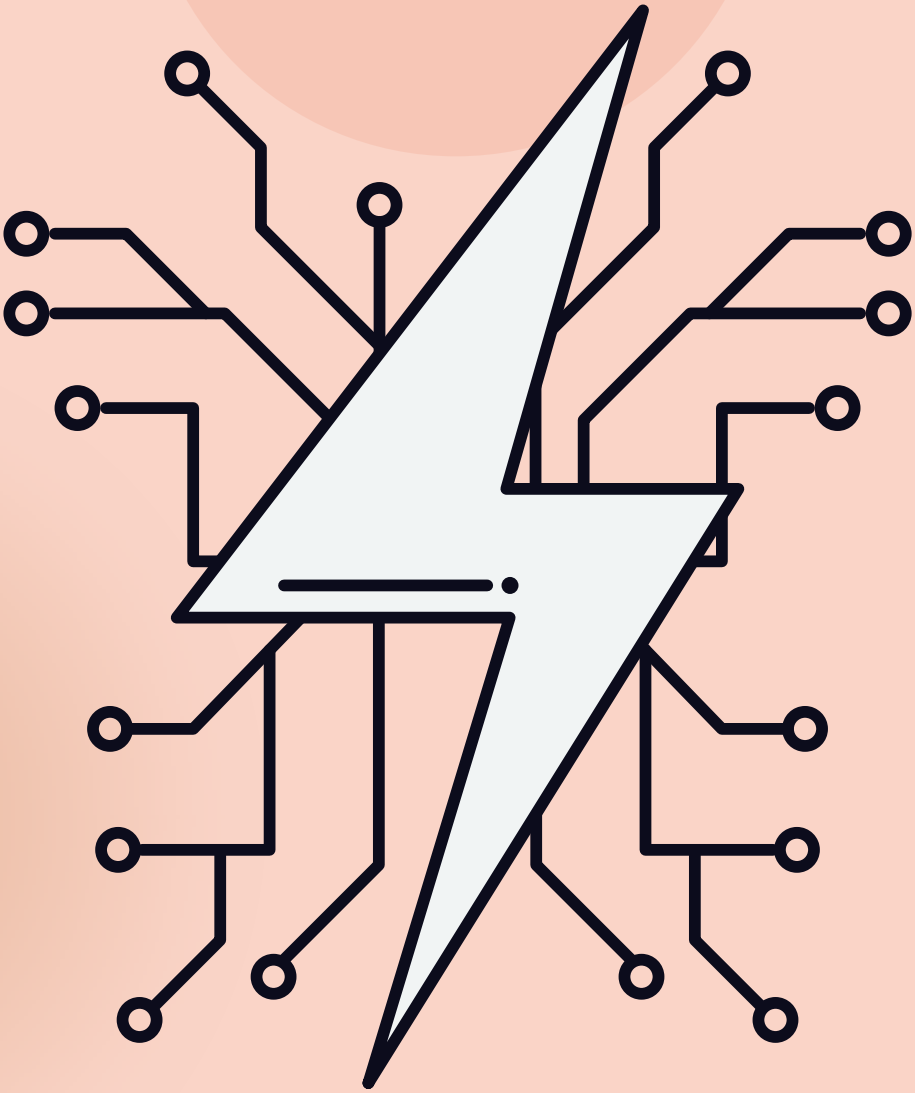
Edition : 2020-21
Part - 2

ECE
Techno Chronicle



Department Of Electronics & Communication Engineering

DR.K.V SUBBA REDDY
INSTITUTE OF TECHNOLOGY
(AUTONOMOUS)
NH-44, Kurnool, Andhra Pradesh

TECHNO CHRONICAL

2020-21

INSTITUTE VISION

To Be A Global Leader In Imparting Quality Technical Education To Produce Competent, Technically Innovative Engineers Imbibed With Research Aptitude, Entrepreneurship And Social Responsibility.

INSTITUTE MISSION

1. To Nurture The Students With Fundamental Engineering Knowledge Enriched With Technical Skills.

2. To Create Conducive Environment To Nurture Innovation And Interdisciplinary Research.

3. To Develop Professionals Through Innovative Pedagogy Focusing On Individual Growth, Discipline, Integrity, Ethics And Social Responsibility.

4. To Foster Industry-Institution Partnerships Leading To Skill Development And Entrepreneurship.

ECE DEPARTMENT VISION:

To Strive Towards Excellence In Electronics And Communication Engineering Through Teaching, Experimental Learning And Research To Meet Industrial And Societal Needs

.

ECE DEPARTMENT MISSION:

M1: To Provide Appropriate Facilities And Environment For Effective Teaching- Learning Process.

M2: To Create Interdisciplinary Research Ambience To Nurture Innovative And Research Skills.

M3:: To Incorporate Interpersonal Skills, Professional Integrity, Ethics And Societal Responsibility.

