Advancement in VLSI and Signal Processing

(VMTW-ICAVSP-2K24)

Organized by

Department of Electronics and Communication Engineering.

Courses Offered

S.No	Cource	Department	Intake
UG Cources			
01	B.Tech	Computer Science and Engineering	300
02	B.Tech	Computer Science and Engineering (Data Science)	60
03	B.Tech	CSE (Artificial Intelligence and Machine Learning)	180
04	B.Tech	Information Technology	60
05	B.Tech	Electronicss and Communication Engineering	60
PG Cources			
01	M.Tech	Very Large Scale Integration (VLSI) Design	18
02	M.Tech	Computer Science and Engineering	18

VIGNAN'S INSTITUTE OF MANAGEMENT AND TECHNOLOGY FOR WOMEN

An Autonomous Institution, Approved by AICTE and Affiliated to JNTUH

Counselling Codes
ECET / EAMCET-VMTW
PGECET-VMTW1

A+ NAAC

Accredited by NBA NATIONAL BOARD of ACCREDITATION CSE & ECE

ARIIA

nirf

www.sciro.co.in

ICAVSP-2k24   Vignan's Institute of Management and Technology for Women, Hyderabad   SCIRO

Proceedings of
1st International Conference
on

Advancement in VLSI and Signal Processing

(VMTW-ICAVSP-2K24)
(25th -26th Novemer 2024)

Organized by

Department of Electronics and Communication Engineering

Conveners

Dr. Sk. Masthan Basha

Dr. Vijaykumar R. Urkude

VIGNAN'S INSTITUTE OF MANAGEMENT AND TECHNOLOGY FOR WOMEN

(An Autonomous Institution)
(Sponsored by Lavu Educational Society)
Approved by AICTE, New Delhi & Affiliated to JNTU, Hyderabad.
Kondapur(V), Ghatkesar (M), Medchal – Malkajgiri(D) – 501 301,

SCIRO

1ˢᵗ International Conference
on

Advancement in VLSI and Signal Processing (VMTW-ICAVSP-2K24)

25th -26th November 2024.

Organized By

Department of Electronics and Communication Engineering

Vignan's Institute of Management and Technology for Women
(An Autonomous institution)
(Sponsored by Lavu Educational Society)
Approved by AICTE, New Delhi & Affiliated to JNTU, Hyderabad.
Kondapur(V), Ghatkesar (M), Medchal – Malkajgiri(D) – 501 301.

Conveners

Dr.SK. Masthan Basha
Associate Professor, Dept of ECE, VMTW.

Dr Vijaykumar R. Urkude
Professor, Dept of ECE, VMTW.

Chief-Patrons

Dr. L. Rathaiah

Chairman,
Vignan Group of Institutions.

Sri. B. Shravan

Chief Executive Officer (CEO)
Vignan Group of Institutions, Hyderabad

Patron

Dr. G.Apparao Naidu

Principal
VMTW, Hyderabad.

Co-Patron

Mr. P. Harikrishna,

Head, Dept. of ECE
VMTW, Hyderabad.

Conveners

Dr. SK. Masthan Basha

Associate Professor, Dept of ECE

VMTW, Hyderabad.

Dr. Vijaykumar R. Urkude

Professor, Dept of ECE

VMTW, Hyderabad.

Organizing committee

Dr.Jhansi Reddy
Associate Professor

Mr. Thanam Pullaiah
Associate Professor

Mr. Sunilkumar Jangili
Associate Professor

Mr. Nagaraju Eduru
Associate Professor

Mrs. Gangula Swathi
Associate Professor

Ms. K. Padmaleela
Associate Professor

Mrs. G. Indira Priya Darshini
Associate Professor

Mr. S. Sandeep Babu
Assistant Professor

Mr. G. Ganesh Reddy
Assistant Professor

Ms. Susmitha Galipell
Assistant Professor

Mr. Ashok Reddy Katta
Assistant Professor

Mrs. D. Shirisha
Assistant Professor

Mr. D. Naresh
Assistant Professor

Mrs. K. Pravallika
Assistant Professor

Conference Advisory Committee

Dr. Xiao-zhi Gao
Professor, Univ. of Eastern Finland

Dr. D. Praveen Kumar
Prof., Stockholm Univ., Sweden

Dr. P.V. Naganjaneyulu
Prof., Mizoram Central Univ.

Dr. P Chandrasekhar Reddy
Prof., ECE, JNTU, Hyd.

Dr. B Vishnu Vardhan
Prof., CSE, JNTU, Hyd.

Dr.N Ramakrishnaiah
Prof., CSE, JNTU, Kakinada

Dr.K.Shahu Chatrapati
Prof., CSE, JNTU, Hyd.

Dr. A. Chandra Sekhara Rao
Assoc Prof, IIT Dhanbad

Dr. K. Naga Jyothi
Pro-VC, BESTIU, AP

Dr. B S Nagakishor, Registrar
Mangalayatan Univ, MP

Dr. P. Koteswara Rao
Assoc Prof., University of Delhi

Dr B P Santosh Kumar
Assoc Prof, YV University, AP

Dr. Mangesh Nikose
Assoc Prof. Sandip Univ, MH

Dr. Hathiram Nenavath
Asst Prof., ECE, IIT Bhilai

Dr. Banoth Ravi
Asst Prof., ECE, IIIT Trichy

Dr. T. Srinath Reddy
Asst Prof., IIITDM, Kanchipuram

Dr. Vadthiya Narendar
Asst Prof., ECE, NIT Warangal

Dr. Sumit Saha
Asst Prof., ECE, NIT Rourkela

Dr. G. Appala Naidu
Asst Prof., JNTU, Vizianagaram

Preface

It is a great privilege for us to present the proceedings of First International Conference on Advancement in VLSI and Signal Processing (ICAVSP-2K24) to the authors and delegates of the event. We hope that you will find it useful, exciting and inspiring.

Being part of the world community, we were all aware that research had consecutively played an extremely important role in its contribution to the body of knowledge and prospect development. While globalization appeared to have significant impacts for the worldwide society, this transnational assembly was intended for wide-ranging engineering research undertakings carried out by the involvement of industry and academic institutions.

ICAVSP-2K24 aims to provide a platform for discussing the issues, challenges, opportunities and findings of Advancement in VLSI and Signal Processing research. The ever-changing scope and rapid development of technology create new problems and questions, resulting in the real needs for sharing brilliant ideas and stimulating good awareness of this important research field. We promise to produce a bright picture and charming landscape for Advancement in VLSI and Signal Processing, while the support received and the enthusiasm witnessed have truly exceeded our expectations. The selected topics depicted a vast pool of knowledge, resources and expertise of the scientific and technological community, which in turn made a substantial contribution for overall national development. Therefore, on the day of completion of this journey, we are delighted with a high level of satisfaction and aspiration.
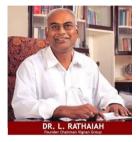
The responses to the call-for-papers had been overwhelming throughout India. Unfortunately, many manuscripts from prestigious institutions could not be accepted due to the reviewing outcomes and our capacity constraints. We would like to express our gratitude and appreciation for all of the reviewers who helped us maintain the high quality of manuscripts included in the proceedings published by Sciro International Publishers. We would also like to extend our thanks to the members of the organizing team for their hard work.

Our sincere thanks to the Management of Vignan's Institute of Management and Technology for Women for all the organizational support to conduct this conference.

We appreciate that the authors of ICAVSP-2K24 may want to maximize the popularity of their papers and we will try our best to support them in their endeavours. Let us wish that all the participants of ICAVSP-2K24 will have a wonderful and fruitful time at the conference.

Conveners, ICAVSP-2K24

Dr. SK Masthan Basha   Dr. Vijaykumar R. Urkude
Associate Professor, ECE, VMTW   Professor, ECE, VMTW

Chairman's Message

DR. L. RATHAIAH
Founder Chairman Vignan Group

I am delighted in acknowledging the 1ˢᵗ International Conference ICAVSP-2K24 organized by Department of Electronics and Communication Engineering, Vignan's Institute of Management and Technology for Women on "Advancement in VLSI and Signal Processing".

Such conferences are organized to dispense latent and innovative ideas, extremely helpful for the researchers and scholars in their research-oriented endeavours.

I appreciate the organizing committee for showing a keen interest in organizing a successful Conference and contributing new ideas and research findings. I wish them for their endeavours to spread knowledge.

Dr. Lavu Rathaiah
Chairman
Vignan's Group of Institutions

CEO's Message

1st International Conference ICAVSP-2K24, is the innovative venture of Vignan's Institute of Management and Technology for Women and a forum of great novelty with the views of initiatives.

My firm belief on the prospect of research, lies in the proper collaboration of industries and educational institutions. The prime attention is given to include more dignitaries from industries to chair the sessions and to bestow keynote addresses for inculcating the culture of collaborative research in the institutions of higher learning.

Further, the main focus of conference is aimed to take up research in the growing, need based, market segments, where there is a lot of scope for bringing out high-tech products and for registering patents.

My best wishes to the conference.

Mr. B. Shravan
Chief Executive Officer,
Vignan's Institute of Management and Technology for Women
Hyderabad

Principal's Message

I am extremely happy that the first International Conference on Advancement in VLSI and Signal Processing (ICAVSP-2K24) on 25th and 26th of November 2024 is conducted by the Department of Electronics and Communication Engineering, Vignan's Institute of Management and Technology for Women in association with the Sciro International Publishers.

Research is a never-ending process; the main inputs to the research are contributed by thorough knowledge in the particular field through immense learning. Immense learning can be brought by attending various forums related to the subject. Hence it becomes essential to conduct conferences of this sort to contribute to the field of research and technology.

The field of engineering is a vast area including various disciplines and its applications keep increasing to satisfy the automated era. To keep the knowledge shared and updated its essential to bring the students, faculty members and researchers from various institutes, nationwide into a common forum. I hope this conference brings this to reality by uniting participants from different places to present their research works and exchange their ideas. I wish all the participants to have a good learning experience throughout the conference.

Dr. G. Apparao Naidu
Principal,
Vignan's Institute of Management and Technology for Women
Hyderabad

HOD's Message

My heartfelt congratulation to the teaching and nonteaching staff members of the Department of Electronics and Communication Engineering, Vignan's Institute of Management and Technology for Women, Hyderabad for their meticulous efforts in organizing International Conference on Advancement in VLSI and Signal Processing (ICAVSP-2K24) Which is truly incredible achievement. This is the first of its kind conference and therefore has been a great challenge to the team, which they have exceeded successfully.

I must say it is a privilege to organize a conference of this stature, which has received manifestation of interest & active involvement of all stakeholders, Participants & Delegates from India and abroad.

I extend a warm & hearty welcome to all the honored keynote Speakers, Delegates & Participants and look forward to their active participation in making this Conference grand success and thereby helping our department in adding yet another feather in its cap of pride.

Our institution is fortunate to have a healthy and conductive ambience for the blessings and guidance of chairman-Dr. Lavu Rathaiah Garu.

Wishing all the participants good luck and a mutually advantageous conference.

P. Harikrishna
Assoc. Prof & HOD,
Dept. of ECE, VMTW

Convener's Message

It is our great pleasure to present the proceedings of 1ˢᵗ International Conference on Advancement in VLSI and Signal Processing (ICAVSP-2K24) Organized by Department of Electronics and Communication Engineering, Vignan's Institute of Management and Technology for Women in association with the Sciro International Publishers on 25ᵗʰ and 26ᵗʰ November, 2024. This conference focus on disseminating the knowledge and initiating collaborations thus will help on transferring technical knowledge. It provides an excellent platform for sharing findings from the researchers, industrialists and policy makers. Proper research and development and its correct implementation not only strengthen the developments but also it provides sustainable solutions for problems. Accordingly, to get higher quality papers and disseminating the realistic findings through the research and development, this conference was initiated with collecting full papers from researchers. All these papers were reviewed by experts from leading Universities from all over the world. Further double-blind review was implemented for processing the high quality and independent review. This conference also obtained advices from international advisory panel to keep up the standard in the first conference itself and for better services in the future too.

Dr.Sk. Masthan Basha
Associate Professor
Dept. of ECE
VMTW

This conference will publish all accepted and presented papers in the online platform, through the website of the International Conference on Advancement of VLSI and Signal Processing and the website of Sciro International Publishers as these papers will be copyrighted to the VMTW. This will help the future researchers to obtain the high-quality papers easily for their researches.

As the conveners of this conference, we extend our gratitude to Dr. Lavu Rathaiah, Chairman, Vignan group of Institutions and Mr. B. Shravan, CEO, Vignan's Institute of Management and Technology for Women. Our sincere thanks goes to Dr.G Apparao Naidu, Principal, Vignan's Institute of Management and Technology for Women who supported in all possible manner to organize this conference and helped in obtaining the necessary administrative approval for organizing the event in our Campus. Our special thanks to **Dr. A Rajani**, Professor & Head, ECE, Director UIIC, JNTUH, Chief Guest for her gracious presence at the event. We would like to thank Dr. C. Srinivasa Kumar for his constant help and guidance towards the conference.

Dr.Vijaykumar R.Urkude
Professor
Dept. of ECE
VMTW

We are thankful to Mr. Harikrishna, Head of the department, faculty colleagues and nonteaching staff members for their constant help and guidance that radiated a source of energy within us.

We are thankful for the enormous and high-quality support of all authors, reviewers, advisors and session chairs. We feel proud and thank you for making this event a successful one.

We wish that ICAVSP will keep on growing in coming years with more impact on the international research community.

Contents Table

Paper ID: VMTW-ICAVSP101

POWER LINE COMMUNICATION FOR APPLICATION IN SMART GRID

Shifana Anjum & SK Srikanth Kamath
Department of Electronics & Communication
Manipal Institute of Technology
Manipal Academy of Higher Education
Manipal, India
shifanaanjum786@gmail.com &srikanth.kamath@manipal.edu

Abstract:

This study explores the role of Power Line Communication (PLC) in enhancing the performance of smart grids, which improve energy efficiency through the merging of smart meters, smart appliances, automated controls, and networking technologies. The focus is on how PLC can optimize smart grid functionality while addressing the various challenges and advancements in the field. To achieve meaningful results, data and practical PLC system settings were given by a Florida Power and Light (FPL). The study employed MATLAB/Simulink and Python to model the PLC system, analyzing different digital modulation schemes including Phase Shift Keying (PSK), Frequency Shift Keying (FSK), and Amplitude Shift Keying (ASK). The paper discusses the benefits and design trade-offs associated with these modulation techniques.

