3.4.6 Number of books and chapters in edited volumes published per teacher during the year

3.4.6.1: Total number of books and chapters in edited volumes / books published, and papers in national/international c

SI. No	Name of the teacher	Title of the book/ch apters publishe d		Title of the	Name of the conference	National / International	Year of public ation	ISBN/ISSN number of the proceeding	Affiliating Institute at the time of publication	Name of the publisher
1	Dr.D.Srinivasul u Reddy		An Improved Miller Compensated Two Stage CMOS Operational Amplifier	International Conference on Electronics and Renewable	2023 Second International Conference on Electronics and Renewable Systems (ICEARS)	International	2023	979-8-3503- 4664-0	Sri Venkateswara College of Engineering	IEEEXplore
2	Dr.D.Srinivasul u Reddy		Implementati on of a Compensated Two Stage Operational amplifier	International Conference on Biosignals, Images, and	International Conference on Biosignals, Images, and Instrumentatio	International	2024	979-8-3503- 5095-1	Sri Venkateswara College of Engineering	IEEEXplore
3	Dr.D.Srinivasul u Reddy		Enhancing Lung and Colon Cancer Diagnosis: A VGG16 Transfer Learning Method for Histopatholo gical Image Analysis	Tenth International Conference on Biosignals, Images, and Instrumentati on	2024 Tenth International Conference on Biosignals, Images, and Instrumentatio n (ICBSII)	International	2024	979-8-3503- 5095-1	Sri Venkateswara College of Engineering	IEEEXplore

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			Conference	Conference on					
		Modelling	on	Information					
		and	Information	Systems for					
	Dr.C.Chandras	Fabrication	Systems for	Business			978-981-99-	Sri Venkateswara	
4	ekhar	of Security	Business	Management,	International	1905	8612-5	College of	Springer
	CKIIAI	Gadget for	Management,	NOVOTEL			8012-3	Engineering	
		Tirumala	NOVOTEL	Bangkok on					
		Tituillala	Bangkok on	SIAM Square,					
			SIAM	Bangkok,					
		IoT-Enabled	Sayara	Thilyd					
		Flood Wall:	International	International					
		Advancing	Conference	Conference on					
	Dr.C.Chandras	Real-Time	on Self	Self			979-8-3503-	Sri Venkateswara	
5	ekhar	Flash Flood	Sustainable	Sustainable	International	2023	0085-7	College of	Springer
	CKHUI	Monitoring	Artificial	Artificial				Engineering	
		and	Intelligence	Intelligence					
		Forecasting	Systems	Systems					
		An Energy	International	(128235)					
		Efficient	Conference	International					
		High-	on	Conference on					
	Dr.K.Lokesh	Performance	Sustainable	Sustainable			978-1-6654-	Sri Venkateswara	
6	Krishna	CMOS	Computing	Computing and	International	2023	9199-0	College of	IEEEXplore
	TXTISIIII	Transmission	and Data	Data			3233	Engineering	
		Gate Full	Communicati	Communicatio					
		Adder Circuit	on Systems	n Systems					
		Tumor image	on Systems	(ICCCDC)					
		segmentation	AIP	AIP				Sri Venkateswara	
7	Dr.K.Lokesh	using	Conference	Conference	International	2023	1551-7616	College of	AIP
′	Krishna	artificial	Proceedings	Proceedings		2023	1551 7515	Engineering	''''
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8	V Madhurima	EV's Battery Monitoring and Emergency Suppression system	Conference on Advances in Electronics, Computers and	International Conference on Advances in Electronics, Computers and Communicatio	International	2023	979-8-3503- 0544-9	Sri Venkateswara College of Engineering	IEEEXplore
9	C Raju	Multisource Data Fusion- based Driver Vigilance State Estimation using Arduino Mega and Node MCU	International Conference on I-SMAC (IoT in Social, Mobile, Analytics and Cloud)	7th International Conference on I-SMAC (IoT in Social, Mobile, Analytics and Cloud) (I- SMAC 2023)	International	2023	979-8-3503- 4148-5	Sri Venkateswara College of Engineering	IEEEXplore
10	Dr.K.Lokesh Krishna	Implementati on of Enhanced Security System using Roboflow	International Conference on Reliability, Infocom Technologies and	International Conference on Reliability, Infocom Technologies and Optimization	International	2024	979-8-3503- 5035-7	Sri Venkateswara College of Engineering	IEEEXplore
11	Dr.K.Lokesh Krishna	Analysis of CMOS Full Adder Circuits for Multiplier Logic Architectures	Conference on Distributed Computing and Optimization	International Conference on Distributed Computing and Optimization	International	2024	979-8-3503- 8295-2	Sri Venkateswara College of Engineering	IEEEXplore

12	Sk.Alla Baksh	Analysis of Operational Amplifier Topologies for a Low Power Analog to Digital Converter	International Conference on Distributed Computing and Optimization Techniques	2024 International Conference on Distributed Computing and Optimization Techniques (ICDCOT)	International	2024	979-8-3503- 8295-2	Sri Venkateswara College of Engineering	IEEEXplore
13	C Padma	FIR Filer Design using Urdhva Triyagbhyam based on Truncated Wallace and Dada Multiplier as basic multiplicatio n unit	International Conference on	12th IEEE International Conference on Communicatio n Systems and Network Technologies [CSNT-2023]	International	2023	978-1-6654- 6261-7	Sri Venkateswara College of Engineering	IEEEXplore
14	G.Chandraiah	Adaptive PCA-Based Spectral Estimation Method for MST Radar Signal Processing	International Conference on Wireless Communicati ons Signal Processing and Networking	International Conference on Wireless Communicatio ns Signal Processing and Networking	International	2024	979-8-3503- 5084-5	Sri Venkateswara College of Engineering	IEEEXplore

15	K.R.Surendra	A modified Low offset High speed comparator circuit for Flash converter Architecture	International Conference on Self Sustainable Artificial Intelligence Systems	International Conference on Self Sustainable Artificial Intelligence Systems	International	2023	979-8-3503- 0085-7	Sri Venkateswara College of Engineering	IEEEXplore
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17	G.Sujatha	Blood Cancer Detection using improved Machine learing alogorithm	International Conference on Circuit Power and Computing Technologies	2023 International Conference on Circuit Power and Computing Technologies	International	2023	979-8-3503- 3324-4	Sri Venkateswara College of Engineering	IEEEXplore
18	S Salma	Sequential Non-Linear Programming Optimization: A Novel Design Optimization of a Multiband MIMO Antenna	Fifth International Conference on Electrical, Computer and Communicatio n Technologies	· '	International	2023	978-1-6654- 9360-4	Sri Venkateswara College of Engineering	IEEEXplore

19	S Salma	On-Body and SAR analysis of a Polyester Textile antenna for Wearable Applications	International Conference on Electrical, Electronics, Information and Communicati on	International Conference on Electrical, Electronics, Information and Communicatio n Technologies	International	2023	979-8-3503- 9763-5	Sri Venkateswara College of Engineering	IEEEXplore
20	S Salma	Assessing the Impact of Human Sweat on the Performance of Frequency-Reconfigurabl e Textenna	IEEE Wireless Antenna and Microwave Symposium	2024 IEEE Wireless Antenna and Microwave Symposium (WAMS)	International	2024	979-8-3503- 5892-6	Sri Venkateswara College of Engineering	IEEEXplore
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30	G.Sujatha	Advance d Applicati ons in Osmotic Computi ng	Cloud computing and Machine Learning in the Green power Sector: Harnessing Sustainable Innovations:			International	2024	979-8-3693- 1694-8	Sri Venkateswara College of Engineering	IGI Global Scientific Publishing
31	C. Padma	Al and Machine Learning Impacts in Intelligen t Supply Chain	Post- Pandemic Biometric Challenges and Solutions: A Shocker to Supply Chain			International	2024	979-8-3693- 1347-3	Sri Venkateswara College of Engineering	IGI Global Scientific Publishing

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35	Dr. M. Chandra Sekhara Reddy			National	#####	978-93-6039- 688-6	SVCE	MHRD-Sai Sree Publicatio ns

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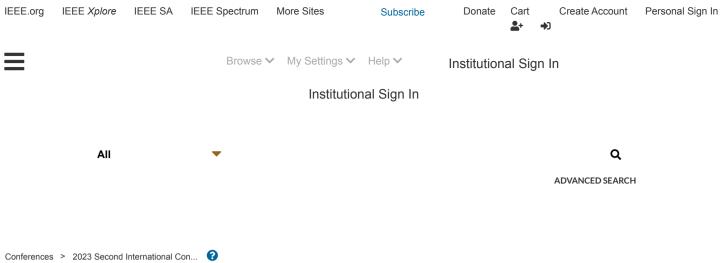
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	Kumar	Load	and Computer				
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		Analysis of	proceedings				
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53	Dr. SHAIK RAFI KIRAN	Congress on Control, Robotics, and	Performance Analysis of Bionic Swarm Optimization Techniques for PV Systems Under Continuous Fluctuation of Irradiation Conditions		10th Novem ber 2023	https://link.s pringer.com/ chapter/10.1 007/978-981- 99-5180- 2 14	SVCE

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An Improved Miller Compensated Two Stage CMOS Operational Amplifier

Publisher: IEEE

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The design of a power efficient and high speed integrated circuits is complex and even more challenging with the current trend towards reduced supply voltages. The work presented in this paper is a High gain, High slew rate, wide band two-stage compensated CMOS operational amplifier. An uncompensated operational amplifier is prone various instability problems. Modified Miller compensation scheme with Cascoded current mirrors and pole zero cancelation techniques are utilized in this design to overcome the various instability problems mentioned in this work. The proposed work involves assumptions of specifications for a specific application, theoretical design calculations, simulation and verification using Cadence tools. In order to verify the theoretical designed values, the proposed compensated two stage CMOS operational amplifier was designed and simulated in 90nm CMOS technology using Cadence Virtuoso tool at an operating voltage of V DD =1.8V. The important parameters such as direct current gain, phase margin, power dissipation, CMRR, unity gain-bandwidth, slew rate was verified with the theoretical values.

Published in: 2023 Second International Conference on Electronics and Renewable Systems (ICEARS)

Date of Conference: 02-04 March 2023 DOI: 10.1109/ICEARS56392.2023.10085073

Date Added to IEEE Xplore: 05 April 2023 Publisher: IEEE



Contents

I. Introduction

From the beginning of this century, the usage of portable electronic gadgets has been ubiquitous in all the day-today applications. In this way, it has become more accessible. Few frequently utilized examples include such as pocketalk language translator, Bluetooth key finder, Wi-Fi hotspot devices, hearing aids, s mart health trackers, core mini-speakers, personal digital assistants, paging devices, mobiles, laptops and tyre inflators etc. The portable gadgets dictate lesser currents for conduction to guarantee a rational battery life time. So in the design of portable gadgets the main specification to be considered has been ultra-low power requirement. At the circuit level, the design should be more focused on a reduced DC supply voltage which is a high requirement to assure a rational longer operating battery lifetime. The reduced DC supply voltage results in a drop in thermal dissipation of the electronic gadget. The various types of power dissipation occurring in an integrated CMOS circuit design are switching (P_{sw}) or dynamic power dissipation (P_{dv}), static power dissipation (P_{st}) and short circuit power dissipation (P_{sc}). The switching power dissipation occurs as a result of the transistors switching activity at circuit node capacitances i.e. current flowing during rail-to rail operation of the circuit. The static power dissipation occurs due to the flow of static and leakage currents when the input voltage is held constant. Small currents of the order of nanoamperes or microamperes usually flow under these conditions, whereas the short circuit power dissipation results due to the fact that both NMOS and PMOS transistors are conducting when the inputs make a transition from low to high state and vice-versa. The dynamic power accounts for the majority of the power consumed in any CMOS integrated circuit. The expression for total power dissipation (Ptot) is written as

$$P_{tot} = P_{dy} + P_{st} + P_{sc} \tag{1}$$

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New Switched Capacitor Biquad Filter Using Current Feedback Operational Amplifier

2007 Internatonal Conference on Microelectronics

Published: 2007

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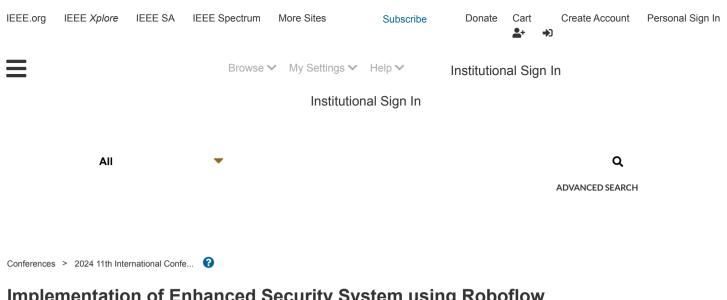
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Implementation of Enhanced Security System using Roboflow

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Perfect security system is needed as the current world is not safe as it is in the old days, and it has gained particular attention in the current scenario day-to-day activities. So, we need a enhanced and advanced security system. Human age and growth rate is a continuous process, and it cannot be reversed. Several facial features such as comers of the mouth, nose, and eyes vary over the years. Hence are undetected by present scenario security systems placed in commercial buildings, industries, educational institutions and public meetings etc. These problems are solved by this proposed work. In this proposed work, Roboflow software module for face recognition and face detection is used, which are used to provide accurate and precise recognition even in difficult situations and with varying demographics. It includes the main processor as Raspberry Pi as a central computing system which reduces the implementation costs. The project is to provide a complete and dependable defensive system that protects people, property, and institutions from security threats by integrating Roboflow into the security infrastructure. Our Simulation results reveal that the proposed work is more efficient than the previous works in literature i.e. Accuracy as 95.7 %, mean average precision as 99.7% and Recall as 100%.

