducing delays caused by packet loss in congested networks.



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Fig 5.2-TCP/IP and ESP-NOW Protocol

Stack

CHAPTER -6

CIRCUIT DIAGRAM

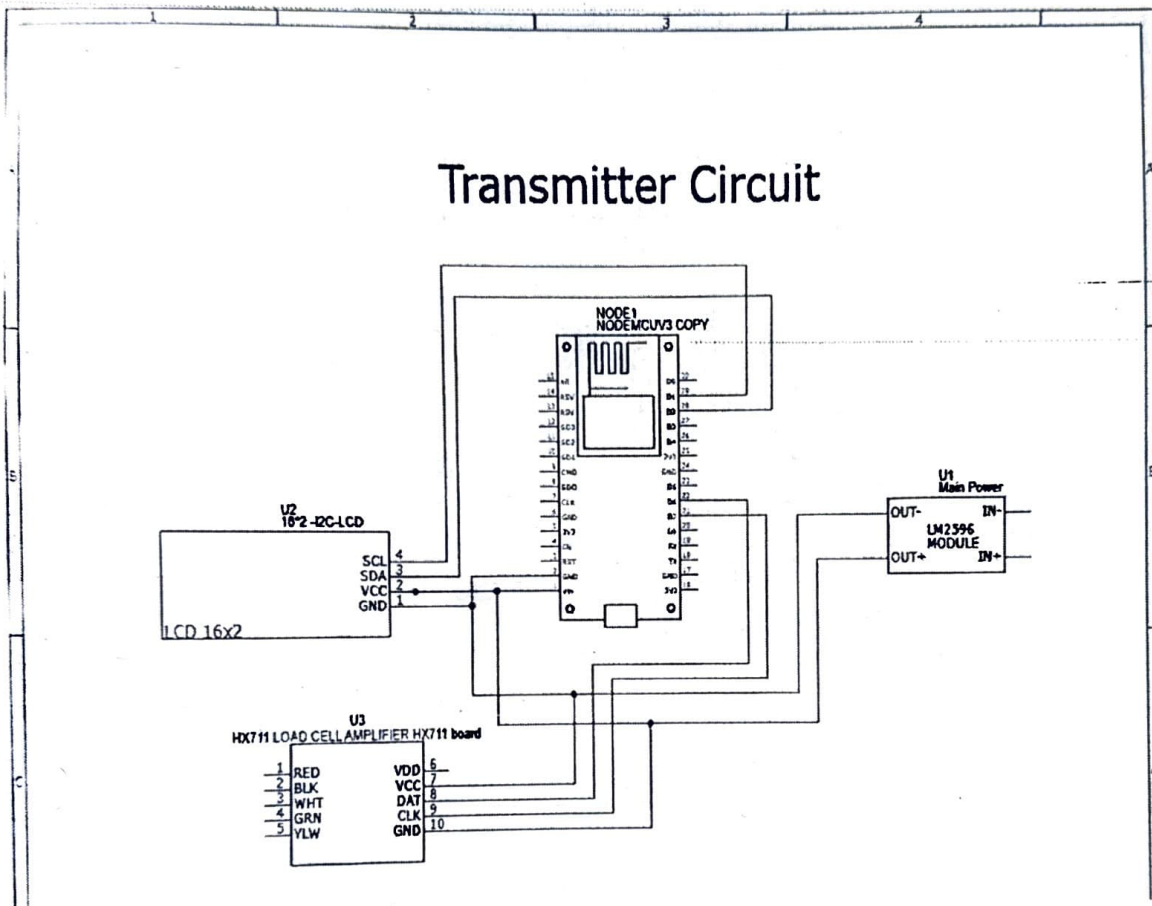


Fig 6.1 – Transmitter section circuit diagram


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Receiver Circuit

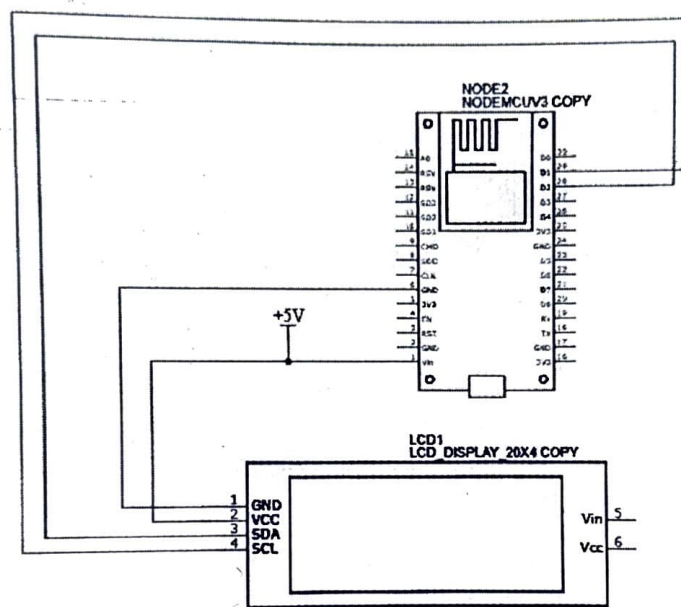


Fig 6.2 – Receiver section Circuit diagram

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CHAPTER - 7

BUILT SYSTEM

TRANSMITTER SECTION

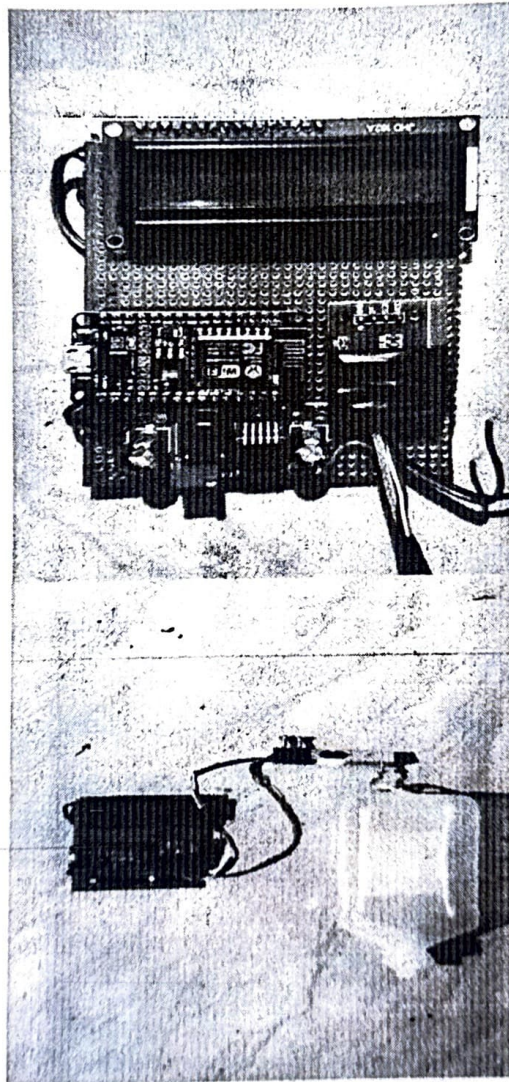


Fig 7.1 – Built circuit of Transmitter

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VI Semester B.Tech ECE (2021-2025) ECD 334 Mini Project First Review Schedule

Group Number	Register No.	Name of the Students	Title	Guide	First Review	
					Date	Time
1	NCE21EC017	ISMAIL P S	Third Eye for Blind Ultrasonic Vibrator Glove	Ms. Rachel Stefna Angeline A (Asst. Professor, Dept. of ECE)	01.04.2024	9:15 AM - 9:45 AM
	NCE21EC035	SREEHARI T A				
	NCE21EC036	SREEVINAYAK P S				
	NCE21EC039	VINAY MURALI				
2	NCE21EC006	ASHWIN NAIR	Smart Iron Box	Mr. Nithin Joe (Asst. Professor, Dept. of ECE)	01.04.2024	9:45 AM - 10:15 AM
	NCE21EC008	ASWIN V				
	NCE21EC016	GOKUL A P				
	NCE21EC018	JITHIN M S				
3	NCE21EC001	AKSHARA P S	Portable Tea/Coffee Maker	Ms. Lisa C (Asst. Professor, Dept. of ECE)	01.04.2024	10:15 AM - 10:45 AM
	NCE21EC002	ALEESHA FATHIMA K A				
	NCE21EC024	MIDHUN K				
	NCE21EC037	SURESH S				
4	NCE21EC020	KRISHNAPRABHA S	IoT based Pill Dispenser	Mr. Vysak Valsan (Asst. Professor, Dept. of ECE)	01.04.2024	10:45 AM - 11:15 AM
	NCE21EC021	LAVANYA M				
	NCE21EC023	MALAVIKA S MADHAVAN				
	NCE21EC028	NANDANA PRAKASH J				
5	NCE21EC011	AYISHA FATHIMA H	IoT based Air & Sound Pollution Monitoring System	Mr. Rajkumar P (Asst. Professor, Dept. of ECE)	01.04.2024	11:15 AM - 11:45 AM
	NCE21EC012	DHIYA J				
	NCE21EC013	DIYA T R				
	NCE21EC031	RAHUL K R				
6	NCE21EC010	ATHULYA G M	Smart Bin with Garbage Segregation	Mr. Jithin Jose Kallada (Asst. Professor, Dept. of ECE)	01.04.2024	1:15 PM - 1:45 PM
	NCE21EC014	DWJESH T D				
	NCE21EC026	MUHSEENA V S				
	NCE21EC027	NAKUL DEV K				
7	NCE21EC005	ARYA K R	Light Animations using Arduino and Matlab	Ms. Anooja B (Asst. Professor, Dept. of ECE)	01.04.2024	1:45 PM - 2:15 PM
	NCE21EC025	MUHAMMED SABITH K M				
	NCE21EC030	PRAVEEN K P				
	NCE21EC034	SIYA Y				
8	NCE21EC015	FATHIMATHUL SAHILA C A	Smart Wrist Band for Women Safety	Ms. Kiran M (Asst. Professor, Dept. of ECE)	01.04.2024	2:15 PM - 2:45 PM
	NCE21EC019	KAVYA P				
	NCE21EC022	M ADHITH KRISHNA				
	NCE21EC038	THRISHA S				
9	NCE21EC004	ANOOJA N V	Electronic Eye Controller System for Medically Disabled Individuals	Ms. Vishnu Prabha N Kaimal (Asst. Professor, Dept. of ECE)	01.04.2024	2:45 PM - 3:15 PM
	NCE21EC009	ATHIRA P B				
	NCE21EC033	RITHESSAW R				

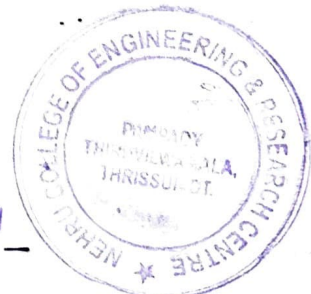
Project Coordinator

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22/03/2024

[Signature]
HOD, ECE

[Signature]
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Thiruvilwamala, Thiruv





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DEPARTMENT OF ELECTRONICS AND COMMUNICATION
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27.03.2024

NOTICE

The following faculty members are appointed as members for the internal evaluation committee of VI semester B. Tech ECE Mini Project ECD 334 in the AY 2023-24 as per the university regulation.

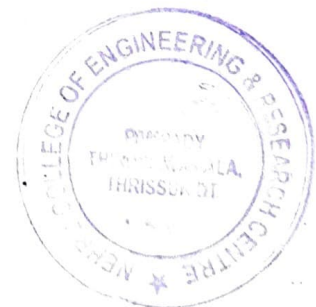
1. Dr. Mredhula L (HOD, ECE) – Chairperson
2. Mr. Vysak Valsan (AP/ECE) – Project Co-ordinator
3. Mr. Nithin Joe (AP/ECE) - Project Co-ordinator
4. Project Guide – Guide of each group must present during the internal evaluation review as a member. Guide list is already approved and issued.

M. Mredhula L
HOD, ECE

Head of the Department
Electronics & Communication Engineering
NCERC, Thiruvilwamala- 680588

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CERTIFICATE OF PROJECT COMPLETION

languify

THIS CERTIFICATE IS PROUDLY PRESENTED TO

Kavya.P

has successfully undergone Industrial Program on Artificial Intelligence
from Languify from 01st Aug, 2023 to 30th Sep, 2023 and
successfully completed the projects on

- Build Automatic Speech Recognition System

Under the guidance of the mentor and company representative

10-Oct-2023

DATE



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Thiruvilwamala, Thrissur - 680538

CERTIFICATE OF PARTICIPATION

THIS CERTIFICATE IS PROUDLY PRESENTED TO

Kavya.P

participated in "Artificial Intelligence"
from 01st Aug, 2023 to 30th Sep, 2023
and successfully completed the program.

10-Oct-2023

DATE



UPENDRA NAVADA
OVERALL COORDINATOR



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language

INTERNSHIP CERTIFICATE

THIS IS TO CERTIFY THAT

Kavya.P

has successfully completed internship program in Artificial Intelligence
from 01st Oct, 2023 to 15th Nov, 2023. During the internship, the student
was found to be dedicated, hardworking and diligent.



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Neha Soni

Academic Head



[Signature]

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Thiruvilwamala, Thrissur - 680568

[Signature]

Director Signature



CERTIFICATE OF PROJECT COMPLETION

languify

THIS CERTIFICATE IS PROUDLY PRESENTED TO

Muhseena Vs

has successfully undergone Industrial Program on Artificial Intelligence
from Languify from 01st Aug, 2023 to 30th Sep, 2023 and
successfully completed the projects on

- Build Automatic Speech Recognition System

Under the guidance of the mentor and company representative

10-Oct-2023

DATE



PROJECT HEAD



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Neha Soni

CERTIFICATE OF PARTICIPATION

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from 01st Aug. 2023 to 30th Sep. 2023
and successfully completed the program.



UPENDRA NAVADA
OVERALL COORDINATOR



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INTERNSHIP CERTIFICATE

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was found to be dedicated, hardworking and diligent.