Keywords: Smart grid, power line communications, phase shift keying, frequency shift keying, amplitude shift keying.

Paper ID: VMTW-ICAVSP104

DESIGN AND OPTIMIZATION OF AN ENERGY-EFFICIENT TRANSMISSION GATE LEVEL SHIFTER CIRCUIT

P. Jyothi, V. Kusuma, C. Sai Durga Prasad, C. Phanindra Manoj & S. Gnana Deep
Department of Electronics and Communication Engineering,
Sri Vasavi Institute of Engineering & Technology,
Nandamuru, Pedana Mandal-521369, Krishna Dt., Andhra Pradesh, India

Abstract:
This paper presents the design and optimization of an energy-efficient transmission gate level shifter circuit. The proposed circuit aims to enhance energy efficiency while maintaining performance in low-voltage applications. The design methodology, simulation results, and performance metrics are discussed in detail. By minimizing the threshold voltage drop and enhancing robustness against voltage fluctuations, this technology proves particularly beneficial for applications requiring high energy efficiency and reliability, such as in portable electronics and IoT devices. This advancement not only demonstrates significant improvements in power efficiency and switching speed but also offers a promising alternative to conventional level shifting technologies in modern electronic systems. Simulation results in 18-nm CMOS technology

Keywords: Transmission Gate, Level Shifter, Energy Efficiency, VLSI Design, Low Voltage.

DESIGN OF A HIGH-EFFICIENT ERROR DETECTION AND CORRECTION FOR MEMORIES

Jalluri Jyothi Swaroop, R. Kalpana, K. Preritha, P. Prudhvi & Raj K. Tagore Nat
Department of Electronics and Communication Engineering,
Sri Vasavi Institute of Engineering & Technology,
Nandamuru, Pedana Mandal-521369, Krishna Dt., Andhra Pradesh, India

Abstract:
　　This paper presents a novel approach for high-efficient error detection and correction in memory systems. As the density of semiconductor memories increases, the likelihood of errors, particularly Multiple Cell Upsets (MCUs), also rises. The proposed system utilizes Error Correction Codes (ECC) to enhance reliability while minimizing overhead. Simulation results demonstrate significant improvements in error detection and correction capabilities, making the proposed technique suitable for modern memory applications.

Keywords: Error detection, error correction, memory systems, Multiple Cell Upsets (MCUs), Error Correction Codes (ECC).

HYBRID FREE-SPACE OPTICAL (FSO) AND RADIO FREQUENCY (RF) COMMUNICATION SYSTEMS

Dr. Sk Khaddar Zelani,
Assoc Professor,Department of ECE,
Sri Vasavi Institute of Engineering &Technology

L.Jayanavya Sri, A.Reshma, A.Kamalkhan&G.Ishwarya
UG Students, Department of ECE,
Sri Vasavi Institute of Engineering &Technology

Abstract:
The increasing demand for high-speed wireless communication necessitates the integration of Free-Space Optical (FSO) links, which offer high data rates, with Radio Frequency (RF) links, known for their robustness against adverse weather conditions. This paper presents a hybrid FSO/RF communication system that dynamically switches between FSO and RF links based on real-time conditions, ensuring uninterrupted communication. The experimental verification of this system demonstrates its effectiveness in maintaining high reliability and bandwidth under varying atmospheric conditions.

Paper ID: VMTW-ICAVSP107

DESIGN AND IMPLEMENTATION OF AES S-BOX USING RFF

T. Sravya, Ch. N. K V Prasad & N. Sudheer Kumar
Department of Electronics and Communication Engineering
Sri Vasavi Institute of Engineering and Technology,
Nandamuru, Andhra Pradesh, India

Abstract:
This paper presents the design and implementation of the Advanced Encryption Standard (AES) S-Box using Razor Flip-Flops (RFF) as a countermeasure against side-channel attacks. The proposed system aims to enhance security while minimizing power consumption and silicon area. The results indicate that the use of RFF significantly improves the reliability of the S-Box implementation, providing error-free outputs and high security in cryptographic applications.

Keywords: AES, S-Box, Razor Flip-Flops, Side-Channel Attacks, Cryptography.

Paper ID: VMTW-ICAVSP108

DESIGN AND IMPLEMENTATION OF LOW POWER ARITHMETIC AND CODE CONVERTER CIRCUITS USING REVERSIBLE LOGIC

Dr. Sk Khader Zelani,
Assoc Professor, Department of ECE,
Sri Vasavi Institute of Engineering &Technology

D. Dedeepya Sri Venkata kaki, E. Naga Venkata Ratna Kinnera, A. Vamsi Priya & A. Venkata Naga Pavan Kumar
UG Students, Department of ECE,
Sri Vasavi Institute of Engineering &Technology

Abstract:
        Reversible logic is also called information lossless logic, since the information embedded in the circuits can be recovered, if lost. Research carried out by Landauer and Bennett proved that the energy dissipation would not occur if computation is made reversible. With this aim a number of reversible gates were designed and invented. As examples like-Fredkin gate, the Toffoli gate, the Peres gate, and the Feynman gate. Reversible logic has extensive applications and is considered as one of the futuristic technologies. But the logic Circuit designing is based on logic gates, which are non-reversible. This paper presents design of logic gates using reversible gates. These logic gates help in future implementation of higher end circuits.

Keywords: Quits, Reversible Logic, Quantum Cost, Garbage Output.

Paper ID: VMTW-ICAVSP109

ADIABATIC POSITIVE FEEDBACK METHOD FOR IMPROVING ENERGY EFFICIENCY OF SINGLE-ENDED 10T NEAR-THRESHOLD SRAM DESIGN

Sk Zelani,N. Kiranmayi, K. Ganesh Kumar, E. Sashank
Department of Electronics and Communication Engineering,
Sri Vasavi Institute of Engineering & Technology,
Nandamuru, Pedana Mandal-521369,
Krishna Dt., Andhra Pradesh, India

Abstract:

This project proposes an energy-efficient single-ended 10T (SE10T) near-threshold SRAM design that utilizes the adiabatic positive feedback method to improve read stability and rat ability. The proposed SE10T design incorporates a built-in read-assist scheme and a power-gating technique to enhance read stability and rat ability, respectively. Additionally, the design employs single-ended read/write operations and stacking of transistors in the cell core to reduce power/energy consumption. Simulation results in 18-nm CMOS technology at 3V demonstrate the benefits of using the adiabatic positive feedback method in improving the energy efficiency of SE10T near-threshold SRAM design. The proposed design offers a promising solution for low-power SRAMs required in modern system-on-chip-based applications.

Keywords: Adiabatic logic, SRAM, energy efficiency, near-threshold, single-ended, CMOS.

Paper ID: VMTW-ICAVSP110

BLUR ESTIMATION AND ENHANCING THE IMAGES USING SPLITTING SIGNALS

Dr Jaideep Gera
Associate Professor, Dept of CSE,
ST Mary's Group of Institutions Guntur for Women,
JNTUK, Guntur, AP, India.

G Indira Priyadarshini
Associate Professor, Dept of ECE,
Vignan's Institute of Management and Technology for Women,
JNTUH, TG, India.

Abstract:
　　In this paper we present a method for reducing blur caused by the camera shake during image capture. To estimate the motion blur the best choice we have is wiener filter and the results are gained. However wiener is not suitable for images having edges and gives a reduced blur output. To overcome this we are using alpha rooting method and split signal processing which is used to enhance the quality of the image by sharpening the edges and separate it from it's background and produces a visually more pleasing image. The resulting performance is compared with that of the wiener filter and interestingly image quality increases upto 30%. This can be further enhanced by using advanced transforms like curvelet as it can lead to good decomposition.

Index Terms: image restoration, blur kernel, Fourier transforms, curvelet transforms, PSNR and PSF, alpha rooting

Paper ID: VMTW-ICAVSP113

INTERNET OF THINGS IN THE HUMAN LIFE ON DIFFERENT APPLICATIONS

Dr.R. Ramesh Babu
Professor & HOD, Dept. of ECE, KMCE, Hyderabad,

Dr. M.Pavithra Jyothi
Professor, Dept. of ECE,SWCET, Hyderabad.

S.Venksta Chary
Asst.Professor, Dept. of ECE, KMCE, Hyderabad,

Abstract:
Science and technology has made another aspect in this cutting edge period. It has gotten solace the existences of all human being. Consistently new invention takes the world to higher progression. The huge improvement in the field of Internet of Things has made the human life more refined. The point of this paper is to bring out various utilizations of Internet of Things which assume fundamental part in the day to day routine of human being. Human race is entering into a universe of Internet of things (IoT) where gadgets in the organization convey and share information to simplify our life and quicker. The internet interfaces individuals through business and social interaction or through business exchanges like online business or internet banking. Then again, the Internet of Things (IoT) centers at linking gadgets or constructions with one another through sensors and actuators, to guarantee the assortment of meaningful information and conduct can work on human usefulness and result from those frameworks.

Keywords: Internet of Things (IOT), Applications of IOT, Smart environment, IOT's Role in Human Life.

Paper ID: VMTW-ICAVSP114

SYNTHESIS OF PADDY CROP MONITORING USING AI

B. Thanuja,
Associate Professor,ECE Dept,
CMR Technical Campus, Hyderabad, Telangana ,India

B. Naga Sai Lakshmi, A. Varun Tej, M. Raghava Reddy& M. Poojitha
Student ECE Dept,
CMR Technical Campus, Hyderabad, India

Jayaditya Peddisetty, Student, CBIT, Hyd.
jaypeddisetti@gmail.com

Abstract:
Paddy crop health monitoring plays a pivotal role in ensuring optimal agricultural productivity. In this context, leveraging artificial intelligence (AI) has emerged as a transformative solution. This project aims to develop a system that can predict the type of disease present on rice leaves using machine learning techniques, specifically MobileNetV2 architecture. The system uses image processing techniques and deep learning algorithms to classify the type of disease from the images of rice leaves. The proposed system uses MobileNetV2 architecture, which is a lightweight convolutional neural network (CNN) designed for mobile devices. The implementation of this Al-based monitoring system not only enhances the efficiency of crop management but also enables early detection of diseases and other stress factors, allowing farmers to take timely corrective actions. The amalgamation of Al technologies with precision agriculture holds the potential to revolutionize paddy cultivation, ensuring sustainable yields and contributing to food security.

Keywords: AI, Machine Learning, CNN.

DESIGN OF A MINIATURIZED CONICAL SURFACE HIGH ISOLATION MULTICHANNEL ANTENNA FOR MISSILE GUIDANCE APPLICATIONS

Sekhar babu Kurma, Mary leena nallagangula,Venugopal Kondapalli &Venkat Rao nekkanti
ECE Department,DNR College of Engineering &Technology
Bhimavaram ,A.P.India
sekharciet@gmail.com, leenaprasad414@gmail.com, venugopal.kondaplli@gmail.com,
venkatraonekkanti@gmail.com

B.Kiran Babu
ECE Department Godavari Gglobal university Rajahmundry ,A.P.India
bkiranbabu87@gmail.com

G.Rangarao
Physics Department, DNR College Bhimavaram, A.P.India
rangraogolla1975@gmail.com

Abstract:

This paper introduces a novel four-port multiple-input multiple-output antenna constructed with a conical surface geometry that surmounts the constraints of prior models intended for ultra wide-band applications, such as missile guidance applications. Each orthogonal element spans a stepped rectangular patch fed by a tapered microstrip line, offering polarization diversity. This structure shrinks the dimensions of the antenna to 42 × 42 mm2. A minuscule pair of non-driven elements on the rear Reflective surface functions as a decoupling element Mediating adjoining ports to further boost functionality. Curiously designed in the shape of a windmill and spinning cross, the tapes elevate the isolation. The proposed dual-band monopole antenna was designed on a compact FR4 substrate with a permittivity of 4.4 and a thickness of only 1 mm. Measurements revealed an impressive impedance bandwidth from 3.5 GHz to well beyond 16 GHz along with isolation exceeding 20 dB between the two ports. The envelope correlation was a negligible 0.0002 while diversity gain reached a hearty 10 dB across the band. Group delay differed by less than 1 ns throughout. Though other designs may perform better regarding one or two of these metrics, our antenna achieves a deft equilibrium of bandwidth, size, and isolation unlike anything yet reported. While demonstrating quite pleasing quasi-omnidirectional radiation over its broad operational range, making it well-suited for an array of emerging wireless applications, notably in minimized gadgets, a more nuanced evaluation of its design is still warranted to fully realize its potential for the networks of the future.

Keywords: Ultra wideband antenna, diversity gain, mean effective gain, Group delay,multi-input multi-output

Paper ID: VMTW-ICAVSP117

HISTORY OF DIGITAL IMAGE PROCESSING AND APPLICATION

M.Supraja
Research Scholar (VTU) & Assistant Professor,
Dept of ECE, RRCE, Bangalore.

Dr.L.Rangaiah
Professor Dept of ECE, RRCE, Bangalore.

Abstract:
  The application of an algorithm to digital data by means of a digital computer is known as digital image processing. Software that processes images could be called digital image processing. For instance: photography, signals, camera work, the camera's mechanism, pixels, etc. This paper's goal is to provide a brief history of digital image processing and its uses.

Keywords: Digital Image processing, signals, mechanism, pixels.

Paper ID: VMTW-ICAVSP121

MULTI-NEIGHBOR SELECTION TECHNIQUE FOR EFFICIENT ROUTING IN MANETS

T. Pullaiah & J.Sunil Kumar
Associate Professor, ECE Dept.,
Vignan's Institute of Management and Technology for women,
Kondapur ,Ghatkesar,Telangana state India.

Abstract:

Quality of Service (QoS) is very essential for MANETs. The distributed way of route cache update algorithm is used to send explicit ROUTE ERROR (RERR) message to all nodes. The performance of UDSR protocol is improved by using Multi neighbor selection approach. This approach helps in improving network performance by using different parameters. In this paper, we compare the DRS, cache update algorithm, Multi neighbor selection techniques for transmission of data. Network simulator (NS2) is used for experimental evaluation. This proposed approach helps in improving the QoS parameters like Packet Delivery Ratio (PDR), end to end delay.

Keywords: DRS, cache update algorithm, QoS, multi neighbor selection.

