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2.2.1 The institution assesses the learning levels of the students and introduces special Programmes for advanced learners and slow learners.

Activities for Slow Learners and Advanced (Fast) Learners.

Jyothi Engineering College

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List Of Advanced Learners

Department Of Electronics & Communication Engineering

2016-2020 Batch

SI NO.	REGISTER NO.	NAME OF STUDENT
1	JEC16EC053	MAREENA MARIYA ABRAHAM
2	JEC16EC055	MARY JEETHU AJ
3	JEC16EC056	MUBASHIRA K M
4	JEC16EC058	NANDANA K
5	JEC16EC066	PAVITHRA P
6	JEC16EC067	P DHANYA RAJ
7	JEC16EC068	POOJA P
8	JEC16EC070	PRASOBH K P
9	JEC16EC073	RADHIKA
10	JEC16EC091	SREELAKSHMI R
11	JEC16EC096	SRUTHISHA SASI
12	JEC16EC099	VISHNU K

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Mechanical Engineering valid for the academic years 2016-2022. NBA accredited B.Tech Programme in Civil Engineering valid for the academic years 2019-2022.

List Of Slow Learners

Department Of Electronics & Communication Engineering

2016-2020 Batch

SI NO.	REGISTER NO.	NAME OF STUDENT
1	JEC16EC002	ADRIAN GEORGE
2	JEC16EC005	AJAY.T.S
3	JEC16EC006	AJITH ANTONY
4	JEC16EC010	AMARNATH K R
5	JEC16EC026	BHUVANESH.S.S
6	JEC16EC030	CHITHRA.A.B
7	JEC16EC031	DEEPAK KRISHNAN P
8	JEC16EC035	DIVINE MATHEW
9	JEC16EC038	FEBIN RINSON KANNUKADAN
10	JEC16EC046	JOSEPH P B
11	JEC16EC081	SANDHRA .S
12	JEC16EC085	SHAHAN FATHIMA K
13	JEC16EC088	SHARAN SHASHINDRAN A
14	JEC16EC093	SREERAG T K
15	JEC16EC101	VISHNU V

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Activities of Advanced learners

Student representation in various committees

The students union election 2019-20 was conducted on 20ᵗʰ August 2019. Mr.Jensom Jose (AP, EEE) was the Chief Returning officers and Mr. Melvinraj C.R. (AP, ME) and Ms. Nyni K. A. (AP, MR) were the Staff Advisors.

STUDENT'S UNION 2019-2020

CHAIRMAN	:	JOEL MATHEWS (S7 ME-A)
VICE CHAIRMAN	:	MARY JEETHU A J (S7 EC-B)
GENERAL SECRETARY	:	RIJU T R (S5 MR)
JOINT SECRETARY	:	MARIYA SHAJI (S5 EC)
SECRETARY, FINE ARTS	:	FADEL ABDUL REHAMAN (S5 CE)
GENERAL CAPTAIN OF SPORTS AND GAMES	:	JOVIN JELPHY (S3 ME-B)
CHIEF STUDENT EDITOR OF COLLEGE MAGAZINE	:	ALWIN VINCENT (S5 ME-A)
UUC	:	MUHAMMED ARSHAD (S7-EC-B)
	:	KAVYA SUNIL (S7-EC-A)

YEAR REPRESENTATIVES

B.Tech

FIRST YEAR	:	ALAN REJI (S1 ME)
SECOND YEAR	:	JINU HAPPY (S3 ME A)
THIRD YEAR	:	ANJU AGNES (S5 CE)
FOURTH YEAR	:	ARJUN S. (S7 EE)

M.Tech

FIRST YEAR	:	SIBI JOSEBEN (S1-M.Tech CS)
SECOND YEAR	:	NIJITHA THOMAS K (S3-M.Tech CS)

CHIEF RETURNING OFFICER

PRINCIPAL

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IEDC Executive Committee 2018-2019

IEDC Faculty Chairman : Mr. Anil Antony (Nodal Officer, AP-CSE)

IEDC Faculty Convener : Mr. Melvin Raj (AP,ME)

Faculty Members : Mr. Aneesh Chandran (AP, CSE)

: Mr. Jinesh K.J. (AP, ECE)

: Ms. Nyni K.A. (AP, ECE)

: Ms. Nikhila A.P.(AP, CE)

: Ms. Aswathy Rajan(AP, EEE)

: Ms. Neeraja P.G. (AP, CE)

IEDC Student Coordinators

C.E.O. : Mr. Bernard K.P. (ME)

C.O.O. : Mr. Pallatty Jesvin Joseph (ECE)

C.F.O. : Mr. Abel Tomy (ME)

C.S.O. : Ms.Asna Nesry(CSE)

C.C.O. : Mr. Paul Mohan(EEE)

C.M.O. : Mr. Fredin Joy C(CE)

C.T.O. : Mr. Kokul Jose(CSE)

(ANIL ANTONY)

NODAL OFFICER

Dr. SUNNY JOSEPH EDICALAYATHANKAL
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IEDC Executive Committee 2019-2020

IEDC Faculty Chairman	: Mr. Anil Antony (Nodal Officer, AP-CSE)
IEDC Faculty Convener	: Mr. Nice Menachery (AP,ME)
Faculty Members	: Mr. Binesh M. (AP, CSE)
	: Mr. Jinesh K.J. (AP, ECE)
	: Ms. Dipin Krishnan (AP, ECE)
	: Ms. Rakendu P.S.(AP, CE)
	: Ms. Aathira K.V.(AP, EEE)
IEDC Student Coordinators	
C.E.O.	: Mr. Kokul Jose(CSE)
C.O.O.	: Mr. Abel Tomy (ME)
C.T.O.	: Mr. Riju T.R.(Mechtronics)
C.F.O.	: Mr. Arjun K.M.(ME)
C.S.O.	: Mr. Fredin Joy C(CE)
C.M.O.	: Ms. Denitha T. (ECE)
C.C.O.	: Mr. Arjun S. (EEE)
FOSS CLUB	: Ms. Sangeetha P(CSE)