M4: To Imbibe Entrepreneurship Skills And Leadership Qualities.

About ECE Department :

The Department Of Electronics And Communication Engineering Has Been Playing A Vital Role In Producing Quality Engineers Ever Since It Was Established In The Year 2007. The Department Runs One Under Graduate Program And Two Post Graduate Programs To Cater To The Ever – Changing Needs Of Technical Excellence In All Areas Of Electronics And Communication Engineering Such As VLSI & Embedded Systems, Telecommunications, Signal Processing Etc. The Intake For Under Graduate Program (B. Tech) Is 120. The Department Also Offers Post Graduation Programs With Specialization In Digital Electronics And Communication Systems (DECS) With An Intake Of 18 And VLSI & Embedded Systems Design With An Intake Of 24.

The Department Headed By The Professors, Associate Professors, Assistant Professors Who Are Experts In Their Respective Disciplines. The Department Has Got Every Facility To Groom The Students As Per The Demands Of The Industries And Mncs. The Department Has Highly Modernized Laboratories With Sophisticated Equipment, Which Improves The Practical Working Competency In The Students And The Confidence.

The Department Aims At Educating And Training Students With Sound Knowledge And Awareness In The Latest Trends In Electronics And Communication Engineering. The Regular Interaction Session With Eminent Professors From Reputed Universities Create Awareness In The Student About The Latest Developments In The Field Of Science And Technology. This Helps Students To Fix Up Their Right Goals For Their Bright Future.

PROGRAM EDUCATIONAL OBJECTIVES (PEO)

PEO1: Graduates Of The Program Will Have Strong Fundamental Knowledge In Electronics And Communication Engineering, Analytical, Critical Reasoning And Problem-Solving Skills To Develop Innovative Solutions (Continuing Education).

PEO2: Graduates Of The Program Will Be Professionally Progress In Electronics, Communication, Signal Processing, VLSI, Embedded Systems And Related Areas With An Inclination Towards R&D And Lifelong Learning (Excellence In Career).

PEO3: Graduates Of The Program Will Have Entrepreneurship Skills, Leadership Qualities To Work With Diversified Teams In Multidisciplinary Environment (Leadership And Multi-Disciplinary).

PEO4: Graduates Of The Program Will Be Professionally Deft And Intellectually Adept To Develop Solutions To Complex Engineering Problems With Professional Ethics And Societal Responsibility (Contribution To Society).

PROGRAM SPECIFIC OUT COMES (PSOS)

PSO1: Design Problems Related To Electronics, Communications, Signal Processing, VLSI And Embedded Systems.

PSO2: Analyze And Solve The Complex Communication Engineering Problems In Architecture Design And Computer Networking.

PSO3: An Ability To Use Modern Software Tools To Analyze, Synthesize And Evaluate VLSI And Communication Engineering Systems For Multidisciplinary Tasks.

ACKNOWLEDGEMENT

We Extend Our Sincere Thanks To

Honorable Chairman
Dr.K.V.SUBBA REDDY

Secretary & Correspondent
SMT.S.VIJAYALAKSHMAMMA

Principal
Dr.J.KANNA KUMAR

HOD
Dr.M.V. SRUTHI

All Our Staff Members For Their Humble
Co- Operation And Involvement In Their Creation Of Bytes,
For The Year 2020-21

MESSAGE FROM THE CHAIRMAN

It’s Been A Real Pleasure To Know That The Department Of ECE Is Hosting Their First Ever National Level Technical Symposium “TECHNO CHRONICAL”, AND I’ Am Glad To Hear That It Is Being Organized Wholly For The Students With Guidance Of The Staff Members. Such Combined Effort Is Always Encouraged And Bring Out Good Results.

The Department Of “Electronics And Communication Engineering” Has Always Conducted Activities Which Helps In Development Of Students Into Leaders, I Hope “TECHNO CHRONICAL”2024 Is A Huge Success And Adds A New Star In The History Of The Department.

With Regards
Dr. K.V. Subba Reddy ,Founder–Chairman,
Dr.K.V.Subba Reddy Institute Of Technology,
Kurnool-518218,

MESSAGE FROM THE CORRESPONDENT

I Feel Very Proud That The Department Of ECE Is Organizing Nation Level Technical Symposium“ TECHNO CHRONICAL”On2021The 21st Century Is Advancing Rapidly By Multipronged Scientific Inventions And Discoveries In That The Electronics And Communication Engineering Is Playing They It All Role In All Scientific Developments. The Has Com That Without Electronics And Communication Engineering Nothing Is Going To Move I This Universe. In This Perspective The Contribution. The Development Of Society By This Departments Vital In All Sphere Of Life. I Heartily Wish The Staff And Students Of The Department In Their Endeavor To Bring In A House Magazine Which Will Otherwise Contribute To The Highest Learning Of This Magnificent Engineering.