Paper ID: VMTW-ICAVSP123

SIMULATION OF NOISE REMOVAL FROM IMAGES USING FILTERS IN VERILOG

Bhavana Kalluri
M.Tech Student, Dept.of ECE, JNTUH College of Engineering
Hyderabad, India
Email:bhavanakalluri22@gmail.com

Swathi Gangula
Asst. Professor, Dept.of ECE.VMTW
Hyderabad, India
Email:swathi.gangula@vmtw.in

Dr.T.Satya Savithri
Professor, Dept.of ECE.JNTUH College of Engineering
Hyderabad, India
Email:tirumalasatya@jntuh.ac.in

Abstract:

Image filtering techniques are crucial in digital image processing for enhancing image quality and preparing images for further analysis. Gaussian, Laplacian, and Median filters are among the most commonly used filters for noise reduction, edge detection, and image smoothing. In this paper, we simulate these filters using Verilog to model their behavior at the hardware level, targeting future implementation on Field-Programmable Gate Arrays(FPGAs). The primary objective of this work is to simulate the functionality of these filters for different types of noise and evaluate their efficiency, accuracy, and design complexity in a hardware-oriented context. Simulation results validate the effectiveness of the filters with respect to noise, demonstrating their respective strengths in image processing tasks.

Keywords: Gaussian filter, Laplacian filter, Median filter,Verilog, image filtering, simulation.

Paper ID: VMTW-ICAVSP125

EFFECTIVENESS OF IOT IN VARIOUS APPLICATIONS AND ESSENTIALITY OF BIGDATA ANALYTICS

Dr.M.PavithraJyothi,
Professor, Dept. of ECE, SWCET, Hyderabad.

Mrs. O.Josna,
Assistant Professor, Dept. of CSE, RRCE, Bangalore.

Mrs. B.Bhagyasri
Associate Professor, Dept. of ECE, SWCET, Hyderabad.

Abstract:

The acceptance of millions of Internet-connected IoT devices began with the current spread of the Internet of Things (IoT). The Multi Media Big Data (MMBD) vision has gained widespread recognition as a result of the proliferation of connected devices. For interactive media information exchanges, MMBD the executive's offers calculation, investigation, stockpiling, and control to determine Quality of Service (QoS) issues. Despite this, it becomes challenging for interactive media frameworks to manage the various IoT settings that are enabled by sight and sound. These settings include medical services, traffic recordings, computerization, society-stopping images, and reconnaissance. These settings produce a tremendous amount of enormous media information that needs to be handled and investigated effectively. High-volume capacity and handling of information, information heterogeneity due to various interactive media sources, and clever independent direction are some of the issues that the current underlying model of IoT-empowered information the board frameworks faces when attempting to deal with MMBD. The test paper argues that there should be a better translation of how close a massive data analysis and the Internet of Things are because they tend to always be connected from a rational and mechanical perspective.

Keywords: Internet of Things (IoT), Big Data, IoT security, meta-data, pre processing, Cloud Computing, Data cleaning.

Paper ID: VMTW-ICAVSP127

IOT BASED HEALTH TRACKING SHOE FOR ELDERLY PEOPLE BY USING THE GAIT MONITORING SYSTEM

Y.R.K.Paramahamsa, D.Vineela, N.Vijaya Lakshmi, Ch.Viraj, & P.N.S. Satyanarayana
Department of Electronics and Communication Engineering,
Sri Vasavi Institute of Engineering & Technology, Nandamuru,
Krishna Dt., Andhra Pradesh, India

Abstract:

The Internet of Things (IoT) plays a crucial role in innovative applications, particularly in healthcare. This paper presents an IoT-based health tracking shoe designed for elderly individuals, utilizing a gait monitoring system. The system employs various sensors to monitor health parameters and alert caregivers in emergencies. The integration of real-time data transmission enhances the safety and well-being of elderly users, potentially reducing mortality rates.

Keywords: IoT, health monitoring, elderly care, gait analysis, sensors.

LPG GAS LEAKAGE DETECTION AND AVOIDANCE SYSTEM

K Sai Sudheer, Ch.Hari Prasad, P.Swathi, K.Hemanth,& P.Sweathak
Department of Electronics and Communication Engineering,
Sri Vasavi Institute of Engineering & Technology,
Nandamuru, Pedana Mandal-521369, Krishna Dt.
Andhra Pradesh, India

Abstract:

Gas leakage detection systems are an integral part of safety protocols, providing the first line of defence against potential disasters caused by gas leaks. This paper presents a comprehensive design and implementation of an LPG gas leakage detection and avoidance system. The proposed system utilizes a gas detection sensor, an alarm system, and an automatic gas valve closure mechanism to ensure safety in residential and industrial settings. The system is designed to detect gas leaks, trigger an alert, and automatically shut off the gas supply, thereby preventing potential hazards.

Keywords: LPG, gas leakage detection, safety system, automatic valve closure, Arduino.

Paper ID: VMTW-ICAVSP129

NON-INTRUSIVE UTOMATED DRIVER DROWSINESS DETECTION ANDAVOIDANCE SYSTEM

N. Nagaraju, J. Reshma Sai, V.Vyshnavi, G.G.V.S Nagaraju &B. Sitharam
Department of Electronics and Communication Engineering,
Sri Vasavi Institute of Engineering & Technology,
Nandamuru, Pedana Mandal, Krishna Dt., Andhra Pradesh, India.

Abstract:

Driver drowsiness is a significant contributor to road accidents, leading to severe injuries and fatalities. This paper presents a non-intrusive automated driver drowsiness detection and avoidance system aimed at enhancing road safety. The system utilizes image processing techniques to monitor the driver's eye state and issue timely warnings to prevent accidents. Our goal is to provide an interface where the program can automatically detect the driver's drowsiness and detect it in the event of an accident by using the image of a person captured by the webcam and examining how this information can be used to improve driving safety can be used The proposed solution integrates a Raspberry Pi Pico, eye blink sensors, and a buzzer to alert the driver when drowsiness is detected. The effectiveness of the system is evaluated through various tests, demonstrating its potential to significantly reduce the risk of accidents caused by driver fatigue.

Keywords: Driver Drowsiness, Image Processing, Raspberry Pi, Eye Blink Sensor, Road Safety.

PROBABILITY-BASED ERROR ADJUSTMENT FOR APPROXIMATE ULTIPLIER USING HIGH-SPEED APPROXIMATE 4-2 COMPRESSOR

Karuna Gone, Ch.Swarna Latha, Ch.Sai Krishna, J.Amar Babu & M.Chandini
Department of Electronics and Communication Engineering
Sri Vasavi Institute of Engineering & Technology
Nandamuru, Pedana Mandal-521369, Krishna Dt.,
Andhra Pradesh, India

Abstract:

This paper presents a novel approach to approximate multiplication using a high-speed approximate 4-2 compressor. The proposed design focuses on reducing the error rate and improving the electrical performance of multipliers, particularly in error-tolerant applications such as image processing. The hybrid multiplier architecture combines the proposed approximate compressor with error correction techniques, demonstrating significant improvements in power-delay area product (PDAP) compared to traditional exact multipliers. Simulation results validate the effectiveness of the proposed method.

Keywords: Approximate Multipliers, 4-2 Compressor, Error Adjustment, VLSI Design, Power-Delay Area Product.

DESIGN AND IMPLEMENTATION OF 32-BIT MAC UNIT USING VEDIC MATHEMATICS

M Suneel, B. Deepthi, C.Sai Harini, Nag & K. Bala Krishna, P.Bhargav & V. Yugandhar
Department of Electronics and Communication Engineering
Sri Vasavi Institute of Engineering & Technology, Nandamuru, Pedana Mandal - 521369, Krishna Dt., Andhra Pradesh, India.

Abstract:

Multiply and Accumulate (MAC) is a fundamental operation widely used in digital signal processing(DSP) applications. This paper presents the design and implementation of a 32-bit MAC unit utilizing a 16-bitVedic multiplier and a carry select adder (CSLA). The design is implemented in Verilog HDL, with synthesis and simulations conducted using Xilinx ISE Design Suite 14.5 or Vivado 2018.2. The results indicate significant improvements in power efficiency and delay reduction compared to conventional methods.

Keywords: MAC unit, Vedic multiplier, carry select adder, Verilog HDL

Paper ID: VMTW-ICAVSP132

PERFORMANCE ANALYSIS OF FIR FILTERS USING PPROXIMATE PARALLEL PREFIX ADDERS

M.Bhavani
PG Scholar, Department of ECE, Vignan's Institute of Management and Technology for Women, Ghatkesar, Kondapur, Telangana.

P.Harikrishna
Associate professor & HoD, Department of ECE,Vignan's Institute of Management and Technology for Women, Ghatkesar,Kondapur, Telangana.

J. Sunil Kumar
Associate professor, Department of ECE, Vignan's Institute of Management and Technology for Women, Ghatkesar,Kondapur, Telangana.

Abstract:

Machine learning, signal, picture, and video processing are just a few examples of error-tolerant applications that use computational kernels that use addition units. Factoring, comparing, adding, subtracting, and squaring all rely on additions. Rapid prefix adders operate in parallel. Prefix operators (POs), or carry operator nodes, are shown in this parallel prefix network. Since PPAs parallelize both propagation (P) and carry generation (G), they are among the quickest adders. Here, we derive approximate PPAs (AxPPAs) using PO approximations. Four AxPPA sare constructed to assess our approximation PO proposal: AxPPA-BK, AxPPAKS, AxPPA-LF,and AxPPA-SK, which represent the approximate Brent-Kung, Ladner-Fischer, Sklansky, and Kogge-Stone, respectively. Based on these approximate parallel prefix adders, we take a look at four different Ax PPA designs that use energy-efficient approximation adders (AxAs) and a developed finite impulse response (FIR) filter.

Keywords: APX BKA, APXKSA, APXLFA, APXSSA, FIR Filter and VLSI Architecture.

Paper ID: VMTW-ICAVSP133

ANALYZING FOOD CONSUMPTION BEHAVIOUR AND NUTRITION SENSITIVITY AMONG YOUNG COLLEGE STUDENTS

Dr Debajani Sahoo
Professor, Department of Marketing &Strategy,
IBS Hyderabad, IFHE, India.
debajani@ibsindia.org

Dr. Shubhangi Urkude
Assistant Professor,
Department of Operations &IT,
IBS Hyderabad, IFHE, India.
shubhangini@ibsindia.org

Dr Vijaykumar R. Urkude
Professor, Department of ECE,
Vignan's Institute of Management and Technology for Women,
Ghatkesar, Hyderabad, India.
cool.viju1721@gmail.com

Abstract :

Obesity is a situation where a person gets overweight due to the consumption of unhealthy foods like Pizza, burgers, fast foods, etc. The problem of obesity is not only common in developed countries, but it is common in developing countries like India. Usually, overweight children experience some chronic diseases related to heart, diabetes, cancer, osteoarthritis, etc. Some of the research revealed that obesity issues have risen over the years. The present study aims to understand how sensitive and aware young college-going girls are about healthy dietary practices and nutrition, how they have positively or negatively impacted, and how they have coped with it. The data was collected from 245 respondents from a university in south India through random sampling. The study suggests that students should get nutrition awareness through the course curriculum to enhance their ability to lead a healthy, balanced life.

Keyword: Knowledge, Awareness, Dietary Habits, Youth

M-LEARNING: USER PERCEPTION AND CHALLENGES IN HIGHER EDUCATION

Dr. Dinesh Banswal
Assistant Professor, School of Business,
Dr.Vishwanath Karad MIT WorldPeace University,
Pune, India
banswal_dm@yahoo.co.in

Dr. Shubhangi V. Urkude
Assistant Professor,
Department of Operations &IT,
IBS Hyderabad, IFHE, India.
shubhangini@ibsindia.org

Prof.PunamChaudhari
Assistant Professor,
Department of Computer Science & Applications,
WPU School of Computer Science & Engineering,
Dr.VishwanathKarad MIT World Peace University,
Pune, India.
chaudhari.punam14@gmail.com

Abstract :

M-learning, i.e., learning through a mobile device, has become a fad since the early 2000s. Since then, it has removed the time and distance barrier and brought learning to millions of users' fingertips. During the COVID pandemic, M-learning was the only possible solution for learning. With approximately 58% of the population between the age group (10-35), information and communication Technology (ICT) has a wide range of users in India. Adaptation and adoption of technology are significant challenges for most learners, especially with the wide spreads of ICT. Due to that, learners face many technical, financial, geographical, and learning challenges. The main impact of M-learning and its adaptation to the ICTs is visible in teachers and learners. The teachers have changed their teaching structure and pedagogy, improving their capabilities and bringing out new ways to make learning more comprehensive. The learners have realized that mobile devices are not only communication media but also used as learning aids. Hence, this paper aims to study the challenges and perceptions of users towards M-learning and its use in the teaching-learning process using the survey data collected.

Keywords: ICT application, M-Learning, Geographical Areas, Financial, Technology adoption

Paper ID: VMTW-ICAVSP135

DRIVING INTO THE FUTURE: THE SELF-OPERATING SOLAR POWERED ELECTRIC CARS

Talasila Jahnavi, Shaik Farahatunnisa,Pulla Tejaswini, Kakunuri Bhavya, Kancharala & Vijaya Vardhan
Department of ECE
Vignan's Lara Institute of Technology and Science, Vadlamudi.
talasilajahnavi5@gmail.com, farahatunnisashaik@gmail.com, tejupulla0708@gmail.com, bhavyareddy6262@gmail.com & kvvardhan405@gmail.com

Abstract:

Along with the increase in electrical energy usage, fossil fuel consumption is rapidly increasing in the modern era. Transportation-related greenhouse gas emissions are increasing at the expense of the environment. Fuel and diesel prices are increasing in proportion to the use of these renewable resources. By using electric chargers or charging stations, electric cars are intended to reduce pollution and the effects of the greenhouse effect. Due to electric cars there is loss of electrical energy. Electric cars that run on solar power are being developed as a solution to the lack of charging outlets and electrical energy. The solar cars reduce usage of electrical energy and transportation-related carbon emissions and the need of charging stations by using solar panels to power their batteries and other components. With STARLINK technology, which is quickly becoming into the most efficient broadband satellite internet in the world, we can drive our car from anywhere in the globe. Driverless SPEC minimizes the requirement for human intervention with driving activities. During the summer, efficiency peaks at 85–90% because of ideal conditions. The winter season has a 75–80% decrease, perhaps as a result of lower temperature. Due to disturbances caused by precipitation, the rainy season has the lowest efficiency, vary between 70-75%.