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Neha Soni

Academic Head



J. J. J.

Director Signature

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Nila Gardens, Pampady
Thiruvilwamala, Thrissur - 680588





इलेक्ट्रॉनिक्स एवं
सूचना प्रौद्योगिकी विभाग

MINISTRY OF
ELECTRONICS AND
INFORMATION TECHNOLOGY



Work Based Learning
Sponsored by MIEVT

Ref. No. WBL/SAMEER/CHENNAI/24-25/003

SAMEER

Certificate of Completion

It is certified that

DARSANA ANAND

has successfully completed the Work Based Learning (WBL) Level-1 on
DRONE DETECTION - RADAR MODULE SIMULATION
held from 01-04-2024 to 30-09-2024

at

SAMEER - CHENNAI

G. Mahesh

Nodal Officer
Implementing organization



[Signature]

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सी डेक
CDAC



CERTIFICATE OF PROJECT COMPLETION

PERSONIFY

THIS CERTIFICATE IS PROUDLY PRESENTED TO

Athulya Gm

has successfully undergone Industrial Program on Artificial Intelligence
from Personify from 01st Aug, 2023 to 30th Sep, 2023 and

successfully completed the projects on

- Text Classification with TensorFlow
- Classification of Pet's Faces

Under the guidance of the mentor and company representative

12-Oct-2023

DATE



PROJECT HEAD



1stop.ai/verify-certificate


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CERTIFICATE OF PARTICIPATION

THIS CERTIFICATE IS PROUDLY PRESENTED TO

Athulya Gm

participated in "Artificial Intelligence"
from 01st Aug, 2023 to 30th Sep, 2023
and successfully completed the program.


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UPENDRA NAVADA
OVERALL COORDINATOR



1stop.ai/verify-certificate

PERSONIFY

INTERNSHIP CERTIFICATE

THIS IS TO CERTIFY THAT

Athulya Cm

has successfully completed internship program in Artificial Intelligence
from 01st Oct, 2023 to 15th Nov, 2023. During the internship, the student
was found to be dedicated, hardworking and diligent.



1stop.ai/verify-certificate

Academic Head



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Director Signature



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE

Pampady, Thiruvilwamala, Thrissur, Kerala. PIN: 680588

(Accredited by NAAC | ISO 9001-2015 Certified)

(Approved by AICTE, Affiliated to APJ Abdul Kalam Technological University, Kerala)



INDUSTRIAL VISIT REPORT 2023-24

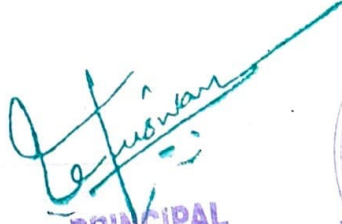
Staff Incharge:

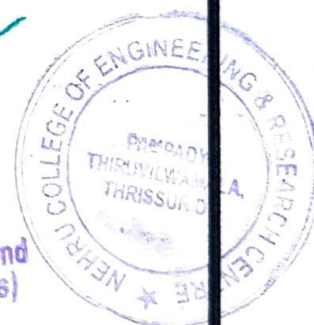
Mr. Nithin Joe

(Asst. Professor, Dept. Of ECE)

Mrs. Lisa C

(Asst. Professor, Dept. Of ECE)


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Head of the Department
Electronics & Communication Engineering
NCERC, Thiruvilwamala- 680588

SCHEDULE:

DAY 1(5/03/24): Bangalore

- U R Rao Satellite Centre
- Anscer Robotics

DAY 2(6/03/24): Chikkamagaluru

- Sightseeing

DAY 3(7/03/24): Belur & Coorg

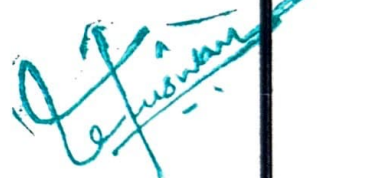
- Historical Place Visiting
- Bamboo Forest

DAY 4(8/03/24): Coorg

- Golden Temple

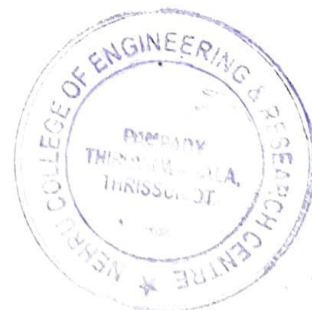
DAY 5(9/03/24): Udupi

- Sightseeing
- Water Activities



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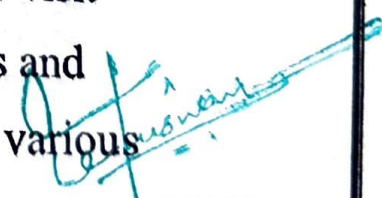
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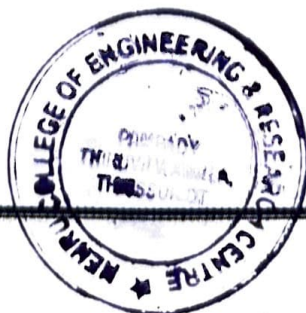


DAY 1:

The first day of our 'Industrial Visit' commenced with an enriching experience at U R Rao Satellite Centre (URSC), ISRO. Our group delved into a comprehensive session on satellites, highlighting significant launches such as Chandrayaan 3. The visit provided us with a deeper understanding of satellite technology. Subsequently, we were given a tour of the satellite manufacturing hall, where intricate circuits, systems, and models were showcased. Additionally, we had the opportunity to witness the temperature testing room, gaining insight into the rigorous testing procedures involved in satellite production.

In the afternoon, our itinerary led us to Anscer Robotics, where we were immersed in diverse departments including ECE, EEE, and biotechnology. The visit provided us with an insight into their projects and working environments, familiarizing us with various procedures and components utilized.


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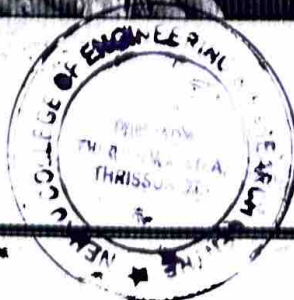
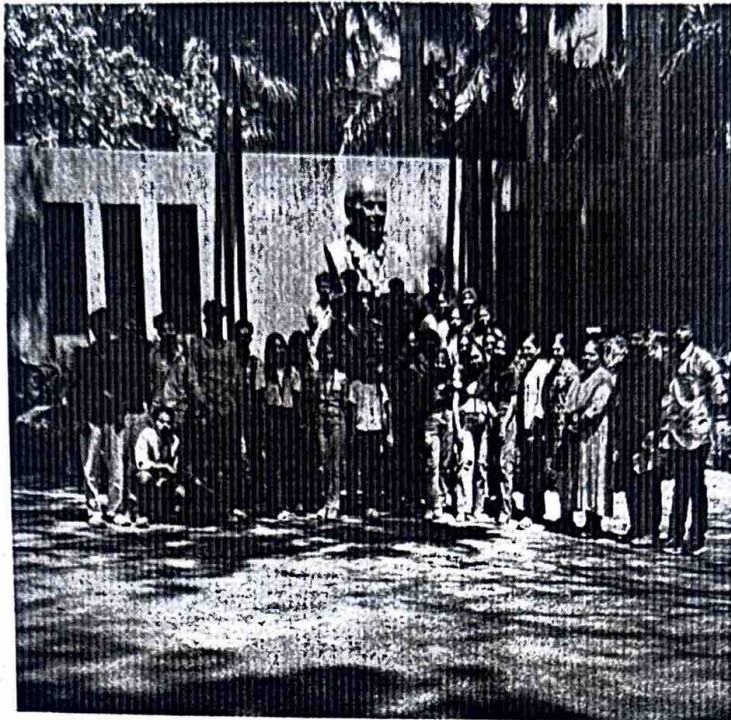


To unwind, we indulged in street shopping at Commercial Street, Bangalore, exploring the vibrant local culture and offerings. As the evening drew to a close, we embarked on our journey to Chikkamangalore, concluding a fruitful day of exploration and learning.

Overall, the first day of our 'Industrial Visit' in Bangalore offered a blend of educational insights into cutting-edge technology and cultural immersion, setting the stage for further exploration in the days to come.



Prasanna
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2020-2024

S8 CSEA Project phase II

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

MINUTES OF PROJECT EVALUATION COMMITTEE MEETING

Academic Year : 2023-24

Year / Sem : IV/VIII

Batch : 2020-24

Course Code : CSD 416

Course Name : Project Phase II

AGENDA

1. Rubrics finalization for evaluating the quality of the project.

Venue: Hall No: 331

Date: January 30, 2024

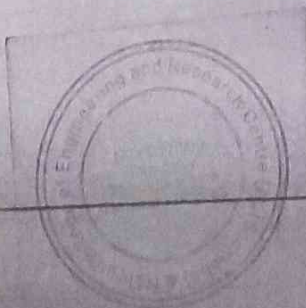
Time : 02:00 – 03:00 pm

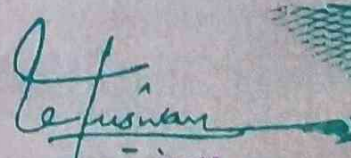
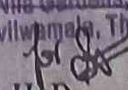
Members Present

1. Ms. Silja Varghese, HoD in charge CSE
2. Mr. Vipin KM, Assistant Professor CSE
3. Ms. Sruthy MR, Assistant Professor CSE
4. Ms. Baby V, Assistant Professor CSE
5. Ms. Radhika K Manjusha, Assistant Professor CSE
6. Ms. Praveena K, Assistant Professor CSE
7. Ms. Smita Unnikrishnan, Assistant Professor CSE
8. Ms. Betsy Joy, Assistant Professor CSE

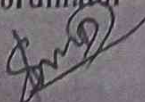
In order to find the Rubrics for evaluating the quality of the project we are decided to go through with the following points.

1. Problem Design
2. Feasibility study
3. Innovative idea
4. Social impact
5. Personal growth




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HoD

Project Coordinator





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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
PROJECT ACTIVITY CALENDAR

Course Code :CSD 416

Course Name : Project Phase II

S.No	Activity	Target Date
1	First Review - Interim Evaluation Hardware completion , draft of conference paper	29/02/2024
2	Second Review - Interim Evaluation , Hardware completion ,conference paper publication , project competition, Project Report	11/04/2024
3	Submission of Binded Hardcopy project report, Submission of paper publication details , project competition details	2/5/2024
4	Project Diary Submission	30/04/2024

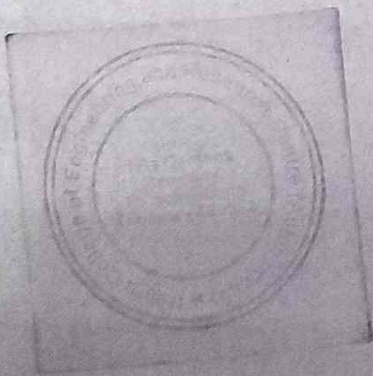
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PROJECT COORDINATORS

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S.No	Subject	Action by	Target date
1	Project activity calendar	Project Coordinators	13/02/2024
2	Norms for evaluation	As per KTU	-
3	First Review – Interim Evaluation Hardware completion , draft of conference paper	Project Evaluation Committee and students	29/2/2024
4	Second Review – Interim Evaluation , Hardware completion, conference paper publication , project competition, Project Report	Project Evaluation Committee and students	11/4/2024
5	Submission of Binded Hardcopy project report, Submission of paper publication details , project competition details	Project Evaluation Committee and students	2/5/2024

[Signature]

Project Coordinator

[Signature]
HoD

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PROJECT DETAILS

Course Code :CSD 416

Course Name : Project Phase II

GROUP NO	REG NO	GROUP MEMBERS	GUIDES	PROJECT TITLE
1	NCE20CS001	AARATHI P	MS. PRAVEENA	SMART DOOR BELL SYSTEM
	NCE20CS024	ANJANA CHANDRAN		
	NCE20CS029	ARCHANA C S		
	NCE20CS026	ANUPAMA K A		
2	NCE20CS016	ANAND M	MS.SMITA	CLOUD BASED CRIME DETECTION AND SURVEILLANCE SYSTEM
	NCE20CS017	ANAND M		
	NCE20CS039	BASIL P SUNNY		
	NCE20CS018	ANANTHU K		
3	NCE20CS004	ABIJITH S	MR.VIPIN	HIREMATE
	NCE20CS007	ADITHYAN V		
	NCE20CS006	ADITHYA		
	NCE20CS021	ANIRUDHAN P		
4	NCE20CS031	ARYA K P	MS.SILJA	COLLEGE ENQUIRY CHATBOT
	NCE20CS023	ANJALI NANDANA V P		
	NCE20CS044	DITNA S		
5	NCE20CS019	ANASWARA C	MS. LINTA	SCENE IMAGE TO TEXT RECOGNITION APP
	NCE20CS041	C SWETHA		
6	NCE20CS028	APARNA V P	MS. MINU	AUTOMATION OF SMART GARBAGE MANAGEMENT SYSTEM USING IOT
	NCE20CS027	ANUSREE K G		
	NCE20CS012	AKSHARA C S		
	NCE20CS035	ASWATHI K M		
7	NCE20CS042	DANIEL SURESH	MS. SREEJI	AUTOMATED ATTENDANCE SYSTEM BASED ON FACE RECOGNITION
	NCE20CS022	ANIRUDHAN P M		
	NCE20CS033	ASWIN C		
	NCE20CS015	AMAL P D		
8	NCE20CS036	ASWATH V	MS.LEYA	AGROCULTURE WEB APPLICATION
	NCE20CS043	DEEPAK K		
	NCE20CS010	AJAY P		
	NCE20CS002	ABHIJITH GIRISH K		