(Anil Antony)

NODAL OFFICER
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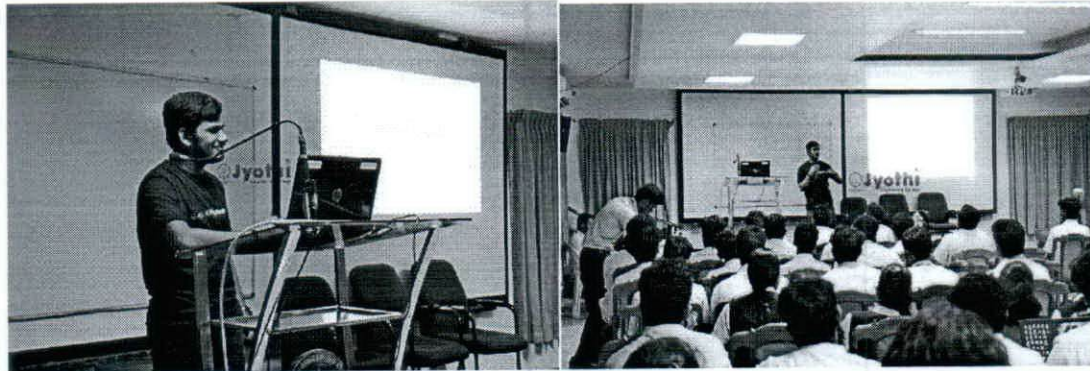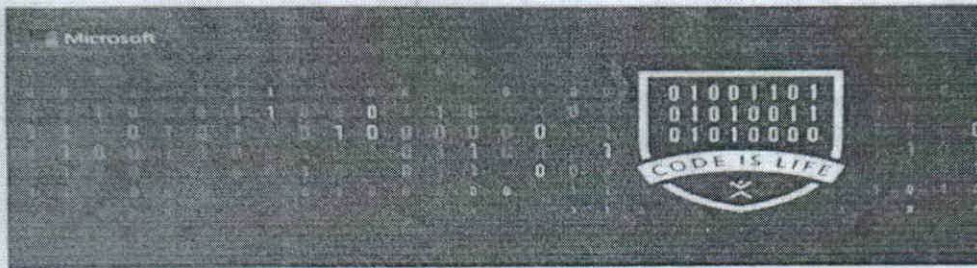NBA accredited B.Tech Programmes in Computer Science & Engineering, Electronics & Communication Engineering, Electrical & Electronics Engineering and Mechanical Engineering valid for the academic years 2016-2022. NBA accredited B.Tech Programme in Civil Engineering valid for the academic years 2019-2022.

Peer Teaching

Google Explore ML program was conducted on 24.01.2020 as a full day session. **Mr. Sreerag R Nandan,** (S6 CSE) *Google ML facilitator India* for Jyothi Engineering College Campus is delivered content of the session. Session was conducted in collaboration with **ICFOSS** chapter of JECC. This program managed to cover the Google Explore ML track 1 & track 2.

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To,
Fr.Dr.Jaison Paul Mulerikkal CMI
Principal Jyothi Engineering College, Cheruthuruthy, Thrissur,

Subject - Request to allow the students to conduct workshops for Microsoft student partner Program

We are glad to accept AJMAL BASHEER for Microsoft student partner Program
The **Student partner program** is designed for technology enthusiasts to learn technology in a fun way through videos, exercises and demos. During this program, students will learn, share, brainstorm and build on ideas together. This course will be staged with 3 different levels of difficulty: Beginner, Intermediate and Advanced level tracks.

With this document, we would request you to allow the student to host workshops for your campus associating with IEDC and CSI on 04/05/20

Thanking you in anticipation

Best regards,

Microsoft Student Partners

Approved

CSI CHAIRMAN   IEDC CHAIRMAN

HOD CSE 2/3/20   Principal

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Involvement in Innovative projects

Viruzid UV Sterilizer

കോവിഡിനെ തുരത്താൻ 'വിരുസിഡ് യുവി' വികസിപ്പിച്ച് ജ്യോതി എൻജി. കോളജ്

A low cost Braille Printer using Dot Matrix

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Competitive Exams

Students qualifying in state/national/ international level examinations during the last five years

Sl.no.	Year	Registration number/roll number for the exam	Names of students selected/ qualified	GATE	GMAT	CAT	IELTS	Other examinations conducted by the State / Central Government Agencies (Specify)
1	2019 - 20	U4571828	Jisna Joby				Yes	
2	2019 - 20	U5211381	Chinnu Davis				Yes	
3	2019 - 20	U7158446	Sandra M A				Yes	
4	2019 - 20	9106002	Muhammed Anjal			Yes		
5	2018 - 19	CE19S81325388	Haleema Lameez Thajuddeen	Yes				
6	2018 - 19	CE19S81325295	Anjana C P	Yes				
7	2018 - 19	CE19S71325441	Sarath M	Yes				
8	2018 - 19	CS19S31325310	Ashique P S	Yes				
9	2018 - 19	S4188266	Catherine Anto				Yes	
10	2017 - 18	EE18S63034301	Smruthi Krishna K.	Yes				
11	2016-17	EE17S51321026	Adhipa K. R.	Yes				
12	2016-17	EE17S51321120	Antony J. Manjila	Yes				
13	2016-17	EE17S61324002	Milner Paul V	Yes				
14	2016-17	65365	Sisira P.					KMAT
15	2015-16	EE16S81062021	Chandini Nandakumar	Yes				
16	2015-16	EE16S61085092	Mahesh M. P.	Yes				
17	2015-16	CS16S51087088	Tessa Jose	Yes				
18	2015-16	601530195	Nicky Jose		Yes			
19	2015-16	ME16S11115066	Balasankar P	Yes				
20	2015-16	ME16S31079042	Neeraj M P	Yes				
		Total		13	1	1	4	1