Published in: 2024 11th International Conference on Reliability, Infocom Technologies and Optimization (Trends and Future Directions) (ICRITO)



Date of Conference: 14-15 March 2024 **DOI:** 10.1109/ICRITO61523.2024.10522313

Date Added to IEEE Xplore: 14 May 2024 Publisher: IEEE

▼ ISBN Information:

Electronic ISBN:979-8-3503-5035-7

Print on Demand(PoD) ISBN:979-8-3503-5036-4

VISSN Information:

Conference Location: Noida, India

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I. Introduction

Security System built on Roboflow is one of most advanced system designed in the current world security system applications. It uses most advanced features of the facial recognition techniques. Roboflow is advanced software especially developed to run the face recognition modules in the cloud reduces the burden on the raspberry pi (or), therein raises the complete effectiveness of the working system application.

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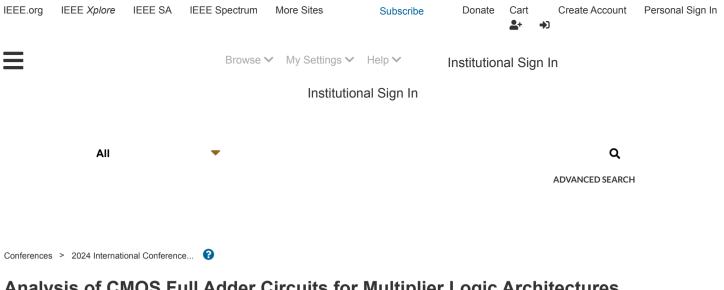
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Analysis of CMOS Full Adder Circuits for Multiplier Logic Architectures

Publisher: IEEE





Jyothi Ganesh Reddy; K. Lokesh Krishna; Jinka Priyanka Keerthi; Karamala Revanth; Kalluri Sai Deekshitha; B. Doraswamy All Authors •••

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High efficient digital adder logic circuits are very essential and critical modules in the processor and controller architectures. For example, an adder circuit in an arithmetic logic unit circuit must offer high speed operation and low power per calculation to make it an optimized processor. Apart from this, adder logic is also used to carry out subtract operations, multiply and division operations. Logic circuits such as Full adders and multipliers have become very elementary components of signal processing operations. Full adder logic circuits are implemented by using different technologies such as conventional complementary metal oxide semiconductor transistors, transmission gate logic, using different transistor counts, gate diffusion input adder and pass transistor logic based circuits. Improvements and scaling in integrated circuit design technologies have led to the circuits to operate at less critical path delay, less power consumption and final less values of power delay product. In this work, two full adder logics are simulated at 0.09 micrometer CMOS process technology in analog design environment of cadence tools. The simulation results shows that the pass transistor logic offers a power dissipation reduction of 18.46% when compared to conventional circuit topologies and is designed using fourteen transistor count, and contributes better performance with respect to power delay product values.

Published in: 2024 International Conference on Distributed Computing and Optimization Techniques (ICDCOT)



DOI: 10.1109/ICDCOT61034.2024.10515488 Date of Conference: 15-16 March 2024

Date Added to IEEE Xplore: 08 May 2024

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Publisher: IEEE

Conference Location: Bengaluru, India

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I. Introduction

During the period 1980s, the portable computers and electronic systems came into existence in the commercial markets with limited processing calculations, large power dissipation, larger handling capabilities with considerable weight issues and less processing speed. The processors which were vital components inside these portable devices are designed to perform various arithmetical operations, and as such other operations include decoding, writing, fetching addresses, and execution of the programs. Majority of portable devices use general purpose processors such as embedded processors, microprocessor, digital signal processors, embedded processors, microcontrollers, application specific integrated circuits, field programmable gate arrays and complex programmable logic arrays. One of the most important circuits in digital arithmetic computing is the adder architectures. Approximately (70-80)% of the operations in a high speed controllers are based on adder logic. The Adders architectures are necessary not merely for adding operations, on the other hand also utilized for subtract operations, multiply and division operations [1]. Digital arithmetic circuit operation involves the use of efficient logic design. The associated hardware uses Boolean logic functions to execute the tasks. The operating speed of the integrated digital arithmetic computer processor is influenced by the speed performance of the adder logic circuits which are used in the integrated circuit [2]. For instance, DSP (digital signal processors functions such as convolution operation, discrete cosine transform operation, infinite impulse response filtering operation, fast Fourier transform operation, finite impulse response operation, and audio/video codecs algorithms), high speed industrial computers, application specific integrated circuits, field programmable gate arrays and complex programmable logic arrays completely depend on the resourceful logic design and implementations of adder circuits to accomplish dedicated algorithms. Examples of operations include compression, filter, multiplyaccumulate operation, convolution, polynomial evaluation and dot product. Digital arithmetic circuits are utilized in numerous such as in image and signal processing. High speed digital computing circuits necessitate the use of shunt pipelined configurations. The latency of these structures is dependent on the one-bit full adder logic circuit. Hence the propagation delay of the full-adder logic circuit usually limits the maximum system clock frequency (fmax) at which a system can operate, otherwise stability issues may happen.

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Analysis of Operational Amplifier Topologies for a Low Power Analog to Digital Converter

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Innovations in circuit design techniques have made the comparator circuits, amplifier circuits, data converter circuits, mixer circuits, high efficient current regulators, phase locked loops etc. to operate at high speeds, less silicon area and reduced power consumption. Besides this hand held devices are becoming an important part of everybody's life style. One of the important and necessary circuits in these devices is operational amplifiers implemented using complementary metal oxide semiconductor technologies. With the voltage scaling possible through metal oxide semiconductor integrated circuits, the circuit operating speed, power consumption and area can be scaled further down. The techniques substrate bias control and VDD control are used in this work. In this paper, design is carried out for two-stage operational amplifier in both 0.09micrometer and 0.18 micrometer process technology. Important specifications linked to 2-stage operational amplifier such as figure of merit, power consumption, slew rate, gain and phase margins, CMRR and output voltage swings are calculated and compared in both the process technologies. The entire simulation is carried out at a circuit voltage of 1.8V. Simulation results reveal a significant enhancement in the numerical values of phase margin, slew rate, figure of merit and common mode rejection ratio values.

Published in: 2024 International Conference on Distributed Computing and Optimization Techniques (ICDCOT)



Date of Conference: 15-16 March 2024 **DOI:** 10.1109/ICDCOT61034.2024.10515483

Date Added to IEEE Xplore: 08 May 2024

▶ ISBN Information:

Publisher: IEEE

Conference Location: Bengaluru, India

Contents

I. Introduction

Integrated circuit technology enhancements during the past two decades have modernized the utilization of various hand-held devices such as Mobile phones, Tablets, Handheld game console, Laptops, Enterprise digital assistant, Graphing calculator, Handheld game console, Handheld PC, Digital cameras and camcorders, Smart watch, Smart glasses, Wearable computers, Head-mounted display, Smart cards, Pagers and Personal navigation devices. All the above mentioned hand held gadgets have enabled the humans to interconnect, transfer data (both audio and video), and entertain across the globe. Other applications also include accurate data acquisition systems in instrumentation, Bio-medical signal processing systems, telecommunication circuits, analog signal processing applications (i.e. such as video and large bandwidth operating circuits) and medical systems. Practically the real occurring signals are continuous and ever changing in mature. To analyze/ manipulate the signals, high performance data converter architectures are crucial and vital for its effective functioning. An analog to digital converter (ADC) transforms a measured continuous input signal into digital output voltages. The entire performance of ADC architecture is mainly dependent on the proper design of an operational amplifier circuit embedded into the data converter architecture. Specifications such as sampling speed, low power consumption, resolution, signal to noise ratio and distortion are very important while designing a data converter circuit. The Operational amplifiers are very important inner sections in the operation of the various analog to digital converter architectures such as Pipelined, Flash type, sigma-delta type, two-step flash type etc. These operational amplifiers are used for amplification, carrying out summation of signals, multiplication of signals and filtering of signals.

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Numerical Simulation of Silicon Heterojunction Solar Cells Featuring Metal Oxides as Carrier-Selective Contacts IEEE Journal of Photovoltaics

Published: 2018

Simulation of channel electron mobility due to scattering with interfacial phonon-plasmon modes in silicon nanowire under the presence of high-k oxide and metal gate

2011 International Conference on Simulation of Semiconductor Processes and Devices

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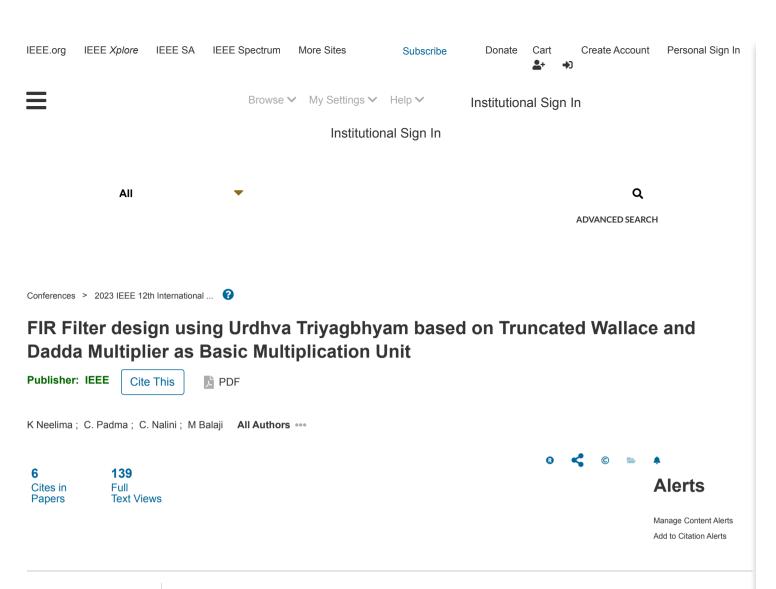
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Image represents a two dimension signal which can be compressed to enable effective usage of channel bandwidth. Any image processing algorithm uses Low Pass Finite Impulse Response filters as basic operation. This paper focuses on the design of finite response filter based on Vedic mathematics for multipliers and Carry Look Ahead adders. To enable image compression, truncated Wallace and Dadda multipliers are used with an acceptable accuracy. The

designs are modeled in Vertruncated Wallace and Dad validated for FIR filters with Dadda multiplier for 4x4 mmultiplier shows the minimus 64x64 bit multipliers respece Filter using truncated Dadd negligible but the maximum multiplier based FIR Filter. changes in power dissipation of the province of the state of the

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(CSNT)

Date of Conference: 08-09 April 2023 **DOI:** 10.1109/CSNT57126.2023.10134709

Date Added to IEEE Xplore: 31 May 2023 Publisher: IEEE

▶ ISBN Information: Conference Location: Bhopal, India

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I. Introduction

To save the memory and channel bandwidth, the image can be lossy compressed within a specified threshold. Especially if it is to be interfaced through hardware, then enormous memory is consumed for storing the image and processing it. The filter is the most essential component in image processing applications. The finite impulse response (FIR) is more popular as it has finite impulse response and is stable [1].