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9	NCE20CS025	ANUGRAH K	MS.BETSY	DRIVE ON
	NCE20CS014	AKSHAY T		
	NCE20CS040	C S GIRISH		
	NCE20CS038	AVINASH M P		
10	NCE20CS013	AKSHAY KRISHNAN K M	MS.BABY	LINGUATOUCH
	NCE20CS009	AJAY KRISHNA C S		
	NCE20CS037	ASWINDAS C H		
	NCE20CS005	ADARSH P K		
11	NCE20CS020	ANEK SEKHAR P	MS.VIPIN	VIRTUAL REALITY TRIAL ROOM
	NCE20CS030	ARJUN K		
	NCE20CS032	ASHVIN SIBI		
	NCE20CS011	AKASH S		
12	NCE20CS003	ABHILASH H	MS. SWATHY	MOVIE SUCCESS PREDICTION SYSTEM USING MACHINE LEARNING
	NCE20CS034	ASHWIN MOHAN		
	NCE20CS008	ADITYA P		
13	NCE19CS029	BHAVYA K	Ms SMITA	CONTROL OF HOME APPLIANCES BY EYEBALL TRACKING FOR THE PARALYZED PERSONS

Parvathi
Smith

PROJECT COORDINATORS

[Signature]
HOD



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EIGHTH SEMESTER B. TECH (2019 SCHEME) DEGREE EXAMINATION, MAY 2024

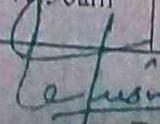
Course Code: CSD 416 & CST 404

Department: CSE

Course Name: Project Phase II & Comprehensive Course Work Viva Voce

Semester: VIII - A

S.No	Register Number	Name of the Student	Date	Timing	Number of Students
1	NCE20CS001	AARATHI P	10/05/2024	09:00 am -09:30am	12
2	NCE20CS002	ABHIJITH GIRISH	10/05/2024	09:30 am-10.00 am	
3	NCE20CS003	ABHILASH H	10/05/2024	10.00 am-10:30am	
4	NCE20CS004	ABIJITH S	10/05/2024	10:30 am -11:00 am	
5	NCE20CS005	ADRASH	10/05/2024	11.00 am-11:30am	
6	NCE20CS006	ADITHYA	10/05/2024	11:30 am -12.00 noon	
7	NCE20CS007	ADITHYAN V	10/05/2024	12:00 noon -12:30 pm	
8	NCE20CS008	ADITYA P	10/05/2024	12:30 pm - 01:00 pm	
9	NCE20CS009	AJAYKRISHNA C S	10/05/2024	02:00 pm - 02:30 pm	
10	NCE20CS010	AJAY P	10/05/2024	02:30 pm -03:00 pm	
11	NCE20CS011	AKASH S	10/05/2024	03:00 pm -03:30 pm	
12	NCE20CS012	AKSHARA C S	10/05/2024	03:30 pm - 04:00 pm	
13	NCE20CS013	AKSHAY KRISHNAN K M	13/05/2024	09:00 am -09:30am	
14	NCE20CS014	AKSHAY T	13/05/2024	09:30 am-10.00 am	
15	NCE20CS015	AMAL P D	13/05/2024	10.00 am-10:30am	


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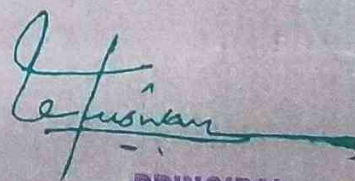
36	NCE20CS036	ASWATH V	14/05/2024	03:30 pm - 04:00 pm	9
37	NCE20CS037	ASWINDAS C H	15/05/2024	09:00 am -09:30am	
38	NCE20CS038	AVINASH M P	15/05/2024	09:30 am-10.00 am	
39	NCE20CS039	BASIL P SUNNY	15/05/2024	10.00 am-10:30am	
40	NCE20CS040	C S GIRISH	15/05/2024	10:30 am -11:00 am	
41	NCE20CS041	C SWETHA	15/05/2024	11.00 am-11:30am	
42	NCE20CS042	DANIEL SURESH	15/05/2024	11:30 am -12.00 noon	
43	NCE20CS043	DEEPAK K	15/05/2024	12:00 noon -12:30 pm	
44	NCE20CS044	DITNA S	15/05/2024	12:30 pm - 01:00 pm	
45	NCE19CS029	BHAVYA R	15/05/2024	02:00 pm - 02:30 pm	

PROJECT COORDINATOR

HOD

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EIGHTH SEMESTER B. TECH (2019 SCHEME) DEGREE EXAMINATION, MAY 2024

Course Code: CSD 416 & CST 404

Department: CSE

Course Name: Project Phase II & Comprehensive Course Work Viva Voce

Semester: VIII - A

Subject	External Expert	Project Coordinator	Senior faculty From Sister Department	Date	Time	Reg.No
Course Name: Project Phase II & Comprehensive Course Work Viva Voce	Mr. Arun KTU-F44651 Asst. Professor, CSE Department Malabar Engineering College.	Ms. Betsy Joy KTU- F44065 Asst. Professor, CSE Department, NCERC	Ms. Sajith A S KTU-F1991 Asst. Professor, AI & ML Department, NCERC	10/05/2024	09:00 am - 09:30am	NCE20CS001
					09:30 am- 10:00 am	NCE20CS002
					10:00 am- 10:30am	NCE20CS003
					10:30 am - 11:00 am	NCE20CS004
					11:00 am- 11:30am	NCE20CS005
					11:30 am - 12:00 noon	NCE20CS006
					12:00 noon - 12:30 pm	NCE20CS007
					12:30 pm - 01:00 pm	NCE20CS008
					02:00 pm - 02:30 pm	NCE20CS009

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Course Name: Project Phase II & Comprehensive Course Work Viva Voce	Mr. Arun KTU-F44651 Asst. Professor, CSE Department Malabar Engineering College.	Ms. Smita Unnikrishnan KTU- F44047 Asst. Professor, CSE Department, NCERC	Ms. Sajith A S KTU-F1991 Asst. Professor, AI & ML Department, NCERC	14/05/2024	09:00 am - 09:30am	NCE20CS025
					09:30 am- 10:00 am	NCE20CS026
					10:00 am- 10:30am	NCE20CS027
					10:30 am - 11:00 am	NCE20CS028
					11:00 am- 11:30am	NCE20CS029
					11:30 am - 12:00 noon	NCE20CS030
					12:00 noon - 12:30 pm	NCE20CS031
					12:30 pm - 01:00 pm	NCE20CS032
					02:00 pm - 02:30 pm	NCE20CS033
					02:30 pm - 03:00 pm	NCE20CS034
Course Name: Project Phase II & Comprehensive Course Work Viva Voce	Mr. Arun KTU-F44651 Asst. Professor, CSE Department Malabar Engineering College.	Ms. Smita Unnikrishnan KTU- F44047 Asst. Professor, CSE Department, NCERC	Ms. Sajith A S KTU-F1991 Asst. Professor, AI & ML Department, NCERC	15/04/2024	03:00 pm - 03:30 pm	NCE20CS035
					03:30 pm - 04:00 pm	NCE20CS036
					09:00 am - 09:30am	NCE20CS037
					09:30 am- 10:00 am	NCE20CS038
					10:00 am- 10:30am	NCE20CS039
					10:30 am - 11:00 am	NCE20CS040



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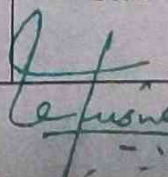
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

SCHEDULE FOR PROJECT PHASE II: INTERIM EVALUATION -I

Course Code: CSD 416

Course Name: Project Phase II

GROUP NO	REG NO	GROUP MEMBERS	GUIDES	PROJECT TITLE	DATE
1	NCE20CS046	GOUTHAM KRISHNA C M	Ms. BABY V	EV SMART CHARGING SYSTEM	01/03/2024 9.00-10.00AM
	NCE20CS048	HARIKRISHNAN C N			
	NCE20CS051	IRFAN K N			
	NCE20CS077	SIDHARTH P V			
2	NCE20CS049	HARIKRISHNAN K	Ms. SRUTHY M R	COUNTERFEIT MEDICINE AUTHENTICATION SYSTEM USING BLOCKCHAIN AND IOT	01/03/2024 10.00-10.30AM
	NCE20CS050	HEMANTH J			
	NCE20CS066	NITHIN ARAVIND			
	NCE20CS071	ROHITH P			
3	NCE20CS057	MABLE SEBASTIAN	Mr. RAKESH R	SIGN LANGUAGE RECOGNISATION	01/03/2024 10.30-11.00AM
	NCE20CS058	MAYA M			
	NCE20CS059	MOHAMMED SABIQ			
	NCE20CS090	YADHU KRISHNAN			
4	NCE20CS045	GOPIKA SREEJITH	Ms. SILJA VARGHESE	ONLINE PROCTORING SYSTEM	01/03/2024 11.00-11.30AM
	NCE20CS072	ROSHNA KABEER			
	NCE20CS080	SNEHA THOMAS			
5	NCE20CS056	LERIESHA S MATHEW	Ms. SMITA UNNIKRISHNAN	MULTIPLE DISEASE PREDICTION USING MACHINE LEARNING	01/03/2024 11.30-12.00 PM
	NCE20CS076	SHAFRIN FATHIMA H S			
	NCE20CS082	SURYA T			
	NCE20CS083	SUVARNA R			
6	NCE20CS047	HABIN C BINOY	Mr. VIPIN K M	STAFF SCHEDULING	01/03/2024 1.00-1.30PM
	NCE20CS062	NANDHAN K			
	NCE20CS070	RANJITH R			
	NCE20CS085	VAISHNAV U			


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7	NCE20CS065	NIKHIL P	Ms. SREEJI S	AUTOMATED PNEUMONIA DETECTION FROM CHEST X- RAY IMAGES USING COMPUTER VISION	01/03/2024 1.30- 2.00PM
	NCE20CS067	PAVITHRA S			
	NCE20CS068	POOJA G			
8	NCE20CS060	MUHAMMED RAMEEZ C A	Ms. SWATHY C S	MUSIC RECOMMENDATION BASED ON FACIAL EXPRESSION USING DEEP LEARNING	01/03/2024 2.00- 2.30PM
	NCE20CS079	SIYANA A			
	NCE20CS081	SREEKUMAR T			
	NCE20CS084	VAISHNAV ASHOK			
9	NCE20CS053	JYOTHIRADITHYA M	Ms. ATHIRA K B	DATA ENGINEERING PIPELINE	01/03/2024 2.30- 3.00PM
	NCE20CS069	PRAJITH P G			
	NCE20CS075	SARATH KRISHNAN P V			
	NCE20CS088	VIDUL K R			
10	NCE20CS052	JISHA P B	Ms. BETSY JOY	AI ENHANCED SMART LIVING	01/03/2024 3.00- 3.30PM
	NCE20CS054	KAILAS K			
	NCE20CS055	KRISHNA ANAND			
	NCE20CS064	NIDHEESH K S			
11	NCE20CS063	NANDHAN P K	Ms. MINU AUGUSTINE	IOT BASED SMART AMBULANCE	02/03/2024 9.00- 10.00AM
	NCE20CS073	SAFEEDA P			
	NCE20CS075	SANJAY KRISHNA C			
	NCE20CS087	VARSHA K			
12	NCE20CS078	SIMI R	Ms. LEYA M S	GOVERNMENT SERVICE APPOINTMENT BOOKING SYSTEM	02/03/2024 10.00- 10.30AM
	NCE20CS086	VANDHANA V R			
	NCE20CS089	VISHNU J			

3

PROJECT COORDINATORS

[Signature]

[Signature]
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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

MINUTES OF PROJECT EVALUATION COMMITTEE MEETING
Academic Year : 2023-24

Year / Sem : III/VI

Batch : 2021-25

Course Code : CSD 334

Course Name : Mini Project

AGENDA

1. Project Norms as per KTU
2. Interim Project Evaluation
3. Project Diary
4. Completion of Project Hardware
5. Paper Presentation in Conference
6. Paper Publication in Journal
7. Project Report
8. Final Project Evaluation

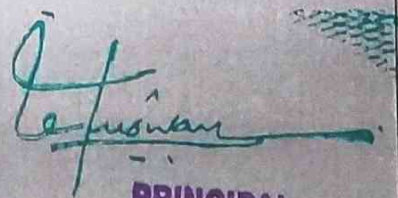
Venue: Hall No: 318

Date: February 7th, 2024

Time : 02:30 – 03:30 pm

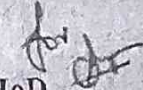
Members Present

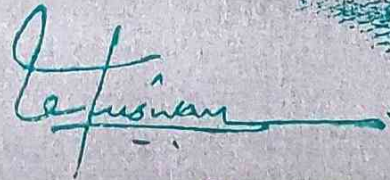
1. Ms. Silja Varghese, HoD In Charge, CSE
2. Ms. Betsy Joy, Assistant Professor CSE
3. Mr. Vipin KM, Assistant Professor CSE
4. Ms. Sruthy MR, Assistant Professor CSE
5. Ms. Baby V, Assistant Professor CSE
6. Ms. Radhika K Manjusha, Assistant Professor CSE
7. Ms. Praveena K, Assistant Professor CSE
8. Ms. Smita Unnikrishnan, Assistant Professor CSE


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Thiruvilwamala, Thrissur

S.No	Subject	Action by	Target date
1	Project activity calendar	Project Coordinators	February 22 nd , 2024
2	Norms for evaluation	As per KTU	February 28 th , 2024
3	Zeroth Review-Interim Evaluation Selection of project	Project Evaluation Committee and students	March 1 st , 2024
4	First Review – Interim Evaluation	Project Evaluation Committee and students	April 4 th , 2024
5	Second Review – Interim Evaluation, Hardware completion conference paper publication, project competition, Project Report	Project Evaluation Committee and students	April 18 th , 2024
6	Submission of Binded Hardcopy project report project competition details	Project Evaluation Committee and students	April 25 th , 2024


Project Coordinator


HoD



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ACTION TAKEN REPORT ON MEETING DATED February 22nd, 2024