With Regards

Secretary &Correspondent
SMT.S.VIJAYALAKSHMAMMA,
Dr. K.V.Subbareddy Institute Of Technology,
Kurnool- 518218

MESSAGE FROM THE PRINCIPAL

Dear Friends, Greetings From DR.KVSRIT, Kurnool. Engineering Is A Human Activity Aimed At Creating New Artifacts, Algorithms, Processes And Systems That Serve Humans. An Engineer Seeks To Create What Never Did Exist. It Is A Privilege In Any One's Career To Embark On Engineering Education. At Dr.K.V, Subba Reddy Institute Of Technology, Our Vision Is "To Be A Global Leader In Imparting Quality Technical Education To Produce Competent, Technically Innovative Engineers Imbibed With Research Aptitude, Entrepreneurship And Social Responsibility. On The Academic Front, We Have Provided The Best Quality Class Rooms, Laboratories, And Library Facilities.

With Regards
Dr.J.Kannakumar,
Principal
Dr.K.V.Subbareddy Institute of Technology,
Kurnool- 518218,

MESSAGE FROM THE HOD

The Department Of Electronics And Communication Engineering Believe In Imparting Excellence In Education By Keeping Our Students In Pace With Industry Demands. The Department Is Equipped With Best Lab Facilities Having Latest Software And Hardware To Provide Industry-Oriented Knowledge To Our Students. The Department Consists Of Highly, Energetic, Dynamic, Well-Experienced, Qualified As Well As Young Faculty Members Who Also Work As Mentors To Turn Students To Professionals By Grooming Their Technical Skills As Well As Their Innovative Capabilities.

With Regards

Dr.M.V. Sruthi,

ECE-HOD

Dr.K.V.Subbareddy Institute Of Technology,

Kurnool- 518218,

ABOUT DRKVSRIT:

Dr. K. V .Subba Reddy Institute Of Technology Is Promoted By Vaibhav Educational Society (VES) With The Motto Of "Work Is Worship". Its Prime Objective Is To Offer Quality Education For The Betterment Of Society. It Persistently Seeks And Adopts Innovative Methods To Improve The Quality Of Higher Education On A Consistent Basis. The Campus Has A Cosmopolitan Atmosphere Of Attracting Students From All Corners Of Andhra Pradesh. Faculty Are Continuously Encouraged To Conduct Research, Pursue Higher Education And Nurture The Students. Our Memoranda Of Understanding With Various Industries Are Our Major Strength. Many Of Our Students, Who Pursue Their Jobs In Various Industries Bring High Quality To Their Work And Add Value And Esteem To Their Organizations. With Steady Steps, We Continue Our March Forward.

HISTORY Of DRKVSRIT

Established In 2007, DRKVSRIT Is Affiliated To Jawaharlal Nehru Technological University (JNTU), Ananthapuramu, And Is Approved By The All India Council For Technical Education (AICTE), New Delhi. The College Is Headed By Its Founder And Chairman, Dr. K. V. Subba Reddy. In Recognition Of His Outstanding Service To India In Offering Quality Education, He Is Conferred With Jewel Of India Award By Indian Solidarity Council On 13th March 2006. He Is Also Conferred Life Time Achievement Gold Medal Award By International Institute Of Education And Management On 13th March 2016. Smt. Vijaya Lakshmamma Is The Secretary And Correspondent. Dr.J.KANNA KUMAR Is The Principal.

TECHNICAL MAGAZINE 2020-21

DEPARTMENT OF ELECTRONICS & COMMUNICATIONS ENGINEERING

TABLE OF CONTENTS

1. PHOTOVOLTAIC SYSTEM

Mrs. G. Pavani,
Assistant Professor
Department Of ECE

A **Photovoltaic System**, Also **PV System** Or **Solar Power System**, Is A Power System Designed To Supply Usable Solar Power By Means Of Photo-Voltaic's. It Consists Of An Arrangement Of Several Components, Including Solar Panels To Absorb And Convert Sunlight Into Electricity, A Solar Inverter To Change The Electric Current From DC To AC, As Well As Mounting, Cabling, And Other Electrical Accessories To Set Up A Working System. It May Also Use A Solar Tracking System To Improve The System's Overall Performance And Include An Integrated Battery Solution, As Prices For Storage Devices Are Expected To Decline. Strictly Speaking, A **Solar Array** Only Encompasses The Ensemble Of Solar Panels, The Visible Part Of The PV System, And Does Not Include All The Other Hardware, Often Summarized As Balance Of System (BOS). Moreover, PV Systems Convert Light Directly Into Electricity And Shouldn't Be Confused With Other Technologies, Such As Concentrated Solar Power Or Solar Thermal, Used For Heating And Cooling.