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2024 IEEE 19th International Conference on the Perspective Technologies and Methods in MEMS Design (MEMSTECH)

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IEEE Journal of Solid-State Circuits

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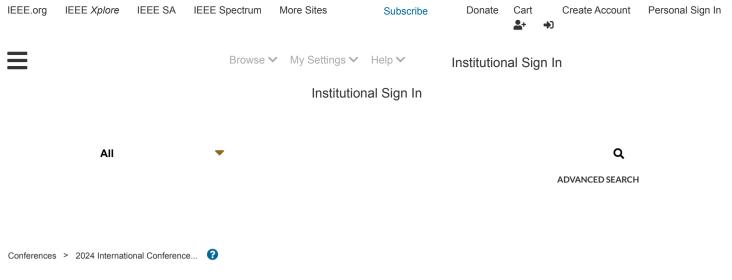
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Adaptive PCA-Based Spectral Estimation Method for MST Radar Signal Processing

Publisher: IEEE

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G. Chandraiah; P.Suresh Babu; G. Srinivasulu All Authors •••

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Subspace methods founded on Eigen-value decomposition have been utilized to retrieve relevant data from extensive datasets. This work suggests the least variance spectral estimation technique named as Proposed Algorithm (PALG) for adaptive principle component based spectrum computation. Using PALG, we analyze the signal received by the MST (Mesosphere-Stratosphere-Troposphere) radar placed at NARL (National Atmospheric Research Laboratory) Gadanki in this proposed work. Additionally, we tested the PALG approach with simulated signals, like broadband signals, at various noise levels (a). The PALG performed better in identifying the number of frequencies in the simulated signal, especially in the case of a noise-corrupted signal. Finally, the suggested algorithm is applied to the MST radar data in order to estimate the Doppler frequency spectrum, which is then utilized to determine the wind, zonal, and meridional velocities. The PALG performs well at higher altitudes when compared to current techniques, and ground truth GPS data was used to validate the MST radar results.

Published in: 2024 International Conference on Wireless Communications Signal Processing and Networking (WiSPNET)

Date of Conference: 21-23 March 2024



Date Added to IEEE Xplore: 22 May 2024 Publisher: IEEE

▶ ISBN Information:

Conference Location: Chennai, India

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I. Introduction

From a height of 3 km, MST radar delivers wind speed data with a resolution of 150 m in the mesosphere, stratosphere, and troposphere. The Doppler Beam Swinging (DBS) technique is employed by MST radar to obtain wind speed data in the East, West, Zenith, North, and South directions. Using several beam positions and a 16 J.IS coded pulse with a 100 us interpulse duration, the radar gathers data. The Fast Fourier Transform, or FFT, can be used to acquire the online data processing fronther Doppler spectrum for each bin. The procedures involved in offline data processing are DC removal, mean noise level calculation, incoherent integration, and interference reduction. When utilizing radar to detect and estimate wind velocity, accurate Doppler frequency estimation is indispensable. At the NARL, Gadanki, a package to analyze MST radar signals is being developed. It is called as Atmospheric Data Processor (ADP) [1].

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Hardware architecture design and implementation for FMCW radar signal processing algorithm Proceedings of the 2014 Conference on Design and Architectures for Signal and Image Processing

Published: 2014

An improved weather radar signal processing algorithm implemented on Mitsubishi RC-34A radar

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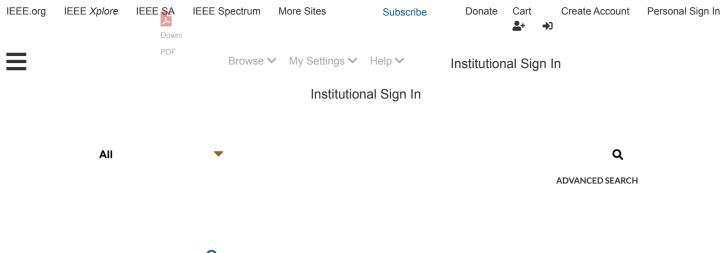
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A Modified Low-Offset High Speed Comparator Circuit for Flash Converter Architecture

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Abstract:

Advances in the implementation of hand held devices would not be possible without the accurate design of an analog to digital converter architecture. An essential component in this converter architecture is the CMOS comparator. The previous comparators operate with high delay, due to which the speed reduces as well as the circuits suffer from larger offset voltages. In this work, a modified CMOS comparator architecture is developed to study its non-linear and time varying characteristics. The propagation delay, power dissipation, power delay product and offset voltage analysis are carried out in this work and compared with the conventional comparator. The proposed comparator architecture is designed and simulated in Cadence Virtuoso tools in 180nm CMOS process technology at a power supply voltage $V_{\rm DD}=1.8{\rm V}$. Com pared to the earlier comparator architectures, the offset voltage reduced by 9%, power delay product deceased by 12% and the total delay reduced by 8%. Based on the obtained simulation results, the proposed modified comparator circuit can be used in the comparator bank segment of a Flash analog to digital converter architecture.

Published in: 2023 International Conference on Self Sustainable Artificial Intelligence Systems (ICSSAS)

Date of Conference: 18-20 October 2023 **DOI:** 10.1109/ICSSAS57918.2023.10331688

Date Added to IEEE Xplore: 06 December 2023 Publisher: IEEE

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I. Introduction

Current improvements in the microelectronic circuit design fostered the electronic gadget market to grow in ubiquitous applications. Data converter architectures are key modules and are crucial in the implementation of various electronic equipment. Data converter architectures are classified as analog to digital converter (ADC) and digital to analog converter. ADCs transform continuous time voltage signals (i.e. real time measurement) to discrete time voltage signals (i.e. digital), whereas the DACs convert discrete time voltage signals (i.e. discrete in nature) to continuous time signals. Mixed mode architecture implementation requires both the ADC and DAC circuits on the same chip. The converter architectures operate on the principle of Nyquist theorem. The theorem specifies that the original analog signal voltage can be accurately restored from the obtained samples of the input analog voltage waveform only if waveform sampling rate is greater than or equal to two times the highest bandwidth of the input analog signal. This statement is very important in the signal conversion techniques and it also corresponds to the operating speed of the whole integrated circuit. Applications that demand high speed operation are augmented reality, mobile internet, artificial intelligence, cloud computing, home automation, biometric devices, virtual reality, 3D printing machines, genomics, quantum computing, block-chain, industrial automation and robotics. Thus the efficient design of a analog to digital converter circuit architecture is very important module to be considered in the implementation for these applications. In literature, several ADC architectures exist such as Flash type, successive approximation register type, sigma-delta type, two-step flash type, single slope and dual slope type etc., although the proposed comparator design is targeted for Flash type ADC architecture. The flash ADC is a very fast data converter architecture used for conversion of input analog signal voltages to digital signal voltages. The conversion of signal takes place in one cycle time-period. Eventhough the speed of operation is very high; it does suffer from drawbacks such as increased circuit complexity due to increase in resolution size, and inclusion of additional circuit block namely thermometer to binary code which inevitably rises the power consumption of the whole circuit.

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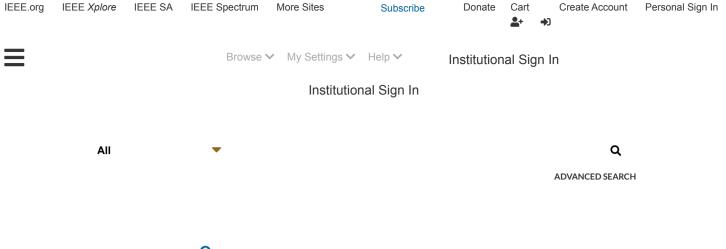
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Hybrid Optimization Algorithm to Mitigate Phishing URL Attacks In Smart Cities

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To improve the detection of phishing sites, this proposal introduces feature weights for intelligent phishing site detection based on hybrid bio-inspired algorithms. The proposed approach uses Gray Wolf Optimization (GWO) and Firefly Algorithm (FF), which examines a wide range of website attributes, to more precisely identify phishing sites. Then employs Artificial Neural Network (ANN) to classify different website elements according to the importance of each component in differentiating between legitimate and phishing websites using bioinspired-based recommended site feature weights. According to experimental findings, the suggested hybrid bioinspired-based feature weighting greatly improved classification accuracy, true positive (TPR), and negative rates (TNR), as well as precision and F1 score. Phishing is an online crime that entails the gathering of private information like passwords, account numbers, and credit card numbers. Attackers use alluring URLs to entice phony website visitors. Recently, Artificial Intelligence-based phishing detection has seen some success, and in this study, ANN was used to detect phishing. This ANN classifier may make phishing websites simpler to spot. However, it has been shown that the effectiveness of detection can be increased by applying a genetic algorithm to improve feature selection.

Published in: 2023 3rd International Conference on Innovative Practices in Technology and Management (ICIPTM)

Date of Conference: 22-24 February 2023 DOI: 10.1109/ICIPTM57143.2023.10118171



Date Added to IEEE Xplore: 10 May 2023 Publisher: IEEE

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Conference Location: Uttar Pradesh, India

Contents

I. Introduction

A phishing website is a fraudulent website created to disseminate false information or instructions. An e-commerce website is one of the most typical targets for internet fraud. However, scammers are searching for social networking sites. Additionally, hackers utilize phishing websites to infect computers with malware and viruses and engage in dishonest activity under the quise of a legitimate website. The researchers will examine phishing sites using Neural Network (NN) perceptron approaches to evaluate accuracy, precision, and recall value depending on these problems [1]. Due to its adaptability, practicality, and simplicity of use, the number of internet users using online services, online banking, and online shopping has significantly expanded in recent years [2]. The exponential growth of online services and e-commerce has motivated scammers and cyber attackers to create and publish phony and fraudulent websites to steal people's financial and personal information. Attacks by cybercriminals as a result have grown to be a significant issue for both individuals and organizations. Black hats, chat rooms, and messaging apps Scammers employ a variety of techniques to collect information from victims, including search engine optimization. Keyloggers, internet chat relays, trojans, and screenshots are some other techniques. Another sort of phishing assault, called base phishing or pharma, involves hackers changing the files on a server or the domain name system [3]. Due to this, URL requests yield a fake address, and any following chats are forwarded to a phishing website. A direct phishing email is a more serious kind of online phishing in which con artists send bogus emails to individual company employees while posing as corporate officials to steal sensitive business data, a delicate matter. The rise in web phishing attacks in recent years has reduced consumer trust in businesses and online trade. The Anti-Phishing Working Group discovered a wide range of unique phishing websites in the first three quarters of 2019 [4]. Numerous blacklist-based tools and approaches have been created to identify web phishing attempts and alert users when they come across phishing websites. The two widely used DNS blacklists and web browser toolbars are blacklist-based methods and techniques for identifying phishing websites. The toolbar for his browser filters URLs in the address bar and alerts him if one is blacklisted. Internet Explorer, Chrome, Firefox, and Safari are a handful of the popular browsers that have Safe Browsing toolbars. On provider lists of well-known phishing websites, the blacklist method is based. These databases, which are searchable by users and often updated with fresh phishing websites, are available to them. Blacklist-based techniques and procedures can successfully identify phishing websites if they are included in the database of phishing websites [5]. In particular, zero-day phishing websites cannot be detected by the blacklist-based tools and approaches now in use. A range of well-liked machine learning techniques should be trained on datasets containing both legitimate and phishing sites, according to recent research publications, to accurately identify new phishing sites. The learned classifier is utilized, following a fruitful training phase, to distinguish recently discovered phishing sites from reliable websites [6]. To improve the effectiveness of the classifier used to identify the sites, the most crucial attributes of each site were gathered and chosen using human experience-based methodologies and frequency analysis. Because traits were manually scored using frequency analysis of a large number of traits that were either manually or experimentally collected from various websites or assembled from earlier studies, these methods take more time, entailed work, and to automatically identify the ideal base feature set for phishing sites, a filter-based feature selection method was used. The machine learning process is not taken into account when using the filter approach to evaluate quality [7]. As a result, many machine learning algorithms have been created that use techniques for filter-based feature selection.

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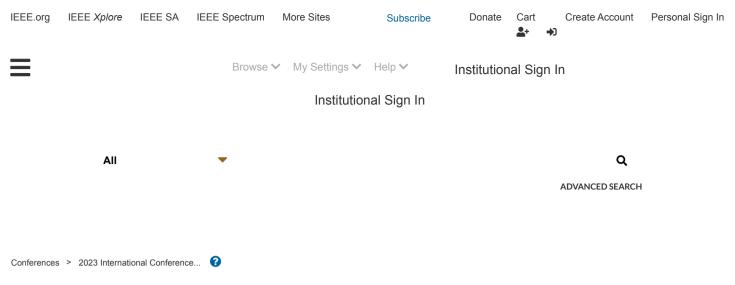
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Blood Cancer Detection Using Improved Machine Learning Algorithm

Publisher: IEEE

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N. P. Dharani; G. Sujatha; R. Rani All Authors •••

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The occurrence of blood cancer has been on rise over the last decade, and treatment of this disease begins as soon as possible following a correct diagnosis. There are a variety of tests and medical experts involved in the diagnostic process, which is time-consuming and expensive. In order to make an accurate prediction of its outcome, an automatic diagnosis system is necessary. This paper suggests a method for blood cancer detection using Improved Machine Learning Algorithm like Ensemble Method with the combination of Effective Fuzzy C Means (EFCM) and Iterative Morphological Process (IMP). The use of EFCM and IMP techniques helps to segment and analyse the blood image data, allowing for the identification of specific characteristics associated with blood cancers. This segmentation process enables the algorithm to focus on the relevant regions of interest, facilitating more accurate and targeted detection of cancerous cells. Moreover, a pre-processing and enhancement methods have been used to the image of blood. By utilizing Machine Learning to process images of blood cancers, accurate diagnosis is achieved, diagnosis times is reduced, and diagnostic testing is provided faster, cheaper, and with greater safety.