Keywords: Fossil Fuels, Charging Stations, SPEC (Solar Powered Electric Cars), Remote Control Electric Vehicles.

LITERATURE SURVEY ON COMPACT KA-BAND NXN SUB-ARRAY WITH TRUNCATED CORNER PATCH ANTENNAS FOR CIRCULAR POLARIZATION

Kandimalla Pavan Kumar
Research Scholar (BESTIU)
Lecturer in ECE
Govt.Polytechnic Simhadripuram
kandimalla.pavan@gmail.com

Dr.SK Masthan Basha
Research Supervisor (BESTIU)
Professor, Dept.of ECE, VMTW, Hyd, TG.
masthanbasha.s@gmail.com

Dr. M. Aravind kumar
Professor & Principal
WGISE, AP
drmaravindkumar@gmail.com

Abstract:

Antenna size reduction strategies that improve efficiency and bandwidth while addressing radiation patterns and axial ratio are included in the review. Due to its capacity to reduce space requirements while simultaneously improving polarisation performance, truncated corner designs clearly prevail when comparing antenna layouts. The Ka-band N×N sub arrays that use truncated corner patch antennas for circular polarisation are examined in this literature study. In addition, we discuss how different substrate materials and feeding strategies impact the overall performance of the array. This paper synthesises findings from several studies to indicate that new antenna designs are crucial to the development of better communication technology for use on Earth and in space. The results demonstrate the need for further research on small, high-performance antennas to meet the increasing needs of next-generation wireless systems. The proposed module has been validated using HFSS environment. Future research on hybrid architectures and adaptive technology integration may result in enhanced functionality and performance.

Keywords: Efficiency of antennas, Satellite communication, Radiation patterns, Ka-band, and circular polarisation.

DESIGN OF BALLOON PAYLOAD AND ITS ENCODER

A.N.Satyanarayana
Professor
Department of Electronics and Communication Engineering
Sreenidhi Institute of Science and Technology, Yamnampet, Ghatkesar, Hyderabad,
Telangana Pin Code 501301
satyanarayana.a@sreenidhi.edu.in

S.P.V.Subba Rao
Professor and HOD
Department of Electronics and Communication Engineering
Sreenidhi Institute of Science and Technology, Yamnampet, Ghatkesar, Hyderabad,
Telangana Pin Code 501301
ans_1010@yahoo.com.

Abstract:

The main objective of this research project is to benefit the students in order to increase their knowledge and skills to deal with the working of satellite. Institution will develop an understanding of the decisions that a scientist makes when designing a satellite. The Satellite which we are building will capture clear picture of the earth. Using this picture, we can estimate various conditions of the earth. This project serves as a platform for students to understand and deal with the advanced space technologies. This paper reports the entire telemetry process in imaging satellite i.e., acquiring data from various sources and mapping, creation of master telemetry frame and transmitting master telemetry frame to ground. The transmitted telemetry frame gives the entire information about what is happening on the satellite or spacecraft. Typical telemetry frame by using Xilinx SPARTAN FPGA presented the results in this paper.

Keywords: Data Acquisition and Mapping, Telemetry, Pulse Code Modulation, Student Imaging Satellite.

Paper ID: VMTW-ICAVSP138

AN ENERGY EFFICIENT COMPRESSOR WITH LESSER DELAY AND LOW POWER DELAYPRODUCT

Dr.G. Jhansi
Assistant Professor, Dept of ECE,
Vignan's Institute of Management and Technology for women,
JNTUH, TG, India

G Indira Priyadarshini
Associate Professor, Dept of ECE,
Vignan's Institute of Management and Technology for women,
JNTUH, TG, India

Abstract:

Arithmetic circuit's efficiency is mostly decided by the use of multipliers, where as multipliers has a component which is very important that is the compressor. A 4:2 compressor is proposed in this paper, which is a fast compressor that includes XOR-XNOR circuit frame work. This system uses very few transistors. Nearly three different compressors are examined and analysed with the proposed system. Considering the space optimization, power, latency using different analysis techniques. The proposed compressor has lesser delay, low power consumption and lesser energy delay product of 75% than other designs. The simulation is done using cadence virtuoso toll in 45nm with 1v in CMOS technology.

Keywords: Compressor, Multipliers, Power, Energy, Latency.

Paper ID: VMTW-ICAVSP139

A LITERATURE REVIEW ON 8 × 8 MIMO ANTENNAS FOR COMPACT 5G DEVICES

D. Nagamallesh
Research Scholar (BESTIU)
Lecturer in ECE
Govt.Polytechnic, Simhadripuram
naga.4053@gmail.com

Dr.SK MasthanBasha
Research Supervisor (BESTIU)
Professor, Dept.of ECE,VMTW,Hyd,TG.
masthanbasha.s@gmail.com

Dr. M. Aravind kumar
Professor & Principal
WGISE, AP
drmaravindkumar@gmail.com

Abstract:

This paper aims to decrease interference and increase spatial variety via the use of many design concepts. One of these methods is to use unconventional materials and arrangements. Both the size limits and the operational efficacy are shown by a thorough examination of performance measures, which includes gain, bandwidth, and envelope correlation our research in this literature review is on the development and enhancement of 8 × 8 Multiple Input Multiple Output (MIMO) antennas designed specifically for small5G devices. The proposed module has been validated using HFSS environment. In light of the ever-changing 5G technology environment, this article discusses potential future research directions and stresses the need of adaptive algorithms and multi-functional designs for MIMO antenna systems. Focussing on miniaturisation strategies that maintain high efficiency and effective radiation patterns, this paper examines modern antenna technology Additionally, the system's overall effectiveness is assessed in relation to the incorporation of sophisticated feeding strategies. In order to achieve the goals of next-generation wireless communication, this study highlights the need for creative solutions by highlighting important trends and problems.

Key words: spatial diversity, 5G networks, Miniaturisation techniques, and(Multiple Input, Multiple Output) MIMO antennas.

GESTURE-CONTROLLED ROBOT FOR BLUETOOTH MODULE USING ARDUINO

K.Prasanna kumara,
Assistant Professor,Department of ECE
CMR Technical Campus,
Hyderabad,Telangana, India
prasannakpk@gmail.com

A.Vivek, K.Gowrisree & B.Maneesh
Students of ECE, CMR Technical Campus,
Hyderabad, India

Abstract:

This project defines the design and implementation of a gesture-controlled robot utilizing a Bluetooth module and Arduino microcontroller platform. The system enables users to command the robot's movements through hand gestures captured by an accelerometer sensor worn on the hand. The gesture-recognizing module employs an accelerometer to note the hand movements, which an Arduino Nano microcontroller processes. The refined signals are transmitted wirelessly via a Bluetooth module (HC-05)to the robotic platform. The robotic platform receives the gesture commands through its Bluetooth module and interprets them to execute corresponding movements. This bidirectional communication enables real-time change of the robot's actions based on the user's gestures. The robot's movements are front, back, and left turn, and then right turn, and stop, offering basic navigational capabilities.

Keywords: Gesture recognition, Arduino, Bluetooth module, Robotics, Accelerometer

Paper ID: VMTW-ICAVSP143

WIRELESS WEATHER MONITORING SYSTEM USING ARDUINO

T.Nagarjuna
Associate Professor Department of ECE ,
CMR Technical Campus,
Hyderabad, Telangana ,India

S.Rafeeq, M.Bhanu Prakash, J.Rohith & B.Suvarna Lakshmi
Students,Dept of ECE, CMR Technical Campus,
Hyderabad, Telangana ,India

Abstract:

Implementation of Wireless Weather Monitoring System presented in this paper offers a comprehensive solution for real-time weather data collection and analysis. The system employs a network of weather sensors strategically deployed across a geographical area to gather meteorological data such as temperature, humidity, air pressure, wind speed. These sensors transmit data wirelessly to a central hub, which processes and stores the information. Wireless weather monitoring system is a sophisticated network of sensors and data transmission devices designed to collect and relay meteorological information from various locations. Users can access the data remotely through web-based interfaces or dedicated software applications.

Keywords: Arduino Uno, Microprocessor, Weather forecast.

LITERATURE REVIEW ON CMOS COUNTER WITH 4 BIT SYNCHRONOUS NATURE AT 45NM TECHNOLOGY

B.Aakhil Ahammed
Research scholar (BISTIU)
Lecturer in ECE,
Govt.polytechnic,Kamalapuram.
2022wpece007@bestiu.edu.in

Dr.SKMasthan Basha
Research Supervisor (BISTIU)
Professor ,Dept.of ECE,VMTW,Hyd,TG.
masthanbasha.s@gmail.com

Dr. M. Aravind kumar
Professor & principal
WGISE,AP
drmaravindkumar@gmail.com

Abstract:

The power consumption is reduced by decreasing the switching performances. The main disadvantage is scaling circuit of the power consumption because of the clock power dissipation during the standby mode. The VLSI circuits are designed at low power, the key elements are scaling design, counter are used to enhance or minimize the values based upon the previous state mean while the counting process depends upon the time and frequency must be measured. The total power is assumed by the clock signal that is only one-third of power is consumed. By reducing the power consumption in flip-flops. This is achieved by TSPCL (True single phase clock logic) through the self-controllable voltage level (SVP).This paper describes about the counter scaling design. To enhance the performance and battery of the system. To reduce the chip size area and the power consumption.

Keywords: CMOS, Counter , synchronous clock, low power.

Paper ID: VMTW-ICAVSP145

LITERATURE SURVEY ON LOW NOISE AMPLIFIER AT X BAND FREQUENCY REGIME

Sivapuram Dileep Kumar
Research Scholar (BESTIU)
Lectureu in ECE,
Govt.polytechnic,Kamalapuram,
2022wpece009@bestiu.edu.in

Dr.SK Masthan Basha
Research Supervisor(BESTIU)
Professor ,Dept.of ECE,VMTW,Hyd,TG.
masthanbasha.s@gmail.com

Dr. M. Aravind kumar
Professor & principal
WGISE,AP
drmaravindkumar@gmail.com

Abstract:

The RF receiver's subsequence components are at fault for this. The design of the LNA makes advantage of the 150 nm GaN material. A low-noise amplifier, a radio frequency component that strengthens weak signals, is sometimes utilised by antennas used by GNSS and related systems. The GNSS LNAs enhance the system's performance by increasing the strength of the required signal while decreasing distortion and noise..Linear, stable, low power consumption, in-out matching, and high gain GNSS LNA topologies are only a few of the many types covered in this page. This study's findings will be useful in creating LNAs that improve the functionality of receiver ends.

Keywords: Low noise amplifier, GaN HEMT, High Power.

LITERATURE SURVEY ON CLASS C POWER AMPLIFIER DESIGN AT X BAND REGIME

M.Veeranjaneyulu
Research Scholar(BISTIU)
Lecturer in ECE
Government Polytechnic.Kamalapuram
2022wpece010@bestiu.edu.in

Dr.SK Masthan Basha
Research Supervisor(BISTIU)
Professor ,Dept.of ECE,
VMTW, Hyderabad, TG.
sasthanbasha.s@gmail.com

Dr. M. Aravind Kumar
Professor &Principal
WGISE, AP
drmaravindkumar@gmail.com

Abstract:

Class AB mode often requires accurate biasing to function properly. Its operating frequency range stability may be more intricate than that of silicon transistors. The Class C amplifier produced by the ADS algorithm is the main subject of this article. Given its high frequency and power characteristics, GaN transistors might be difficult to achieve optimum performance without proper impedance matching. When efficiency and high power are critical, Class C amplifiers perform better than Class AB amplifiers when the conduction angle is less than 180 degrees. One advantage is the use of GaN (Gallium Nitride)transistors, which are typical in Class AB power amplifiers. In addition to having a low on-resistance and a high electron mobility, GaN transistors improve efficiency in other areas as well. Class C amplifiers lose less power due to heat since they are more efficient. It is essential in high-power applications to properly regulate heat, and GaN transistors help with that. An S-bandf requency range operation for a GaN power amplifier is suggested by this notion. Among the many benefits offered by Class AB power amplifiers powered by GaN (Gallium Nitride)transistors are their great efficiency and power density. The suggested power amplifier might be constructed with the help of a 150nm-basedAdvanced Design System (ADS) program. This amplifier's gain, harmonic balance, and stability factor are all great for use with radar.

Keyword: low power , class C Power amplifier, GaN HEMT.

Paper ID: VMTW-ICAVSP148

LITERATURE REVIEW ON: THE DESIGN AND DEVELOPMENT OF METAMATERIAL-BASED ANTENNAS FOR MEDICAL APPLICATIONS

Gajjela Raghunatha Reddy
Research Scholar (BESTIU)
Lecturer in ECE
Govt. Polytechnic, Vempalli
2022wpece008@bestiu.edu.in

Dr.SK Masthan Basha
Research Supervisor(BESTIU)
Professor,Dept.of ECE,VMTW,Hyd,TG.
masthanbasha.s@gmail.com

Dr. M. Aravind Kumar
Professor & Principal
WGISE, AP
drmaravindkumar@gmail.com

Abstract:

Meta materials with smaller antennas and broader bandwidths that enhance signal penetration into biological tissues are among the new concepts being researched. Medical imaging, wearable electronics, and implanted devices are rapidly expanding fields in contemporary healthcare technology ,and this analysis delves into its antenna applications. With an eye on enhancing diagnostic methods, treatment strategies, and wireless health monitoring systems, this article provides a comprehensive overview of the design and development of antennas based on meta materials for medical purposes. New applications of meta materials, such as biocompatibility, signal performance enhancements, and miniaturisation of antennas, are the subject of this paper. Due to their significance in medical contexts, three critical design features—impedance matching, radiation efficiency, and specific absorption n rate—deserve further analysis. The proposed module has been validated using HFSS environment. Adaptive antenna design, multi-functional systems, and improved integration with biological surroundings are just a few of the research topics we suggest as potential solutions to the ever-changing demands of medical technology.

Key words: Specific absorption rate(SAR); antenna miniaturisation; increased bandwidth.