PV Systems Range From Small, Rooftop-Mounted Or Building-Integrated Systems With Capacities From A Few To Several Tens Of Kilowatts, To Large Utility-Scale Power Stations Of Hundreds Of Megawatts. Nowadays, Most PV Systems Are Grid-Connected, While Off-Grid Or Stand-Alone Systems Only Account For A Small Portion Of The Market.

Operating Silently And Without Any Moving Parts Or Environmental Emissions, PV Systems Have Developed From Being Niche Market Applications Into A Mature Technology Used For Mainstream Electricity Generation. A Rooftop System Recoups The Invested Energy For Its Manufacturing And Installation Within 0.7 To 2 Years And Produces About 95 Percent Of Net Clean Renewable Energy Over A 30-Year Service Lifetime.

Due To The Exponential Growth Of Photo Voltaic's, Prices For PV Systems Have Rapidly Declined In Since Their Introduction. However, They Vary By Market And The Size Of The System. In 2014, Prices For Residential 5-Kilowatt Systems In The United States Were Around $3.29 Per Watt, While In The Highly Penetrated German Market, Prices For Rooftop Systems Of Up To 100 Kw Declined To €1.24 Per Watt. Nowadays, Solar PV Modules Account For Less Than Half Of The System's Overall Cost, Leaving The Rest To The Remaining BOS-Components And To Soft Costs, Which Include Customer Acquisition, Permitting, Inspection And Interconnection, Installation Labor And Financing Costs

.Novel VDSM Domino Logic Keeper for VLSI Circuits

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Mr.S.Govindarajulu

Professor of ECE,

DR.KVSRIT college.

Abstract—Domino circuits are widely used in modern VLSI circuits. The increasing variability in device leakage has made the design of keeper circuits for wide OR logic a challenging task. The conventional feedback keepers can no longer improve the performance of wide dynamic gates for the future technologies. In this work, a new keeper technique called rate sensing keeper (RSK) that enables faster switching and tracks the variation across different process corners is proposed. The switching speed increased faster than conventional feedback keepers. The delay tracking reduced critical path delay across different process corners, enhancing speed and noise immunity in domino logic circuits in 65 nm deep submicron technology (DSM). The proposed techniques are compared by performing detailed transistor level simulations on circuits such as 8-bit Multiplexer, 4-bit CLA, using Micro wind 3.1 and DSCH3.1 CMOS layout backend CAD tools.

Keywords- CMOS, delay, Domino logic, Dynamic power, Keeper, Leakage, Power dissipation, Process corner, Rate sensing.

PROPOSED TECHNIQUE:

We proposed Rate Sensing Keeper Technique which is superior to conditional keeper in terms of speed and power, while providing a very good process tracking capability comparable to current mirror-based keeper.

RATE SENSING KEEPER TECHNIQUE (RSKP*):*

The Rate Sensing Keeper(RSKP) technique works based on the difference in the rate of change of voltage a t the dynamic node of the gate during the ON($R_{dynon)}$ and the leakage(D_{off}) condition .R_{dynon} represents the slowest pull down rate when the dynamic gate is ON (when AN=BN=1 and all other inputs=0)and R_{dynoff} represents the fastest pull down rate when the dynamic gate is leaky(OFF)(in fig-1 when A1⋯⋯N=0 and B1⋯⋯N=1). The Rate Sensing Technique generates a reference rate which is in between two rates . This Reference rate is then compared with the dynamic node rate using a rate controller, the output of which is used to control the state of the keeper .The fact that the keeper is OFF during the start of the evaluation phase and the adaptive control of the keeper strength based on the process corner helps RSK to achieve higher speed and better tracking, respectively.

Fig.1showsawideAND-OR domino gate with the proposed keeper technique. The circuit consists of the keeper PMOS transistor (M1),the rate controller comprising of the reference

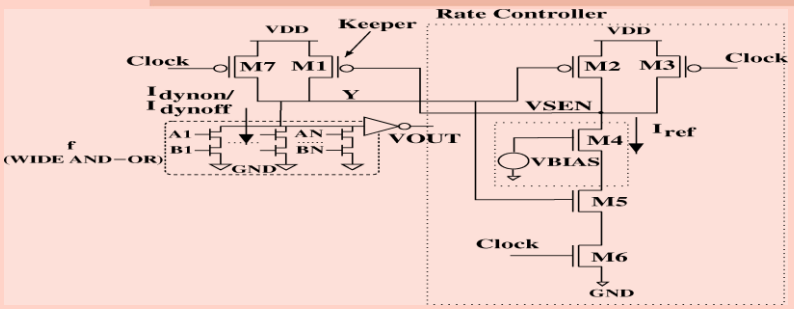
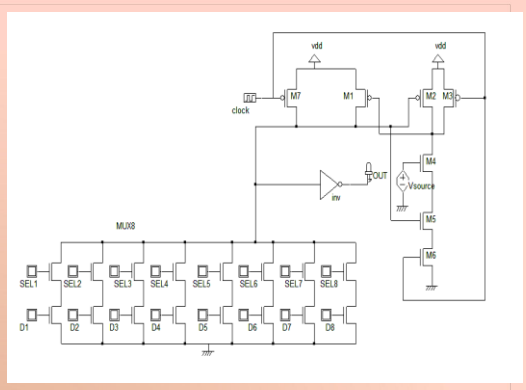