SL.No	Action Taken	Remarks , If any
1	Project activity calendar	February 22 nd , 2024
2	Zeroth Review-Interim Evaluation Selection of project	March 1 st , 2024
3	First Review – Interim Evaluation	April 4 th , 2024
4	Second Review – Interim Evaluation , Hardware completion ,conference paper publication , project competition, Project Report	April 18 th , 2024
5	Submission of Binded Hardcopy project report, Submission of paper publication details , project competition details	April 25 th , 2024



Project Coordinator

HoD



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CSD 334 - MINI PROJECT

SELECTION OF PROJECT TITLE

Sl. No	REGISTER NUMBER	GROUP MEMBERS	NAME OF THE GUIDE	PROJECT TITLE
1	NCE21CS057	Najmul Hudha P A	Ms. Soumya	EFFICIENT SERIES RESULT PUBLISHING WEBSITE
	NCE21CS065	Nithya T K		
	NCE21CS092	Sneha Sudhakaran		
2	NCE21CS058	Namratha P	Mr. Vipin K M	REAL TIME CONTINUOUS SPEECH TRANSLATOR
	NCE21CS067	Pooja Rajeev		
	NCE21CS090	Sneha C S		
	LNCE21CS111	Mariya Mathew		
3	NCE21CS059	Nandhana S	Ms. Athira	BLOOD DONATION MANAGEMENT SYSTEM
	NCE21CS063	Nikhil T S		
	NCE21CS100	Snuthysree		
	NCE21CS108	V Shivadharini		
4	NCE21CS060	Nawal Akber	Ms. Silja Varghese	THREE LEVEL PASSWORD SYSTEM
	NCE21CS061	Neha N		
	NCE21CS084	Shinas S		
	NCE21CS074	Rithinraj P K		
5	NCE21CS062	Nidhish C R	Ms. Betsy	EXPENSE TRACKER
	NCE21CS068	Prajith P		
	NCE21CS076	Samanvay Ramadas A		
	NCE21CS079	Sanjay Muralcedharan		
6	NCE21CS064	Nitha N	Mr. Shaji B	SMART CITY TRAVELLER
	NCE21CS070	Rahana		
	NCE21CS075	Rizwan M		
7	NCE21CS066	Padma P	Ms.Praveena	DEEPPAKE VIDEO DETECTION WITH CNN and RNN
	NCE21CS088	Silja C R		
	NCE21CS093	Sona Udayakumar		
	NCE21CS071	Ramshad A		
8	NCE21CS069	P S Swathi	Ms. Prarvathy	FLARE: A CALL FOR HELP
	NCE21CS105	T Sreelakshmi		
	NCE21CS098	Sradha K J		
	NCE21CS104	Theertha Krishna P V		
9	NCE21CS072	Rashida C K	Ms.Leya	ENHANCING MENTAL HEALTH : WEBSITE
	NCE21CS085	Shreya D Nair		
	NCE21CS089	Sithara Parvin		
	NCE21CS106	V Bhavana		
10	NCE21CS073	Reshma S	Ms.Minu	HEALTH CONNECT
	NCE21CS077	S Amritha		
	NCE21CS094	Sonitha P G		
	NCE21CS103	Swaroop Kumar S		
11	NCE21CS080	Sarath Krishna S	Ms.Swathy	TRANSLATE AND NOTE KEEPING CHROME EXTENSION
	NCE21CS101	S Shaima		
	NCE21CS087	Sidharth MV		
	NCE21CS099	Sreehari M		
12	NCE21CS081	Shaheem K S	Mr. Rakesh	BLOCKCHAIN BASED SEIZED VEHICLE MANAGEMENT PORTAL
	NCE21CS083	Shijin S		
	NCE21CS096	Sooraj K Suresh		
	NCE21CS097	Sooraj Sankar		
13	NCE21CS082	Shaheen K P	Ms. Smila	SECURED EMR USING BLOCK CHAIN HEALTH PLIX EMR WEB APPLICATION
	NCE21CS091	Sneha S		
	NCE21CS102	Stalige Mohan M		
	LNCE21CS110	Arun P		
14	NCE21CS086	Sidharth Manoj	Ms. Sreeji	EMPLOYEE MANAGEMENT WEBSITE
	NCE21CS107	Vignesh U		
	NCE21CS109	Vyshnav Soman		

PROJECT CO-ORDINATOR

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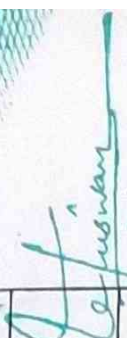
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S6 CSE A PROJECT GROUPS

GROUP NO	REG NO	GROUP MEMBERS	GUIDES	PROJECT TITLE
1	NCE21CS005	ABHINAV BABU	Ms. Soumya	CIPHER TALKS
	NCE21CS006	ABHINAV SHAJI		
	NCE21CS007	ABHISHEK K		
	NCE21CS021	ANIRUDH BABU		
	NCE21CS046	LAVANYA S		
2	NCE21CS038	HARIPRIYA A	Ms. Leya	ONLINE BLOOD DONATION MANAGEMENT SYSTEM
	NCE21CS047	LIKITHA B		
	NCE21CS045	KAVYA B S		
	NCE21CS049	MEGHA K S		
	NCE21CS040	HELNA JAYAN		
3	NCE21CS042	JANEESHA K A	Ms. Silja Varghese	AUTOMATIC VEHICLE PASS MANAGEMENT USING LPR
	NCE21CS008	ABHISHEK R		
	NCE21CS023	ANUNANDHA K		
	NCE21CS019	ANAGHA KESAV		
	NCE21CS002	ABHIJITH R		
4	NCE21CS025	ARJUN P R	Mr. Rakesh	SPEECH TO TEXT TRANSCRIPTION
	NCE21CS016	AKSHAY G		
	NCE21CS003	ABHIJITH S		
	NCE21CS028	ARYA U		
	NCE21CS011	ADITHYA S		
5	NCE21CS012	AISWARYA A P	Ms. Betsy	HOSPITAL MANAGEMENT SYSTEM
	NCE21CS014	AKASH ASHOK		
	NCE21CS015	AKASH K		
	NCE21CS020	ANANTHU A		
	NCE21CS022	ANSAL C A		
6	NCE21CS034	FABIAN BIJU	Ms. Smita	QR CODE BASED SHOPPING SYSTEM
	NCE21CS044	J SRI VISHNU		
	NCE21CS043	JITHU MANIKANDAKUMAR		
	NCE21CS048	MATHEW JOSHUA		
	NCE21CS013	AKASH ANILKUMAR M		
7	NCE21CS017	AKSHAY MUTTIYACHERRY	Ms. Sreeji	CURRENCY DETECTION SYSTEM FOR THE VISUALLY IMPAIRED
	NCE21CS024	ANURAG P P		
	NCE21CS010	ADITHYAN R		
	NCE21CS043	JITHU MANIKANDAKUMAR		
	NCE21CS048	MATHEW JOSHUA		
8	NCE21CS013	AKASH ANILKUMAR M	Mr. Rakesh	VOTING SYSTEM
	NCE21CS017	AKSHAY MUTTIYACHERRY		
	NCE21CS024	ANURAG P P		
	NCE21CS010	ADITHYAN R		
	NCE21CS043	JITHU MANIKANDAKUMAR		
9	NCE21CS048	MATHEW JOSHUA	Mr. Vipin K.M	CANTEN MANAGEMENT SYSTEM
	NCE21CS013	AKASH ANILKUMAR M		
	NCE21CS017	AKSHAY MUTTIYACHERRY		
	NCE21CS024	ANURAG P P		
	NCE21CS010	ADITHYAN R		


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10	NCE21CS033	DAZZAL DAVID C D	Ms.Praveena	EVENT MANAGEMENT SYSTEM
	NCE21CS053	MOHAMMED BILAL JASIM M		
	NCE21CS030	ATHUL RAJ A R		
	NCE21CS054	MUHAMMED NAIF E P		
11	NCE21CS050	MEHAROOBA K	Mr.Shaji	RECIPE RECOMMENDATION SYSTEM
	NCE21CS051	MELSY M J		
	NCE21CS055	MUHAMMED YAZEEN K A		
	NCE21CS039	HARITHA M		
12	NCE21CS036	FATHIMA ROSNA T A	Ms.Parvathy	TRAVEL SCRAPBOOK
	NCE21CS035	FATHIMA HANNATH		
	NCE21CS052	MOHAMMED HASHID M		
	NCE21CS029	ASHFAQ A A		
13	NCE21CS031	BIMAL P SHAJI	Ms.Swathy	STUDENT CHATBOT SYSTEM
	NCE21CS056	NAJIYA SHEREEN		
	NCE21CS037	HABEEB RAHMAN		
	NCE21CS041	HIBA SHERIN M H		
14	NCE21CS001	ABDUL HARIS H	Ms.Minu	QR BASED AUTOMATED RESTAURANT ORDERING SYSTEM
	NCE21CS004	ABHILASH U P		
	NCE21CS009	ADHARSH P K		
	NCE21CS026	ARUN R		

PROJECT COORDINATOR

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International Journal of Scientific Research in Engineering & Management is hereby awarding this certificate to

Abhinav Babu

in recognition to the publication of paper titled

CipherShare: CUSTOM KEY ENCRYPTION/DECRYPTION AND MESSAGING SYSTEM

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221TCS007	FOUNDATIONS OF CRYPTOGRAPHY	CATEGORY	L	T	P	CREDIT
		Program Core I	3	0	0	3

Preamble:

The focus of this course will be on definitions and constructions of various cryptographic objects using the concepts of Integer & Modular Arithmetic, Primes & Congruence's, Discrete Logarithms & Elliptic Curve Arithmetic and Graph Theory.

Course Outcomes:

After the completion of the course the student will be able to

CO 1	Use the operations and properties of algebraic structures, integer arithmetic, modular arithmetic and polynomial arithmetic in solving problems (Cognitive Knowledge Level: Apply)
CO 2	Develop problem analysing and solving capabilities by learning the operations of Prime numbers, Primitive Roots and related theorems. (Cognitive Knowledge Level: Apply)
CO 3	Examine the concept of Linear congruence and Discrete logarithms. (Cognitive Knowledge Level: Analyze)
CO 4	Examine and assess the key ideas of Elliptic curve arithmetic. (Cognitive Knowledge Level: Evaluate)
CO 5	Develop problem analysing and solving capabilities in Graph theory concepts. (Cognitive Knowledge Level: Analyze)

Program Outcomes (PO)

Outcomes are the attributes that are to be demonstrated by a graduate after completing the course.

PO1: An ability to independently carry out research/investigation and development work in engineering and allied streams

PO2: An ability to communicate effectively, write and present technical reports on complex engineering activities by interacting with the engineering fraternity and with society at large.

PO3: An ability to demonstrate a degree of mastery over the area as per the specialization of the program. The mastery should be at a level higher than the requirements in the appropriate bachelor program

PO4: An ability to apply stream knowledge to design or develop solutions for real world problems by following the standards

PO5: An ability to identify, select and apply appropriate techniques, resources and tools to model, analyse and solve practical engineering problems.

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SYLLABUS

PO6: An ability to engage in life-long learning for the design and development related to the stream related problems taking into consideration sustainability, societal, ethical and environmental aspects

PO7: An ability to develop cognitive load management skills related to project management and finance which focus on Entrepreneurship and Industry relevance.

Mapping of course outcomes with program outcomes:

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7
CO 1	☑		☑	☑	☑		
CO 2	☑		☑	☑	☑		
CO 3	☑		☑	☑	☑	☑	
CO 4	☑		☑	☑	☑	☑	
CO 5	☑		☑	☑	☑	☑	

Assessment Pattern:

Bloom's Category	End Semester Examination
Apply	40%
Analyse	25%
Evaluate	15%
Create	

Mark distribution:

Total Marks	CIE	ESE	ESE Duration
100	40	60	2.5 hours

Continuous Internal Evaluation Pattern: 40 marks

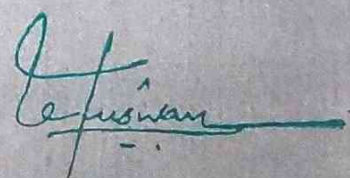
MicroProject/Course based project - 20 marks

Seminar/quiz - 10 mark

Internal Exam - 10 mark

End Semester Examination Pattern:

There will be two parts: Part A and Part B. Part A contain 5 questions with 1 question from each module, having 4 marks for each question. Students should answer all questions. Part B contains 2 questions from each module of which a student should answer any one. Each question can have maximum 2 sub-divisions and carries 8 marks.