Published in: 2023 International Conference on Circuit Power and Computing Technologies (ICCPCT)

Date of Conference: 10-11 August 2023 **DOI:** 10.1109/ICCPCT58313.2023.10245375

Date Added to IEEE Xplore: 22 September 2023 Publisher: IEEE





I. Introduction

Cancer is one of the major diseases which needs to be taken care of in its early stages; otherwise, the excess cancer cells cause the most damage to the body and weaken the person. It is a priority to detect these cancer cells at an early stage to cure them simple and cause no harm to the person's life by those cells. If it is possible to find cancer cells before proceeding to further stages, then it is easy to retain many lives. Many people cannot afford to spend money to cure this cancer or to test it, so the main aim is to take this test for at low cost as possible so that everyone will be able to afford it and be able to cure it at an early stage with no harm to their lives [1]. To help us with all this, it is essential to develop a system that would help us detect cancer cell and give output accordingly. As a consequence, machine learning is an option here to predict these cells and provide an accurate yield [2].

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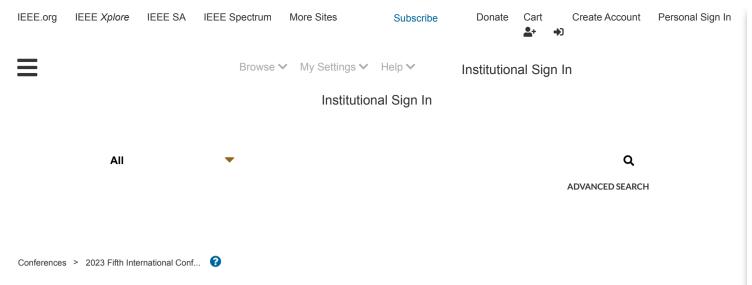
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Sequential Non-Linear Programming Optimization: A Novel Design Optimization of a Multiband MIMO Antenna

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This work introduces a novel optimization procedure for converting a MIMO antenna operating in multibands into an Ultra-Wide Band (UWB) operating antenna. The Sequential Non-Linear Programming algorithm (SNLP) of HFSS carried out the antenna's design optimization. First of all, the MIMO antenna design is considered as the optimization task with multiple objectives of operating in UWB ranges with an isolation of 20 dB. This multiple-objective task is the optimizing problem, and the ANSYS HFSS SNLP algorithm was chosen as the proper one to optimize the antenna geometrical variables. A prototype is realized on the low-cost Frame Retardent-4 substrate to validate the optimized parameters. Moreover, the built prototype is authenticated in an anechoic chamber. A good agreement was noted between the measurements and simulation results through achieving UWB, 20 dB isolation, and a gain of around 2dB in the resonating bands. The SNLP algorithm successfully attains the desired optimization.

Published in: 2023 Fifth International Conference on Electrical, Computer and Communication Technologies (ICECCT)

Date of Conference: 22-24 February 2023 **DOI:** 10.1109/ICECCT56650.2023.10179634



Date Added to IEEE Xplore: 21 July 2023 Pub

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Publisher: IEEE

Conference Location: Erode, India

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I. Introduction

MIMO techniques are more significant in enhancing the system reliability and transmission capacity than SISO techniques [1]. This task is attained without increasing the bandwidth with no extra power consumption. For antenna developers, the major limitation in antenna design is the size constraint. Multiple antennas are closely packed in portable MIMO systems, which causes an automatic phenomenon called mutual coupling. This phenomenon occurs between the antenna elements, consequently deteriorating its performance. While designing the MIMO antenna, achieving a compact size with less distortion among the radiating elements is the primary issue. For future communication, the Unlicensed Ultra Wide Band spectrum from 3.1-10.6 GHz has been legally allotted by the Federal Communications Commission (FCC) [2]. Thus MIMO technology combing with the UWB solves many problems like the need for multiple antennas to access more applications, more power consumption, and multiple path reflections, which deteriorate the antenna performance.

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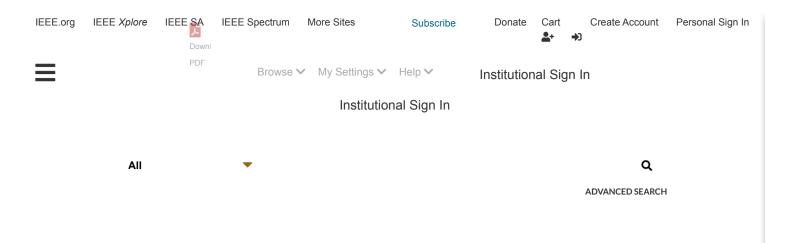
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An polyester substrate textile antenna is proposed for wearable body applications at 4.6 and 5.8 GHz frequencies. The antenna has the required compact design for wearable applications. The X-mass tree-shaped patch, supported by the staircase structure, aids the antenna in operating at treble bands. The antenna's polyester has hydrophobic properties, and the conductive ground patch layers were portrayed by means of the conductive adhesive copper film. A prototype was developed with the polyester material as the substrate, and the total footprints of the antenna are 30x20 mm 2 . This model was meant for wearable applications, so it was intensively tested in many horizontal and vertical bending positions. Thus the conformability of the antenna was validated. The specific absorption rate (SAR) analysis was also done on a three-level human phantom prototype; comprising muscle, fat and skin. The dual wearable application frequencies of 4.6 and 5.8 GHz applications are validated. The results from the SAR analysis conclude that the antenna is safe to use on the human body with a max SAR of 0.762 and 0.698 w/kg for 1 gram of tissue. The compact design with conformability and safe SAR thresholds aid the antenna for wearable body application.

Published in: 2023 Second International Conference on Electrical, Electronics, Information and Communication Technologies (ICEEICT)

Date of Conference: 05-07 April 2023 **DOI:** 10.1109/ICEEICT56924.2023.10157163

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I. Introduction

To address the need for wearable and conformal antennas, researchers have developed several types of flexible antennas that can conform to the contours of the human body and are more skin-friendly. These antennas can be made using flexible materials such as polymer films, fabrics, and even paper [1]. One type of flexible antenna that has gained popularity is the flexible microstrip antenna. These antennas use a thin, flexible substrate that can be bent and shaped to fit the curvature of the body [2]. The flexible substrate is typically made of materials such as polyimide or liquid crystal polymer, which have good mechanical strength, flexibility, and temperature stability. Another type of flexible antenna is the textile antenna, which is made using conductive textiles such as silver-coated nylon or copper-coated polyester. These antennas cambe were into the fabric of clothing, making them unobtrusive and comfortable to wear [3–5]. Yet another type of flexible antenna is the inkjet-printed antenna, which is made by printing conductive ink onto a flexible substrate such as paper or plastic. Inkjet printing allows for precise control over the antenna design and can be used to create complex antenna shapes that conform to the body. Overall, the development of flexible and conformal antennas has opened up new possibilities for wearable electronics, enabling the creation of devices that can be comfortably worn for extended periods of time. These antennas have numerous applications, including in the fields of healthcare, sports, and military, where they can be used for remote monitoring, communication, and sensing [6].

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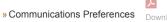
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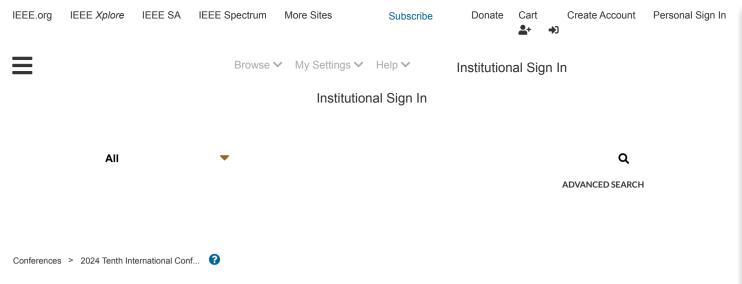
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Implementation of a Compensated Two-Stage Operational amplifier

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Enormous growth is being noticed in the usage of hand-held electronic gadgets during the past decade. One of the very vital circuits in the implementation of these wireless communication systems is the high speed complementary metal oxide semiconductor (CMOS) operational amplifiers. Improvements and modifications in integrated circuit fabrication technologies along with state of the art novel circuit design methodologies have made the high speed low power linear circuits to offer better performance in terms of operating speed, noise free, power dissipation, signal to noise distortion, voltage gain and oscillation free. The work in this paper reports a low power CMOS two-stage operational amplifier with proper designed miller compensation technique. The technique uses a nulling resistor method and achieves temperature insensitive tracking method. Circuit simulation is carried out at CMOS 90nm in analog design environment of cadence tools software. The circuit simulation demonstrates a gain of 78dB, unity gain bandwidth of 194MHz, phase margin of 72 degrees, slew rate of 62.6V/µS, a power consumption of 106.3 microwatts and all the results confirm an improved performance when compared to the previous works in the literature.

Enormous growth is being noticed in the usage of hand-held electronic gadgets during the past decade. One of the

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Date of Conference: 20-22 March 2024 **DOI:** 10.1109/ICBSII61384.2024.10564035

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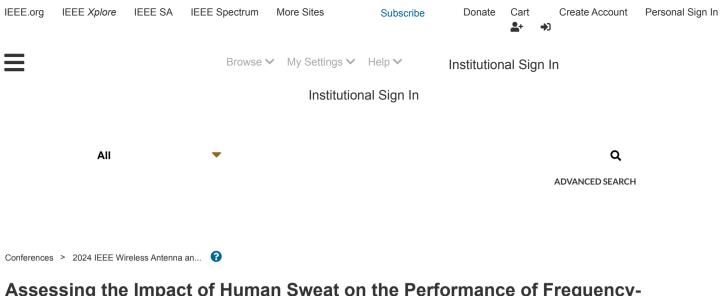
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Assessing the Impact of Human Sweat on the Performance of Frequency-Reconfigurable Textenna







D. Ram Sandeep; S. Salma; B.T.P Madhav All Authors •••

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This study presents a thorough performance evaluation of a versatile wearable antenna capable of frequency and polarisation reconfiguration. The antenna employs a distinctive sickle-shaped primary radiating element complemented by a similar structure serving as the ground component. The antenna design was devised on jute fabric, and the conductivity was achieved through the application of conductive copper paint. Two PIN diodes within the ground plane enable the antenna to function across four configurations. Operating autonomously, the developed antenna functions at 2.4, 4.29, 5.78, and 9.39 GHz in Configuration-1, 5 and 5.9 GHz in Configuration-2, 4.4, and 5.8 GHz in Configuration-3, and finally 3.5, 4.4, and 5.3 GHz in Configuration-4. These reconfigurable textile antennas hold significant promise in various strategic applications, notably in health monitoring, security, and safety. The unique design utilising natural fiber material aims at optimal functionality when in contact with the human body under diverse conditions, including sweat absorption and dust resistance. The experimental investigation scrutinises the antenna's operational performance in simulated sweating circumstances using a synthetic sweat solution. Remarkably, the antenna exhibited consistent performance across all experimental conditions. This underscores the robustness of the 'textenna,' a term coined to denote the antenna's reliance on natural jute fiber as a substrate and a traditional brush painting method for its fabrication.



Published in: 2024 IEEE Wireless Antenna and Microwave Symposium (WAMS)

Date of Conference: 29 February 2024 - 03 March 2024 DOI: 10.1109/WAMS59642.2024.10527860

Date Added to IEEE Xplore: 16 May 2024 Publisher: IEEE

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Electronic ISBN:979-8-3503-5892-6

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Conference Location: Visakhapatnam, India



I. Introduction

Electronic wearable systems can be classified into three groups. The first group is designed to use directly on the body. The second one is designed for incorporating in the clothing (smart clothing)-finally, the third one is designed to operate as clothing accessories. The third technique is the most famous among that classification and is widely used in health care and military as smart clothing [1]. Radio bulky equipment can reduce mobility and also the combat capability of the soldiers. The traditional antennas can also be easily recognisable as enemy targets. Therefore, wearable electronics are invisible, and end in the incorporated into sportswear, emergency equipment, suits for astronauts, medical, military, and entertainment applications. New activities, such as survival assistance in difficult conditioning, can be applied to the clothing's traditional function. This can be achieved by integrating the smart electronic clothing components, which provide various functions, such as the call for assistance or life support surveillance [3].