Fig .1 .A N-input AND-OR domino gate using the proposed rate sensing keeper technique.

rate generator transistor (M4), the feedback transistor (M2), feedback shutoff transistor (M5), clock shutoff transistor (M6),and the pre charge transistor (M3).The reference rate is generated by biasing the transistor M4 using an appropriate bias voltage (VBIAS). The sense node (VSEN) is pre charged to VDD during the pre charge phase causing M1 to shut off during the start of the evaluation phase. This reduces the contention current to a large extent. The short circuit path during pre charge is shutoff by M6.At the start of evaluation, the node VSEN starts discharging at rate R_{ref} .This slowly turns on the keeper M1.However, if R_{dyn}, the rate of change of voltage at the dynamic node Y,is faster than R_{ref} thenM2willpumplargercurrentintotheVSEN.The discharge of VSEN isfurtherslowedbyM5shuttingoff. Thus VSEN will eventually be pulled back to VDD shutting the keeper off. However, if $R_{dyn} < R_{ref}$then VSEN would discharge completely turning the keeper ON, pulling the dynamic node back to VDD. In case of ON state the output voltage rises momentarily up to the allowed noise margin level given by the Unity Gain DC Noise (UGDN) of the dynamic gate. The discharge rate is chosen such that under all conditions the peak noise voltage at the output does not exceed this UGDN level. Fig.2 shows a 8-bit MUX domino gate with the proposed keeper technique.
Fig.3 shows a 4-bit CLA with the proposed keeper technique.



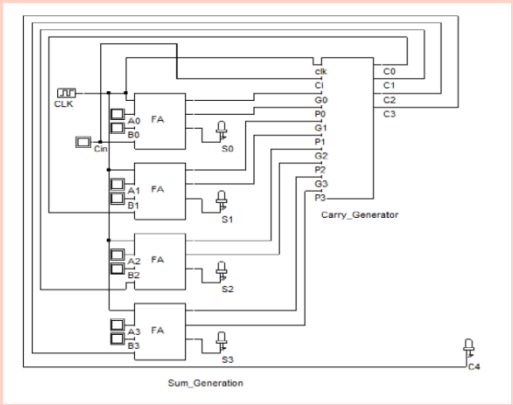


Fig.2. 8-bit Multiplexer using Rate Sensing Keeper Technique Fig.3. 4-bit carry look-ahead adder using Rate Sensing Keeper Technique.

SIMULATION RESULTS:

The benchmark circuits implemented are 4-bit carry look ahead adder,8-bit Multiplexer. These design styles are compared by performing detailed transistor-level simulations on circuits using DSCH3.1 and Microwind-3.1 CAD tools in 65 nm technology. The results of the benchmark circuits for all techniques are given below. From the results, it can be observed that the proposed logic techniques provide lower values of power dissipation, propagation delay and power delay product (PDP) when compared to the standard domino logic structure.

Comparison:

TABLE 1: simulation results of 4-bit Carry Look-ahead adder

TECHNIQUE USED	POWER DISSIPATION	CRITICAL PATH	PDP	AREA

	(µW)	DELAY(ns)	(p-Ws)	($\mu m^{2)}$
SKP	44.945	0.460	0.020	660.90
CKP	33.217	1.310	0.042	170.27
LCRK	42.858	0.358	0.013	741.97
HSFBK	44.856	1.223	0.058	738.78
RSKP (Proposed)	03.314	0.141	0.004	2136.62

CONCLUSIONS:

In the deep submicron technology, power and delay must be reduced to increase the efficiency of a circuit. The keeper technique Rate Sensing Keeper is employed to reduce the power and critical delay in dynamic domino logic circuits. The parameter of power , delay and area are calculated for 8-bit Multiplexer, 4-bit CLA for different techniques using 65nm technology. From the results it can be concluded that the proposed keeper technique which is Rate Sensing Keeper shows good performance when compared to existing keeper techniques.