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DATA ENCRYPTION AND DECRYPTION USING AES ALGORITHM IN JAVA

MICRO PROJECT REPORT

Submitted by

ASWANI P (NCE23CSCC02)

the APJ Abdul Kalam Technological University
in partial fulfillment of the requirements for the award of the Degree

of

Masters of Technology

In

Cyber Security



DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE

PAMPADY, THIRUVILWAMALA, THRISSUR - 680 588

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NOVEMBER 2023

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ACCREDITED)

PAMPADY, THIRUVILWAMALA, THRISSUR



CERTIFICATE

This is to certify that the report entitled, DATA ENCRYPTION AND DECRYPTION USING AES ALGORITHM IN JAVA submitted by, Aswani P to the APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Masters of Technology in Cyber Security is a bonafide record of the micro project report carried out under my guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

Internal Supervisor

Project Coordinator

External Supervisor

Head of Department

Head of the Department

Computer Science and Engineering
NCERC, Thiruvilwamala- 680582

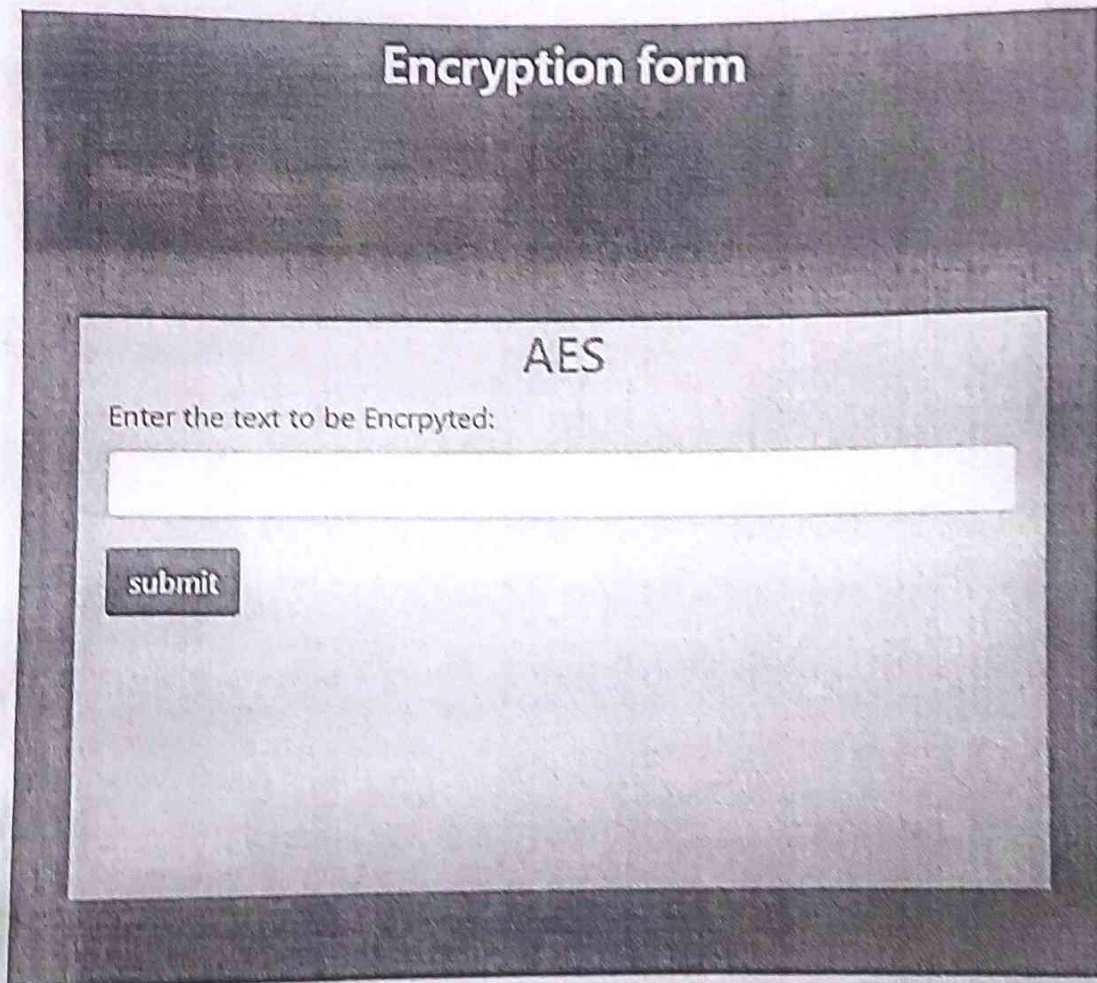
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CHAPTER 5

OUTPUT

5.1 Display of Encryption Form



Encryption form

AES

Enter the text to be Encrypted:

submit

Figure 5.1: Encryption Form


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CHAPTER 4

PROJECT IMPLEMENTATION

SOURCE CODE

4.0.1 AES.java

```
package com.uniqued.encryption;

import java.io.IOException;
import java.io.PrintWriter;
import java.nio.charset.StandardCharsets;
import java.security.spec.KeySpec;
import java.util.Base64;
import javax.crypto.Cipher;
import javax.crypto.SecretKey;
import javax.crypto.SecretKeyFactory;
import javax.crypto.spec.IvParameterSpec;
import javax.crypto.spec.PBEKeySpec;
import javax.crypto.spec.SecretKeySpec;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
/**
 * Servlet implementation class AES
 */
@WebServlet("/AES")
public class AES extends HttpServlet {
    private static final long serialVersionUID = 1L;
    private static final String SECRET_KEY
        = "my_super_secret_key_ho_ho_ho";
    private static final String SALT = "ssshhhhhhhhhhhllll";
    protected void doPost
        (HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException {
        // TODO Auto-generated method stub
        String originalString = request.getParameter("password");
        PrintWriter out=response.getWriter();
        // Create String variables
```

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
Internship & Industry Interactions Details

Academic Year 2023-2024



No	REG No	NAME	INTERNSHIP TOPIC	COMPANY	MONTH AND YEAR	DURATION
1	NCE22CS072	K M GOPIKA	PYTHON WITH FULL STACK DEVELOPMENT	TECHMAGHI	June 2024	7 days
2	NCE22CS081	NANDANA A K	PYTHON WITH FULL STACK DEVELOPMENT	TECHMAGHI	June 2024	7 days
3	NCE22CS037	ARCHANA M	PYTHON WITH FULL STACK DEVELOPMENT	TECHMAGHI	June 2024	7 days
4	NCE22CS041	ARYA ANIL KUMAR	PYTHON WITH FULL STACK DEVELOPMENT	TECHMAGHI	June 2024	7 days
5	NCE22CS042	ARYA KRISHNA E	PYTHON WITH FULL STACK DEVELOPMENT	TECHMAGHI	June 2024	7 days
6	NCE22CS054	DRISHYA R	PYTHON WITH FULL STACK DEVELOPMENT	TECHMAGHI	June 2024	7 days
7	NCE22CS030	ANIRUDH S	ADVANCED PROGRAMMING IN PYTHON	GENZEE TECHNOLOGY	June 2024	5 days



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 Thiruvilwamala, Thrissur - 680588

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K M GOPIKA

of

NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE

has successfully completed a 7 day internship in **Python Full Stack Development** from 23rd June 2024 to 29th June 2024. During this period, she was exposed to the industry-relevant programming language Python and the framework Flask, participated in the development of a project titled "Blog Web Application," and actively engaged in hands-on exercises.

29-06-2024

Date



Deepak Rajan
Founder & CEO
Techmaghi

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Research Centre (Autonomous)
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Thiruvithirapala, Thrissur - 686011

PF241126

CERTIFICATE



This is to certify that

NANDANA A K

of

**NEHRU COLLEGE OF ENGINEERING AND RESEARCH
CENTRE**

has successfully completed a 7 day internship in **Python Full Stack Development** from 23rd June 2024 to 29th June 2024. During this period, she was exposed to the industry-relevant programming language Python and the framework Flask, participated in the development of a project titled "Blog Web Application," and actively engaged in hands-on exercises.

29-06-2024

Date



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Founder & CEO
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Thiruvilwamala, Thrissur - 680406

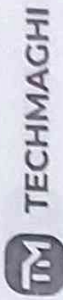


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PF241125



CERTIFICATE

This is to certify that

ARCHANA.M

of

**NEHRU COLLEGE OF ENGINEERING AND RESEARCH
CENTRE**

has successfully completed a 7 day internship in Python Full Stack Development from 23rd June 2024 to 29th June 2024. During this period, she was exposed to the industry-relevant programming language Python and the framework Flask, participated in the development of a project titled "Blog Web Application," and actively engaged in hands-on exercises.

29-06-2024

Date



Deepak Rajan

Deepak Rajan
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Thiruvithirappalli, Thiruvananthapuram - 695014

PF241120

CERTIFICATE



This is to certify that

DRISHYA. R

of

**NEHRU COLLEGE OF ENGINEERING AND RESEARCH
CENTRE**

has successfully completed a 7 day internship in Python Full Stack Development from 23rd June 2024 to 29th June 2024. During this period, she was exposed to the industry-relevant programming language Python and the framework Flask, participated in the development of a project titled "Blog Web Application," and actively engaged in hands-on exercises.

29-06-2024

Date



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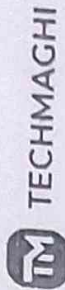


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PF2411124

CERTIFICATE



This is to certify that

ANGEL G

of

**NEHRU COLLEGE OF ENGINEERING AND RESEARCH
CENTRE**

has successfully completed a 7 day internship in Python Full Stack Development from 23rd June 2024 to 29th June 2024. During this period, she was exposed to the industry-relevant programming language Python and the framework Flask, participated in the development of a project titled "Blog Web Application," and actively engaged in hands-on exercises.

29-06-2024

Date



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Email: principal@ncerc.ac.in

NCERC/INDUSTRIAL VISIT/03/2024

27.02.2024

TO

The RDTE Office

Kothamangalam

PERMISSION FOR INDUSTRIAL VISIT- BTECH STUDENTS

Dear Sir/Madam,

Nehru college of Engineering and Research Centre (NCERC) is one of the top ranking Engineering Institution in Kerala. It is an ISO certified institution. NCERC is approved by NAAC with 'A' grade and affiliated to APJ Abdul Kalam Kerala Technological University.

This is to certify that 99 students of VI Semester B.Tech Computer Science & Engineering (2021-2025 Batch) along with four faculty members of this institution are hereby permitted to proceed for an Industrial Visit to the following companies from 04/03/2024 to 10/03/2024;

a. SP Robotics.

b. Emdata Networks Pvt Ltd.

Kindly accord sanction for the same.

Thanking you,



[Signature]

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Research Centre (Autonomous)
Nila Gardens Pampady
Thiruvilwamala, Thrissur - 680588
Yours Faithfully

[Signature]

Principal
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Tel / Fax : +91 4884 - 282070, 284000. E-mail : office@ncerc.ac.in, admissions@ncerc.ac.in, web : www.ncerc.ac.in

REQUEST FOR INDUSTRIAL VISIT

1. Branch and Semester : Computer Science and Engineering/5th semester
2. Nature of Tour : Industrial Visit/Environmental visit
3. Industry Planning to visit : SP Robotics, Emdata Networks Pvt Ltd
4. Proposed Days of tour visit : 04/03/2024 to 10/03/2024
5. Mode of Journey : Bus only
6. Total number of students in the class : 106
7. Total number of attending students : 99
 - a. Number of Boys : 51
 - b. Number of Girls : 48

8. Details of accompanying faculty member :

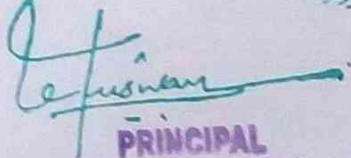
Sl No	Name	Designation	Department	Signature
1	Baby V	Assistant Professor	CSE	
2	Vipin KM	Assistant Professor	CSE	
3	Baisel Paul	Assistant Professor	MECH	
4	Parvathi P	Assistant Professor	CSE	

9. Total number of days : 5

- a. Number of Nights : 6
- b. Number of Days : 5

Signature of Tour Coordinators/Class Representatives:

1. Abdul Haris H 
2. Aiswarya RP 
3. Samanvay Ramdas 
4. Najmul Hudha P A 


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REMARKS

Group Tutors

Verified all the details of the students record and travel plan and they are Eligible/Not Eligible for the specified tour . (Specify the cause as per manual in case not eligible)

Recommended/Not Recommended

Name: BETSY JOY

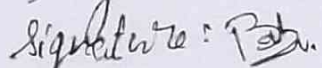
Designation: ASSISTANT PROFESSOR

Signature: 

Date: 27/2/2024

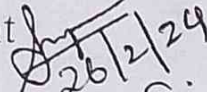
Name: Baby V

Designation: AP

Signature: 

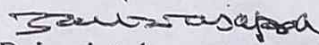
Date: 27/2/2024.

Recommended/Not Recommended

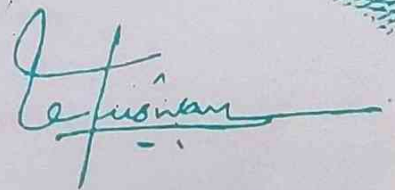
Head of the Department
(Signature with Date)  26/2/24

Sanction order of Principal

Permitted/~~Not Permitted~~


Principal  27/02/2024
(Signature with Date)
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Thiruvilwamala, Thrissur - 680588

Office Seal



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INDUSTRIAL VISIT-FIRST MINUTES OF THE MEETING

S5 Computer Science and Engineering

Date: 07/12/2023, Thursday

Time: 01:30 PM

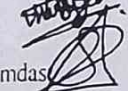
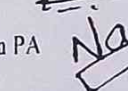
Venue: HOD CABIN CSE Dept

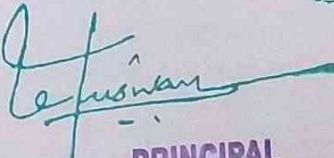
Agenda: Planning for study tour of 2021 admission BTech Computer Science and Engineering
With reference to circular (3/26800/2018/DTE) dated 20/07/2018, a committee was formed for planning a study tour of Computer Science and Engineering. The members of the committee are as follows.

STAFF MEMBERS

1. Ms. Silja Vargheese 
Head of Department, Department of Computer Science and Engineering
2. Mrs. Baby V (Class Advisor, S5 CSE A) 
Assistant Professor, Department Computer Science and Engineering
3. Mr. Vipin KM 
Senior Assistant Professor, Department of Computer Science and Engineering
4. Mrs. Betsy (Class Advisor, S5 CSE B) 
Assistant Professor, Department of Computer Science and Engineering
5. Ms. Smitha 
Assistant Professor, Department of Computer Science and Engineering
6. Ms. Sreeji 
Assistant Professor, Department of Computer Science and Engineering

STUDENT COORDINATORS:

1. Abdul Haris H 
2. Aiswarya AP 
3. Samanvay Ramdas 
4. Najmul Hudha PA 


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MINUTES OF THE MEETING

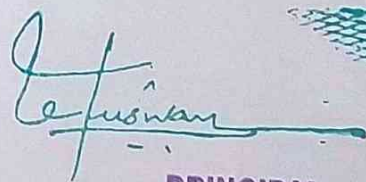
The meeting started at 01:30 PM

- HoD informed the students to plan the IV according to the KTU norms.
- Students are asked to strictly adhere to condition given in the circular regarding study tour issued by the DTE and Asked to the group tutors to verify the same.
- The destinations proposed were Bangalore , Chikmangalore , Coorg , Bellur and Udupi and dates for the start of the study tour was fixed tentatively for the last week of Feb 2024.
- 2 industries have to be included in the IV for which prior permission has to be got.
- The transactions of money has to be done only the approval from principal is got.