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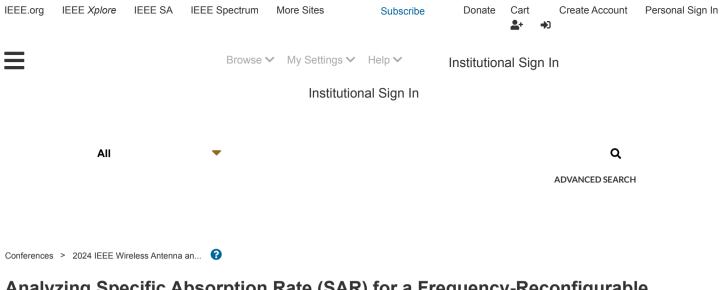
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Analyzing Specific Absorption Rate (SAR) for a Frequency-Reconfigurable Textenna

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This study thoroughly assesses a frequency-reconfigurable circularly polarized textenna crafted from jute material for on-body performance evaluation. This antenna achieves four distinct configurations by leveraging two BAR-64-03W pin diodes. In standalone conditions, In C1 mode it resonates at various frequencies of 2.4, 4.29, 5.78, and 9.39; in C2 it function at 5 and 5.9; in C3 it operates at 4.4 and 5.8 in C3; and in C4 it resonates at 3.5, 4.4, 5.3. CP occurs at frequencies of 2.4, 3.5, 5.8, and 5.9 GHz within these specified setups. SAR (Specific Absorption Rate) assessments were analysed for its performance near the human body to evaluate the antenna's effectiveness in close proximity. Using an HFSS software-based human phantom mimicking muscle, fat, and skin, SAR analysis was performed both with and without the antenna placed on the model. Impressively, the fabricated jute antenna exhibited excellent characteristics even when in contact with the human body. The correlation between the measurement and simulation was notably strong. SAR Inspection demonstrated the viability of this reconfigurable textenna for on-body communication applications, showcasing its effectiveness even at close proximity to human tissue.

Published in: 2024 IEEE Wireless Antenna and Microwave Symposium (WAMS)

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With the vast growth of modern wireless communication, the wireless body area network (WBAN) has gained popularity [1]. They are used in many wireless communication applications such as medical, sports, wellness, security, monitoring, and entertainment [2]. Textile antennas are terminal antennas that are made up of various textile materials. Most of the textile antennas are microstrip patch antennas. A layer of dielectric material occupies the patch and ground plane gap, indicated as antenna substrate. They are skin-friendly, easy to fabricate, and also user-friendly [3]. The textile antennas are comfortable using wearers' outfits and can directly operate by placing them on the human body. They are also flexible, lightweight, washable, and robust [4].

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Development of analytical flat phantom model for EM radiation to evaluate specific absorption rate (SAR) in human body 2008 International Conference on Computer and Communication Engineering

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Exploring the Impact of Bending on Circularly Polarized Textile Reconfigurable Antenna

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D. Ram Sandeep; S. Salma; B.T.P Madhav All Authors •••

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This investigation delves into the impact of bending on a versatile, frequency-adjustable textile antenna. This antenna achieves four distinct configurations by leveraging two BAR-64-03W pin diodes. In standalone conditions, In C1 mode it resonates at various frequencies of 2.4, 4.29, 5.78, and 9.39; in C2 it function at 5 and 5.9; in C3 it operates at 4.4 and 5.8 in C3; and in C4 it resonates at 3.5, 4.4, 5.3. CP occurs at frequencies of 2.4, 3.5, 5.8, and 5.9 GHz within these specified setups. The structural changes induced by bending disrupt the antenna's functionality, prompting an extensive exploration of its electromagnetic behavior variations. Assessing both vertical and horizontal bending effects across these configurations reveals a maximum frequency deviation of 0.35 GHz. Concurrent shifts in axial ratios are also observed. The analyses highlight the antenna's robust performance under diverse human body curvature scenarios.

Published in: 2024 IEEE Wireless Antenna and Microwave Symposium (WAMS)

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I. Introduction

Body area network (BAN) communication technology has been widely used in many fields in recent years, including sport, military, navigation, medical sensing, health monitoring, etc [1]. Wearable antenna plays an essential role in a BAN and has gained more attention. NewtrodeReadepts, new substrates, and innovative production methods have been developed, which have led to the development of wearable antennas specially designed for body applications [2].

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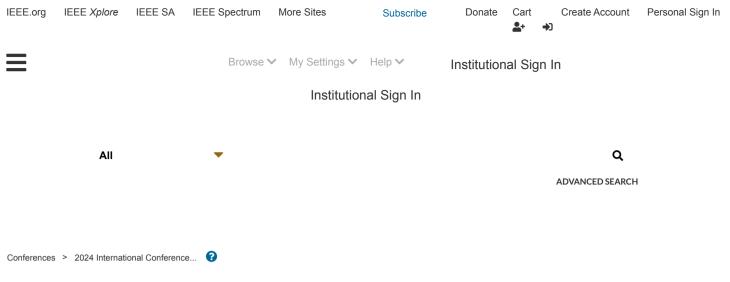
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Metropolitan regions are confronting with traffic issues, which bring about less versatility, longer drives, and more ecological issues. Novel methodologies are expected to resolve the rising issues of gridlock and the executives in contemporary metropolitan settings. This research study handles the critical issue of gridlock in urban communities and offers a better approach to lessen traffic and enhance efficiency by joining robots fitted with Web of Things innovation. Our examination utilizes the capacities of IoT-associated robots to offer a viable traffic signal framework for brilliant urban communities as an answer for these issues. The proposed approach joins the adaptable utilization of robots with continuous information gathering and examination utilizing Web of Things gadgets, for example, cameras and sensors put in essential rush hour gridlock areas. These robots play out the jobs of dynamic traffic directors and screens, considering speedy response to episodes and gridlocks. An innovative and promising answer for the peak traffic issues in metropolitan regions at present is to combine the IoT-associated drones one another, which makes the way for more robust and harmless ecosystem transportation frameworks. The present work adopts many features of use of drones, which includes security, privacy and economic cost impact. This work is essential for the professionals working in intelligent transportation systems such as Energy-Efficient Traffic Surveillance, Holistic Traffic Management System, Energy Efficiency Strategies, and Sustainable Transportation to comprehend the open problems in the real time implementation of traffic management coordination for smart cities with internet of things connected drones. In conclusion, a thorough discussion on the energy efficient strategies, sustainability impact, and significance in the



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The continuous pattern of quick urbanization has changed the scene of metropolitan regions universally. As additional individuals relocate to metropolitan areas, focusing on financial open doors and large working conditions for everyday comforts, the subsequent flood in vehicular rush hour gridlock has prompted a basic issue - gridlock. The developments in metropolitan area, expanded vehicle proprietorship, and obsolete traffic, the executives' frameworks have made a mind boggling snare of difficulties that request imaginative and versatile arrangements. The development of brilliant urban areas, outfitted with trend setting innovations, has carried new aspects to metropolitan living. Nonetheless, with these progressions comes the requirement for a rethought way to deal with traffic the board that line up with the unique idea of present-day metropolitan conditions. The conventional techniques, intended for an alternate period, are battling to stay up with the intricacies of contemporary traffic issues.

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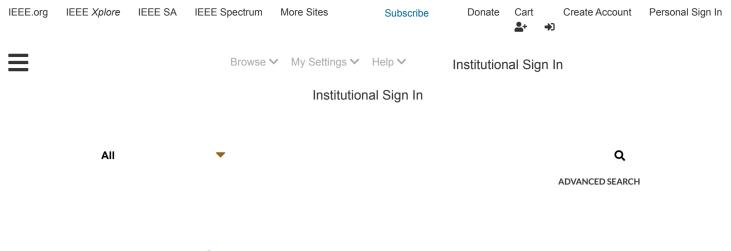
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Lung cancer ranks fourth in India, accounting for about 5.9% of all cancer cases and 8.6% of lung cancer mortality when compared to all cancer mortality [1] [2]. According to GLOBOCAN India statistics 2018, 71,788 males and 26,490 females are affected by lung cancer [3] [4]. The microscopic anatomy of lung cancer is divided into two types: small-cell lung carcinoma, which accounts for 15% of tall languarities [5], and non-small-cell lung carcinoma, which accounts for 85%. The gross appearance of squamous cell carcinoma of the lung is often a central cavitary mass due to extensive central necrosis [6]. It often appears as cavitating lesions on a chest X-ray. This is the most common form of lung cancer associated with pancreatic tumors [7] [8].

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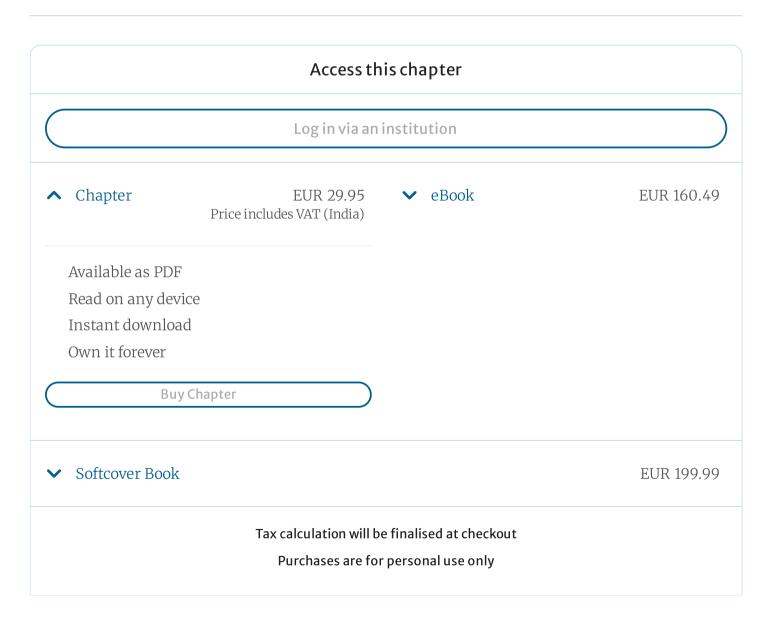
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Object detection is a task to expect the actual features and type of object in a scene. Development of Convolution Neural Network (CNN) gave rise to great advances in object detection. The most popular object detectors are Yolo and Faster RCNN (Region-based CNN). The primary limitation of these object detectors is lack of capability to continually gain knowledge of new objects in the dynamic world. Humans are born to learn continued knowledge while grasping the ability to keep the old

knowledge. However, every deep network has a limited capacity to learn and cannot exactly replicate the way humans perform continual learning. This is primarily due to a phenomenon addressed as catastrophic forgetting which cannot retain the previously learnt data while learning a new task. The issue of continual learning extensively measured in image classification applications as these are essential in resolving object detection problems. Incorporating the continual learning strategies within the existing deep learning-based object detectors will be very useful in applications like retail, autonomous driving, and surveillance-related issues. Various recent research findings relate awareness refinement to limit the representation to hold older information. This rigid limitation is disadvantageous for learning an innovative familiarity. Among the various techniques that exist in the literature, replay-based approach is very close to the way humans perform continual learning to retain previous knowledge. This article surveys and analyzes the state-of-the-art replay techniques and compares them to identify the most suitable technique for object detection on edge devices.