3. .AUTO PLASTIC SEGREGATION BIN

K.Hari Krishna, A. Dola hari

Introduction:

Plastichasbecomeoneofthemostpressingenvironmentalissuesthatwearefacingtoday.According To UNDP India Is Generating About 15 Million Tons Of Plastic Waste Every Year But Only Onefourthofthisisrecycledduetolackofafunctioningsolidwastemanagementsystem.Thisleadstoburden On The Landfills And Poor Socioeconomic Conditions Of The Waste Pickers, Mostly Women. The problem Is Segregation at Primary Level. Plastic Is Being Dumped Along With Other Materials. So after Few days It Is Becoming really Tough to Separate Plastic Due To Decomposition of Other Materials. And hence the plastic Waste Is Ended up in Landfills or Clogging the Water Bodies. Segregating Plastic At Educational And working places then sending it for recycling can decrease the above mention defects .Keeping the effects In Consideration, We Are Making A Prototype To Segregate The Plastic And Naming It As Auto-Plastics segregation Bin. This Bin Gives Us A Heap Of Trash Which Is Full Of Plastic Separated At The End. In This prototype we are using IR sensors. Plastic can be segregated by the method of spectra scopy. In spectroscopy, we can identify if the waste is a plastic or not by using an IR sensor. By using this sensor, we can segregate the plastic which is our main Goal To Increase recycling rate and Decrease plastic waste.

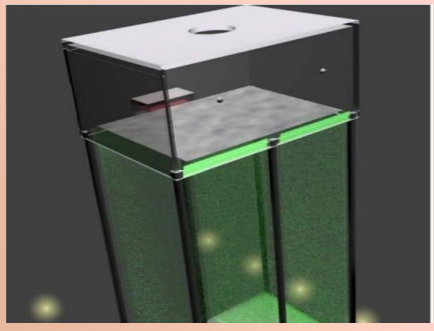


Fig1: Simulated Model

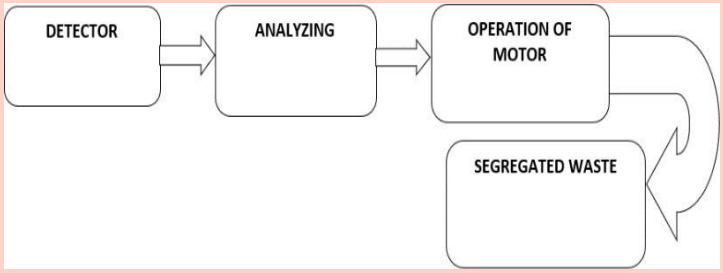


Fig2: Block diagram

For Plastic Detection, There Are No Specific Sensors Developed. According To Some Research Articles we Identified That the Plastic Can Be Detected Using Infrared Sensors. First, Research for IDEC Sensors To detect Different Grades Of Plastic Is Done... These Sensors Were Developed By Mitsubishi Company, Osaka. Then We Switched For IR Sensors. But The Output from The Sensor Is Either High Or low (Gives Whether object Is Present Or Not). We Can Detect Plastic Using IR Rays As Different Objects Excites In Different States. We Searched For Sensors Which Can Measure Wavelength from Rays as We Cannot Detect Plastic with IR sensors alone. But There are only equipments Available

4.BI DIRECTIONAL VISITOR COUNTER WITH SECURITY SYSTEM AND AUTOMATIC ROOM LIGHT CONTROLLER

M. Guru Sai, S.Abubakar Siddiq, S. Naseer Hussain

Introduction:

This Project Describes A Circuit That Is Used For Controlling The Room Lights According To The Count of Persons In The Room And Simultaneously Works As A Security System When The Camera Is Attached. With the Advancement Of Technology, Intelligent Devices Are Fast Approaching The Realm Of Necessity From The status of Luxury. With limited energy Resources, It is a Need of Time to revolutionize the traditional methods Of Counting Visitors inside Hotels, Recreational Places, Meeting Rooms, And Cinemas to Control electrical appliances. Moreover, the improved living standards demand developing circuits that would ease The Complexity of Life. Many Systems Have Been Developed to Fill This Technological Gap but Most Of them are Not Applicable in Real-Time Scenarios Due To Their Limitations. When Somebody Enters Into The room then the counter will be Incremented accordingly the led Light in the Room Will Be Switched On and when anyone leaves The Room Then the Counter Will Be Decremented. The Light Will Be Only Switched off When the Room Is Vacant. The Number of LED Lights Will Be ON According to The Total Number Of persons inside the Room And The Count Will Be Displayed.