A REVIEW ON METAMATERIAL-BASED ANTENNAS FOR IMAGE APPLICATIONS

Devulapally Shirisha & Mukkapati Pravallika
Assistant Professor in Dept. of ECE
Vignan's Institute of Management and Technology for Women
Kondapur (V), Ghatkesar (M), Medchal (Dist)-501301
devulapallyshirisha2@gmail.com & pravallikakasaragadda@gmail.com

Abstract:

With an eye on enhancing diagnostic methods, treatment strategies, and wireless health monitoring systems, this article provides a comprehensive overview of the design and development of antennas based on meta materials for medical purposes. The proposed module has been validated using HFSS environment. Adaptive antenna design, multi-functional systems, and improved integration with biological surroundings are just a few of the research topics we suggest as potential solutions to the ever-changing demands of medical technology. Meta materials with smaller antennas and broader bandwidths that enhance signal penetration into biological tissues are among the new concepts being researched. Medical imaging, wearable electronics, and implanted devices are rapidly expanding fields in contemporary healthcare technology, and this analysis delves into its antenna applications. New applications of meta materials, such as biocompatibility, signal performance enhancements, and miniaturisation of antennas, are the subject of this paper. Due to their significance in medical contexts, three critical design features—impedance matching, radiation efficiency, and specific absorption rate—deserve further analysis.

Key words: Specific absorption rate(SAR); antenna miniaturisation; increased bandwidth.

Paper ID: VMTW-ICAVSP152

RETINAL RETROSPECTIVE: PREDICTING CARDIAC CONDITIONS AND DIABETES THROUGH DEEP LEARNING TECHNIQUES

Bomidi Srikanth, Arlagadda Venkata Krishna, Alapati Uday Maniram, &Vijaya Vardhan Kancharla
Department of ECE
Vignan's Lara Institute of Technology and Science,Vadlamudi, Guntur
bomidisrikanth700@gmail.com, arlagaddav@gmail.com, alapatiudaymaniram@gmail.com
and kvvardhan405@gmail.com
Jayaditya Peddisetty, Student, CBIT, Hyd.
jaypeddisetti@gmail.com

Abstract:

The primary cause of morbidity and death, heart disease, is a rising worldwide epidemic that is sometimes difficult to identify early since it depends on invasive procedures and clinical environment-based instruments. This study attempts to solve this issue. We suggest a brand-new, non-invasive diagnostic method for the early identification of heart-related conditions by analysing retinal pictures using Convolutional Neural Networks (CNNs), more especially ResNet-50, trained in MATLAB. Our approach makes it possible to categorize diseases like diabetes, hypertension, and arrhythmia by recursively detecting changes in the retinal nerve pattern. With a 98% detection accuracy for heart-related conditions and a 96% detection accuracy for diabetes, our model provides a more secure and convenient option for early diagnosis. To improve prediction and diagnostic accuracy for heart disease and related disorders, we expand on current approaches by including a prodromal outbreak cohort into an infectious seed-deletion model with empirically determined disease risk.

Keywords - Cardiovascular Disease, Deep Learning, Retina, Heart Disease, Diabetes.

REDUNDANT-TRANSITION-FREE LOW POWER TSPC DUAL-EDGE-TRIGGERING FLIP-FLOP WITH CLOCKED SINGLE TRANSISTOR

Mr.T.Pullaiah, Associate Professor
Yella Subhashini, M.Tech Scholar
Department of ECE,
Vignan's Institute of Management and Technology for Women, Hyderabad T.G.India.

Abstract:

In the age of artificial intelligence (AI) and graphics processing units (GPUs), the flip-flop (FF) has emerged as one of the processor's most power- hungry elements. A unique single- phase-clock dual edge triggering (DET) FF employing a single transistor clocked (STC) buffer (STCB) is suggested as a solution to this problem. The clock redundant transitions (RTs) and internal RTs present in previous DET designs are eliminated entirely by the STCB's use of a single- clocked transistor in the data sampling path. The suggested STC-DET beats the previous state-of-the- artlow-powerDET in power consumption by 14% and 9.5%, at 0.4 and 0.8 V, respectively, when running at 10% switching activity, as shown by post-layout simulations in 22 nm fully depleted silicon on insulator (FD-SOI) CMOS. Among the DETs, it also attains the lowest power-delay-product (PDP).

Keywords: Flip-Flop, Dual-Edge Triggered, Low Power, TSPC (TrueSingle-PhaseClock), Redundant- Transition-Free Clocked Single Transistor**.**

Paper ID: VMTW-ICAVSP157

WIDE-RANGE LEVEL SHIFTER WITH LOGIC ERROR DETECTION CIRCUIT FOR ENERGY EFFICIENCY

G.Swathi, Assistant Professor
Katkam Mamatha, M.Tech Scholar
Department of ECE,
Vignan's Institute of Mangaemnet and Technology For women
Hyderabad,T.S.India

Abstract:

This brief proposes a logic error detection circuit (LEDC)-equipped wide-range level shifter (LS) that uses less energy. A feedback pFET is incorporated into the suggested LS in order to address the static current, which is a drawback of the present mirror-based LS (CMLS). Similar to this, Wilson's CMLS (WCMLS) uses the feedback pFET to tackle the CMLS problem; however, because of the feedback pFET, it is unable to completely convert low supply voltage (VDDL) to high supply voltage (VDDH). On the other hand, the suggested LS can use the LEDC to convert VDDL to full VDDH. The post layout simulation was carried out using the 7- nm fin FET model in order to confirm the performance difference between the suggested LS and the previously suggested LS. The outcomes of the simulation of the suggested.Terms for the Index: Current mirror, level shifter (LS), low power, near-threshold operation, wide range.

Keywords: Level Shifter, Voltage Range, Bidirectional Communication,MOSFET, Signal Integrity, Logic Error Detection

Paper ID: VMTW-ICAVSP160

ENHANCED SECURITY AND PRIVACY PRESERVATION ALGORITHMS FOR CLOUD COMPUTING ENVIRONMENTS

K. Mahesh Raj, Research Scholar
Computer science and engineering
Malla Reddy University, Hyderabad, India

Dr. D. Thiyagarajan,
Associate Professor
Artificial intelligence and machine learning
Malla Reddy University, Hyderabad, India

Dr. M. Ashok, Professor and Principal
Computer science and engineering
MRCE, Hyderabad, India

Abstract:

With its scalable and cost-effective solutions, cloud computing has taken center stage in modern data management. Nevertheless, this fast growth of cloud services comes with urgent data security and privacy-related dilemmas. In this paper, three novel algorithms are proposed to deal with the above-mentioned problem in the cloud environment, namely Improved Privacy-Preserved Data Security Approach (IPP-DSA), Multi-Authority Scheme Based Privacy Preserving Algorithm (MASPPA) and Anonymous Access-Based Privacy Preserving Algorithm (AABPPA). Key management efficiency is advocated by the new IPP-DSA with small key generating times which are expected to be short enough to run in steadily update phase. The MASPPA uses the multi-authority attribute-based encryption to realize fine-grained access control, and the encryption times are commensurate to its extensive security guarantee. The second is the AABPPA which is appropriate for situations where user anonymity is required, however is slower in computation times than the AABM but does really well in preserving privacy. This section presents the performance metrics, specifically the time taken for key generation, encryption, and decryption and collectively analyse the advantages and disadvantages of each algorithm. Our results show that the algorithms proposed, when compared to FT-RSA, provide very high security and privacy for applications ranging from low to high computational demands. We recommend additional optimizations to make them more effective in real-world applications.

Keywords: Cloud security, privacy, Anonymous Access, Multi-Authority

INTRUSION DETECTION SYSTEMS FOR WIRED AND WIRELESS NETWORK APPLICATION

R. Arjunarao, ,Associate Professor, Dept. of Informatics, Aurora's PG College, Hyderabad, India,arjunaraorajanala@gmail.com

Dr Suvarna Lakshmi, Associate Professor, Dept. of Informatics, Aurora's PG College, Hyderabad, India, suvarnalakshmic@adc.edu.

Panja Naga Laxmi, , Assistant Professor, Dept. of Informatics, , Aurora's PG College, Hyderabad, India, nagalaxmi@adc.edu.in

Abstract:

The WWIDS (Wired and Wireless Intrusion Detection System) is a common means of protecting networked systems from threats or misuse malicious. The development and rollout of an WWIDS can take many different forms in terms of equipment, protocols, Different connectivity, automation and cost. This is particularly true of WWIDS (Wired and Wireless Intrusion Detection Systems) which have many more opportunities and challenges associated with data transmission through an open and close, shared medium. The operation of a WWIDS is a multistep process from origination of an attack through to human interface readable evaluation. Awareness to the performance of each of the processes in the multi chain from strike detection to evaluation is imperative if an optimum solution is to be sought. At present, research focuses very much on each discrete aspect of a WWIDS with little consideration to the operation of the whole system. Taking a holistic view of the technology shows the interconnectivity and inter-dependence between stages, leading to improvements and new research areas for investigation.

Keywords: Identification, Architecture, Data Collection, Intrusion Detection, Alert Correlation, Evaluation.

MULTIPURPOSE AGRICULTURE ROBOT

P.Sandeep,
Assoiate Professor
Department of Electronics and Communication Engineerin,
Vignan Institute of Technology and Science,
Hyderabad, India.

Nikitha Reddy Appidi,V.Sai Sheya,R.Thanuja Sri,R.Malleshwari,
U.G Students
Department of Electronics and Communication Engineerin,
Vignan Institute of Technology and Science,
Hyderabad, India.

Abstract:

In India, over 60% of the workforce is engaged in agriculture, either directly or indirectly. Due to the current labour shortage, there has been a growing interest in developing autonomous vehicles, such as robots, for agricultural purposes. As a result, the agribot, a robot designed to assist farmers in their work, has been created, making farming tasks faster and more convenient. The main objective of this system is to develop a Bluetooth-controlled, autonomous, multipurpose agricultural robot that can perform various tasks, including watering and planting seeds, in different types of soil. By utilizing these autonomous vehicles, the aim is to minimize the need for human intervention while maximizing productivity and resource efficiency.

Keywords—Agriculture Robot vehicle, Bluetooth, ploughing, seeding, Watering

Paper ID: VMTW-ICAVSP164

EMOTION-INFORMED CYBERBULLYING DETECTION SYSTEM

Dr. P.V.N Rajeswari, Associate Professor, Dept of CSE, PBR VITS, Kavali
rajeswari.pvn@visvodayata.ac.in

Mr.J.Murali, Assistant Professor, Dept of CSE, PBR VITS, Kavali
murali.j@visvodayata.ac.in

Dr. Ramesh Babu, Professor& HoD, Dept of ECE,KMCE,Hyd.

Balam Kalyani, Asst.Professor, Dept of ECE,KMCE,Hyd.

Dr.SK Masthan Basha , Professor, Dept of ECE,VMTW,Hyd.

Abstract:
The paper addresses the serious issue of cyber bullying, recognizing its harmful consequences and the need for effective detection and resolution methods. Cyberbullying, a form of online aggression, poses challenges that require specialized techniques to identify and mitigate. The primary goal of the project is to propose advanced cyberbullying detection models. These models aim to go beyond traditional approaches by incorporating contextual, emotion, and sentiment features, recognizing the multi-dimensional nature of cyberbullying instances. The project involves constructing an Emotion Detection Model (EDM) using Twitter datasets. These datasets undergo enhancements in terms of annotations. The EDM, along with lexicons, is utilized to extract emotions and sentiments from cyberbullying datasets, contributing to a more nuanced understanding of the emotional aspects of online interactions. One of the major objectives is to demonstrate the effectiveness of emotions as features for cyberbullying detection. By leveraging emotional cues, the project aims to improve the performance of detection models, showcasing the significance of incorporating emotions in accurately identifying instances of cyberbullying. The project contributes to the field by providing a comprehensive emotion-annotated dataset tailored for cyberbullying detection. This dataset serves as a valuable resource for researchers, facilitating further exploration and advancements in the domain of emotion-based cyberbullying detection. The project acknowledges the challenge posed by imbalances between cyberbullying and non-cyberbullying instances in datasets, particularly in real-time applications. The goal is to develop detection models that effectively handle these imbalances, ensuring reliable performance across different scenarios. We aim to further enhance the performance of our model by exploring ensemble techniques, specifically utilizing LSTM and LSTM + GRU models, which have demonstrated an impressive 99% accuracy.
Keywords: Cyber bullying, BERT, emotion mining, sentiment analysis.

ECONOMICAL & ENERGY EFFICIENT ARDUINO UNO BASED FAN WITHTEMPERATURE ADJUSTING SYSTEM FOR REAL TIME APPLICATIONS

Dr. P A Harsha Vardhini
Professor & HOD
Department of ECE, Vignan Institute of Technology and Science
Deshmukhi, Telangana

G Sravani, N Aparna, M Pallavi
Department of ECE, Vignan Institute of Technology and Science
Deshmukhi, Telangana

Abstract:

Minimizing power consumption, automating fan control depending on user presence and ambient variables, and providing a scalable solution for integration into smart home environments are the project's main goals. Real-world results demonstrate an effective decrease in superfluous fan usage, which helps with managing resources overall general energy conservation. No additional equipment, such as an infrared touch or an Internet of Things system as well, needs to be present for this fan mechanism to operate effectively. It is operated by room temperature adjustment, which is very beneficial for elderly or physically disabled individuals. It operates automatically based on this threshold temperature once we establish the adjustment temperature. With growing concerns about energy consumption and its environmental impact, there is an increasing demand for smart home solutions that improve energy efficiency. This paper introduces an adaptive fan control system designed to regulate fan operation based on ambient temperature and occupancy, ensuring energy conservation without compromising user comfort.

Keywords: Arduino Uno, IR sensor, LCD,DHT sensor, Potentiometer

Paper ID: VMTW-ICAVSP166

IV BAG MONITORING SYSTEM

V. Veeresh,
Associate. Professor
ACE Engineering College, Hyderabad, India
vveeresh1244@gmail.com

C Sai Teja, Jakkula Ramesh & Dussa Kavya,
Students, ACE Engineering College,
Hyderabad, India
csaiteja@gmail.com, jakkularamesh@gmail.com & kavya@gmail.com

Abstract:

Intravenous (IV) therapy plays a critical role in modern healthcare, yet ensuring its safe and efficient delivery remains a challenge. To address this, we propose an IoT based IV Bag Monitoring and Alert System. This system leverages sensor technology and wireless connectivity to monitor key parameters such as fluid level, flow rate, temperature, and pressure within IV bags in real-time. Data is transmitted to a central monitoring unit or cloud platform, where healthcare providers receive alerts and notifications in case of anomalies or potential issues. Integration with electronic health records. (EHR) allows for seamless documentation and remote monitoring, facilitating proactive intervention and enhancing patient safety. By analysing historical data, trends can be identified, treatment protocols optimized, and patient outcomes improved. With robust security measures in place, including compliance with healthcare regulations, this system offers scalability and flexibility to meet the diverse needs of healthcare facilities. Overall, the IoT IV Bag Monitoring and Alert System represents a significant advancement in IV therapy management, promising to enhance patient care and operational efficiency in healthcare settings.