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References

1. LeCun Y, Boser B, Denker JS, Henderson D, Howard RE, Hubbard W, Jackel LD (1989) CNN-LeNet. In: IEEE International phoenix conference on computers and communications

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2. Xiao Y, Tian Z, Yu J, Zhang Y, Liu S, Du S, Lan X (2020) A review of object detection based on deep learning. Multimedia Tools and Appl 23729–23791

Google Scholar

3. Dalal N, Triggs B (2005) Histograms of oriented gradients for human detection. In: 2005 IEEE computer society conference on computer vision and pattern recognition (CVPR'05), June, vol 1. pp 886–893

Google Scholar

4. Lienhart R, Maydt J (2002) An extended set of haar-like features for rapid object detection. In: International conference on image processing, September, vol 1. pp I–I

Google Scholar

5. Lowe DG (2004) Distinctive image features from scale-invariant keypoints. Int J Comput Vision 60:91–110

Article Google Scholar

6. Cortes C, Vapnik V (1995) Support-vector networks. In: Machine learning, vol 20. Published in Kluwer Academic Publishers, pp 273–297

Google Scholar

7. Viola P, Jones M (2001) Rapid object detection using a boosted cascade of simple features. In: Proceedings of the 2001 IEEE computer society conference on computer vision and pattern recognition. CVPR 2001, December, vol 1. pp I—I

Google Scholar

8. Girshick R, Donahue J, Darrell T, Malik J (2014) Rich feature hierarchies for accurate object detection and semantic segmentation. In: Proceedings of the IEEE conference on computer vision and pattern recognition, pp 580–587

Google Scholar

9. He K, Zhang X, Ren S, Sun J (2015) Spatial pyramid pooling in deep convolutional networks for visual recognition. IEEE Trans Pattern Anal Mach Intell 37(9):1904–1916

Article Google Scholar

10. Girshick R (2015) Fast R-CNN. In: Proceedings of the IEEE international conference on computer vision, pp 1440–1448

11. Ren S, He K, Girshick R, Sun J (2015) Faster r-cnn: towards real-time object detection with region proposal networks. In: Advances in neural information processing systems, vol 28

Google Scholar

12. He K, Gkioxari G, Dollár P, Girshick R (2017) Mask r-cnn. In: Proceedings of the IEEE international conference on computer vision, pp 2961–2969

Google Scholar

13. Dai J, Li Y, He K, Sun J (2016) R-FCN: object detection via region-based fully convolutional networks. In: Advances in neural information processing systems, vol 29

Google Scholar

14. Sermanet P, Eigen D, Zhang X, Mathieu M, Fergus R, LeCun Y (2013) Overfeat: integrated recognition, localization and detection using convolutional networks. In: [ICLR 2014] International conference on learning representations

Google Scholar

15. Redmon J, Divvala S, Girshick R, Farhadi A (2016) You only look once: unified, real-time object detection. In: Proceedings of the IEEE conference on computer vision and pattern recognition, pp 779–788

Google Scholar

16. Redmon J, Farhadi A (2017) YOLO9000: better, faster, stronger. In: Proceedings of the IEEE conference on computer vision and pattern recognition, pp 7263–7271

Google Scholar

- 17. Redmon J, Farhadi A (2018) Yolov3: an incremental improvement. arXiv preprint arXiv:1804.02767
- 18. Liu W, Anguelov D, Erhan D, Szegedy C, Reed S, Fu CY, Berg AC (2016) Single shot multibox detector. In: Computer vision—ECCV 2016: 14th European conference, October 11–14, 2016, Proceedings, Part I 14, pp 21–37

Google Scholar

- 19. Fu CY, Liu W, Ranga A, Tyagi A, Berg AC (2017) Dssd: deconvolutional single shot detector. arXiv preprint arXiv:1701.06659
- 20. Li Z, Zhou F (2017) FSSD: feature fusion single shot multibox detector. arXiv preprint arXiv:1712.00960
- 21. Shen Z, Liu Z, Li J, Jiang YG, Chen Y, Xue X (2017) Dsod: learning deeply supervised object detectors from scratch. In: Proceedings of the IEEE international conference on computer vision, pp 1919–1927

Google Scholar

22. Menezes AG, de Moura G, Alves C, de Carvalho AC (2023) Continual object detection: a review of definitions, strategies, and challenges. Neural networks

Google Scholar

23. McCloskey M, Cohen NJ (1989) Catastrophic interference in connectionist networks: the sequential learning problem. In: Psychology of learning and motivation, vol 24. Academic Press, pp 109–165

Google Scholar

24. Ratcliff R (1990) Connectionist models of recognition memory: constraints imposed by learning and forgetting functions. Psychol Rev 97(2):285

25. McClelland JL, McNaughton BL, O'Reilly RC (1995) Why there are complementary learning systems in the hippocampus and neocortex: insights from the successes and failures of connectionist models of learning and memory. Psychol Rev 102(3):419

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- **26.** Goodfellow IJ, Mirza M, Xiao D, Courville A, Bengio Y (2013) An empirical investigation of catastrophic forgetting in gradient-based neural networks. arXiv preprint <u>arXiv:1312.6211</u>
- **27.** Kudithipudi D, Aguilar-Simon M, Babb J, Bazhenov M, Blackiston D, Bongard J, Brna AP, Chakravarthi Raja S, Cheney N, Clune J, Daram A (2022) Biological underpinnings for lifelong learning machines. Nature Mach Intell 4(3):196–210

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28. Shin H, Lee JK, Kim J, Kim J (2017) Continual learning with deep generative replay. In: Advances in neural information processing systems, vol 30

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29. Hao Y, Fu Y, Jiang YG (2019) Take goods from shelves: a dataset for class–incremental object detection. In: Proceedings of the 2019 on international conference on multimedia retrieval, June, pp 271–278

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30. Shieh JL, Haq QMU, Haq MA, Karam S, Chondro P, Gao DQ, Ruan SJ (2020) Continual learning strategy in one-stage object detection framework based on experience replay for autonomous driving vehicle. Sensors 20(23):6777

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- 31. Acharya M, Hayes TL, Kanan C (2020) Rodeo: replay for online object detection. arXiv preprint arXiv:2008.06439
- **32.** Yang D, Zhou Y, Hong X, Zhang A, Wang W, Yang D (2023) One-shot replay: boosting incremental object detection via retrospecting one object. In: AAI

Google Scholar

33. Kim CD, Jeong J, Moon S, Kim G (2021) Continual learning on noisy data streams via self-purified replay. In: Proceedings of the IEEE/CVF international conference on computer vision, pp 537–547

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34. Mirza MJ, Manasa M, Possegger H, Bischof H (2022) An efficient domain-incremental learning approach to drive in all weather conditions. In: Proceedings of the IEEE/CVF conference on computer vision and pattern recognition, pp 3001–3011

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35. Chen X, Jiang J, Li Z, Qi H, Li Q, Liu J, Zheng L, Liu M, Deng Y (2023) An online continual object detector on VHR remote sensing images with class imbalance. Eng Appl Artif Intell 117:105549

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36. Kalb T, Mauthe B, Beyerer J (2022) Improving replay-based continual semantic segmentation with smart data selection. In: 2022 IEEE 25th international conference on intelligent transportation systems (ITSC), October, pp 1114–1121

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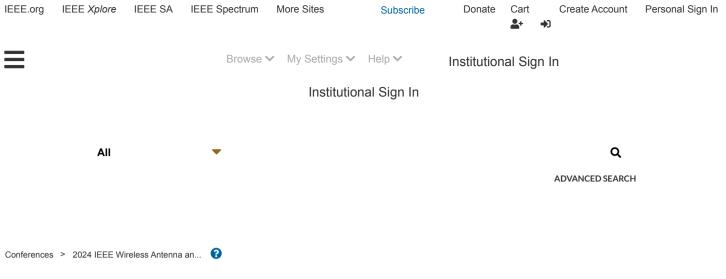
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This article presents a compact planar MIMO antenna configuration incorporating electronic tunability to create band notched functionality for ultra wideband (UWB) applications. The initial design features a partially grounded, modified rectangular monopole to exhibit UWB characteristics. The characteristics of band notch are realized by employing a meander line that is loaded to the rectangular monopole and a U-shaped slot etched along the feedline. The proposed antenna offers an exceptionally wide operating range spanning from 3 to 11 GHz, featuring notched frequencies at 5.6 and 7.6 GHz. To enhance the antenna's versatility, these notched frequencies are electronically adjusted by incorporating two varactor diodes. Furthermore, the antenna provides operating bands spanning from 4.1 GHz to 4.4 GHz, 5.8 to 7.4 GHz, and 8.7 to 12 GHz. The suggested MIMO antenna possesses a total size of 38 x 38 x 1.6 mm 3 .

Published in: 2024 IEEE Wireless Antenna and Microwave Symposium (WAMS)

Date of Conference: 29 February 2024 - 03 March 2024 DOI: 10.1109/WAMS59642.2024.10527862

Date Added to IEEE Xplore: 16 May 2024 Publisher: IEEE

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I. Introduction

Ultra-wideband (UWB) systems have gained significant attention among both academia and industry researchers ever since the Federal Communication Commission (FCC) released the frequency band extending from 3.1 to 10.6 GHz for unlicensed commercial applications. UWB antennas, as an integral part of UWB systems, have become a focal point of research. In recent years, numerous UWB antenna configurations have been proposed, offering wide operating bandwidth, excellent radiation characteristics, and cost-effectiveness. Among the various UWB antenna types, printed monopole antennas stand out as strong candidates due to their ability to achieve a 50 Ω impedance match across a wide frequency range and support omnidirectional radiation patterns. Additionally, monopole antennas offer advantages such as cost-effectiveness, a low-profile design, straightforward fabrication processes, and lightweight construction. technology shares its spectrum with various narrowband technologies, including WLAN, WiMAX, C-band, X-band and more. This coexistence leads to electromagnetic interference that degrades UWB system performance. To mitigate unwanted interferences, UWB antennas have introduced frequency band rejection functionality. The conventional approach involves adding narrowband band-stop filters (BSFs) to the antenna, but this approach increases complexity in designing, dimensions, and system costs. Researchers are exploring alternative methods for incorporating band rejection features in UWB antennas [1].

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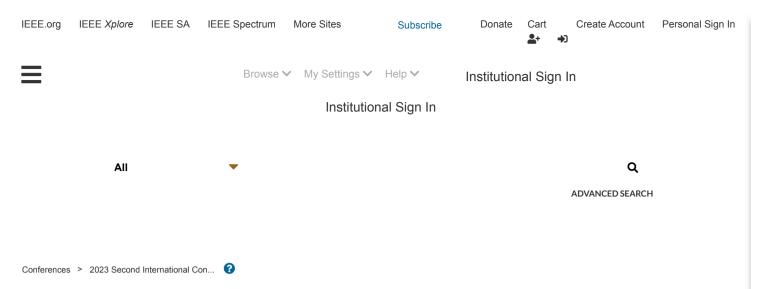
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Lung cancer is one of the hazardous public health conscious problems and early detection is very much essential for improving patient outcomes. Convolutional Neural Networks (CNNs) have been proved as a promising tool for recognizing lung cancer from medical imaging data, especially from Computed Tomography (CT) scans. In this study, we introduce a method for lung cancer detection with the help of CNN models like AlexNet with CT scan images. The suggested procedure calls for pre-processing the CT scan pictures before feeding them to the CNN model. The components of the model are convolutional, pooling layers and fully connected layers and the model is trained on a dataset of CT scans with annotated lung cancer. However, manual analysis of these images can be time-consuming and prone to human error. regions. The trained model can detect new CT scan images as either affected or not. The performance of the proposed approach is calculated on a LUNA16 dataset of CT scans, and the outcome shows that the AlexNet model accomplishes high accuracy in detecting lung cancer, with an overall accuracy of over 94%. The model also achieves high sensitivity and specificity, indicating that it can accurately detect both cancer effected and affected regions in the lungs. The proposed approach has the required potential to be used as a screening tool for early detection of lung cancer, which could help in improving patient outcomes and reduce the abundance burden of lung cancer on healthcare systems.

Published in: 2023 Second International Conference on Augmented Intelligence and Sustainable Systems (ICAISS)



Date of Conference: 23-25 August 2023 **DOI:** 10.1109/ICAISS58487.2023.10250542

Date Added to IEEE Xplore: 22 September 2023 Publisher: IEEE

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Globally, lung cancer is known to be a notable cause of mortality and with early detection being crucial for better patient outcomes. Medical imaging, especially Computed Tomography (CT) scans, are broadly used in the examining and management of lung cancer. However, unautomated analysis of these images can be time-consuming and prone to human errors. Convolutional Neurali Neural

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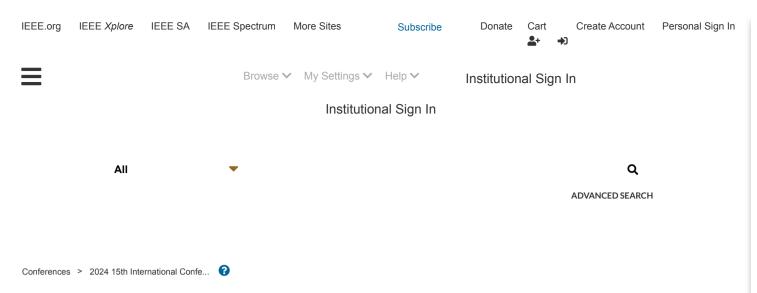
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The spatiotemporal activity of neural networks can be observed in the brain using two-photon calcium imaging (TCI). It is important to precisely identify spikes from TCI that belong to individual neurons before this activity can be examined. The finite rate of innovation (FRI) framework is utilized successfully in the past to estimate spike trains from noisy TCI data. Conventionally, matrix-pencil and Prony's methods are proposed to estimate spikes. These techniques can breakdown at high noise environment due to subspace swap. In this work, we propose a polynomial root-free sparse-Prony approach for detecting spikes. The method produces perfect estimation of spikes in a noise-free environment. Simulations are run to compare sparse-Prony method's performance with that of matrix pencil and Prony's techniques for noisy case. The results demonstrate that sparse-Prony performs better in the breakdown region.