Fig1: Sensors detected Person

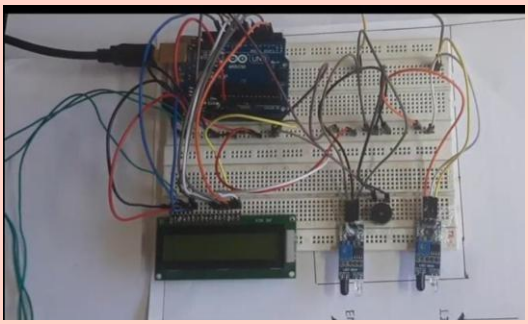


Fig2: Hardware model

In Today's World, There Is A Continuous Need For Automatic Appliances That Will Increase The Standardofliving,Thereisasenseofurgencyfordevelopingacircuitthatwouldeasethecomplexityoflife.Alsoif Someone Wants To Know The Number Of Persons Present In A Room So As Not To Have Congestion, This circuit Will Be Helpful And So This Article Describes A Circuit That Is Used For Controlling The Room Lights according To The Count Of Persons In The Room And Simultaneously Works As A Security System When The camera Is Attached. When Somebody Enters The Room Then The Counter Will Be Incremented Accordingly The LED Light In The Room Will Be Switched ON And When Anyone Leaves The Room Then The Counter Will Be decremented. The light Will Be Switched Off when The Room Is Vacant.

5.EMPIRICAL MODE FUSION OF MRI-PET IMAGES USING DEEP CONVOLUTION NEURAL NETWORKS

R.Hemanth Kumar Reddy, C.Narendra, S.K Naseer Husain

Introduction:

With Functional Data That Depicts The Metabolism Of Various Tissues. However, PET Images Cannotcontainstructuralinformationabouttissuesandhavelimitedspatialresolution.Onotherhand,Magnetic Resonance Imaging (MRI), A Different Non-Invasive Imaging Technique, Offers Strong Spatial resolution Information About The Soft Tissue Structure. However, Gray Color Information That Indicates the Metabolic Function Of Certain Tissues Is Absent In MRI Images. Fusion of MRI And PET Can Deliver complementary Data Useful For Better clinical Diagnosis. Image Fusion is The Technique of combining two or More Images Together to Create a Composite Image That Incorporates the Data Included in Each original image.

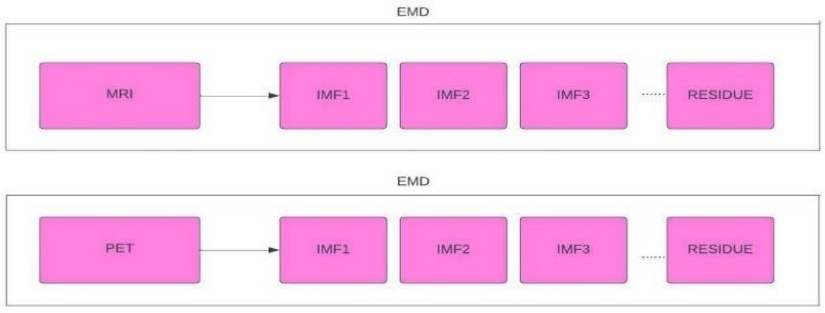


Fig1:Block diagram

There Are Three Types Of Techniques In Image Fusion, Namely Spatial Domain Fusion, Transform Domain fusion And Deep Learning Techniques. Principal Component Analysis (PCA) And Average Fusion are The simple Spatial Fusion Techniques. In These Techniques the output Image Is Directly Obtained By Fusing the input Images. Due to This, Spatial Domain Fusion Techniques Produce Degradation and Distortion In the fused Image. Hence The Fused Images Produced by Spatial Domain Fusion Techniques Are Less Efficient compared To Transform Domain Fusion Techniques Positron Emission Tomography (PET) Produces an image. In Transform Domain Techniques, The Input Images Are First Transformed from Spatial Domain technique to frequency domain priority of fusion .Discrete and stationary wavelet transforms are primarily employed In Transformed Domain Techniques.

