



FROM OUR DIRECTOR

In this newsletter we will see tremendous growth in Faculty and Students interest in various activities in the department. I would like to express my great appreciation to all the SAMPADA team members, who collectively helped to co-ordinate the departmental activities throughout and in bringing out this one.

Dr.E. Sai Baba Reddy, Director, VJIT



FROM OUR PRINCIPAL

I congratulate ECE Students and Faculty for their continuous efforts and achievements in all the aspects which are effectively represented in SAMPADA 'the face of ECE' and also appreciate the fantastic work done by the editorial team. I also wish ECE Department will continue the zeal of participation in all events /activities in future too.

- Dr. A. Padmaja, Principal, VJIT



MESSAGE FROM THE HOD



This news letter really is a special time for us as we reflect back on the highlights and focus on the success of our students and staff. With collective effort of faculty who are back bone of department students have actively participated in hackathons, workshops and many events which are have been reflected in our department newsletter 'SAMPADA'. We continue to be relentless in growing the capability of our students as learners and helping students to achieve personal excellence and serve mankind with innovative ideas. That will never change. We also look forward that our Alumni will do continue to serve perceived skills from department in various aspects in their future endeavors. Looking forward for support and suggestions for further accomplishments and procurements.

-Dr.K.Vasanth,Head of the Department

DEPARTMENT NEWS

Vision of the Department

The Department of Electronics & Communication Engineering intends to be a leader in creating the high quality engineers in the field of electronics and associated technologies to cater to national and global technological needs promoting the human prosperity and well-being.

Mission of the Department

M1: Providing an infrastructural and conducive environment to the students, faculty and researchers for attaining domain knowledge and expertise in Electronics & Communication Engineering.

M2: Enable the students to develop into outstanding professionals with high ethical standards capable of creating, developing and managing global engineering enterprises.

M3: Inculcate the spirit of life long learning by interacting with outside world and communication skills.

Departmental Activities

The Department of Electronics and Communications Engineering takes immense pride in enhancing the way the Faculty and Student's learn, interact and support each other in shaping the future through remarkable skills and innovations incubated at our department by inculcating various activities at the department.

The following year Department of ECE has added several feathers to its hat and hosted several activities through out the year.

IETE Events

- 1 Nano satellite Design ECE 25th Jan. 2020
- 2 Antennas For Future and their Simulation ECE 1st Feb. 2020
- 3 IoT and IIoT ECE 8th Feb 2020
- 4 Role of Technology in Agriculture ECE 15th Feb 2020
- 5 H.24 standard for video compression ECE 25th Feb 2020

Industrial Visits

1. Industrial trip to “Electro Magnetic Devices” at Cherlapally, Hyderabad on 08/02/2020
2. Industrial trip to “ACD Communications” located at Cherlapally, Hyderabad on 29/02/2020.



Visit to "ACD Communications" located at Cherlapally,Hyderabad on 29/02/2020.

Visit to "Electro Magnetic Devices" located at Cherlapally,Hyderabad on 29/02/2020.

MOU'S

The Department of ECE has Signed 3 MOU'S

- 1.MOU with Cypress Semiconductors, HYD on 22/01/2020
- 2.MOU with Sapient Systems, HYD on 28/01/2020
- 3.MOU with METRONIX, HYD on 28/01/2020



MOU with Cypress Semiconductors, HYD



MOU with METRONIX, HYD



MOU with Sapient Systems, HYD

DEPARTMENT NEWS

Journal Publications

Following are the Publications made by the Department Faculty and Students.

JOURNALS			INTERNATIONAL CONFERENCES	BOOKS/BOOK CHAPTERS
Scopus	WOS/SCI	UGC Journals	Conferences	Book Chapter
11	04	14	12	6

Microprocessors and Microsystems
Volume 71, November 2019, 102880

VLSI architecture for Vasanth sorting to denoise image with minimum comparators

Sindhu E., V. Vasanth, K. Vasanth, K. Vasanth

Highlights

- A novel sorting technique called Vasanth sorting is proposed using 25 comparators to sort 9 numbers in increasing order.

Abstract

A novel sorting technique called Vasanth sorting is proposed using 25 comparators to sort 9 numbers in increasing order.

Keywords

VLSI architecture, Vasanth sorting, image denoising, minimum comparators.

Sindhu.E,” VLSI architecture for Vasanth sorting to denoise image with minimum comparators”, *Journal of Microprocessors and Microsystems (Elsevier)*, Vol number 71, Issue number 1, 2019. <https://doi.org/10.1016/j.micpro.2019.102880>. The paper got published in a SCI journal with Thomson Reuters Impact factor of 1.045.