Grand Total : 20

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Paper publication

Department of Electronics & Communication Engineering

Student Publications Details

Academic Year: 2019-20

Sl No	Name of students	Name of paper	Name of journal	Date/issue	Published
B Tech					
1	Sreelakshmi R, Rinosha K R, Nithin Mohan	A communication Aid for Deaf and Mute	Journal of critical review	VOL 7, ISSUE 18, 2020	6 July 2020
2	Mubshira K M	A Comprehensive Study on Human Interaction with IoT Systems	International Research Journal of Engineering and Technology Volume: 07 Issue: 05 | May 2020	May 2020	IRJET) e-ISSN: 2395-0056p-ISSN: 2395-0072
M.Tech					
1	Dinna Davis	Power Amplifier Linearization using Hybrid Optimization Techniques	International Conference on Communication and Signal Processing, July 28 - 30, 2020	July 2020	IEEE Xplore
2	Hilkiya Joseph	Image Security Enhancement using DCT & DWT Watermarking Technique	International Conference on Communication and Signal Processing, July 28 - 30, 2020	July 2020	IEEE Xplore
3	Irine C Joseph	Speech Enhancement using LQE and Optimization Techniques	International Conference on Communication and Signal Processing, July 28 - 30, 2020	July 2020	IEEE Xplore
4	Jayasree K R	Hybrid Techniques for Reducing PAPR in OFDM Systems	International Conference on Communication and Signal Processing, July 28 - 30, 2020	July 2020	IEEE Xplore
5	Jiji Sasidharan	PAPR Reduction in F-OFDM Modulation Scheme for 5G Cellular Networks Using Precoding Technique	SpringerLink (Inventive Communication and Computational Technologies)	August 2020	Springer Nature Singapore Pte Ltd

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Mechanical Engineering valid for the academic years 2016-2022. NBA accredited B.Tech Programme in Civil Engineering valid for the academic years 2019-2022.

6	Thasneem V A	Different Sensors used for biochemical Detection	International Research Journal of Engineering& Technology	June 2020	IEEE Xplore
7	Feba Joseph	Detection of Waves In Ecg For Arrhythmia Classification	Proceedings of the Third International Conference on Trends in Electronics and Informatics (ICOEI 2019) IEEE Xplore Part Number: CFP19J32-ART; ISBN: 978-1-5386-9439-8	2019	IEEE Xplore
8	Sneha Pauly P	Efficient Enhancement of Hepatic and Splenic Carcinoma in Canine using Image Processing	International Conference on Communication and Signal Processing, April 4-6, 2019, India	April 2019	IEEE Xplore
9	Sneha Pauly P	Automated Feature Extraction of Hepatic US Image of Dog Using Image Processing	International Conference on Intelligent Computing, Instrumentation and Control Technologies (ICICICT)	2019	IEEE Xplore
10	Mariya C J	Review on Feature Extraction Methods in Neuromuscular Disease Diagnosis	Proceedings of the Third International Conference on Trends in Electronics and Informatics (ICOEI 2019) IEEE Xplore Part Number: CFP19J32-ART; ISBN: 978-1-5386-9439-8	2019	IEEE Xplore
11	Ciya James	Student Monitoring System for School Bus Using Facial Recognition	Proceedings of the Third International Conference on Trends in Electronics and Informatics (ICOEI 2019) IEEE Xplore Part Number: CFP19J32-ART; ISBN: 978-1-5386-9439-8	2019	IEEE Xplore
12	Ann Sebi	Asset Tracking Using Low Power Bluetooth	International Journal of Advanced Research Trends in Engineering and Technology (IJARTET) Vol. 6, Issue 8, August 2019	August 2019	IJARTET

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M.Tech, MCA, M.Sc, M.Phil, B.Ed
Ph.D (Computer Science), Ph.D (Maths)
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Efficient Enhancement of Hepatic and Splenic Carcinoma in Canine using Image Processing

Pazhunkaran Sneha Pauly, Bindhu K Rajan and Sindhu K Rajan

Abstract—Image processing finds application in many fields, especially in the field of biomedical engineering for tumor and cancer detection. Research has been going since a very long time for identification of different types of cancer in humans and the research is still on its path. However, pathologic detection of hepatic and splenic cancer in canine is very costly and diagnosing becomes a tedious task in many cases. So, a cost effective and easier technique has to be developed in order to detect the cancer and start the treatment. Here image processing techniques are made use to pre-process the cancer-causing cells in dogs using ultrasonic (US) images. The proposed system frame work consists of image pre-processing stage where enhancement of the raw image is aimed. Here different image enhancement algorithms are applied, of which the best algorithm is selected based on the evaluation parameters like PSNR, SNR, MSE, RMSE

Index Terms—Canine, filtering, enhancement, hepatic, segmentation, US image.

I. INTRODUCTION

TUMOR is found to be one of the dreadful diseases in most of the living creatures. Though a great progress has been achieved in cancer detection, it is still considered as one of the challenging studies for many researchers. Cancer is referred to as cells that are abnormal in growth and has the capability to effectively invade other tissues and cells. This abnormal growth in cells become cancerous due to the invasion of defects and mutated components in DNA. Body is affected adversely when these abnormal cells form lumps or tumors due to its uncontrollable division. On growing, these tumors interfere with the normal working of circulatory, nervous and digestive systems thereby releasing hormones that cause changes in body functioning. Tumors are basically differentiated into 2 types- benign and malignant. Benign tumors are those which have restricted motion and tend to stay at one position. Such tumors are basically not harmful. However, when angiogenesis occurs or when invasion of cancerous cells occurs on other cells, tumor formed is called

malignant tumor. Unlike benign tumors, malignant tumors are very dangerous.