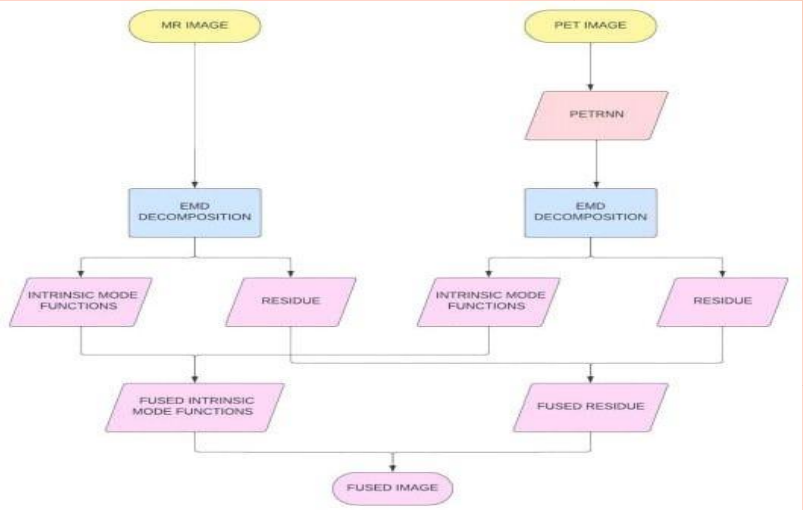


Fig2:Flow Chart

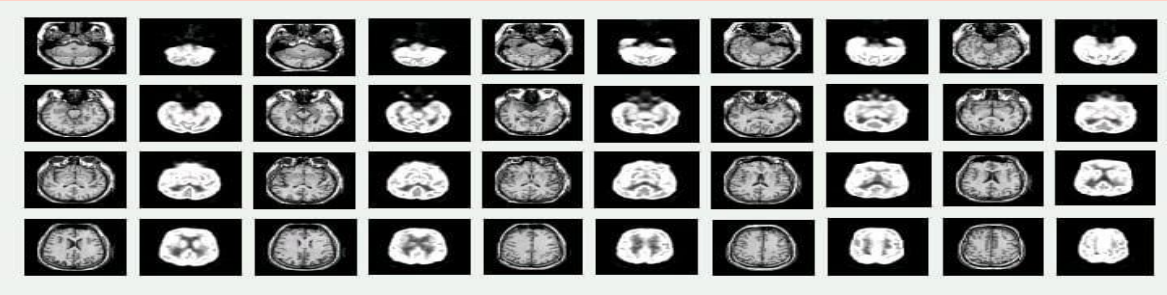


Fig3: Mirror images

These Techniques Convert The Input Image Sources Into Low-Low, Low-High, High-Low and High-High frequency Bands Which Are Referred as Wavelet Coefficients. However, These Methods Suffer From translational in variance problem leading to distorted edges in the fuse damage. Deep learning techniques For Image Fusion Has Been Popularized in Recent Times Due To Their Dominance Over the existing Spatial and Transformed Domain Techniques. Zhang Et Al. Proposed Convolution Neural Network for Estimating The Features Of Input Source Images. In The Obtained Image, The Input Source Images Are fused Region By Region. The Hierarchical Multi Scale Feature Fusion Network Is Initiated By Lang Et Al .They used This Technique for extracting multi Features From input Images.

6. Antenna position control

T. Mahendra Reddy,S.Sameer Basha,P.Reddy Devi

Introduction:

Currentlythemodernworlddependsoncontrolsystems.Variousapplicationinoursurroundingusethe conceptsofcontrolsystems.Suchapplicationsincludetheautomaticlifts, Robotics, The Rocket Fire and the Space Shuttle Lifts of to Earth, Car's Hydraulic Pistons and Many Other real-Life Applications. Our Body Organs As pancreas which Regulates our Blood Sugar, Heart Which pumps Through All Parts Of Our Body And Brain Which Controls Electric Pulses Through Our Backbone Etc.Allarenaturalcontrolsystems.Socontrolsystemshavelotofapplicationsinourlife,Wearesurrounded By Modern Technologies Which Based On Scientific Innovations. One would have heard about An Aircraft Flying in Auto Mode, A Moving Vehicle Without Operator and an Antenna Which Gives maximum auto Signal Strength all are the applications Of control Systems.

Control System Is A System Designed For Obtaining Required Characteristics Of A Process. For Getting desired Yield with Desired Performance Many Subsystems and Processes Linked in a Control System (Nise, 2000).

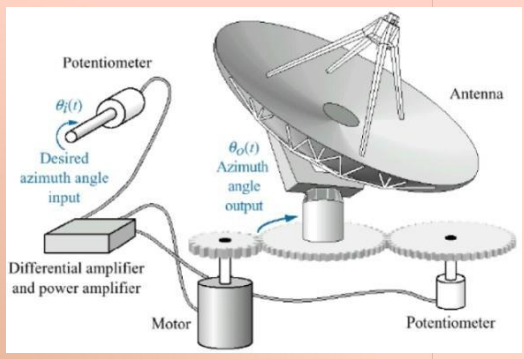


Fig1: Working diagram

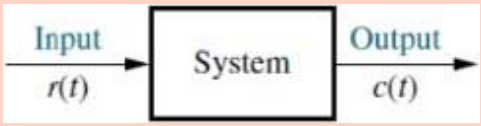


Fig2: Block diagram

The Position of Antenna is controlled by Using Gears and feedback Potentiometer. Antenna Azimuth is also controlled by Using Some Controllers. We Will Check Response of the System without using any controller. For getting a better response we will use pad controller and we will see that response will be better than without Controller, Further we Will Use LQR Controller Forgetting Better Response than pad. Commanding The Place Of An Antenna Is Called Azimuth. Getting the Output Angle of the Antenna (T) From the Angle of Potentiometer (T) As Input Is the Purpose of This Scheme.

Dr.K.V Subba Reddy Educational Institutions

Courses : B.Tech., M.Tech., MBA., MCA., Pharm.D., B.Pharm., M.Pharm., D.Pharm & Polytechnic
NH-44, Kurnool, Andhra Pradesh

Lion Dr.K.V Subba Reddy *Chairman*

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