Macharla, M. “A Self Assistive Device for Deaf & Blind People Using IOT”. *Journal of Medical Systems* volume no 43, issue number 88 (2019). <https://doi.org/10.1007/s10916-019-1201-0>. The paper got published in SCI Journal with Thomson Reuters Impact factor of 2.415.

Journal of Medical Systems

A Self Assistive Device for Deaf & Blind People Using IOT

Karla Kar, Deepa Thangavel

Abstract

This paper presents Google speech API based aid for deaf and blind people. The developed system uses the microphone to send to Google API server which converts the speech signal into text and displaying into a LED screen and notifies the speech via speaker. The aid will use keypad gestures provided to send the needed messages to Google API server when the user is unable to hear or see.

Keywords

Google speech API, IOT, deaf and blind people, speech recognition, LED display, keypad.

Macharla, M. “A Self Assistive Device for Deaf & Blind People Using IOT”, *Journal of Medical Systems* volume no 43, issue number 88 (2019). <https://doi.org/10.1007/s10916-019-1201-0>. The paper got published in SCI Journal with Thomson Reuters Impact factor of 2.415.

K Vasanth, “A Tri- State Filter for the Removal of Salt and Pepper Noise in Mammogram Images”, *Journal of Medical Systems (Springer)*, vol 43, issue 2, pp 1-10, 2019. (Scopus/WOS/SCI), (DOP:01/03/2019). (IF:2.098)

Journal of Medical Systems

A Tri- State Filter for the Removal of Salt and Pepper Noise in Mammogram Images

K. Vasanth, K. Vasanth, K. Vasanth

Abstract

A new algorithm which uses two level decision and its state sets lower values to eliminate high density noise in mammogram images is proposed. The proposed algorithm uses the number of non-zero pixels in the current processing vicinity as input to the decision tree. To state values such as non-zero pixels in the current processing vicinity as input to the decision tree to replace the corrupted pixel based on the decision tree in the current processing vicinity.

Keywords

Decision tree, salt and pepper noise, mammogram images, two level decision.

Vasanth, K, “A decision based asymmetrically trimmed modified winsorized median filter for the removal of salt and pepper noise in images and videos”. *Multimed Tools Appl* 79, 415–432 (2020). <https://doi.org/10.1007/s11042-019-08124-9>. Impact Factor (2.313)

Multimedia Tools and Applications

A decision based asymmetrically trimmed modified winsorized median filter for the removal of salt and pepper noise in images and videos

K. Vasanth, K. Vasanth, K. Vasanth

Abstract

A decision based asymmetrically trimmed winsorized median filter for the removal of salt and pepper noise in images and videos is proposed. The proposed filter initially identifies the pixels to be replaced and then replaces the noisy pixels with asymmetrically trimmed modified winsorized median filter using the two state pixels method. Distortion experiments

Keywords

Decision tree, salt and pepper noise, multimedia tools and applications, two level decision.

Vasanth, K, “A decision based asymmetrically trimmed modified winsorized median filter for the removal of salt and pepper noise in images and videos”. *Multimed Tools Appl* 79, 415–432 (2020). <https://doi.org/10.1007/s11042-019-08124-9>. Impact Factor (2.313)

LOCKDOWN ACTIVITIES OF STAFF AND STUDENTS

The following year the department had the faculty and students to do various certifications and participate in various events.

Total no of Certifications done by the Department: 2000

Total no of Certifications done at Coursera: 1700

Total no of Webinars attended: 442

Total no of National Seminars attended: 64

Total no of Internships completed: 37

Total no of Quiz participated: 735

Total no of Hackathon Participated: 54

Total no of Hackathon won: 18

The Students have Organized and took part in various Co Curricular Activities:

1. Students of Final year hosted Survival Fiesta a Virtual Talent Hunt Program In-Collabration with the Cultural Club of VJIT-Yukthi.
2. Students have taken active parts in the College Radio powered by Younify and showcased their Exceptional skills like Social Speaking and Music.
3. Students of 3rd year took part in blood donation drive organised by HITA-VJIT.

STUDENT'S CORNER

The Students of the Department are always a step ahead in terms of Hard Work and Talent, and have always proved their ability to select the best and they display Exemplary Innovational and Leadership Skills

The Students have proved themselves that they are innovative and can provide smart solutions.

The Students have come up with the Following Solutions.