Of all cancers, sixth most common malignant tumours is the liver cancer and is one of the top three reasons for cancer-related deaths. Almost 20% of the world population become prey of chronic liver cancer. One of the reasons for fatal is liver cancer. It is also known as Hepatic cancer. The signs of hepatic and splenic carcinoma in dogs are decreased appetite, lethargic, weight loss, abdominal distention, vomiting, mass can be felt in stomach, extensive thirst, frequent thirst, ulcer, jaundice, bloody diarrhoea, hepatic encephalopathy. Major drawback of hepatic cancer is that the diagnosis usually occurs at later stages in the disease. However, diagnosis at these stages will be supported with very less fruitful treatments [1]. This ends up on the verge of their extinction. The expectancy of dog's life is somewhere between four months to few years, once cancer begins to spread. Surprisingly dogs can survive more than 5 years when diagnosed at early stage. Depending upon the information obtained from canine's previous records of illness, laboratory data, physical examination and different imaging techniques of the abdominal area can pave way for an accurate diagnosis of canine hepatic tumours [2]. Moreover, the other factor that helps in hepatic cancer diagnosis is based on the experience of the medical experts. Even if method like biopsy can be made applicable for detection whenever the experts, based on their experience feel the presence of cancer-causing cell, the time a dog can fight against these cells is negligible. Perhaps, all these modes of canine cancer detection are not reliable and successful way of prediction. So, the urge for a trustworthy and cost-effective method is growing at an alarming rate in case of hepatic cancer detection in canine.

In this paper, image processing technique is made use for efficient enhancement of the cancer in canines using Ultra Sonic (US) images. Automatic identification of cancer using US image is a challenging task. Efficient enhancement of canine liver carcinoma is aimed in this paper. Since there are very few works done using image processing for detecting cancer in dogs, procedures used for filtering images in humans is analyzed and made applicable in dogs here. Image pre-processing stage is involved for efficient enhancement of liver carcinoma. The following sections discuss about different pre-processing algorithms.

The rest of the paper is organized as follow: Section II gives a detailed description about the denoising techniques which further includes the subsections that gives an idea about four filtering techniques – Mean, Median, Wiener and Gaussian

Pazhunkaran Sneha Pauly, Bindhu K Rajan and Dr. Sindhu K Rajan are with Jyothi Engineering College, Jyothi Hills, Cheruthuruthy, Thrissur, Kerala 67983 (e-mail: snehapauly1@gmail.com, bindhukrajan99@gmail.com, krsindhus4@gmail.com).

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Participation Of Students In Various Events

KTU TECHFEST 2019
FEB 15 16 17
GOVERNMENT ENGINEERING COLLEGE THRISSUR
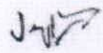
CERTIFICATE OF MERIT

This is to certify that Mr/Ms ....Archana V............................
of ..Jyothi Engineering College......has secured ..Third..............
position in the event ....V-Hack.................................
conducted as a part of KTU Techfest 2019.

Faculty coordinator
Dr. MOHANDAS. V. P.
Professor
Dept. of Mechanical Engineering
Govt. Engineering College
Thrissur-9

Rahul Ravi R
Organizing Secretary
KTU Techfest 2019

Adarsh V S
Student General Convenor
KTU Techfest 2019

Dr. Jayanand B
Principal GEC Thrissur
Chairman
KTU Techfest 2019

MAR ATHANASIUS COLLEGE OF ENGINEERING
DEPARTMENT OF ELECTRONICS AND COMMUNICATION
CERTIFICATE
— OF PARTICIPATION —

THE CERTIFICATE IS PRESENTED TO:

JISNA JOBY

FOR PARTICIPATING IN THE EVENT
ELECTROSPIRE- PROJECT EXPO

NAVA'19,
Technical Expo held 1st and 2nd of February 2019 by
the Department of Electronics and Communication ,
Mar Athanasius College of Engineering

HEAD OF DEPARTMENT

STAFF IN CHARGE

Dr. SUNNY JOSEPH KALAYATHANKAL
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A CENTRE OF EXCELLENCE IN SCIENCE & TECHNOLOGY BY THE CATHOLIC ARCHDIOCESE OF TRICHUR

JYOTHI HILLS, VETTIKATTIRI P.O, CHERUTHURUTHY, THRISSUR, PIN-679531 PH : +91- 4884-259000, 274423 FAX : 04884-274777

NBA accredited B.Tech Programmes in Computer Science & Engineering, Electronics & Communication Engineering, Electrical & Electronics Engineering and Mechanical Engineering valid for the academic years 2016-2022. NBA accredited B.Tech Programme in Civil Engineering valid for the academic years 2019-2022.

List of B.Tech Honours(2015-2019 Batch)