Published in: 2024 15th International Conference on Computing Communication and Networking Technologies (ICCCNT)

Date of Conference: 24-28 June 2024 **DOI:** 10.1109/ICCCNT61001.2024.10725847

Date Added to IEEE Xplore: 04 November 2024 Publisher: IEEE

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FRI framework is developed for reconstructing particular types of non-bandlimited signals known as signals with FRI [1], [2]. Specifically, these signals are parametric and are provided by a small set of free parameters. During the development of FRI framework, the train of Diracs, train of differential Diracs, and piece-wise polynomials have been explored [1], [2], [8]. In the FRI framework, first, the input is convolved by sampling function and then uniformly sampled. A large number of sampling functions are used to sampling non-bandlimited signals. Infinite duration functions, such as Gaussian and sinc functions [1], are physically unrealizable, whereas polynomial and exponential reproducing functions have finite duration [2], [6]. The aim of FRI framework is to determine parameters that represent FRI signal from set of measurement samples. Vetterli et al. [1] have shown that the Prony's approach, can be utilized to accurately estimate the FRI signal parameters from the obtained measurements.

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Analyzing images captured from the same source using different cameras or sensors, which may have different structures or spectral bands, is a highly intricate task. In order to resolve this problem, a single image that includes all the details from each source is necessary. This can be achieved by merging multiple images together, a technique known as image fusion. This article presents a straightforward and efficient technique for blending images based on pixel weights. The method involves utilizing edge information derived from the each pixel in the source images, determining the distance to its neighboring pixels, and using the Gaussian filter. The present method, Differences of Gaussian or Gaussian of differences (GoD), is tested via various infrared and medical images. Different techniques like existing multi-focus images, multi-exposure images, and fusion were assessed in order to compare their effectiveness in terms of objective fusion quality measures. The specific details of the parameters used for the method are also provided. An improvement has been made to the method by incorporating a pattern search (PS) algorithm, leading to a more effective optimization approach.

Published in: 2024 2nd International Conference on Networking and Communications (ICNWC)

Date of Conference: 02-04 April 2024 **DOI:** 10.1109/ICNWC60771.2024.10537500

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Conference Location: Chennai, India

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I. Introduction

In the intricate world of medical imaging, the fusion of images acquired from diverse sources holds immense potential for enhancing diagnostic accuracy and revealing hidden insights. Image fusion, which involves combining multiple images into a comprehensive representation, is a valuable tool for extracting meaningful information from diverse datasets [1], [2], [3]. The main goal is the corresponding information obtained from various source images into a single image, providing a holistic view of the underlying anatomy. In the area of multi-modal medical image fusion, different imaging modalities provide unique perspectives on the intricate structures of the human body, and these images are combined to create a merged representation.

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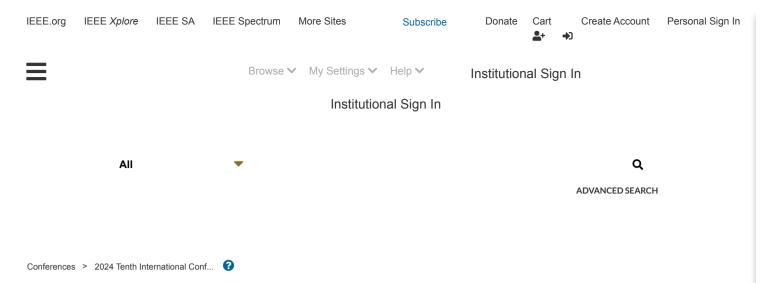
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Enhancing Lung and Colon Cancer Diagnosis: An ImageNet-Trained Transfer Learning Approach for Histopathological Image Analysis

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This study presents a novel approach for lung and colon cancer diagnosis using VGG16 transfer learning applied to histopathological image analysis. Focusing on two prevalent cancers, our dataset comprised 25,000 images, with 5,000 images per class. We employed the VGG16 convolutional neural network, leveraging transfer learning to adapt the model to the unique characteristics of histopathological imaging. The research involved rigorous preprocessing to standardize and enhance image quality, ensuring the VGG16 model could effectively learn and differentiate various tissue patterns. The model's performance was evaluated using a range of metrics, yielding outstanding results: a ROC AUC Score of 0.9996456, and high scores in accuracy (0.986933), precision (0.986928), recall (0.986933), F1 score (0.986924), sensitivity (0.986933), and specificity (0.986928). These results demonstrate the model's exceptional ability in classifying both malignant and benign tissues accurately, indicating significant potential for aiding pathologists in early cancer detection and diagnosis.

Published in: 2024 Tenth International Conference on Bio Signals, Images, and Instrumentation (ICBSII)



Date of Conference: 20-22 March 2024

Date Added to IEEE Xplore: 26 June 2024

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I. Introduction

In the realm of medical diagnostics, lung and colon cancers stand as two of the most challenging malignancies to diagnose accurately, due to their complex histopathological features [1] [2]. Histopathology, the microscopic examination of tissue to study the manifestations of disease, plays a crucial role in the identification and classification of these cancers [3] [4]. Recent advancements in image processing techniques, particularly in the application of Convolutional Neural Networks (CNNs) like VGG16, have opened new avenues for enhancing the accuracy and efficiency of cancer diagnosis [5] [6]. IThis papendel vesation the intersection of these fields, presenting a novel approach using VGG16 transfer learning for analyzing histopathological images of lung and colon tissues [7] [8]. A comprehensive literature survey, reviewing ten pivotal papers in this domain, sheds light on the latest developments and methodologies applied in the histopathological analysis of lung and colon cancer, highlighting the significant strides made in applying advanced image processing techniques to medical diagnostics [9] [10].

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Cloud Computing and Machine Learning in the Green Power Sector: Harnessing Sustainable Innovations:

Anurag Vijay Agrawal, G. Sujatha, P. Sasireka, P. Ranjith, S. Cloudin, B. Samp (/affiliate/b-samp/464074/)

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DOI: 10.4018/979-8-3693-1694-8.ch009



Abstract

The chapter explores the potential of cloud computing, machine learning, and the green power sector in promoting sustainable energy production and consumption. Cloud computing offers efficient data storage and processing, while machine learning algorithms optimize energy production, distribution, and consumption. It highlights how cloud-based infrastructure can enhance renewable energy forecasting, energy grid management, and demand response systems. Edge computing brings intelligence closer to renewable energy sources, reducing latency and energy consumption. The chapter also addresses challenges like data privacy, security, and regulatory compliance in the green power sector. It reviews case studies and emerging trends to demonstrate how these technologies can optimize renewable energy production and contribute to a more sustainable power sector.

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Introduction

The integration of cloud computing and machine learning technologies is a promising solution for the green power sector, as it can drive efficiency, reduce waste, and optimize resource utilization. As societies grapple with climate change and transition to renewable energy sources, this chapter explores the symbiotic relationship between these technologies and sustainable development in the green power sector. It delves into the ways in which these innovations are reshaping the landscape of energy production, distribution, and consumption, ultimately paving the way for a cleaner, more resilient, and environmentally responsible energy ecosystem. The chapter explores the potential of cloud-based infrastructure and intelligent machine learning algorithms in transforming energy management, renewable energy forecasting, and energy grid management. It highlights the potential for a greener, more sustainable future, highlighting the importance of optimizing energy consumption and minimizing carbon footprints, and the transformative journey towards a more sustainable future (Andronie et al., 2021).

The challenges posed by climate change and the finite nature of fossil fuel resources have galvanized a global movement towards renewable and sustainable energy solutions. The green power sector, comprising wind, solar, hydro, geothermal, and other forms of clean energy generation, has emerged as a linchpin in our quest to mitigate the impacts of climate change and transition towards a low-carbon economy. However, realizing the full potential of green power requires not only the harnessing of renewable energy sources but also the intelligent orchestration of these resources to meet the ever-growing energy demands of a rapidly advancing world (Mustapha et al., 2021).

Enter cloud computing and machine learning, two disruptive technologies that have, individually, revolutionized industries across the board. When integrated into the green power sector, these technologies bring a convergence of unprecedented computational power and data-driven intelligence, enabling the optimization of energy production, the enhancement of grid resilience, and the reduction of environmental footprints. This study explores the roles and impacts of cloud computing, a scalable infrastructure for data storage and processing, and machine learning algorithms, which uncover intricate patterns within data, for real-time energy management decisions (Murugesan, 2008).

This text explores the benefits of cloud computing, machine learning, and edge computing in sustainability. It discusses cloud computing models, deployment options, and their role in renewable energy forecasting, grid management, and demand response systems. Edge computing brings computational power closer to renewable energy sources, reducing latency and energy consumption. The text also examines the industry's evolution towards sustainability, emphasizing energy-efficient data centers, renewable energy-powered cloud services, and eco-friendly hardware design (Buyya et al., 2023). It also discusses the environmental impact of these technologies and strategies for reducing their carbon footprint.

This chapter explores the integration of cloud computing and machine learning in the green power sector, focusing on data privacy, security, and regulatory compliance. It provides real-world case studies and best practices to illustrate the success of this integration. The chapter also explores future trends and emerging technologies, such as the Internet of Things (IoT) and advanced artificial intelligence (AI), which are expected to further revolutionize the green power sector (Fan et al., 2023). The goal is to ensure sustainability without compromising privacy or integrity. This chapter provides a comprehensive guide on the relationship between cloud computing and machine learning, emphasizing their potential in the green power sector. It urges decision-makers, innovators, and researchers to adopt sustainable innovations for a more efficient, resilient, and environmentally responsible energy landscape, ensuring future challenges and planet protection (Shaw et al., 2022).

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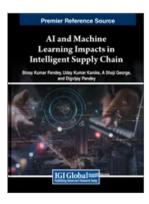
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The COVID-19 pandemic has imposed several challenges to mankind, among them one being biometric, for attendance of working community and the related demand and supply chain related to biometric companies, developers, investors and customers. Due to many medical constraints, people are now reluctant to use contact-based biometric systems. With the increase in personal and social hygiene to avoid transmission of pathogens via contact, people try to avoid usage of fingerprint, facial-, and voice-based biometrics. Further, if the system is not active then multiple times of access contacts may be necessary. This aspect has to be restricted for avoidance of future pandemic situations.

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3. Advanced Tapered-Fed Compact Two-Port Circularly Polarized MIMO Antenna for IoT Wireless Communication Applications

Authors : S. Salma, Habibullah Khan, B. T. P. Madhav, D. Ram Sandeep, Ramani kannan

Published in: Internet of Things Enabled Antennas for Biomedical Devices and Systems

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Abstract

This article details the development of a compact circularly polarized MIMO antenna on an FR-4 substrate. The antenna is methodically designed from a single element to a dual input MIMO antenna. The designed antennas have fed with the tapered model feed lines, and this mechanism will aid the surface currents in passing through its narrow structural design. The aerodrome control tower shape inspires the antenna design. The core structure has been the same in every step, from the single element to the dual radiating element antenna. However, a few modifications like opening the slots and varying the defective ground structure has been made to operate the developed antenna in the circular polarization. The

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8. Design and Analysis of an All-Textile Antenna Integrated Within Human Clothing for Safe Biomedical Wireless Communication

Authors: D. Ram Sandeep, B. T. P. Madhav, S. Salma, L. Govinda

Published in: Internet of Things Enabled Antennas for Biomedical Devices and Systems

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Abstract

This study presents the design and development of a portable textile antenna for biomedical wireless communication at a 5.8 GHz ISM band application. The proposed antenna is built on a highly sustainable, low-cost, and flexible jute substrate. The famous Tai-Chi symbol inspires the present textile antenna design and operates in three frequencies 3.5, 4.9, and 5.8 GHz. The circular polarization characteristic is also achieved in the operating frequencies. This feature enables the antenna to receive the signal without proper orientation between the receiver and transmitter, thus enabling a stable wireless link for wireless bio-medical communication applications. The developed antenna was methodologically investigated on the three-layer body model and the real human tissue to access SAR ranges. All the ranges were under the safe limits of US and EU standards. The obtained results have remarkably proven that the antenna is safe to use on the human body in all the functioning frequencies.