1. COCO-KASAYA "Worlds First Automatic Coconut Water Extraction Unit"
2. SURAKSHA APP "A Care that Never Quits"
3. SMART BAG @(Telangana State Police Hackathon)
4. Detection and Tracing of Human Activity using Motion Sensors to ensure Womens Safety@(Telangana State Police Hackathon).
5. Driving License Authorization based Driver's Safety @(JNTUH Quest Hack)

STUDENTS CORNER

COCO KASAYA

Worlds First Automatic Coconut Water Extraction Unit “COCO KASAYA” is the pride of our department as it is one of a kind innovation made with a Social Cause to help poor and widowed generate employment and revenue for family.

The Innovation has won Several Awards and is in Production Ready Stage.

The Mastermind behind this Product is Dr.K.Vasanth and his Team (Kameswari, Divya, Karishma and Alekhya).

Awards Recieved:

1. Best Prototype @IEEE EPICS
2. Best Prototype @ We-Conclave
3. Winner JNTUH Project Expo
4. Winner IUCSPEED Expo
5. Reached finals of Vishwakarma Awards



Team Coco Kasaya with Prototypes

SURAKSHA APP



Suraksha App is the contribution of VJIT, ECE department for the Covid- 19 Pandemic. III Year Students developed an app that gives solution to tackle migration workers throughout INDIA. It is a full stacked App developed for INDIA. The feature includes Donation, counselling, hospitals, DRM of each state and a special Machine earning based methodology to identify and help people at risk during Pandemic

TELANGANA STATE POLICE HACKATHON 2019 WINNERS ON WOMEN SAFETY



TEAM SMART HANDBAG



TEAM DIYA

Students of III Year were winners of Hackathon conducted by Telangana state police department in the theme women safety . Students developed a Smart Handbag and Surveillance system and got 6 Months internship in company to complete their idea

Team Y Axis

- 1) Developed a Product Named Face Recognition Attendance System to Monitor Students attendance using Computer vision Technique
- 2) Developed LADS (License Authorization and Driver's Safety) in Telangana State Police Hackathon
- 3) Got #8th/103 Teams position in Hackathon Conducted by IIIT, Hyderabad Solution: NLP based FIBs creation for the given text book data
- 4) Got 4th/27 Teams position in JNTUH Smart India Hackathon Project Name- E-Waste management and Smart Dustbin system.
- 5) Proposed AGRO POLES Application development and model building



STUDENT ACHIEVEMENTS

1. P.sai.charan presented a poster on "Electronic Structure and Optical Properties of Mg and Al using modified Becky jhonson potential study" at optics + photonics conference by SPIE from 11th aug -15th aug 2019 at San Diego.
2. Spandana, ll ECE, VJIT poster presentation winner @JNTUH QUEST EXPO
3. P V Sai Krithik, M Pratyusha, M T Adarsh Raghavan won 3rd prize for driving licence Authorization based driver's saftety @JNTUH QUEST EXPO
4. Sai Krithik, ll ECE for securing 6 postion in the world as top machine hacker's around the world for the month of July 2020
5. Swapna reddy represented JNTUH in all India inter University KHOKHO
6. Rohith, ll ECE, represented JNTUH in BallBadminton at Central zone
7. Srinath and Devesh of 4th year ECE have represented VJIT in Football at JNTUH zonals.



Charan with SPIE Student Chapter Facilitator



Rohith at Ball Badminton Centtral Zone



Spandana Receiving Certificate at JNTUH Quest Hack

STUDENTS CORNER

PLACEMENTS 2020

The Students of our Department have always proved that are well knowledgable in latest technological and industrial trends and are industry ready to be placed in various high profile MNC'S.

The Highest packages the following year are Cisco(11.3LPA) & BYJU'S(10LPA).

Capgemini- 36 TCS Ninja- 11 Cluster IT- 14 Cognizant- 5 PacketPrep-8
Hexaware-3 BYJU'S-1 Integrythm-1 Rubicon Red-1 Collins Aerospace-1



H E Tarun
CISCO



K. Vaishnavi
CISCO



T. Sindhu
CISCO



Devesh.K
BYJU'S



K. Lahari
Collins Aerospace

INTERNSHIPS

24 Students have completed internships at various Companies in various Domains.

1. Mahesh & Uday Kumar of IV Year did their internship at Techolution a smart city based core company.
2. Kameswari V N of III Year completed Internship at Singareni collieries on Electronics Automation.

TESTIMONIALS



My Sincere Appreciation and Gratitude to the Training and Placement Department and all staffs of Vidya Jyothi Institute of Technology for their effort in implanting quality technical and aptitude training. I am very grateful to them for effectively and sincerely in helping me to grab first ever oppurtunity that came into my life.

-Laxmi D, Project Analyst, Rockwell Collins