Student Name	Program & Branch	Credits	CGPA	Status	Withdrawal Status
DELMA DAVIS-JEC15CS024	B.Tech - COMPUTER SCIENCE & ENGINEERING	94	8.3	Approved by University	N/A
AMAL PREM K P-JEC15CS011	B.Tech - COMPUTER SCIENCE & ENGINEERING	94	8.22	Approved by University	N/A
SURYA R-JEC15CS075	B.Tech - COMPUTER SCIENCE & ENGINEERING	94	8.86	Approved by University	N/A
LAYA JOY-JEC15CS044	B.Tech - COMPUTER SCIENCE & ENGINEERING	94	8.58	Approved by University	N/A
TINA THOMAS-JEC15CS076	B.Tech - COMPUTER SCIENCE & ENGINEERING	94	8.9	Approved by University	N/A
NICY JOSEPH K-JEC15CS053	B.Tech - COMPUTER SCIENCE & ENGINEERING	94	9.14	Approved by University	N/A
MEGHA K J-JEC15CS049	B.Tech - COMPUTER SCIENCE & ENGINEERING	94	8.5	Approved by University	N/A
ANCY SUNNY P-JEC15CS014	B.Tech - COMPUTER SCIENCE & ENGINEERING	94	8.32	Approved by University	N/A
RESHMA. T.P-JEC15CS063	B.Tech - COMPUTER SCIENCE & ENGINEERING	90	8.74	Approved by University	N/A
ANJU MARIA K B-JEC15CS016	B.Tech - COMPUTER SCIENCE & ENGINEERING	94	8.88	Approved by University	N/A
ASNA NESRY-JEC15CS020	B.Tech - COMPUTER SCIENCE & ENGINEERING	94	8.2	Approved by University	N/A
SRUTHI S.-JEC15CS073	B.Tech - COMPUTER SCIENCE & ENGINEERING	94	8.79	Approved by University	N/A
JIJITH S NAIR-JEC15CS037	B.Tech - COMPUTER SCIENCE & ENGINEERING	90	8.29	Approved by University	N/A
CATHERINE ANTO-JEC15CS023	B.Tech - COMPUTER SCIENCE & ENGINEERING	94	8.07	Approved by University	N/A
VISHNU K-JEC15CS079	B.Tech - COMPUTER SCIENCE & ENGINEERING	94	8.19	Approved by University	N/A
VIJAY V-JEC15CS078	B.Tech - COMPUTER SCIENCE & ENGINEERING	94	8.25	Approved by University	N/A
ROBIN ROY-JEC15CS066	B.Tech - COMPUTER SCIENCE & ENGINEERING	94	8.15	Approved by University	N/A
ARYA. C-JEC15EC009	B.Tech - ELECTRONICS & COMMUNICATION ENGG	94	8.88	Approved by University	N/A
PRAVITHA P G-JEC15EC041	B.Tech - ELECTRONICS & COMMUNICATION ENGG	94	8.43	Approved by University	N/A
SHARON JAMES. K-JEC15EC049	B.Tech - ELECTRONICS & COMMUNICATION ENGG	94	8.39	Approved by University	N/A
PRANAV V V-JEC15EC040	B.Tech - ELECTRONICS & COMMUNICATION ENGG	94	8.26	Approved by University	N/A

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SHRUTHY CHANDRAN-JEC15EC050	B.Tech - ELECTRONICS & COMMUNICATION ENGG	94	8.19	Approved by University	N/A
KANNANPUZHA CHELSEA ANTONY-JEC15EC026	B.Tech - ELECTRONICS & COMMUNICATION ENGG	94	8.21	Approved by University	N/A
RINKU GEORGE-JEC15EC044	B.Tech - ELECTRONICS & COMMUNICATION ENGG	91	8.38	Withdrawn	Withdrawal Request Approved
MEGHA THOMAS-JEC15EC031	B.Tech - ELECTRONICS & COMMUNICATION ENGG	94	8.24	Approved by University	N/A
ANJANA K P-JEC15EC005	B.Tech - ELECTRONICS & COMMUNICATION ENGG	94	8.44	Approved by University	N/A
SOPHY SHAJU-JEC15EC053	B.Tech - ELECTRONICS & COMMUNICATION ENGG	94	8.17	Approved by University	N/A
NIKEETA SAJI-JEC15EC037	B.Tech - ELECTRONICS & COMMUNICATION ENGG	94	8.17	Approved by University	N/A
BHAVYA HARIDAS. T-JEC15EE015	B.Tech - ELECTRICAL AND ELECTRONICS ENGINEERING	94	8.47	Approved by University	N/A
NEEMA JOY P-JEC15EE030	B.Tech - ELECTRICAL AND ELECTRONICS ENGINEERING	90	8.22	Approved by University	N/A
MARIYA ROSE J-JEC15EE027	B.Tech - ELECTRICAL AND ELECTRONICS ENGINEERING	90	8.68	Approved by University	N/A
DEEPAKRAJ T CHANDRAHASAN-JEC15EE016	B.Tech - ELECTRICAL AND ELECTRONICS ENGINEERING	94	8.1	Approved by University	N/A
ANAGHA N V-JEC15EE010	B.Tech - ELECTRICAL AND ELECTRONICS ENGINEERING	94	8.65	Approved by University	N/A
SREELAKSHMI P N-JEC15EE034	B.Tech - ELECTRICAL AND ELECTRONICS ENGINEERING	94	8.61	Approved by University	N/A
TERRIN THOMAS-JEC15EE035	B.Tech - ELECTRICAL AND ELECTRONICS ENGINEERING	94	8.16	Approved by University	N/A

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Additional certification programmes

Roll No: NPTEL19CS09S62150162

To
JYOTHI ENGINEERING COLLEGE
THRISSUR

Score	Type of Certificate
>=90	Elite+Gold
75-89	Elite+Silver
>=60	Elite
40-60	Successfully completed the course
<40	No Certificate

No. of credits recommended by NPTEL:3

Elite

NPTEL Online Certification
(Funded by the Ministry of HRD, Govt of India)

This certificate is awarded to

JOHN JOSE

for successfully completing the course

Joy of Computing Using Python

with a consolidated score of **93** %

Online Assignments 24.69/25	Proctored Exam 68.75/75

Total number of candidates certified in this course: **9034**

Prof. A. Ramesh
Chairman
Centre for Continuing Education, IITM

Jan-Apr 2019
(12 week course)

Prof. Andrew Thangaraj
NPTEL Coordinator
IIT Madras

Indian Institute of Technology Madras

swayam

Roll No: NPTEL19CS09S62150162

To validate and check scores: http://nptel.ac.in/noc

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ATEES Industrial Training

2nd Floor, Ananya Tower, M.G Road
Thrissur - 680001, Kerala, India

Certificate

No.AIT/INTR/0468   10 July 2018

(Internship / Industrial Training / Industrial Visit)

Name of Student	:	**Mr.AMAL PREM K P**
Course / Branch of Study	:	B.Tech CSE
Name of Institution	:	Jyothi Engineering College , Thrissur
Name of University	:	APJ Abdul Kalam Technological University
Nature of Training	:	Internship
Period of Training	:	Attended on 25 June 2018 to 9 July 2018
Department/s of Training	:	Introduction to IOS, Android and PHP
Conduct / Performance	:	Good