The meeting concluded at 02:00 PM


HOD, CSE




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STUDENTS LIST of CSE A

SL NO	NAME OF STUDENT	AGE	GENDER	MOBILE NO.
1	ABHILINA P	21	F	9081224367
2	ABHISHEK R	20	M	9947560385
3	ABHIJITH K S	20	M	9496038459
4	ABILASH N	21	M	7902253958
5	ADARSH P	20	M	9961725045
6	AKHILA K M	21	F	7012180226
7	ALBIN JOSEPH	20	M	8075435742
8	ALEENA SHIBU	21	F	7594073459
9	AMAL K C UNNI	20	M	7510768470
10	AMAL O P	23	M	7510311554
11	AMRUTHA P	22	F	7306469080
12	ANAMIKA P K	21	F	7306927986
13	ANAND K B	20	M	9847906955
14	ANASWARA C P	20	F	6238443454
15	ANJALI M A	20	F	7356333997
16	ANOOP ANIL KUMAR	21	M	7510535089
17	ANUPAVITHRA P B	20	F	6235633205
18	ARCHA ANAND	20	F	7994637653
19	ARCHANA C V	21	F	8848671226
20	ARCHA P S	21	F	8129513890
21	ARJUN M	21	M	8086481888
22	ARJUN RAJ K R	21	M	9645265798

[Signature]
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23	ARUN S	21	M	9282507033
24	ASWATHY SUBRAMANIAN	21	F	9778048244
25	ASWIN DAS M	21	M	9882105591
26	ASWIN T T	21	M	9207441099
27	BHAVYA R	21	F	7594004547
28	GEETHU K V	21	F	9072476139
29	GOKILA KRISHNAN	21	F	8806665730
30	GOKULAN G	21	M	9833806889
31	GOPIKA G KRISHNAN	20	F	9075804702
32	HARIKRISHNAN M	20	M	9521241326
33	HAROON AL SHAJI C	22	M	9207619827
34	IRFAN M V	21	M	9848802627
35	IRSHAD K V	21	M	8111915890
36	JAGATH V MADHAVAN	21	M	7034209276
37	JYOTHIKA V	21	F	8262404117
38	KAVYA K B	20	F	9037179336



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STUDENTS LIST of CSE-B

SL NO.	NAME OF THE STUDENT	AGE	MOBILE NO.	GENDER
1	LAKSHMI SANTHOSH	21	9400576645	F
2	LEKHA K S	21	7594859533	F
3	MANJU SURENDRAN	21	6238540447	F
4	M ARJUN MURALI	20	8139824866	M
5	M A SWATHI KRISHNA	20	7593968850	F
6	MIDHUN M	21	8289906440	M
7	MOHAMED ANAS A K	21	9633989922	M
8	MOHAMMED SALIH S A	20	7736259100	M
9	M PREETHIKA	20	9488533650	F
10	MUHAMMED FAADHIL K	21	8129531917	M
11	NIGHIL KRISHNA P	20	7994542636	M
12	NIKHIL P GOPINATH	20	8943864590	M
13	NIMA P M	20	6238300294	F
14	NIYYA IGNATIUS	21	8138887652	F
15	PRAJITH PRASAD A	21	9656129363	M
16	P SYAMALA KRISHNA PRIYA	21	8590007598	F
17	P T ERICKMON	21	9567131601	M
18	RAHUL RAMKUMAR	21	8943103265	M

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DEPARTMENT OF MECHATRONICS ENGINEERING

MINUTES OF PROJECT EVALUATION COMMITTEE MEETING
Academic Year : 2023-24

Year / Sem : IV/VIII

Batch : 2020-24

Course Code :MRD 416

Course Name : Project Phase II

AGENDA

1. Project Norms as per KTU
2. Interim Project Evaluation
3. Project Diary
4. Completion of Project Hardware
5. Paper Presentation in Conference
6. Paper Publication in Journal
7. Project Report
8. Final Project Evaluation

Venue: Hall No: 416

Date: January 30, 2024

Time : 02:00 – 03:00 pm

Members Present

1. Dr. D. VIJAYAKUMAR HOD DEPT. MTR
2. Mr. VINOD R ASST. PROFESSOR DEPT. MTR
3. Ms. NEETHU M ASST. PROFESSOR DEPT. MTR
4. Mr. MIDHUNRAJ P K ASST. PROFESSOR DEPT. MTR
5. Mr. RANJITH P N ASST. PROFESSOR DEPT. MTR
6. Mr. REJUMON R ASST. PROFESSOR DEPT. MTR
7. Ms. MANJUSHA P ASST. PROFESSOR DEPT. MTR
8. Mr. ANSHAD V ASST. PROFESSOR DEPT. MTR




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S.No	Subject	Action by	Target date
1	Project activity calendar	Project Coordinators	13/02/2024
2	Norms for evaluation	As per KTU	-
3	First Review – Interim Evaluation Hardware completion , draft of conference paper	Project Evaluation Committee and students	29/2/2024
4	Second Review – Interim Evaluation , Hardware completion ,conference paper publication , project competition, Project Report	Project Evaluation Committee and students	11/4/2024
5	Submission of Binded Hardcopy project report, Submission of paper publication details , project competition details	Project Evaluation Committee and students	2/5/2024

Project Coordinator

HoD

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DEPARTMENT OF MECHATRONICS ENGINEERING

PROJECT ACTIVITY CALENDAR

Course Code :MRD 416

Course Name : Project Phase II

S.No	Activity	Target Date
1	First Review – Interim Evaluation Hardware completion , draft of conference paper	29/02/2024
2	Second Review – Interim Evaluation , Hardware completion ,conference paper publication , project competition, Project Report	11/04/2024
3	Submission of Binded Hardcopy project report, Submission of paper publication details , project competition details	2/5/2024
4	Project Diary Submission	30/04/2024

PROJECT COORDINATORS

HOD



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DEPARTMENT OF MECHATRONICS ENGINEERING

PROJECT DETAILS

Course Code :MRD 416

Course Name : Project Phase II

GROU P	REG. NO	NAME	PROJECT NAME	GUIDE
GROUP 1	NCE20MC006	ATHUL KRISHNA P	BRAIN TUMOR CLASSIFICATION USING AI TECHNIQUES	Ms. NEETHU M
	NCE20MC003	AKSHAY K		
	NCE20MC007	BASIL GEORGE		
	NCE20MC009	DEEPAK K K		
GROUP 2	NCE20MC001	ABHISHEK A	EB CHALLENGER: MITIGATION FIRE RISK IN EV'S	Dr. D. VIJAYAKUMAR
	NCE20MC002	AJITH SHAIJAN		
	NCE20MC027	SRIDHUL SATHEESH		
	NCE20MC029	TINTO TOMY		
GROUP 3	NCE20MC013	KAILASNATH N P	EARLY AUTISM DETECTION SYSTEM FOR CHILDRENS	Mr. REJUMON R
	NCE20MC015	MAJID BIN SULAIMAN		
	NCE20MC024	SIDHARTH PRAKASH		
	NCE20MC028	SYED MEERAN SYED KAZMI		
GROUP 4	NCE20MC005	AMALDEV P M	AUTO PERSON TRACKING CART	Ms. MANJUSHA P
	NCE20MC008	BOAZ K		

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		MICHAEL		
	NCE20MC011	HARSH T KRISHNA		
	NCE20MC012	JOYAL SANTHOSH		
GROUP 5	NCE20MC018	MOHAMMED YASIN	RUBBLE SNAKE RESCUE ROBOT	Mr. ANSHAD V
GROUP 6	NCE20MC004	ALOK K T	RIPE AND UNRIPE TOMATO SORTING USING IMAGE PROCESSING	Mr. VINOD R
	NCE20MC022	RAHUL KRISHNA U K SATHISH		
	NCE20MC025	SINTO SIMSON		
	NCE20MC026	SREERAG T S		
GROUP 7	NCE20MC014	K S ARJUN	HELMET RECOGNITION USING AI	Mr. RANJITH P N
	NCE20MC016	MELVIN N J		
	NCE20MC017	MOHAMMED SIBILIN N P		
GROUP 8	NCE20MC010	GOWTHAM S NAIR	HIGH ALTITUDE PSEUDO SATELLITE	MR MIDHUNRAJ P K
	NCE20MC019	M P ASHWIN		
	NCE20MC020	MUHAMMED DILSHAD P K		
	NCE20MC021	MUHSIN KASSIM		


PROJECT COORDINATORS




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DEPARTMENT OF MECHATRONICS ENGINEERING

SCHEDULE FOR PROJECT PHASE II: INTERIM EVALUATION -I

Course Code: MRD 416

Course Name: Project Phase II

GRO UP	REG. NO	NAME	PROJECT NAME	GUIDE	
GROUP 1	NCE20MC006	ATHUL KRISHNA P	BRAIN TUMOR CLASSIFICATION USING AI TECHNIQUES	Ms. NEETHU M	29/02/24 9:30-10:00
	NCE20MC003	AKSHAY K			
	NCE20MC007	BASIL GEORGE			
	NCE20MC009	DEEPAK K K			
GROUP 2	NCE20MC001	ABHISHEK A	EB CHALLENGER: MITIGATION FIRE RISK IN EV'S	Dr. D. VIJAYAKUMAR	29/02/24 10-10:40
	NCE20MC002	AJITH SHAIJAN			
	NCE20MC027	SRIDHUL SATHEESH			
	NCE20MC029	TINTO TOMY			
GROUP 3	NCE20MC013	KAILASNATH N P	EARLY AUTISM DETECTION SYSTEM FOR CHILDRENS	Mr. REJUMON R	29/02/24 10:40-11:10
	NCE20MC015	MAJID BIN SULAIMAN			
	NCE20MC024	SIDHARTH PRAKASH			
	NCE20MC028	SYED MEERAN SYED KAZMI			
GROUP 4	NCE20MC005	AMALDEV P M	AUTO PERSON TRACKING CART	Ms. MANJUSHA P	29/02/24 11:10-11:40
	NCE20MC008	BOAZ K MICHAEL			
	NCE20MC011	HARSH T KRISHNA			
	NCE20MC012	JOYAL SANTHOSH			



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[Signature]



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Technological University



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An ISO 9001:2015 certified Institution

Email : principal.ncerc.ac.in

GROUP 5	NCE20MC018	MOHAMMED YASIN	RUBBLE SNAKE RESCUE ROBOT	Mr. ANSHAD V	29/02/24 11:40-12:10
	NCE20MC004	ALOK K T			
GROUP 6	NCE20MC022	RAHUL KRISHNA U K SATHISH	RIPE AND UNRIPE TOMATO SORTING USING IMAGE PROCESSING	Mr. VINOD R	29/02/24 1:00-1:30
	NCE20MC025	SINTO SIMSON			
	NCE20MC026	SREERAG T S			
	NCE20MC014	K S ARJUN			
GROUP 7	NCE20MC016	MELVIN N J	HELMET RECOGNITION USING AI	Mr. RANJITH P N	29/02/24 1:30-2:00
	NCE20MC017	MOHAMMED SIBILIN N P			
	NCE20MC010	GOWTHAM S NAIR			
GROUP 8	NCE20MC019	M P ASHWIN	HIGH ALTITUDE PSEUDO SATELLITE	MR MIDHUNRAJ P K	29/02/24 2:30-3:00
	NCE20MC020	MUHAMMED DILSHAD P K			
	NCE20MC021	MUHSIN KASSIM			

PROJECT COORDINATORS



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HOD

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Thiruvilwamala, Thiruvananthapuram - 686588



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MED415 Project Phase 1 Data



Sl No	Register Number	Name of Student	Project Title	Project Guide	Topic - PO/PSO Mapping															
					PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	
1	NCE20ME001	ADHITHYAN M A	Power Generation System from Gym Using Lat Pull Down Machine	Mr. Baisel Paul	2	2	2	2	1	1	2	2	2	1	2	1	2	2	1	
2	NCE20ME002	AKASH MENON P																		
3	NCE20ME004	ARJUN P V																		
4	NCE20ME006	P S ARJUN NARAYAN	Fabrication and Analysis Of Recycled Plastic Composite Brick	Mr. Rahul R	2	2	2	2	1	1	2	2	2	2	2	1	2	1	1	
5	NCE20ME007	SRUTHIN C																		
6	NCE20ME008	S SAIKIRAN																		
7	NCE20ME010	YADHUKRISHNA K U	Performance Analysis on Various Coolants to Improve Motor Performance of EVs Using CFD	Mr. Vimal M N	2	2	1	2	1	1	2	2	2	1	2	1	2	2	1	
8	NCE20ME011	YASWANTH K																		
9	NCE20ME012	YOUNUS AY																		
10	LNCE20ME013	AJITH KANNA K																		

Project Coordinator

HOD

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Thiruvilwamala, Thrissur - 680509



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
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Schedule for Semester VIII B.Tech Degree Project Phase 2 Interim Review 1

Branch: Mechanical Engineering

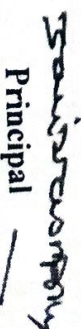


Since 1968

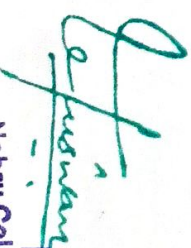
Subject	Date	Time	Register Number & Group
MED416 Project Phase 2	15/04/2024	01:00 – 01:40 PM	NCE20ME001, NCE20ME002, NCE20ME004 Group 1
		01:50 – 02:30 PM	NCE20ME006, NCE20ME007, NCE20ME008, NCE20ME010 Group 2
		02:40 – 03:20 PM	NCE20ME011, NCE20ME012, LNCE20ME013 Group 3