Keywords: Intravenous, EHR, remote monitoring, fluid level sensors, flow rate sensors, expanded cloud.

Paper ID: VMTW-ICAVSP167

ADVANCED APPLICATIONS AND CHALLENGES OF IOT TECHNOLOGIES, IN RECENT DEVELOPMENT

Dr. N. Sujatha
Professor, Dept.of CSE,
NVR Engineering College,Tenali,AP.

Dr. N. Lakshminarayana
Professor, Dept.of EEE,
NVR Engineering College,Tenali,AP.

Abstract:

The Internet of Things (IoT) brings the concept in a technologically sophisticated world into the real world. This expansion will make humans safer, more pleasant, and happier than they were previously. Because of its diverse uses, the consolidation of the web and things has an influence on economic development. IoT applications touch almost every aspect of human life, allowing the network to be accessed at any time, from anywhere, and to anything in the not-too-distant future. The implementation of this type of network presents a slew of examination issues for the exploration community. IoT sensors may use several kinds of links, for example RFID, Wi-Fi, Bluetooth, and ZigBee, as well as a variety of advances, such as GSM, GPRS, 3G, and LTE, to provide wide-area availability. Many research problems will likely arise as a result of the IoT concept's emergence from diverse technology. Because IoT has such a broad impact on almost every aspect of our life, it is a vital experiment topic for research in a variety of domains that are connected, such as data innovation and software engineering. Individuals, programming frameworks, and various devices will communicate data on the state of objects and the general climate with IoT-enabled items. The world will become smarter in every way as a result of IoT innovation, as it will provide a method for smart cities, smart medical services, smart homes, and smart working, in addition to numerous significant applications such as smart energy, framework, transportation, squander the board, and observing.

Keywords: Internet of Things, IoT applications, IoT challenges, future technologies, Smart Cities, Smart Environment, Smart Energy and Grid, Smart Manufacturing, Smart Healthcare.

Paper ID: VMTW-ICAVSP168

ENHANCEMENT OF POWER SYSTEM PARAMETERS USING FACTS DEVICES

Dr. N. Lakshminarayana, Professor
Dept.of EEE,NVR Engineering College,Tenali,AP.

Dr. N. Sujatha, Professor
Dept.of CSE,NVR Engineering College,Tenali,AP.

Abstract:
        This paper represents a comprehensive review on the research and development in power system stability imprudent using FACTS devices. In past some decades power demand has increased substantially while expansion of power generation has been severely limited due to limited resources and environmental restrictions. Flexible AC transmission System or FACTS have been mainly used for solving different power system problems .FACTS are devices which allow flexible and dynamic control of power system. This paper is focused towards benefits of using FACTS devices with the purpose of improving the operation of electric power system. It includes stability, controllability improvement of power system operation using FACTS devices.

Keywords: FACTS, SVC, TCPS, UPFC, TCSC, SSSC, STATCOM, IPFC.

Paper ID: VMTW-ICAVSP169

GAIL FOR MODELING HUMAN DRIVING BEHAVIOR

D.Subhash Chandra Mouli,
Assistant professor
Department of CSE,Annamacharya University, Rajampet
dschandramouli@gmail.com

S.Tabasum, S.Sameera Sultana, M.Sunil Kumar Goud and C.Venkata Bharadwaja,
B.Tech Students, Department of CSE,
Annamacharya University, Rajampet
dschandramouli@gmail.com, ashushaik2006@gmail.com,sameerasultana1605@gmail.com,
mulasunilkumargoud@gmail.com&venkatabharadwaja12@gmail.com.

Abstract:

A problem in autonomous vehicle safety verification is building good models of human driving behavior in simulation. The real world driving evidence data gives an approach to learn neural driving policies. We identify the model human driving(MHD) as a consecutive decision making problem that is specify by non-linearity and randomness, and unknown underlying cost functions. Based on inverse reinforcement learning (IRL), GAIL objective gives an exact emulation even for problems with huge or continuous state and action spaces, such as modeling human driving. This paper uses of GAIL for instruction-based driver modeling. Because driver customizing is inherently a multi-agent problem, where the interactivity between needs of agents to be adapted, this paper report a argument-sharing extension of GAIL is called Parameter Sharing-GAIL to gear multi-agent driver customizing. In addition, GAIL is domain challenger, making it difficult to encrypted specific knowledge relevant to driving in the training process. This project report Reward Augmented Imitation Learning (RAIL), which changes the winning signal to provide empire specific knowledge to the agent. Finally, human validations are dependent upon inactive component that may not be captured by GAIL. This project describes Burn-Info GAIL, which allows for disencumber of latent changeability in validation. Imitation learning investigations are performed using NGSIM, a real-world highway driving dataset. Experiments show that these modifications to GAIL can successfully model highway driving behavior, exactly duplicate human validations and generating practical, emergent behavior in the traffic flow arising from the interaction between driving agents.

Keywords: GAIL,IRL,PS-GAIL,RAIL,NGSIM

Paper ID: VMTW-ICAVSP170

CYBER-HATE DETECTION USING A MULTI-STAGE MACHINE LEARNING AND FUZZY APPROACH

D.Subhash Chandra Mouli,
Assistant professor,
dschandramouli@gmail.com

S.Likhitha, R.Navya Sree, A.Loka Ram Kalyan, A.Navaneeth, T.Kiranmayee,
B.Tech Students
Department of CSE, Annamacharya University, Rajampet
surannagarilikhitha@gmail.com,rebbanavya23@gmail.com,
alrk6125@gmail.com,bommireddynavaneeth@gmail.com,
thippanakiranmayee808@gmail.com

Abstract:

Social media has stir up the way to connect individuals and share the information widely. However, the rise of these environments has guide to the increase of cyber-hate, which is a suggestive concern that has collected attention from experimenters. To battle this issue, various types of solutions have been proposed, using ML and Deep learning(DL) algorithms such as Naive Bayes, Logistic Regression LR), conventional Neural Networks(CNN), and Recurrent Neural Networks(RNN). These methods depends on a mathematical approach to differentiate between one class to another. However, when deal with sensitive-oriented data, a more ''critical thinking'' view point is needed for correct classification, as it gives a more practical illustration of how people clarify online messages. predicted on a literature review supervised to examine efficient classification techniques, this research applied two machine learning(ML) classifiers, Multinomial Naïve Bayes(MNB) and Logistic Regression(LR), to four online hate datasets. The results of the classifiers were optimized using bio-inspired optimization techniques such as Particle Swarm Optimization and Genetic Algorithms, in conjunction with Fuzzy Logic, to gain a deeper understanding of the text in the datasets.

Keywords: Python, Pycharm, RNN, ML ,CNN.

Paper ID: VMTW-ICAVSP172

IMPLEMENTATION OF ALGORITHM FOR CLUSTER FORMATION ANDCH SELECTION IN ENERGY EFFICIENT ROUTING SCHEME USINGSRFIS-CWOSRR FOR WSNS

Chamala Pavani Reddy,
Research Scholar, ECE,BESTIU
Associate professor, ECE,
Holy Mary Institute Of Technology and Science ,Hyderabad
Telangana-500085, India,
2023sece002@bestiu.edu.in

Dr.V. Krishna Naik, Professor ,
Department of Electronics and Communication Engineering,
Chaitanya Deemed To be University , Hyderabad,
Telangana, India.
krishnanaik.ece@gmail.com

Abstract:

Wireless Sensor Networks (WSNs) [1, 2] have gained significant attention in the present days, due to their benefits of ubiquitous devices, topology, scalability, and controlling sensors. Also, the WSN has been increasingly used in different types of applications systems such as surveillance of monitoring, military applications, medical applications, agriculture, and etc [3-5]. But, ensuring the reliable and energy efficient data routing in WSN is still remains one of the complex and challenging tasks. Here, the routing protocols play an essential role in determining the performance of network, because which helps to transmits the packets from the source to the desired destination. The Spatial Temporal Fuzzy Inference System technique is deployed to detect the outliers in the network by generating the set of inference rules based on the distance, energy, and mobility measures. In addition to that, an integrated Crow-Whale Optimized Secured Robin Routing (CWOSRR) is employed for establishing the data transmission through the optimized routing paths with reduced loss of information.

Keywords: Wireless Sensor Networks (WSNs), Clustering, Spatial Temporal Fuzzy Inference System (SRFIS), Crow-Whale Optimized Secured Robin Routing (CWOSRR),Outlier Detection, and Energy Efficient Data Transmission.

USING MACHINE LEARNING FOR EARLY PREDICTION OF AUTISM SPECTRUM DISORDER

K. Padmaleela,
Asst.Prof, Dept. of ECE,
Vignan's Institute of Management and Technology for Women,
Hyderabad, India .
marypaddu@gmail.com

Dr. M. VeeraKumari,
Assoc.Prof, Dept. of CSE,
Universal College of Engineering & Technology, Guntur, India

M. Karthikpal ,
Asst.Prof, Dept. of ECE,
KMCE, Hyderabad, India

Jayaditya Peddisetty, Student, CBIT, Hyd.
jaypeddisetti@gmail.com

Abstract:

With the intention of facilitating prompt intervention through accurate identification, this dissertation introduces a machine learning model for early autism spectrum disorder (ASD) prediction in toddlers. The model develops a classifier that correctly recognizes ASD by using a variety of input data, including psychological observations, milestones in development, and medical history. Gathering information, pre-processing, feature selection, model training, and evaluation are important phases. To ensure reliability in practical applications, model performance is thoroughly evaluated using measures including accuracy, precision, recall, and F1-score. In order to promote trust among stakeholders, ethical considerations—such as security of information and bias minimization—as well as transparency and interpretability are given top priority. Working together with medical experts enhances model design, guaranteeing its applicability and relevance. The approach will remain flexible with ongoing modifications depending on fresh findings and practitioner input, with the goal of enhance the results of diagnostics for young children at risk for ASD.

Key word: Machine learning, ASD dataset, Python IDLE 3.7 version, Jupyter.

VALIDATION VERIFICATION IMPLEMENTATION AND VERIFICATION OF SMART ONE BIT ADDER USING CMOS DIFFUSION METHODOLOGY

M.Pravallika & D.Naresh
Assistant Professor in ECE Department
Vignaan's Institute of Management and Technology for women,
Ghatkesar, Hyderabd,India.
pravallikakasaragadda@gmail.com & nareshdhonthisaram@gmail.com

Abstract:

We are working on the project. Using the Mentor Tanner tool and 16 nm CMOS technology, we set out to create a novel FA architecture that maximizes efficiency while reducing power expenditure. In this simulation, the design's performance is assessed using PDP, propagation delay, and power dissipation as measures. Our proposed FA design has the smallest propagation, according to the simulation findings.latency and highest power consumption. Dissipation across all investigated frequency and voltage ranges.

Key words: 16 nm CMOS technology, FA Architecture, power consumption

Paper ID: VMTW-ICAVSP175

IOT BASED SMART E-VOTING MACHINE

Dr K Prem Kumar,
Professor& Head of Dept. of CSE(IoT)
kpremkumarcs@gmail.com

K Shubha, Md Sohail Bab, M Meghan Harsha,
Student, Dept. of CSE (IoT),
ACE Engineering College, Hyderabad, India
shubha@gmail.com,sohail@gmail.com,meghanharsha@gmail.com

Abstract:

Introducing the traditional voting system is basically of two major types. One is voting through ballot paper and another one is voting through electronic voting machine (EVM). Voting system through ballot paper requires so much resources as well as security. There will be maximum possibility of malfunctioning in case of ballot paper-based voting machine. Electronic voting machine-based voting system is better than ballot paper-based system, but it is not authenticated. This paper describes the design of smart and secure electronic voting machine based on the IoT platform. The suggested system is more efficient than both traditional systems, as both traditional systems are time consuming and also not authenticated. The proposed system functions into two specific phases. One is user authentication, and another is user voting. Authentication process can be done using fingerprint authentication. Fingerprint database of all the voters is stored in the system initially as prerequisites. If any person wants to vote to any party, the authentication of respective person is to be done by fingerprint matching process. Once the fingerprint matches successfully, the person can vote to any specific party. Data analysis can be done in form statistics of the percentage voting of individual party and is to be uploaded on the web server as well as Google spreadsheet. Due to the fingerprint authentication method, malfunctioning like fake voting and repeat vote can be avoided. As the system is based on the fingerprint authentication, in future it can be linked with the Aadhaar Card of the respective person.

Keywords: Audit logging system, ·Adafruit Fingerprint Sensor, Adafruit Liquid Crystal Software, ·Ballot Generation, robust cryptographic protocols, Block chain.

LITERATURE SURVEY ON COMPACT KA-BAND NXN SUB-ARRAY WITH TRUNCATED CORNER PATCH ANTENNAS FOR CIRCULAR POLARIZATION

J.Sunilkumar & E.Nagaraju,
Assistant Professor in ECE Department.
Vignaan's Institute of Management and Technology for women, Ghatkesar, Hyderabd,India.
Sunilkumar@vmtw.in, nagarajue83@gmail.com

J.Vamsikrishna,
Assistant Professor in ECE Department.
Samskruthi College of Engineering and Technology,Ghatkesar, Hyderabd,India
jupudi.vamsikrishna8@gmail.com

Abstract:

The Ka-band N×N sub arrays that use truncated corner patch antennas for circular polarisation are examined in this literature study. This research compiles important points from previous studies on modern communication systems utilisation of different design methodologies and performance measures. Antenna size reduction strategies that improve efficiency and bandwidth while addressing radiation patterns and axial ratio are included in the review. Due to its capacity to reduce space requirements while simultaneously improving polarisation performance, truncated corner designs clearly prevail when comparing antenna layouts. In addition, we discuss how different substrate materials and feeding strategies impact the overall performance of the array. This paper synthesises findings from several studies to indicate that new antenna designs are crucial to the development of better communication technology for use on Earth and in space. The results demonstrate the need for further research on small, high-performance antennas to meet the increasing needs of next-generation wireless systems. Future research on hybrid architectures and adaptive technology integration may result in enhanced functionality and performance. The proposed module has been validated using HFSS environment.