ATEES
INDUSTRIAL TRAINING
A Division of ATEES Informatics Pvt. Ltd
WS | CAD | INDIA
IInd Floor, Ananaya Tower
M.G. Road, Thrissur, Kerala - 680 001

Mrs.Alby Milton
HR

CERTIFIED

CS/ IT Courses | CS/ IT Projects | Tech Talks | Workshops | Internship | Industrial Visit | Industrial Training | Seminars | Seminar Papers | Placement Assistance

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Rank Holders/Gold Medalist

JYOTHI ENGINEERING COLLEGE

13th GRADUATION CEREMONY

AWARDEE LIST

i) Doctor of Philosophy Ph.D

1	DR VIVEK LUKOSE	Ph.D	Electronics and Electrical Engineering	IIT Guwahati, 2019

ii) University Rank (2014 - 2018)

1	SUMAYYA THASNEEM P	Second Rank	EEE Dept	University Of Calicut (2014-2018)
2	VEENA P	Second Rank	EEE Dept	University Of Calicut (2014-2018)

iii) Overall Topper – B.Tech (2014 - 2018)

1	CHRISTYMOL. E B.	CGPA - 8.80	CE Dept
2	URMILA M M	CGPA - 8.24	CSE Dept
3	SIJI JOHN	CGPA - 8.78	ECE Dept
4	SUMAYYA THASNEEM P	CGPA - 9.07	EEE Dept
5	VEENA P	CGPA - 9.07	EEE Dept
6	FAVAS K	CGPA - 8.60	ME Dept

iv) Overall Topper – M.Tech (2016 - 2018)

1	APARNA SURESH	CGPA - 8.64	CSE Dept
2	SHERIN K P	CGPA - 8.94	EEE Dept

v) S8 Topper – B.Tech (2014 - 2018)

1	CHRISTYMOL. E B.	SGPA - 9.31	CE Dept
2	NIMITHA FRANCIS	SGPA - 8.88	CSE Dept
3	NIYA BENNI	SGPA - 8.88	CSE Dept
4	CHRISTY PAUL	SGPA - 9.06	ECE Dept
5	SUMAYYA THASNEEM P	SGPA - 8.88	EEE Dept
6	NASIMANTO JOSEPH	SGPA - 9.06	ME Dept

VIVEK LUKOSE

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Appreciating Sumayya Thasneem (B.Tech EEE-2014-18 Batch) who secured university rank during graduation ceremony awarding Gold Medal and certificate.

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JYOTHI ENGINEERING COLLEGE

13th GRADUATION CEREMONY

GOLD MEDAL

➤ University Rank   : 2 Nos   } Gold medal (college tag)+ certificates +satin ribbon(university rank)

MEMENTOS

➤ Overall topper (B Tech, M Tech)   : 8
➤ PhD Faculty   : 1 No   } Memento+ certificates(Top pers)
➤ Total   : 9 Nos

S8 Topper

➤ 5 Department (Cash Prize - PTA)   :6   } Cash endowment (1000each from PTA)+certificate
➤ Total   :6

Memento

➤ Memento to chief guest   :1 No

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No: JEC/2/A/8/20   01st August 2020

ORDER

JECC – Management Scholarships - Approval of - Orders Issued.
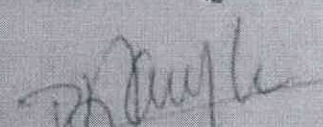
The Management of Jyothi Engineering College, as part of its policy to extend scholarship to meritorious students of our college based on their family income and marks is pleased to grand scholarships to the eligible students admitted in the year **2019-20** and to renew the scholarships granted in respect of the students of previous years

The list of students whose scholarships are granted for the year 2019-20 (Including the renewal of scholarships to previous batches is attached herewith. The students Concerned are directed to meet the Secretary & Assistant Manager and to obtain the details.

Management Scholarship granted.

2019 Batch	-	Rs. 14,41,000.00
2018 Batch	-	Rs. 31,21,200.00
2017 Batch	-	Rs. 17,55,800.00
2016 Batch	-	Rs. 15,09,000.00
2015 Batch	-	Rs. 3,80,125.00
Asthra Jyothi – 2016Batch	-	Rs. 60,000.00
Management Merit Scholarship (KEAM Rank 5001-10000)	-	Rs. 4,25,000.00
Management Merit Scholarship (KEAM Rank 10001-15000)	-	Rs. 6,80,000.00
Management Merit Scholarship (KEAM Rank 15001-20000)	-	Rs.10,05,000.00
Management Merit Scholarship (KEAM Rank 20001-25000)	-	Rs.10,20,000.00
Scholarship based on Plus Two marks scored – (90 to 94%)	-	Rs. 70,000.00
Scholarship based on Plus Two marks scored – (95% and above-	-	Rs. 80,000.00

Detailed list of all eligible students are attached herewith.

Fr. ROY JOSEPH VADAKKAN
Secretary & Assistant Manager

To

The Members
Copy to: The PRL/ADM/ Accounts Section/File

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Activities of Slow learners

Mentoring details

Mentoring Details of Vishnu V (S7 ECE)

SEMESTER VII

Semester started on : 11/9/19   Name of the Mentor: Neethu Rose Thomas

Student Staying at   : Hostel/Home/Lodge   Travelling by : College Bus / Private

A. Internal Marks

Exam	EC401 ITC	EC403 MAE	EC405 OC	EC407 CC	EC409 CS	OED				Sign of Mentor
1	16	18	24	18	11	16				Neethu
2	29	22	23	31	28	18				
3										
4										Neethu
Total	26	23	27	29	25	23				

Percentage of attendance   : 80 %

B. Parent's/Guardian's Visit

No	Date	Name	Signature	Suggestions
1	11/10/19	Vijayan	*(signature)*	
2				
3				
4				
5				

C. Discussion with Student (Academic and Personal)

No	Date	Matter discussed/Response	Signature of Student	Signature of Mentor
1	25/9/19	Academics - studies Concentrate more on	*(signature)*	Neethu
2	15/11/19	Academics & Placement Details Improvement in marks compared to	*(signature)*	Neethu
3		first sessionals		

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D.   Counselling by Mentor/HOD/Counsellor

No	Date	Advice/Response	Signature of Student	Signature of Mentor/HOD/Counsellor
1		Refer previous year question Ppers for all subjects and pass all		
2		Prepare well		
3				

E.   Student Achievements (Industrial Visits, Training, Presentations, Publications, Participations, innovative projects etc.)