Project Coordinator


HOD


Principal




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Nila Gardens, Pampady
Thiruvilwamala, Thrissur - 680588



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE

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MED416 Project Phase II Interim Evaluation 1 Mark Sheet



Sl No	Register Number	Name of Student	Project Title	Novelty of idea, Implementation, Scope (Group Evaluation) CO5	Effectiveness of task distribution among team members (Group Evaluation) CO3	Adherence to project schedule (Group Evaluation) CO4	Interim Results (Group Evaluation) CO6	Presentation (Individual Evaluation)	Total
				5 Marks	5 Marks	5 Marks	5 Marks	5 Marks	
1	NCE20ME001	ADHITHYAN M A	Power generation system from gym using lat pull down machine	2	2	2	1	3	10
2	NCE20ME002	AKASH MENON P		2	2	2	1	2	9
3	NCE20ME004	ARJUN P V		2	2	2	1	2	9
4	NCE20ME006	P S ARJUN NARAYAN	Fabrication & Analysis of recycled plastic composite brick	3	3	2	3	1	12
5	NCE20ME007	SRUTHIN C		3	3	2	3	2	13
6	NCE20ME008	S SAIKIRAN		3	3	2	3	3	14
7	NCE20ME010	YADHUKRISHNA K U	Performance Analysis on various coolants to improve motor performance of Evs using CFD	3	3	2	3	3	14
8	NCE20ME011	YASWANTH K		2	2	2	1	3	10
9	NCE20ME012	YOUNUS AY		2	2	2	1	3	10
10	LNCE20ME013	AJITH KANNA K		2	2	2	1	2	9

Committee Member

Project Coordinator

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Thiruvilwamala, Thrissur - 680588



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(Autonomous)

Schedule for Semester VIII B.Tech Degree Project Phase 2 Interim Review 2

Branch: Mechanical Engineering



Subject	Date	Time	Register Number & Group
MED416 Project Phase 2	30/04/2024	01:00 – 01:40 PM	NCE20ME001, NCE20ME002, NCE20ME004 Group 1
		01:50 – 02:30 PM	NCE20ME006, NCE20ME007, NCE20ME008, NCE20ME010 Group 2
		02:40 – 03:20 PM	NCE20ME011, NCE20ME012, LNCE20ME013 Group 3

Project Coordinator

HOD

Principal

Nehru College of Engineering and
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Nila Gardens, Pampady
Thiruvilwamala, Thrissur - 680588

Principal



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MED416 Project Phase II Interim Evaluation 2 Mark Sheet



Sl No	Register Number	Name of Student	Project Title	Application of Engineering Knowledge (Individual Assessment) CO1	Involvement of Individual members (Individual Assessment) CO3	Results & Inferences upon execution (Group Assessment) CO5	Documentation & Presentation (Individual Assessment) CO6	Total
				10 Marks	5 Marks	5 Marks	5 Marks	
1	NCE20ME001	ADHITHYAN M A	Power generation system from gym using lat pull down machine	4	2	2	3	11
2	NCE20ME002	AKASH MENON P		4	2	2	2	10
3	NCE20ME004	ARJUN P V		4	2	2	2	10
4	NCE20ME006	P S ARJUN NARAYAN	Fabrication & Analysis of recycled plastic composite brick	5	3	3	1	12
5	NCE20ME007	SRUTHIN C		5	3	3	2	13
6	NCE20ME008	S SAIKIRAN		5	3	3	3	14
7	NCE20ME010	YADHUKRISHNA K U	Performance Analysis on various coolants to improve motor performance of Evs using CFD	5	3	3	3	14
8	NCE20ME011	YASWANTH K		5	2	3	3	13
9	NCE20ME012	YOUNUS AY		5	2	3	3	13
10	NCE20ME013	AJITH KANNA K		5	2	3	2	12

Committee Member

Project Coordinator

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Nila Gardens, Pampady
Thiruvilwamala, Thrissur - 688566

HOD



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE

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Schedule for Semester VIII B.Tech Degree Project Phase 2 Final Review

Branch: Mechanical Engineering

Batch: 2020-2024



Since 1966

Subject	Evaluation Committee	Date	Time	Register Number & Group
MED416 Project Phase 2	<u>External Expert</u> Mr. Sabarish C S Assistant Professor (Ad Hoc) ME Department GEC, Thrissur	13/05/2024 (Monday)	09:30 – 11:00 AM	NCE20ME001 NCE20ME002 NCE20ME004 Group 1
	<u>Faculty from Sister Department</u> Mr. Sundaramoorthi Associate Professor EEE Department, NCERC		11:00 – 12:30 PM	NCE20ME006 NCE20ME007 NCE20ME008 NCE20ME010 Group 2
	<u>Project Coordinator</u> Lt. Sanoj T Assistant Professor ME Department, NCERC		01:00 – 02:30 PM	NCE20ME011 NCE20ME012 LNCE20ME013 Group 3

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MED416 Project Phase II Final Evaluation Sheet



Sl No	Register Number	Name of Student	Project Title	Engineering Knowledge (Group Assessment) [CO1]	Relevance of the project w.r.t. societal &/or industrial needs (Group Assessment) [CO2]	Innovation / Novelty / Creativity (Group Assessment) [CO5]	Quality of results / conclusions / solutions (Group Assessment) [CO1]	Presentation Part 1: Preparation of slides (Group Assessment) [CO6]	Presentation Part 2: Individual communication (Individual Assessment) [CO6]	Total	Report
				10 Marks	5 Marks	5 Marks	10 Marks	5 Marks	5 Marks		
1	NCE20ME001	ADHITHYAN M A	Power generation system from gym using lat pull down machine	5	2	3	4	1	3	18	22
2	NCE20ME002	AKASH MENON P		5	2	3	4	1	2	17	22
3	NCE20ME004	ARJUN P V		5	2	3	4	1	2	17	22
4	NCE20ME006	P S ARJUN NARAYAN	Fabrication & Analysis of recycled plastic composite brick	7	3	4	6	2	1	23	26
5	NCE20ME007	SRUTHIN C		7	3	4	6	2	2	24	26
6	NCE20ME008	S SAIKIRAN		7	3	4	6	2	3	25	26
7	NCE20ME010	YADHUKRISHNA K U	Performance Analysis on various coolants to improve motor performance of Evs using CFD	7	3	4	6	2	3	25	26
8	NCE20ME011	YASWANTH K		5	2	2	4	3	3	19	24
9	NCE20ME012	YOUNUS AY		5	2	2	4	3	2	18	24
10	LNCE20ME013	AJITH KANNA K		5	2	2	4	3	1	17	24

Committee Member

Project Coordinator

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Thiruvilwamala, Thrissur - 686509



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Student Details : Long Term Internship - B.Tech ME (2023-2027) Academic Year 2023-24

Sl No	Name of the college	Student Name	Department	Registration No.	Internship Company	Location	Internship duration	Joining date
1	Nehru College of Engineering and Research Centre	Ms. Joylin John	ME	NCE23ME011	Sharon Extrusions	Palakkad, Kerala	1 week	01-07-2024



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INDUSTRIAL VISIT REPORT

Submitted by

COMPUTER SCIENCE & ENGINEERING

2021-2025

in partial fulfillment for the award of the degree of

BACHELOR OF TECHNOLOGY

in



COMPUTER SCIENCE AND ENGINEERING

**NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE,
PAMPADY(AUTONOMOUS)**

(Approved by AICTE, ISO 9001:2008 Certified, Accredited by NAAC)

MARCH 2024

Principal
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Thiruvithamala, Thrissur - 680688



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APPROVED BY AICTE | AFFILIATED TO APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY



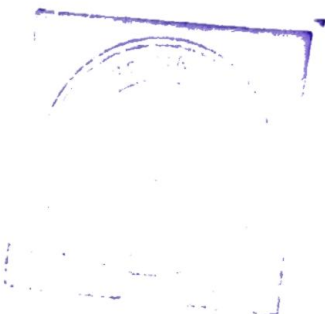
CERTIFICATE

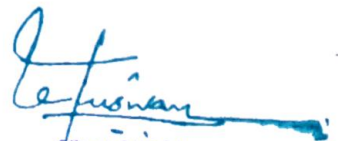
This is to certify that ninety-nine students from the Computer Science Engineering department attended a five-day industrial visit starting on March 4, 2024. The visit was supervised by Ms. Baby V (Assistant Professor, CSE), Mr. Vipin Km (Assistant Professor, CSE), Ms. Parvathi P (Assistant Professor, CSE), Mr. Baisel Paul (Assistant Professor, MECH), and Ms. Sreeji S (Assistant Professor, CSE). The students visited SP Robotics and EMDData Networks in Bangalore, and explored various locations including Udupi, Gokarna, Dandeli, and Chikkamagaluru.

IV Coordinator

Staff Advisor

Head of Department




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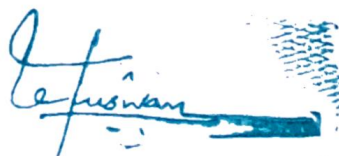
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Thiruvilwamala, Thrissur - 680588

IV REPORT

The Industrial Visit was scheduled on 4th March 2024 to 10th March 2024 with the industries EMDATA, 21, 1st B Cross Rd, BHBCS Layout, Bengaluru, Karnataka and SP ROBOTICS, Maker Lab- HSR Layout. There were a total of 96 students for the IV and was accompanied by Ms. Baby V(Assistant professor, CSE), Mr. Vipin Km(Assistant professor , CSE), Ms. Parvathi P(Assistant professor, CSE), Mr. Baisel Paul(Assistant professor, MECH), Ms. Sreeji S(Assistant professor, CSE).

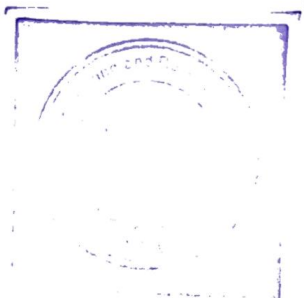
Meeting held as a part of IV

We conducted a general meeting with the students on 29th February 2024 at Aryabatta seminar hall between 3pm and 4pm to have a brief description about the IV. The meeting was held in the presence of all the students and teachers who were coming for the IV. The meeting was held for giving the general instructions and schedules about the industries and places. The teachers explained the rules and regulations we need to follow during the industrial visit. They informed us about the locations we will visit, the companies we will tour, the accommodations, the types of clothes we need to bring, and the medicines to carry in case of emergencies. All the locations seemed appealing, and we discussed the schedule for each destination.



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Day 1

We began our journey from our college on 4th March at 6 PM. The entire journey was by bus. After a 13 hour journey we reached Udupi at 7 AM. Following a quick refreshment and breakfast session, we eagerly made our way to the picturesque Malpe beach. From there, our exploration led us to the enchanting St. Mary's Island via a delightful boat ride. Post a satisfying lunch, our itinerary took us to Gokarna, followed by a serene visit to OM beach, culminating in our arrival at Kudde Beach by 7 PM. The nocturnal ambiance of the beach greeted us with a sense of tranquility, as the gentle breeze provided a refreshing respite. Immersed in the serene nighttime beach experience, we found immense delight in every moment. After a fulfilling dinner, we embraced the night, settling in for well-deserved rest.



St. Mary's Island

Leifun

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Malpe Beach

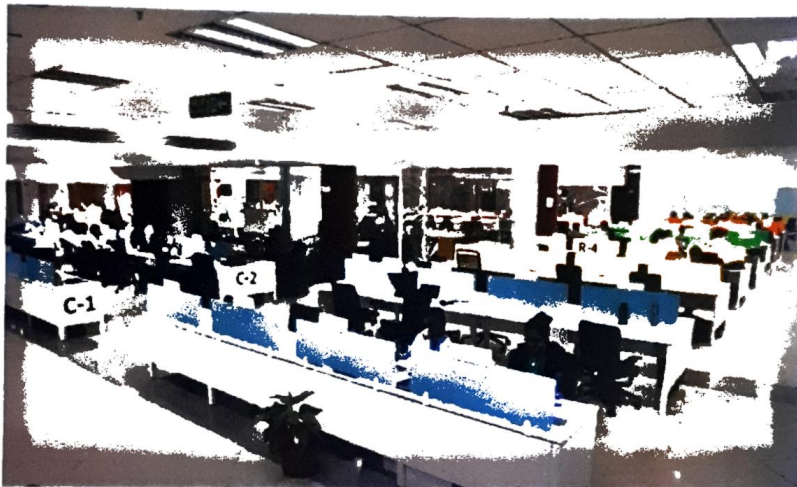


Malpe Beach Sculpture

Leifur

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Thiruvilwamala, Thrissur - 680588

to their expertise and effective communication, the session proved to be both interesting and comprehensible, providing us with valuable insights to familiarize with the world of networking.



EM DATA

By 7 PM, we had the opportunity to take a stroll along Commercial Street. After dinner at 8:30 PM, we departed from Bangalore. We arrived back at the college at 9:20 AM the next day.

The days of the Industrial Visit (IV) were among the most memorable experiences of our college life. We had the chance to explore numerous places and get valuable insights from various industries. We express our heartfelt gratitude to the college officials for granting us this enriching opportunity.

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**Nehru College of Engineering and
Research Centre (Autonomous)
Nile Gardens, Pampady
Thiruvilwamala, Thrissur - 680580**



SP ROBOTIC WORKS

SP ROBOTIC WORKS PVT. LTD.

4th Sector, II Floor, 451 17th Main 17th Cross HSR Layout BENGALURU Dist.

Bengaluru KA PIN: 560102.

Email: admin@sproboticworks.com; Web: sproboticworks.com

09/March/2024

To Whom It May Concern,

Subject: Industrial Visit Report - March 9th, 2024

We are pleased to report that a successful industrial visit took place at our facility located in Bangalore on March 9th, 2024. The visit was attended by Department of CSE. Total of 99 students and 5 staff members from **Nehru College of Engineering and Research Centre, Pampady, Thrissur**

During the industrial visit, participants had the opportunity to witness the remarkable world of automation and observe different robots in action at our facility. This experience provided valuable insights into the cutting-edge technologies that drive our operations.