Keywords: Radiation patterns, Ka-band, Efficiency of antennas, and circular polarisation**.**

DESIGN AND IMPLEMENTATION OF AGRICULTURAL AUTOMATION: INVESTIGATING THE USE OF EMBEDDED VISION SYSTEMS FOR AUTOMATED AGRICULTURAL TASKS

G. Ganesh Reddy, K. Ashok Reddy, & E. Nagaraju
Assistant Professor in ECE Department.
Vignan's Institute of Management and Technology for Women, Kondapur (V), Ghatkesar (M), Medchal-Malkajgiri (D), Telangana, India – 501 301
ganesh@vmtw.in, ashokreddy5703@vmtw.in, nagarajue83@gmail.com

ABSTRACT:

Embedded vision systems have emerged as pivotal tools in revolutionizing agricultural practices, offering innovative solutions for automated tasks essential for efficient crop management. This abstract explores the integration of embedded vision technology into agricultural automation, focusing on crop monitoring, yield prediction, and disease detection. By employing advanced image processing algorithms and machine learning techniques, embedded vision systems enable real-time monitoring of crop health, facilitating timely interventions to optimize yield and resource utilization. Moreover, these systems play a crucial role in predicting yield potential, empowering farmers to make informed decisions regarding planting strategies and resource allocation. Additionally, embedded vision facilitates early disease detection by analyzing subtle visual cues indicative of plant stress or pathogen presence, allowing for targeted treatment and mitigating yield losses. Through case studies and experimental evaluations, this abstract investigates the efficacy, scalability, and practical implementation of embedded vision solutions in diverse agricultural environments. Ultimately, this research contributes to the advancement of precision agriculture, fostering sustainable practices and enhancing productivity in the face of evolving agricultural challenges.

Keywords: Embedded System, Machine Learning

Paper ID: VMTW-ICAVSP178

PRIVACY LEAK PREVENTIVE AND URL SHORTENING SCHEME FOR SHORT MESSAGE TRANSMISSION

Dr Selvamani Indrajith, Professor, Department of ECE,
Malla Reddy College of Engineering for Women, Maisammaguda., Medchal., TS, India
Rondla Janardhan, Assistant Professor, Department of ECE,
Malla Reddy College of Engineering for Women., Maisammaguda., Medchal., TS, India
i.selvamani@gmail.com, janardhanyadav412@gmail.com

Abstract:

Within this paper, we advise novel attack means of inferring whether a particular user visited certain shortened URLs on Twitter. Our attacks depend around the mixture of openly available information: click analytics from URL shortening services and metadata from Twitter. To do the 2nd attack, we create monitoring accounts that monitor messages all followings of target users to gather all shortened URLs the target users may click. Then we monitor the press analytics of individuals shortened URLs and do a comparison using the metadata from the target user. Previous research has considered attack techniques that create privacy leaks in social systems, for example inferring private attributes and de-anonymizing users. Evaluation results reveal that our attacks can effectively infer the press information rich in precision and occasional overhead. We advise novel attack strategies to see whether a particular user clicks certain shortened URLs on Twitter.

Keywords: Twitter, URL Shortening Service, Privacy leak

Paper ID: VMTW-ICAVSP179

SCALING COMPLEXITY AND INEFFICIENT OPERATIONS IN OPEN NETS

Dr M Ajay Kuma,
Professor, Department of ECE,
Malla Reddy College of Engineering for Women,
Maisammaguda., Medchal., TS, India
ajayajju126@gmail.com

V Srinath,
Assistant Professor, Department of ECE,
Malla Reddy College of Engineering for Women.,
Maisammaguda., Medchal., TS, India
srinath.v1995@gmail.com

Abstract:

A brand new system architecture to handle fine- grained RDF partitions in large-scale. Novel data placement strategies to co-locate semantically related bits of data. Within this paper, we describe RpCl, a competent and scalable distributed RDF data management system for that cloud. Unlike previous approaches, RpCl runs a physiological analysis of both instance and schema information just before partitioning the information. The machine keeps a sliding- window w tracking the current good reputation for the workload, in addition to related statistics about the amount of joins that needed to be performed and also the incriminating edges. The machine combines join ahead pruning via RDF graph summarization having a locality- based, horizontal partitioning from the triples right into a grid like, distributed index structure. The Important Thing Index is a vital index in RpCl it utilizes a lexicographical tree to parse each incoming URI or literal and assign it a distinctive number key value. Sharding such data using classical techniques or partitioning the graph using traditional min-cut algorithms results in very inefficient distributed operations and also to a higher quantity of joins. Many RDF systems depend on hash-partitioning as well as on distributed selections, projections, and joins. Grid- Vine system was among the first systems to do this poor large- scale decentralized RDF management. Within this paper, we describe the architecture of RpCl, its primary data structures, along with the new algorithms we use to partition and distribute data. We produce an extensive look at RpCl showing our product is frequently two orders of magnitude quicker than condition-of-the-art systems on standard workloads.

Keywords: Key Index, RDF, triple stores, cloud computing, Big data

Paper ID: VMTW-ICAVSP180

NETWORK LINK-BASED ENERGY CONSUMPTION WITH QOS REQUIREMENTS

K Surekha,
Associate Professor, Department of ECE,
Malla Reddy College of Engineering for Women,
Maisammaguda, Medchal., TS, India
surekhakorudu413@gmail.com

M Devarshini,
Assistant Professor, Department of ECE,
Malla Reddy College of Engineering for Women,
Maisammaguda, Medchal, TS, India
devarshini33@gmail.com

Abstract:
Ternary content addressable memory is broadly accustomed to implement packet classification due to its parallel search capacity and constant processing speed. Besides, there frequently exists redundancy among rules. For instance, R2 is really unnecessary and could be securely taken off the classifier, since it is completely included in R3. Both of these problems result in inefficiency in TCAM use. Because TCAMs are costly and power-hungry, it is crucial to lessen the amount of TCAM records needed to represent a classifier. Whenever a packet comes for query, correspondingly, we have to use the same permutations towards the header from the packet, the pre processing step. We are able to judge the direction of the block through the positions from the wildcards within the Boolean representation. If two blocks have wildcards appearing exactly within the same items of their Boolean representations, we are saying both of these blocks have been in exactly the same direction. Within the direct logic optimization phase, we directly apply logic optimization around the original classifier to group adjacent rule elements. This really is to lessen the amount of rules that'll be active in the permutation phase and, hence, lessen the computation complexity. The best way to estimate the amount of rules reduced for any given set of assistant blocks is as simple as checking all possible rule pairs in the present classifier to find out if them could be a target block set of the given assistant blocks. On a single hands, the BP formula can offer sub-optimal results; However, we limit the run-time complexity from the BP formula. The suggested BP is really a new technique for the reason that it looks for nonequivalent classifiers instead of equivalent ones, as previous schemes did. Our experiments were according to one real-existence firewall classifier and many artificial classifiers generated by utilizing Class-Bench. To judge the performance, we compared the BP technique with McGeer's formula.

Keywords: Ternary content-addressable memory (TCAM), classifier minimization, field-programmable gate array (FPGA), logic optimization, packet classification.

Paper ID: VMTW-ICAVSP181

A NOVEL BAG-OF-METHODS TO CAPTURE SIMILARITIES BETWEEN CROSS-MEDIA

CH Keerthi & P Jyothi 2
Associate Professor, Department of ECE.,
Malla Reddy College of Engineering for Women,
Maisammaguda., Medchal., TS, India
keerthureddychinthala@gmail.com & shivajyothi29@gmail.com

Abstract:
Based on research printed on eMarketer, about 75 % from the content published by Facebook users contains photos. The appropriate data from various modalities will often have semantic correlations. The majority of the existing works make use of a bag-of-words to model textual information. Because we propose using a Fisher kernel framework to represent the textual information, we utilize it to aggregate the SIFT descriptors of images. We advise to include continuous word representations to deal with semantic textual similarities and adopted for mix-media retrieval. Your building block from the network utilized in the work may be the Gaussian restricted Boltzmann machine. However, Fisher vectors are often high dimensional and dense. It limits the usages of FVs for big-scale applications, where computational requirement ought to be studied. Finally, hamming distance can be used to determine the similarities between your hash codes from the converted FV along with other hash codes of images. We assess the suggested method SCMH on three generally used data sets. SCMH achieves better results than condition-of-the-art methods with various the lengths of hash codes. A Skip-gram model was utilized to create these 300-dimensional vectors for 3 million phrases and words. For generating Fisher vectors, we make use of the implementation of INRIA. Within this work, we compare the important duration of the suggested approach along with other hashing learning methods. Even though the offline stage from the suggested framework requires massive computation cost, the computational complexity of internet stage is small or similar to other hashing methods

Keywords: Hashing method, word embedding, fisher vector.

Paper ID: VMTW-ICAVSP182

LOWERING AMBIGUITY DISPENSATION COSTS USING LEAKAGE DETERRENCE SCHEME

Ch Mahesh & M Mahesh
Assistant Professor, Department of ECE.,
Malla Reddy College of Engineering for Women.
Maisammaguda., Medchal., TS, India
chekuri20@gmail.com & madgulamahesh786@gmail.com

Abstract:

More concretely, previous searchable encryptions particularly handling order comparisons or Order-Preserving File encryption can be extended and leveraged to allow axis-parallel rectangular range explore spatial data. an information analyzer can study social achieve ability according to countless users' location check-ins by evaluating multiple models of circular range queries. While the majority of the searchable file encryption schemes concentrate on common SQL queries, for example keyword queries and Boolean queries, couple of research has particularly investigated geometric range search over encrypted spatial data. Our major contributions is the fact that our design is really a general approach, which could support various kinds of geometric range queries. None of those previous works have particularly studied geometric range queries that are expressed as non-axis-parallel rectangles or triangles. With rapid developments of social systems, Location-Based Services and travelling with a laptop, the quantity of data people create everyday keeps growing dramatically. It's no longer easy or perhaps lucrative for businesses keep a lot of data in your area. More to the point, there still lacks an over-all approach, which could flexibly and safely support various kinds of geometric range queries over encrypted spatial data no matter their specific geometric shapes. Our design has great potential for use and implemented in wide applications, for example Location- Based Services and spatial databases, where using sensitive spatial data having a dependence on strong privacy guarantee is required.

Keywords: SQL queries, Geometric range search, spatial data, encrypted data, and social nets.

CONFIDENCE BREAKING IN PUBLIC COMMUNICATION USING USER'S WILLINGS

Dr Y V Reddy
Professor Department of ECE,
Malla Reddy Institute of Technology and Science,
Maisammaguda., Medchal., TS, India
yvr459@gmail.com

G Naveen
Assistant Professor Department of ECE.,
Malla Reddy Institute of Technology and Science,
Maisammaguda., Medchal., TS, India
naveengodi86@yahoo.co.in

Abstract:

To higher serve users' various social communication needs, OSNs give a huge assortment of internet features for his or her users to take part in, for example building connections, delivering messages, uploading photos, browsing friends' latest updates, etc. To validate the potency of social behavior profile in discovering account activity anomaly, we use the social behavior profile of every user to distinguish click streams of their particular user all other users. We investigate portrayal of person user's social behaviors to identify account usage anomaly. Many activities on OSNs require multiple steps to accomplish. Typical OSNs classify social information into different page types. Time a person requires to complete each action of the given activity is heavily affected by the user's social characteristics. We present the combined measurement outcomes of each behavior feature for those users to exhibit the worth space, and lastly we make use of an example as one example of user behavior diversities. We further process each click stream before performing detailed measurement analysis. Mix-validation can be used to make certain that every a part of data can be used for both training and validation, and it makes sense not produced from biased data. We conduct three teams of experiments by different training data size, feature quality, and profile completeness, correspondingly, to judge their impacts upon the recognition precision. We adjust the brink of the amount of sample activities to understand more about if the feature vector quality affects the recognition precision. The greater kinds of activities a person conducts, the greater complete its behavior profile could be. A user's record distributions of individuals feature values comprise its behavior profile.

Keywords: Click stream, online social behavior, privacy, data analysis, compromised accounts detection, cross- validation.

Paper ID: VMTW-ICAVSP184

AN AUTO-PROTECTIVE DIGGING TECHNIQUE FOR FLAWS

G Subhashini.,
Professor, Department of ECE,
Malla Reddy Institute of Technology and Science,
Maisammaguda., Medchal., TS, India
subhashini8980@gmail.com

D Bal Naik
Assistant Professor, Department of ECE.,
Malla Reddy Institute of Technology and Science,
Maisammaguda., Medchal., TS, India
balussp.85@gmail.com

Abstract:
Perhaps, grounds for that insecurity of web applications is the fact that many programmers lack appropriate understanding about secure coding, so that they leave applications with flaws. This paper explores a strategy for instantly protecting web applications and keep the programmer informed. The approach consists in analyzing the net application source code trying to find input validation vulnerabilities, and inserting fixes within the same code to fix these flaws. research from the configuration from the data mining component, as well as an experimental look at the tool with a number of free PHP applications. The tool may be extended with increased flaws and databases, however this set is sufficient to demonstrate the idea. Designing and applying WAP would be a challenging task. Unlike our work, other works didn't try to identify bugs and identify their whereabouts, but to evaluate the caliber of the program with regards to the prevalence of defects and vulnerabilities. The tool does taint analysis of PHP programs, a kind of data flow analysis. Within the first four posts on the table would be the decision tree models. These models select for that tree nodes the attributes which have greater information gain. The C4.5/J48 model prunes the tree to attain better results. The K- NN model has far better performance since the courses are now balanced. However, the kappa, precision, and precision metrics reveal that the Bayes models continue being the worst.

Keywords: Data mining, web protection, input validation vulnerabilities, software security, source code static analysis, web applications, PHP.