F.   Extracurricular and Co-curricular activities of the student:

G.   Regularity in the class/Disciplinary actions taken/Any other remarks

Last working day in this Semester 25/4/2019   University Exam Starting Date 9/11/2019

Name and Signature of Mentor Neethu Rose Thomas

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DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

EC 407-COMPUTER COMMUNICATION

List of slow learners

Attendance List

SLNo	Reg.No	Name of the Student	13/11/19	15/11/19	16/11/19	18/11/19	22/11/19	25/11/19	26/11/19	27/11/19
1	JEC16EC002	ADRIAN GEORGE	A	✓	✓	✓	A	✓	✓	✓
2	JEC16EC005	AJAY.T.S	A	A	A	✓	✓	✓	✓	✓
3	JEC16EC006	AJITH ANTONY	A	✓	✓	✓	✓	✓	✓	✓
4	JEC16EC010	AMARNATH K R	A	✓	✓	✓	✓	✓	✓	✓
5	JEC16EC026	BHUVANESH.S.S	A	✓	✓	✓		✓	✓	✓
6	JEC16EC030	CHITHRA.A.B	A	✓	✓	✓	✓	✓	✓	✓
7	JEC16EC031	DEEPAK KRISHNAN P	✓	✓	✓	✓	✓	✓	✓	✓
8	JEC16EC035	DIVINE MATHEW	A	✓	✓	✓		✓	✓	✓
9	JEC16EC038	FEBIN RINSON KANNUKADAN	A	✓	✓	✓	A	✓	✓	✓
10	JEC16EC046	JOSEPH P B	A	✓	✓	✓	A	✓	✓	✓
11	JEC16EC081	SANDHRA .S	✓	✓	✓	✓	✓			✓
12	JEC16EC085	SHAHAN FATHIMA K	✓	✓	A		✓	✓	✓	✓
13	JEC16EC088	SHARAN SHASHINDRAN A	✓	✓	✓	✓	✓	✓	✓	✓
14	JEC16EC093	SREERAG T K	✓	✓	A	A	A	✓	✓	✓
15	JEC16EC101	VISHNU V	✓	✓	✓	✓	✓	✓	✓	✓

Signature of Faculty

HOD , ECE

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Question Bank

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

EC407 Computer Communication

Question Bank

1. a) Discuss in detail the different attacks in data networks

   b) Explain the various security services provided on the network?

   c) Explain the services provided by SSL protocol.

2. a) Explain the various methods used in transport layer to overcome the limitations of the network layer

   b) With help of diagrams, explain the various scheduling methods to improve the Qos in a network

   c) Write short notes on (i) SNMP (ii) POP3

3. a) why TCP is called as connection orientated reliable transport layer protocol?

   b) What are the difference between the services provided by TCP and UDP?

   C) Explain congestion control measures used in the transport layer.

4. a) Explain the functionality of (i) MIME (ii) SMTP (iii) HTTP

   b) Explain the handshake protocol used in SSL.

   c) What is IPsec? Explain the two modes of operation of IPsec

5. a) Explain the services offered by TCP to the processes at the application layer

   b) With the help of a diagram, explain how users download the E-mail Message using POP3

   c) Explain the need of the second layer of defence in a secured Network environment.

6. a) Draw the TCP segment header format. Explain the various fields in the TCP

   b) What are the main features of UDP? Explain.

   c) Explain the various congestion control mechanisms to alleviate congestion after it happens.

7. a) List the differences between distance vector and link state routing protocols.

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b) Give any example of distance vector routing algorithm and prepare the routing table for each node.

8. a) what are the problems associated with distance vector protocols. How is it overcome in other routing protocols?

b) How can we distinguish a multicast address in IPv4 addressing? How can we do so in IPv6 addressing?

9. a) Explain how error control is done in the data link layer. Give an example

b) Explain different flow control mechanisms adopted by data link layer

10. a) Write in detail how all the layers in OSI model working together for networking

b) Differentiate circuit switching and packet switching.

11. a) What is meant by data communication and explain the different types of data transmission?

b) Write short notes on types of transmission modes

12. a) What are the Categories of networks? Explain?

b) Write short notes on interconnection of the network with an example

13. a) How the transmission media is classified? Discuss various varieties of twisted pair cable

b) Write the key difference between UTP and STP cables

14. a) Write short notes on co-axial cable and also discuss different co-axial cable connectors.

b) Draw the optical fiber structure and explain the purpose of the core, cladding and buffer coating.

15. a) Explain the stop-and-wait and Go-Back-n techniques of error control ARQ

b) Discuss the various configuration, mode and frame types of HDLC in detail

16. a) Draw the basic structure of circuit switched network and explain the various types of multi path switching with neat diagram?

b) Explain the concept of Time-slot interchange with neat diagram?

17. a) Draw the frame format of CSMA/CA method and Explain?