The engagement and enthusiasm demonstrated by the visiting students and staff from Brennen college. were greatly appreciated by our team. We believe that such educational initiatives play a vital role in promoting industry knowledge and fostering partnerships between academic institutions and the corporate sector.

We remain committed to supporting educational endeavors and look forward to future opportunities for collaboration.

Thank you for choosing to visit our facility, and we hope the experience was both informative and inspiring.

For SP Robotic Works Pvt. Ltd.,

U. Sanjay Kumar

Authorized signatory -SP Robotic Works

Lejusian

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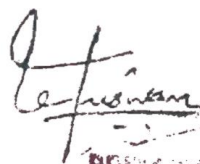
Date : 09/03/2024
Place : Bangalore

IV CERTIFICATE

This is to certify that 99 students (B.Tech CSE) and 5 faculties from IV Nehru College of Engineering and Research Center - Thrissur have visited Emdata Networks Pvt Ltd, Bangalore-560076 on 09/03/2024. They had a very good interactive session about Networking, Local Area Network (LAN), Wide Area Network (WAN), IP Telephony and Cloud Computing. We found the students had a great caliber and wishing them all the best for their career.

Manager

Abdu Rahman
Emdata Networks Pvt Ltd
Bangalore - 560076


Principal
Research
Nile College of Engineering
Thiruvilwakkal, Thrissur - 680606

College IV Nehru College of Engineering and Research Center Thrissur
Branch B Tech CSE

Students List:

Sl NO	Register Number	Name	Branch
1	NCE21CS001	Abdul Haris H	CSE
2	NCE21CS002	ABHIJITH R	CSE
3	NCE21CS003	Abhijith S	CSE
4	NCE21CS004	Abhilash UP	CSE
5	NCE21CS006	Abhinav Shaji	CSE
6	NCE21CS007	Abhishek K	CSE
7	NCE21CS008	ABHISHEK R	CSE
8	NCE21CS009	Adharsh PK	CSE
9	NCE21CS010	Adithyan.R	CSE
10	NCE21CS011	Adithya s	CSE
11	NCE21CS012	Aiswarya AP	CSE
12	NCE21CS013	Akash Anilkumar M	CSE
13	NCE21CS014	Akash ashok	CSE
14	NCE21CS015	Akash.K	CSE
15	NCE21CS016	Akshay. G	CSE
16	NCE21CS017	Akshay M	CSE
17	NCE21CS019	Anagha Kesav	CSE
18	NCE21CS020	Ananthu A	CSE
19	NCE21CS023	Anunandha K	CSE
20	NCE21CS024	Anurag P P	CSE
21	NCE21CS025	Arjun P. R	CSE
22	NCE21CS026	Arun R	CSE
23	NCE21CS028	Arya U	CSE
24	NCE21CS029	Ashfaq A A	CSE
25	NCE21CS030	AthulRaj AR	CSE
26	NCE21CS031	Bimal P Shaji	CSE
27	NCE21CS034	Fabian Biju	CSE
28	NCE21CS035	Fathima Hannath	CSE
29	NCE21CS036	Fathima Rosna T A	CSE
30	NCE21CS037	Haabeeb Rahman Sha	CSE
31	NCE21CS038	Haripriya A	CSE
32	NCE21CS039	Haritha M	CSE
33	NCE21CS040	Helna jayan	CSE
34	NCE21CS041	Hiba Sherin MH	CSE
35	NCE21CS042	Janeesha K.A	CSE
36	NCE21CS043	Jithu Manikandakumar	CSE
37	NCE21CS044	J Srinivshu	CSE
38	NCE21CS045	Kavya B S	CSE
39	NCE21CS046	Levanya S	CSE
40	NCE21CS047	Likitha B	CSE

Nehru College

Responsible Officer

Thiruvananthapuram

Thiruvananthapuram



EM DATA

Number 1000, 1000

40	NCE 21CS067	Shirley B	CS
41	NCE 21CS068	Shirley B	CS
42	NCE 21CS069	Shirley B	CS
43	NCE 21CS070	Shirley B	CS
44	NCE 21CS071	Shirley B	CS
45	NCE 21CS072	Shirley B	CS
46	NCE 21CS073	Shirley B	CS
47	NCE 21CS074	Shirley B	CS
48	NCE 21CS075	Shirley B	CS
49	NCE 21CS076	Shirley B	CS
50	NCE 21CS077	Shirley B	CS
51	NCE 21CS078	Shirley B	CS
52	NCE 21CS079	Shirley B	CS
53	NCE 21CS080	Shirley B	CS
54	NCE 21CS081	Shirley B	CS
55	NCE 21CS082	Shirley B	CS
56	NCE 21CS083	Shirley B	CS
57	NCE 21CS084	Shirley B	CS
58	NCE 21CS085	Shirley B	CS
59	NCE 21CS086	Shirley B	CS
60	NCE 21CS087	Shirley B	CS
61	NCE 21CS088	Shirley B	CS
62	NCE 21CS089	Shirley B	CS
63	NCE 21CS090	Shirley B	CS
64	NCE 21CS091	Shirley B	CS
65	NCE 21CS092	Shirley B	CS
66	NCE 21CS093	Shirley B	CS
67	NCE 21CS094	Shirley B	CS
68	NCE 21CS095	Shirley B	CS
69	NCE 21CS096	Shirley B	CS
70	NCE 21CS097	Shirley B	CS
71	NCE 21CS098	Shirley B	CS
72	NCE 21CS099	Shirley B	CS
73	NCE 21CS100	Shirley B	CS

Neelup Gopal
Roceland
Nile Gopal
Thirupathi



EM DATA

Report No. 100-100

1	Mr. J. L. Smith	Mr. J. L. Smith
2	Mr. J. L. Smith	Mr. J. L. Smith
3	Mr. J. L. Smith	Mr. J. L. Smith
4	Mr. J. L. Smith	Mr. J. L. Smith
5	Mr. J. L. Smith	Mr. J. L. Smith
6	Mr. J. L. Smith	Mr. J. L. Smith
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LINGUA TOUCH

PROJECT PHASE 2 REPORT

Submitted to APJ Abdul Kalam Technological University In Partial
Fulfillment of the requirements for the award of the Degree

Bachelor of Technology

in

COMPUTER SCIENCE AND ENGINEERING

by

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(Approved by AICTE, ISO 9001:2015 Certified, NAAC 'A' ACCREDITED, NBA ACCREDITED)



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2023-2024

CERTIFICATE

This is to certify that the project report entitled, "**LINGUA TOUCH**" submitted by **ADARSH P R (NCE20CS005), AJAY KRISHNA C S (NCE20CS009), AKSHAY KRISHNAN K M (NCE20CS013), ASWINDAS C H (NCE20CS037)** to the APJ Abdul Kalam Technological University in the partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in **Computer Science and Engineering** is a bonafide record of the project work carried out by them under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

Internal Supervisor

External Supervisor

Project Co-ordinator

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ABSTRACT

In the pursuit of fostering inclusivity for individuals with visual impairments, this initiative transcends traditional boundaries. The comprehensive mobile application, driven by cutting-edge image processing, seamless voice assistant integration, and advanced Natural Language Processing (NLP) algorithms, aims to break down communication barriers in the digital age. Beyond translating Braille into digital text, the project introduces a significant enhancement: real-time multilingual text-to-speech capabilities. This addition ensures that both visually impaired and sighted users can access information through speech output in various languages, aligning with broader societal goals of accessibility.

With a commitment to usability, continuous improvement, and inclusivity, the initiative seeks to redefine accessibility standards. By embracing diverse linguistic needs, it showcases the transformative power of technology in enhancing the digital experience for individuals with visual impairments and fostering universal access for all users. These multifaceted solutions represent significant strides toward a digitally inclusive society, emphasizing innovation's potential to drive positive social change and improve the lives of diverse user groups. The application seamlessly combines digital text and speech output in various languages as per user preferences.



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Chapter 1

INTRODUCTION

In the dynamic landscape of communication technology, a revolutionary app has emerged, seamlessly harmonizing the experiences of both normal and visually impaired individuals. This innovative application acts as a conduit, facilitating a meaningful exchange of information between these two distinct user groups. Specifically designed to cater to the needs of both normal and visually impaired users, the app plays a pivotal role in making written text accessible to all.

For normal users, this app serves as a powerful tool for comprehending the writings of individuals with visual impairments, offering a transformative gateway to inclusivity in the digital realm. The essence of its brilliance lies in its adaptability, providing robust support for multiple languages. This multilingual capability ensures that the app is not confined by linguistic barriers, enhancing its utility for users across diverse cultural and linguistic backgrounds.

What sets this app apart is its commitment to inclusivity. It acts as a bridge between the visual and non-visual worlds, enabling seamless communication and understanding. In doing so, it fosters an environment where information becomes universally accessible, breaking down barriers that have historically hindered effective communication between these two user groups.

Moreover, the app transcends conventional text-based interfaces by incorporating sophisticated audio output capabilities. This innovative feature not only enriches the user experience for individuals with visual impairments but also extends the app's functionality to scenarios where auditory information is preferred or necessary. By seamlessly integrating language diversity and audio output, this app stands at the forefront of technological advancement, reshaping the landscape of inclusive communication.

The significance of this app lies not only in its technical prowess but also in its profound impact on societal dynamics. It goes beyond being a mere tool; it symbolizes a shift towards a more inclusive and compassionate digital era. Through its ability to empower normal users to

Chapter 9

CONCLUSION

The conclusion of the paper argues that the Lingua Touch project is a significant stride towards fostering inclusivity in the digital realm for individuals with visual impairments. The project achieves this by combining advanced image processing, multilingual translation capabilities, and voice assistant integration. These features address fundamental challenges faced by visually impaired users, such as accurate Braille recognition and real-time translation. The project's commitment to accessibility is further emphasized by its customizable settings and adaptive learning mechanisms. These features ensure an intuitive and personalized experience for users. Looking ahead, the authors envision the integration of wearable devices, collaborative translation features, and seamless educational resources. This signifies a commitment to staying at the forefront of accessibility innovation. Overall, the conclusion highlights the project's potential to redefine the digital experience for visually impaired individuals and contribute to the broader conversation on accessibility in the digital age.



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Chapter 5

SYSTEM DESIGN

5.1 SYSTEM ARCHITECTURE

Braille script translator represents an intricate fusion of Braille language intricacies and cutting-edge technological innovations. At its core lies a comprehensive integration of natural language processing and machine learning algorithms. Imagine a world where printed text is just a blurry mess, but a tactile language like Braille offers clarity and independence. Yet, even Braille's raised dots can become barriers for visually impaired individuals who cannot physically read them. This is

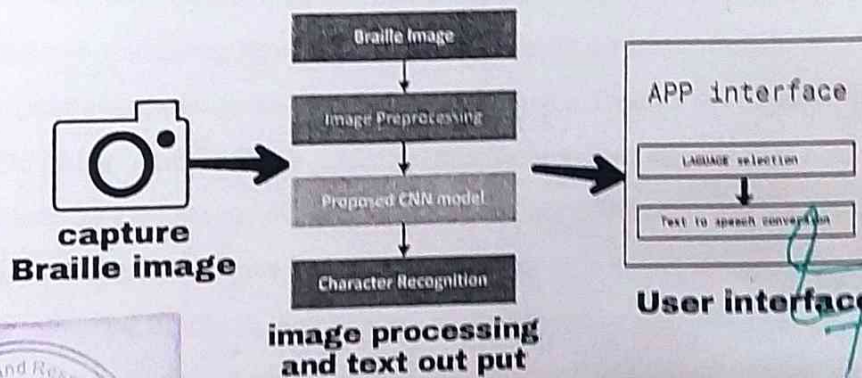


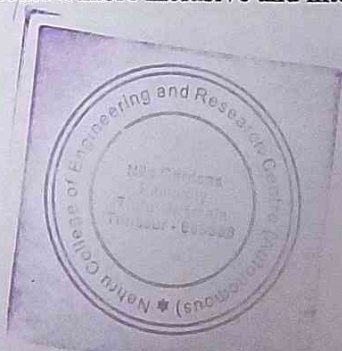
Figure 5.1: System Architecture

where innovative technology steps in, bridging the gap between Braille and digital accessibility with image-to-text conversion systems.

Chapter 8

RESULT AND DISCUSSION

The development of Lingua Touch, our innovative app, signifies a pioneering effort in enhancing accessibility for individuals with visual impairments. By seamlessly integrating natural language processing (NLP) algorithms and cutting-edge computer vision capabilities, Lingua Touch offers a comprehensive solution for translating Braille text into readable format. At its core, Lingua Touch relies on meticulously designed NLP algorithms to interpret and decode the intricate tactile dot configurations inherent in Braille characters. Through continuous refinement, these algorithms ensure accurate translation while preserving the contextual nuances embedded within the Braille script, facilitating a seamless transition to coherent written text. Additionally, the incorporation of advanced computer vision technologies enables Lingua Touch to capture Braille characters from various sources, including printed materials and digital displays, enhancing its versatility across different mediums. Collaboration with the visually impaired community has been integral to Lingua Touch's development journey, with invaluable insights and feedback guiding refinements to meet diverse user needs and preferences. Continuous enhancements, including algorithmic refinements and improved recognition capabilities, underscore Lingua Touch's commitment to fostering greater accessibility for individuals reliant on Braille as their primary mode of reading and comprehension. In essence, Lingua Touch represents a dynamic and collaborative endeavor aimed at breaking barriers and empowering individuals with enhanced accessibility to written information, ultimately striving to create a more inclusive and interconnected digital landscape.



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Linguatouch



Select the image to translate

Take Photo

Upload Photo

Translated Text



Hindi



Translate

Speak

Stop

How to take a picture properly

Figure 8.1: Home Page

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