Paper ID: VMTW-ICAVSP185

EXECUTE A DISTINCTIVE ROUTINE FOR REMOTE CHECKING OF DATA INTEGRITY OPEN NETS

B Sampath,
Associate Professor, Department of ECE.,
Malla Reddy Institute of Technology and Science,
Maisammaguda., Medchal., TS, India
somepath2003@gmail.com

P Raja Shekar
Assistant Professor, Department of ECE.,
Malla Reddy Institute of Technology and Science,
Maisammaguda., Medchal., TS, India
prajashekhar3@gmail.com

Abstract:

This relies on the study findings in proxy cryptography, public key identity and remote cloud data integrity management. This paper focuses in public on proxy- oriented data uploading and remote data integrity checks. In public areas cloud this paper. Our proposed ID-PUIC protocol is successful when using identity based public key cryptography so the administration of the certificate is removed. Actually, the ID-PUIC is a modern, proxy-oriented, public cloud data upload and remote data integrity management model. Customers are relieved of computing burdens across the shared cloud network, universal access to data through geographically independent locations and so forth. The manager should only bind to the network to prevent collusion in the study. But the legitimate business of the boss will be analysed throughout. We include the ID- PUIC protocol with the structured device model and safety model. Then we developed the first concrete ID-PUIC protocol, in conjunction with the bilinear pairings. Our built ID-PUIC protocol is clearly safe inside the random oracle model. However, the proposed ID-PUIC can also carry out private remote data integrity monitoring, delegated remote data integrity control, and public remote data integrity monitoring in accordance with the authorisation of the original client.

Keywords: Proxy public key cryptography, remote data integrity checking, cloud computing, identity-based cryptography.

Paper ID: VMTW-ICAVSP186

A TIME-BOUND UPLOADING USING LESS-COST FRAMEWORK

P Swathi & D Kavitha
Assistant Professor, Department of ECE.,
Malla Reddy Institute of Technology and Science,
Maisammaguda., Medchal., TS, India
swathiece406@gmail.com & kavi.prince1987@gmail.com

Abstract:

Recently, extensive research efforts happen to be dedicated to data gathering in WSNs. Many of them centered on static data gathering where sensing information is collected with a static sink. The practicality of utilizing multiple-input-multiple-output (MIMO) in WSNs to lessen data transmission some time and improve spatial diversities continues to be studied within the literature. Upon finding the initial issue is non-convex, we morph it into a convex one by presenting auxiliary variables and logarithmic transformation. Our statistical results demonstrate that the suggested algorithms can converge best within 50 iterations. We conduct extensive simulations to exhibit our framework can considerably reduce data gathering some time and total energy consumption when compared to algorithms without concurrent data uploading and power control. For low power devices for example sensors, interference is generally small therefore we would expect straight line decorrelator to possess comparable performance with MMSE receiver. The primal and dual problems have optimal solutions. Thus, it may be efficiently tackled by convex programming techniques. We make use of the Lagrangian dual decomposition to split up correlated variables. When a sensor node detects that it is funnel towards the SenCar is idle, it adaptively distributes its data total subcarriers by selecting appropriate constellations according to funnel conditions on every subcarrier, and transmits the information over different subcarriers. We realize that the congestion cost yij and also the sojourn time bound T determine the sojourn duration of the SenCar at anchor point a. Lagrangian multiplier \$a could be known as the cost of sojourn time allocation at anchor point a, which depends upon the entire sojourn time bound

Keywords: Wireless sensor, data gathering cost, convex optimization, elastic link capacity, distributed algorithms, Lagrangian multiplier.

Paper ID: VMTW-ICAVSP187

A WIDE RANGE ROAD NETWORK NAVIGATOR FOR LOCATION SEARCH

G Pravalika & K Raju
Assistant Professor, Department of ECE.,
Malla Reddy Institute of Technology and Science,
Maisammaguda., Medchal., TS, India
pravalika457@gmail.com & 7raju6@gmail.com

Abstract:
To facilitate quick recognition of PPatterns, rather of exhaustively checking all of the queried pathways in cache, we design a grid-based index for that PPattern Recognition module. According to these detected PPatterns, the Shortest Path Estimation module constructs candidate pathways for that new query and chooses the right one. Path planning, a simple purpose of road network navigation services, finds a route between your specified start location and destination. The efficiency of the path planning function is crucial for mobile users on roads because of various dynamic scenarios, like a sudden alternation in driving direction, unpredicted traffic conditions, lost or unstable Gps navigation signals, and so forth. During these scenarios, the road planning service must be delivered in due time. Within this paper, we advise a method, namely, Path Planning by Caching (PPC), to reply to a brand new path planning query instantly by efficiently caching and reusing historic queried-pathways. Unlike the traditional cache-based path planning systems, in which a queried-path in cache can be used only if it matches perfectly using the new query, PPC leverages the partly matched queries to reply to part(s) from the new query. Consequently, the server only must compute the unmatched path segments, thus considerably lowering the overall system workload. Since the unmatched segments are often merely a smaller sized area of the original query, the server only processes a "smaller sub query", having a reduced workload. After we return the believed road to the consumer, the Cache Management module is triggered to find out which queried- pathways in cache ought to be evicted when the cache is full..

Keywords: Pattern Detection Module, Spatial database, path planning, cache management, GPS.

HYBRID GENERATIVE ADVERSARIAL NETWORK AND REINFORCEMENT LEARNING FRAMEWORK FOR ROBUST ECG ANOMALY DETECTION

Ponnam Harikrishna
Research Scholar,
Department of Electronics and Communication Engineering,
Vignan's Foundation for Science, Technology and Research, Guntur, Andhra Pradesh, India.
Associate Professor,
Department of Electronics and Communication Engineering,
Vignan's Institute of Management and Technology for Women.

Dr. Shaik Jakeer Hussain
Department of ECE
Vignan's Foundation for Science, Technology & Research
ponnamhk@gmail.com & jk.shaik@gmail.com

Abstract:

Electrocardiogram (ECG) anomaly detection is vital for diagnosing cardiovascular conditions such as arrhythmias and myocardial infarctions. Traditional methods often struggle with challenges like data imbalance, gradient instability, and limited generalization. In this study, we propose a novel Adaptive Gradient-Free Whale Optimization (AGWO) framework that combines metaheuristic-inspired neural tuning, adaptive whale optimization, and deep ensemble learning. The AGWO framework enhances performance by integrating gradient-free parameter tuning, dynamic nature-inspired optimization, and robust ensemble learning of CNNs, LSTMs, and GANs. Experimental results on the MIT-BIH Arrhythmia and PTB Diagnostic ECG datasets demonstrate significant improvements over state-of-the art methods, achieving an accuracy of 95.2%, sensitivity of 93.8%, specificity of 96.4%, and AUROC of 0.97. This innovative approach addresses critical challenges in ECG anomaly detection, offering robust, generalizable, and clinically viable solutions for real-time cardiac monitoring.

Keywords: ECG Anomaly Detection, Generative Adversarial Networks (GANs), Reinforcement Learning (RL), Data Augmentation, Medical Diagnostics, Deep Learning, Sensitivity and Specificity Metrics, Time-Series Data, Healthcare AI, Real-Time Monitoring

Paper ID: VMTW-ICAVSP190

ADVANCED AIRCRAFT ANTI-COLLISION SYSTEM USING ZIGBEE COMMUNICATION AND REPORTING TO GROUND STATION OVER INTERNET OF THINGS (IOT)

Dr. Krishna Samalla, Dr AN Satyanarayana & Dr SPV Subbarao
Professors in Department of Electronics and Communication Engineering,
Sreenidhi Institute of Science and Technology (SNIST),
Hyderabad, Telangana, India

Abstract:
A recent incident involving the loss of high-profile individuals due to aircraft navigation issues has underscored the critical need for an effective anti-collision system. Unlike traditional air traffic collision avoidance systems, which rely on a combination of external and internal data sources, the pilot ultimately carries the responsibility for avoiding collisions. The project focuses on implementing an anti-collision system using a Zigbee module connected to an Arduino Uno board. When an aircraft is detected by the transmitter, signals are sent to a receiver. The system then displays an "aircraft detected" message on an LCD screen and activates a buzzer to alert the pilot. Once the aircraft moves out of range, the system displays a "normal mode" message and turns off the buzzer. All relevant information is transmitted to the ground station through the Internet of Things (IoT).

Paper ID: VMTW-ICAVSP191

DATA SECURITY OVER THE CLOUD THROUGH FINE GRAINED ACCESS CONTROL

Shaik. Madeena
Associate professor in Department of CSE,
Priyadarshini College of Engineering & Technology, Nellore.

Thota Shanmuka Rajkumar,
Pursuing M.Tech in CSE,
Priyadarshini College of Engineering & Technology, Nellore.

Abstract:
Searchable encryption facilitates cloud server to search over encrypted data without decrypting the data. Single keyword based searchable encryption enables a user to access a subset of documents, which contains the keyword of the user's interest. In this paper, we present a single keyword based searchable encryption scheme for the applications where multiple data owners upload their data and then multiple users can access the data. The scheme uses attribute based encryption that allows user to access the selective subset of data from cloud without revealing his/her access rights to the cloud server. The scheme is proven adaptively secure against chosen-keyword attack in the random oracle model. We have implemented the scheme on Google cloud instance and the performance of the scheme found practical in real-world applications.

Paper ID: VMTW-ICAVSP192

DEEP ANALYSIS OF MEDICAL IMAGES USING MACHINE LEARNING

Dr. K Nagi Reddy,
Professor in the department of ECE,
NBKR Institute Of Science & Technology, Vidyanagar .

Nanubolu Himabindu,
Pursuing M.Tech in DECS
N.B.K.R. Institute of Science & Technology, Vidyanagar.

Abstract:

      Healthcare sector is totally different from other industry. It is on high priority sector and people expect highest level of care and services regardless of cost. In terms of image interpretation by human expert, it is quite limited due to its subjectivity, complexity of the image, extensive variations exist across different interpreters, and fatigue. After the success of deep learning in other real world application, it is also providing exciting solutions with good accuracy for medical imaging and is seen as a key method for future applications in health sector. Deep neural networks are now the state-of-the-art machine learning models across a variety of areas, from image analysis to natural language processing, and widely deployed in academia and industry. These developments have a huge potential for medical imaging technology, medical data analysis, medical diagnostics and healthcare in general, slowly being realized. We provide a short overview of recent advances and some associated challenges in machine learning applied to medical image processing and image analysis. As this has become a very broad and fast expanding field we will not survey the entire landscape of applications, but put particular focus on deep learning in MRI.

Paper ID: VMTW-ICAVSP193

IDENTIFICATION OF APPS BASED ATTACK USING BEHAVIORAL PATTERNS

N.Narayana Reddy,
Assistant Professor in CSE,
KSRMCE, Kadapa.

D.Subhash Chandra Mouli,
Assistant professor in CSE,
Annamacharya University, Rajampet.

Abstract:

Smart phones with the platforms of applications are gaining extensive attention and popularity. The enormous use of different applications has paved the way to numerous security threats. The threats are in the form of attacks such as permission control attacks, phishing attacks, spyware attacks, botnets, malware attacks, privacy leakage attacks. Moreover, other vulnerabilities include invalid authorization of apps, compromise on the confidentiality of data, invalid access control. In this paper, an application-based attack modelling and attack detection is proposed. Due to A novel attack vulnerability is identified based on the app execution on the smart phone. The attack modelling involves an end-user vulnerable application to initiate an attack. The vulnerable application is installed at the background end on the smart phone with hidden visibility from the end-user. Thereby, accessing the confidential information. The detection model involves the proposed technique of an Application-based Behavioral Model Analysis (ABMA) scheme to address the attack model. The model incorporates application-based comparative parameter analysis to perform the process of intrusion detection. The ABMA is estimated by using the parameters of power, battery level, and the data usage. Based on the source internet accessibility, the analysis is performed using three different configurations as, WiFi, mobile data, and the combination of the two. The simulation results verify and demonstrates the effectiveness of the proposed model.

Paper ID: VMTW-ICAVSP194

LONG DISTANCE ATTENTION FOR IDENTIFICATION OF DEEP FAKE VIDEOS

N.Narayana Reddy & K.Sali Vahana Reddy
Assistant Professor in CSE,
KSRMCE, Kadapa.

Abstract:
        With the fast progress of deep fake techniques in recent years, facial video fabrication can generate highly illusive video contents and bring critical security threats. And identification of such fabricated videos is much more acute and challenging. Most existing identification methods serve the problem as a neutral binary classification problem. In this paper, the problem is serve as a special grainy classification problem since the differences between fabricated and original faces are very fine. It is notice that most existing face fabricated methods left some common antique in the spatial domain and time domain, including generative deficiency in the spatial domain and inter-frame in stability in the time domain. And a spatial-temporal model(STM) has been proposed which is having two elements for capturing spatial and temporal fake traces in global perspective respectively. The two elements are developed using a narrative long distance attention mechanism. The one element of the spatial domain is used to capture antique in a single frame, and the other component of the time domain is used to capture antique in successive frames. They generate awareness maps in the form of patches. The attention method has a wider vision which give to better gather global information and take out local statistic information. Finally, the awareness maps are used to guide the network to focus on central parts of the face, just like other grainy classification methods.

Keywords: Python, Pycharm, Deep fake

ENVIRONMENTAL SUSTAINABILITY-NEED OF THE HOUR

Dr.Narayan Sangam.
Associate Professor.
Vignan Institute of Technology and Science
Deshmukhi (v), Pochampally (Mdl),
Yadadri Bhuvanagiri (Dist).Nalgonda.Telangana

Abstract:

Sustainability means meeting our own needs without compromising the ability of future generations to meet their own needs. In addition to natural resources, we also need social and economic resources. Sustainability is not just environmentalism.

Environmental sustainability is the ability to maintain an ecological balance in our planet's natural environment and conserve natural resources to support the wellbeing of current and future generations.

Avoiding the use of plastic bags to keep the oceans clean, planting trees to help protect the environment. Responsible consumption and production: Recycling items such as paper, plastic, glass and aluminum.

Environmental sustainability is the responsibility to conserve natural resources and protect global ecosystems to support health and wellbeing, now and in the future.

Environmentally, sustainable practices can help protect natural resources, mitigate and adapt to climate change and promote biodiversity.

Environmental sustainability is increasing attention to global environmental concerns, providing the incentive for businesses to assess their impacts. *Sustainable* development requires an integrated approach that takes into consideration *environmental* concerns along with economic development.

Environmental Sustainability means there must be a balanced relationship between the natural resources available to us and the human consumption of those resources.