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Dr. SUNNY JOSEPH KALAYATHANKAL
M.Tech, MCA, M.Sc, M.Phil, B.Ed
Ph.D (Computer Science), Ph.D (Maths)
PRINCIPAL
Jyothi Engineering College
Cheruthuruthy P.O.- 679 531

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A CENTRE OF EXCELLENCE IN SCIENCE & TECHNOLOGY BY THE CATHOLIC ARCHDIOCESE OF TRICHUR
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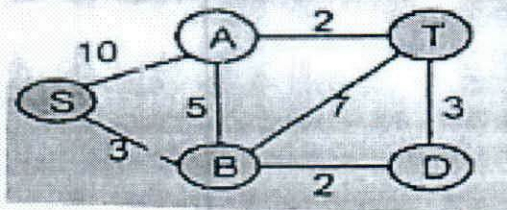NBA accredited B.Tech Programmes in Computer Science & Engineering, Electronics & Communication Engineering, Electrical & Electronics Engineering and Mechanical Engineering valid for the academic years 2016-2022. NBA accredited B.Tech Programme in Civil Engineering valid for the academic years 2019-2022.

b) How Collision is avoided in CSMA/CA? Give the suitable techniques (any two)

18.a)What is unguided transmission media and explain the various types of unguided transmission

b) Discuss the advantages and disadvantages of optical fiber cable

19.a) Draw the structure of TCP/IP reference model and explain the five layers function in detail

b) Compare the virtual circuit approach and datagram approach with an example

20.a) Distinguish the stop-and-wait and sliding window for flow control

b) Write short notes on bit stuffing with suitable diagram

21.a) Explain the various types of space-division switching with neat diagram

b) Explain the various types of Time-division switching with neat diagram

22.a)Explain in detail about the access method and frame format of IEEE 802.3 standard network

b)With neat sketch, write the different categories of baseband of IEEE 802.3 standard network

23.a) Draw the architecture of IEEE 802.11 and explain

b) Compare Wireless LAN and IEEE 802.11

24.a) What is the number of bits in an IPv4? Discuss various categories of Classful addressing?

b) Write short notes on various types of notation performing in the networks?

25.a)What is meant by ICMP? Explain the various type of error message occur in the ICMP protocol?

b) Draw the message format of ICMP protocol? Discuss the different types of query message in ICMP Protocol

26.a) List the differences between distance vector and link state routing protocols.

b) Prepare a routing table for each node using the distance vector algorithm and find out which is a least cost route to send the packets A to D?

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27.a) Prepare a routing table for each node using the distance vector algorithm and find out which is a least cost route to send the packets C to D?

b) Draw the flow chat of Dijkstra's algorithm? Write the procedure for implementation of Dijkstra's algorithm and give the suitable example

28.a) How to connected if one of the organizations is not geographically close to the other three? Give the example

b) Why we are going to address aggregation method? Explain in detail and Give the suitable example

29.a) Define hop? Explain the Next-Hop Method Versus Route Method with a suitable example?

b) Compare the concept of Network-Specific Method Versus Host-Specific Method and default method with an example?

30.a) How ARP used for in networking? explain the working operation of ARP protocol

b) Differentiate four Different Cases using ARP protocol with neat diagram?

(Ponmanidaja)

Signature of faculty

HOD, ECE

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Reg No.: _____

Name: _____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY
SEVENTH SEMESTER B.TECH DEGREE EXAMINATION(R&S), DECEMBER 2019

Course Code: EC407
Course Name: COMPUTER COMMUNICATION

Max. Marks: 100   Duration: 3 Hours

PART A
Answer any two full questions, each carries 15 marks.

			Marks
1	a)	With a suitable diagram explain the fundamentals of OSI model.	(10)
	b)	Explain about byte stuffing with example.	(5)
2	a)	Explain the frame format in HDLC protocol.	(8)
	b)	Explain about TCP/IP protocol suite.	(7)
3	a)	Explain about simplex, half duplex and full duplex communication.	(3)
	b)	Explain how collision is handled in CSMA/CD.	(8)
	c)	Compare circuit switching and packet switching.	(4)

PART B
Answer any two full questions, each carries 15 marks.

4	a)	Explain about ICMP. How is error reporting possible in ICMP.	(8)
	b)	Explain the forwarding of packet in network layer.	(7)
5	a)	Explain subnetting and super netting. How do the subnet mask and supernet mask differ from a default mask in classful addressing?	(8)
	b)	Explain Link State Routing using Dijkstras algorithm with an example.	(7)
6	a)	What is VLAN? Explain its configurations.	(8)
	b)	Explain Routing Information Protocol with an example.	(7)

PART C
Answer any two full questions, each carries 20 marks.

7	a)	Explain about open loop and closed loop congestion control mechanisms.	(10)
	b)	Write note on (a) PGP (b) TLS	(6)
	c)	Explain about firewall and its types.	(4)
8	a)	With necessary diagram explain the features of UDP.	(8)
	b)	Explain the various intrusion detection systems.	(6)
	c)	Explain the TCP segment format.	(6)

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9	a)	Explain any four common attacks in networks.	(8)
	b)	Explain how Telnet establishes connection to a remote system.	(6)
	c)	Explain about IPSec and its modes.	(6)

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Parents communication

Jyothi Engineering College, Cheruthuruthy

Department of Electronics and Communication Engineering(B)

Attendance & Progress Report

Date: 10-10-2019

Dear Sir/Madam,

The attendance and progress of your ward Mr. VISHNU V studying in S7 BTech in Electronics and Communication Engineering(B) is noted below.

The Marks obtained in First Sessional

Sub Code	Subject Name	Marks Obtained (out of)	Class Average	Attendance%	Remarks
EC 403	MICROWAVE & RADAR ENGINEERING	7 (50)	27.63	76.92	Failed
EC 405	OPTICAL COMMUNICATION	24 (50)	29.42	84	
EC 407	COMPUTER COMMUNICATION	18 (50)	30.1	86.36	Failed
EC 409	CONTROL SYSTEMS	11 (50)	33.97	81.48	Failed
EC 469	OPTOELECTRONIC DEVICES	16 (50)	32.33	70.59	Failed
EC401	INFORMATION THEORY & CODING	16 (50)	37.52	83.87	Failed

The general progress of your ward is : Excellent / Good / Average / Poor

Class Teacher

Neethu Rose Thomas

H.O.D
Dr. Jose P. Thareth
M.Tech., Ph.D. (NIT)
Professor & HOD, ECE Department
Jyothi Engineering College
Cheruthuruthy, Thrissur - 679 531

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