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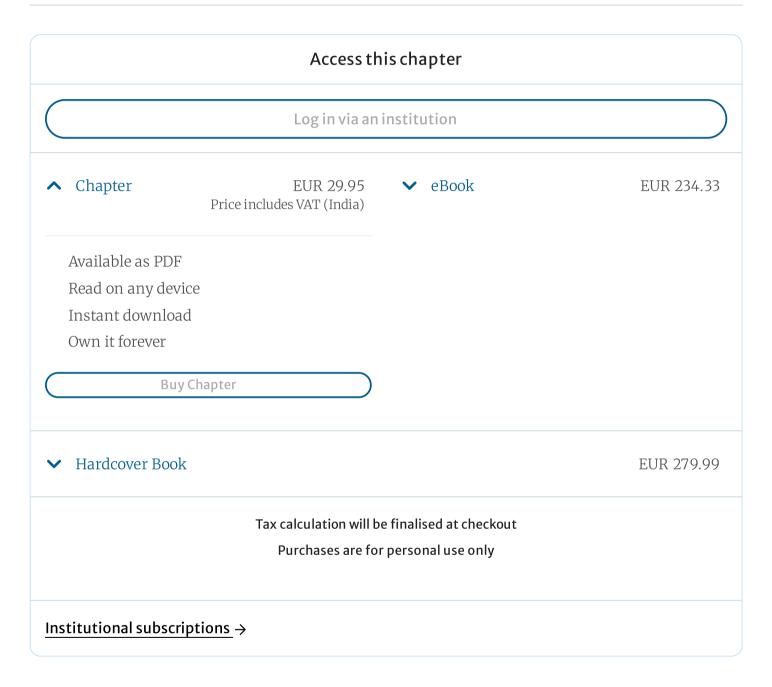
Abstract

The paper focuses on the design and modeling of a security system for Tirumala temple that detects animals only without detecting the surrounding people. The animal attacks can be avoided by detecting the animals within the range of the sensors. The two sensors, PIR sensor and thermal sensor, are used for the detection of animals by body temperature. The testing of the device is

performed on surrounding animals and wild animals in zoos. The device is tested successfully and implemented completely.



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References

1. Mallick, B., Patro, A.K.: Heart rate monitoring system using fingertip through Arduino and processing software. Department of Electronics & Communication Engineering, GIET, Gunupur, Odisha, India

2. Persis Priyanka, V., Sudhakar Reddy, K.: PIR Based Security Home Automation System with Exclusive Video Transmission. Department of Mechatronics, Mahatma Gandhi Institute of Technology, Gandipet, RR(Dt), TS, India

Google Scholar

3. Poor, H.: An Introduction to Signal Detection and Estimation. Springer-Verlag, New York (1985). ch. 4

Google Scholar

4. Bader M.O. Al-thobaiti, Iman I.M. Abosolaiman, Mahdi H.M. Alzahrani, Sami H.A. Almalki, Mohamed S. Soliman: Design and Implementation of a Reliable Wireless Real-Time Home Automation System Based on Arduino Uno Single-Board Microcontroller

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5. Gitelman, L., et al.: CMOS–SOI–MEMS transistor for uncooled IR imaging. IEEE Trans. Electron. Dev. 56(9), 1935–1942 (2009)

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6. Medioni, G.G., Cohen, I., Bremond, F., Hongeng, S., Nevatia, R.: Event detection and analysis from video streams. IEEE Trans. Pattern Anal. Mach. Intell.Intell. 23(8), 873–889 (2001)

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Flooding has been a serious concern in many parts of the globe in the past few years, inflicting damage to assets that stretches from financial losses to the lives of human beings. Floods cannot be avoided or eradicated, however, the catastrophic destruction they wreak could be substantially reduced It could be forecasted using new techs like the IoT-Internet of Things. Individuals could be notified ahead of time and transferred from the impacted regions to more secure locations, together with their important items, utilizing this kind of tech. In this setting, a practically feasible application that could deliver a prompt alert about flooding using seamless information collected by IoT sensors concerning numerous characteristics is needed Using Arduino and portable sensors for level, temperature, humidity, and flow, a flood monitoring system that uses the Internet of Things is built and clearly illustrated in this work. While the Wi-Fi module (Node MCU) functions as the transmitting unit, the system's attached sensors gather the crucial data. Initially, flood-prone zones are selected, wherein the hardware unit (with plethora of sensors) is placed When the values are precisely measured, the IoT setting retrieves them and displays them on the LCD panel. When a flood happens, the public and the relevant authorities are alerted thanks to data saved in a secure channel using the Thingspeak internet application. Finally, the implementation-specific checking is done and the performance validation was done.

Published in: 2023 International Conference on Self Sustainable Artificial Intelligence Systems (ICSSAS)

Date of Conference: 18-20 October 2023 **DOI:** 10.1109/ICSSAS57918.2023.10331865

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Around the world, there are frequent natural disasters that affect both the populace and the economy of the country. For instance, farmers must keep a close eye on their crops to avoid flooding because agriculture is the backbone of every country's economy and prosperity. Rapid detection and mitigation of catastrophes like floods depend on current global technologies.

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I. Introduction

Since the year 2000, portable electronic devices have been present everywhere in all the daily applications. Due to the reduced size and cost per device, these devices have grown into more numbers and have become more penetrable into users. Few frequently utilized examples include such as personal digital assistants, core minispeakers, paging devices pocketalk language translator, Bluetooth key finder, Wi-Fi hotspot devices, hearing aids, smart health trackers, mobiles, laptops and tyre inflators etc. and many more. The electronic portable devices need to operate with reduced currents for achieving long battery duration. Accordingly in the design of portable devices, the focused parameters of interest are ultra-low power operation and reduced levels of propagation delay levels. At the circuit level, the design should be more focused on a reduced DC supply voltage which is a high requirement to assure a rational longer operating battery lifetime. The reduced DC supply voltage results in a drop in heat dissipation requirements of the portable device. Different types of power dissipation occurs in an CMOS transistor circuit design are switching power dissipation (P_{sw}) or dynamic power dissipation (P_{dv}), static power dissipation (Pst) and short circuit power dissipation (Psc). The switching power dissipation occurs as a result of the transistors switching activity at circuit node capacitances i.e. current flowing during rail-to rail operation of the circuit. The static or average power dissipation happens due to the flow of static and leakage currents when the input voltage is held at sustained conditions. Minute currents of the order of picoamperes or nanoamperes usually flow under these conditions, whereas the short circuit power dissipation results due to the fact that both NMOS and PMOS transistors are conducting when the inputs make a change from high to low logic levels and vice-versa. The dynamic power (P_{dv}) accounts for the bulk power dissipated in any CMOS integrated circuit. The expression for total power dissipation (Ptot) is written as

$$P_{to} = P_{dyn} + P_{sta} + P_{scT} \tag{1}$$

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Magnetic Resonance Imaging (MRI) brain segmentation scans were beneficial for diagnosing, treatment and evaluation of affected tumors or specific diseases. Until now, medical professionals accomplished manual segmentation, which is widely utilized in hospitals and diagnostic centers. Manual Segmentation is an authentic conventional method, which is accurate and consumes more time, expensive, finally might be not reliable. Several routine and semi-routine practices for segmentation of magneto resonance images are available in the previous works, nonetheless the obtained accurate values are not comparable with various manual segmentation methods. The proposed method in this work employs a Supervised Artificial Neural Network (ANN) algorithm. The specifications considered in this paper are PSNR, Mean square and Normalized absolute errors, Maximum and Average differences, Normalized Cross-Correlation and structural content. The proposed ANN method attained competitive results with several segmentation methods trained with Artificial Neural Network.

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REFERENCES

1. Despotovíc, et al., "MRI Segmentation of the Human Brain: Challenges, Methods, and Applications," *Comput. and Mathe. Meth. in Medicine*, Art. Id; 450341, pp. (1–23), 2015.

Google Scholar

2. M. A. Balafar et al., "Review of Brain MRI Image Segmentation

Methods." Artificial Intelligence Pay Vol. 33, No. 3, pp. (261, 274), 2010.









3. A. Mahbod, "Structural Brain MRI Segmentation Using Machine Learning Technique," *Degree Project Medical Engineering*, Royal Institute of Technology, Flemingsberg, Sweden, pp (1–50), 2016.

Google Scholar

4. P. Moeskops et al., "Evaluation of an automatic brain segmentation method developed for neonates on adult MR brain images," *in S.P.I.E., Medical Imaging. Intern. Socie. for Optics and Photonics, proceedings* vol. 9413, medical imaging, 2015.

Google Scholar

5. R. M. Haralick et al., "Image segmentation techniques," *Comp. Vis. Grap. and image process.* vol. 29, no. 1, pp. (100–132), 1985. https://doi.org/10.1016/S0734-189X(85)90153-7 Google Scholar Crossref

6. N. Sharma et al., "Automated Medical Image Segmentation Techniques," *Journal of Medical Physics / Assoc. of Medi. Phys. of India*, Vol. 35, no. 1, pp. (3–14), Apr 2010.

Google Scholar

7. P. A. Yushkevich et al., "User-guided 3D Active Contour Segmentation of Anatomical Structures: Significantly Improved Efficiency and Reliability," *Neuro Image*, Vol. 31, no. 3, pp. (1116–1128), Jul 2006.

Google Scholar PubMed

- 8. Khanmohammadi S. et al. "An improved overlapping k-means clustering method for medical applications". *Expe. Systms. with Apps.*, Vol. 67, pp. (12–18), 2017. https://doi.org/10.1016/j.eswa.2016.09.025

 Google Scholar Crossref
- 9. Mishro, P. K. et al., "A novel type-2 fuzzy C-means clustering for brain MR image segmentation". *IEEE Trans. on Cybern.*, Vol. 51, Iss. 58, pp. (3901–3912), Aug. 2021. https://doi.org/10.1109/TCYB.2020.2994235

 Google Scholar Crossref
- 10. Hu, G., et al., "Adaptive kernel-based fuzzy c-means clustering with spatial constraints for image segmentation". Intern. Jour. of Pattn. Recog. & Artificial Intelligence, Vol. 33 no.1, 2019.

Google Scholar

11. R. M. Haralick et al., "Textural Features for Image Classification," Systms. Man & Cybern., IEEE Trans. on, no. 6, pp. (610–621), 1973. https://doi.org/10.1109/TSMC.1973.4309314

Google Scholar Crossref

12. A. Shenbagarajan, et al., "Tumor Diagnosis in MRI Brain Image using ACM Segmentation and ANN-LM Classification Techniques", *Ind. Jour. of Sci. & Tech.*, Vol 9(1), January 2016.

Google Scholar

- 13. R. Mishra et al., "MRI based Brain Tumor Detection using Wavelet Packet Feature and Artificial Neural Networks", Thesis, Indraprastha University, Delhi, India, 2010.
- 14. Mohamed N. Ahmed et al., "A Modified Fuzzy C-Means Algorithm for Bias Field Estimation and Segmentation of MRI Data", *IEEE Trans. On Medic. Imag.*, Vol. 21, no. 3, March 2002.

Google Scholar

15. E.A. Zanaty, et al., "A kernelized fuzzy c-means algorithm for automatic magnetic resonance image segmentation", *Journ. of comp. Meth. in sci.* & *engg.* Vol. 9, Iss. 1, pp. (123–136), April 2009.

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The automotive business is admittedly serious regarding electrical Vehicles now. The safety of lithium-ion batteries in Electric vehicles could be a priority of the automotive industry. Constant observance of battery parameters like temperature, gas level, and voltage, current can alert the system of any abnormal or worse condition or emergency. As these conditions could lead to battery hearth or battery explosion early indication of such activities become important. If in sensible case fire or any accidental impact on the battery may cause the interior tangency of the battery which leads to excessive warming of the battery that leads to explosion and fire. The main objective of this system is to detect any abnormal fault in the lithium-ion battery. The purpose of this project is to use Arduino and sensors like smoke sensors, and temperature sensors to monitor the parameters like temperature, humidity, and leak gases in surrounding Lithiumion batteries of Electric vehicles. And protect it from unwanted situations that occur during charging and discharging also with the help of a fire suppressing system, the condition of hazardous fire can be stopped. It also constantly monitors and displays the temperature and humidity along with the charging and discharging status. This system will send an alert warning to the owner in case of a fire accident. Our good sensor-based network can keep batteries incessantly monitored. This method is going to be very helpful for saving the precious life of the motive force and valuable investment in the Electric vehicle.

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The quantity-based measurement of a driving person's vigilance is extremely valuable for ensuring the safety as well as avoiding accidents while driving. Decreased vigilance in driving activities of the driver is a key cause for the fatal collisions and as a result, the transportation safety of the general population gets exposed to risk. However, there are not much effective methods available for assessing the real-world driving situations. This paper presents the creation of an advanced driver safety system that uses an Arduino microcontroller interfaced with several sensors to increase transport safety and prevent accidents caused by driver fatigue, intoxication, and obstructions by estimating the driver vigilance state. Our system relies on multisource data fusion. Our proposed framework based on driver vigilance state that considers the vigilance lowering factors like driver weariness, alcohol impairment, and hindrances will be able to show promising performance in ensuring the driver safety and lowering accidents. Finally, the performance validation was done and the implementation screenshots along with the graphical comparisons were presented.

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Jobs like steering an automobile always require the driving persons to stay alert during its entire operation. In this context, the driver's Vigilance becomes much important. Thought vigilance has several meanings, the most frequently deployed one is the capacity to pay concentration to an activity (like driving) being performed for an extended length of duration.

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