



VIGNAN'S INSTITUTE OF MANAGEMENT AND TECHNOLOGY FOR WOMEN

(Approved by AICTE, Affiliated to JNTU, Hyderabad)
KONDAPUR VILLAGE, GHATKESAR MANDAL, RANGA REDDY DISTRICT - 501 301.

NEWS LETTER

TECHINNOVATION

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Volume - 1

"It really was amazing, thought Mindy, the way modern electronics made it so easy to ignore those people who were physically so close."

5th September Is Celebrated As Teacher's Day All Over The India Every Year. It Is The Birth Anniversary Of Dr. Sarvepalli Radhakrishnan

EDITORIAL DESK

Hello!!! We are happy to welcome you all aboard the fledgling 1st edition for the scintillating year 2015. TECHINNOVATION is the newsletter of the ELECTRONICS & COMMUNICATION ENGINEERING which aims to bring forward the buzz from the department in the past few months. The edition demystifies the realms of Electronics & Communication Engineering and also provides insight to the latest technology adopted in the field. Hope our deeds would ignite everyone's life!!!

HOD'S DESK

It is a theme of happiness to articulate with all of you Through this 1st newsletter. Within these pages you will Find much news related to Diverse activities from the Whole faculty and students Of ECE department. I am cheerful for the initiatives taken by the faculty to disseminate knowledge by organizing various activities in the department. I hope everyone will find this news letter Exciting and interesting.

ECE DEPARTMENT

Department of Electronics and Communication Engineering was started since the inception of VIGNAN'S Institute of Management and Technology for Women during 2008 with an initial

intake of 60. The strength was enhanced to 120 during 2005. The Department had added Post graduate program in VLSI during the year 2012 and Embedded Systems during 2014 with an intake of 18 each. The Department is headed by well qualified

VISION

To transform the students into technologically competent professionals, with abilities to address the societal challenges of the time through innovative technical practices in electronics & ommunication engineering

MISSION

M1: To foster inquisitive-driven advanced knowledge building among students for reinforcing the domain knowledge, develop capabilities, skills and solve complex engineering problems

M2: To prepare industry-ready graduates for global Electronics as well as communication based engineering companies by conducting training programs, workshops and industry visits.

M3: To build leadership qualities, research aptitude among students for the contribution of economic and technological development in cutting edge technologies in national and as well as in the global arena.

PROGRAM EDUCATIONAL OBJECTIVES (PEOS)

PEO1: To develop the student's ability on technical concepts to design, simulate, and synthesize various electronic and communication circuits & systems for their research advancements.

PEO2: To impart analytical skills and to prepare the students excel in applying state of the art hardware and software tools to solve complex engineering problems for R&D, Industry and societal requirements.

PEO3: To prepare students to work in teams, take independent decisions and integrate engineering issues for successful career in multi-disciplinary environment.

PEO4: To promote entrepreneurship among the students to become successful entrepreneurs with professional ethics.

PROGRAM SPECIFIC OUTCOMES (PSOS):

PSO1:1. Professional Skills Ability: Identify, design electronics & communication circuits and conduct experiments with electronics & communication systems, analyze and interpret data, formulate and solve electronics & communication engineering problems.

PSO2: Industrial Skills - Ability: Design digital and analog systems, algorithms, firm ware, modern engineering tools, software, etc. as per needs and specifications and work in laboratory and multidisciplinary tasks.

PSO3: Ethical and Social Responsibility: Communicate effectively in both verbal and written form, will have knowledge of professional and ethical responsibilities and will show the understanding of impact of engineering solutions on the society and also will be aware of contemporary issues

WORKSHOPS ON

- TRENDS IN ELECTROMAGNETIC FIELDS THEORY
- PRE AMPLIFIER CIRCUIT DESIGN ASPECTS
- RTOS μ cos PORTING
- DESIGN CHARACTERISTICS OF SPECIAL FUNCTION ICS

TECHNICAL TALK

- BASICS OF SIGNALS AND ANALYSIS OF SYSTEMS

PLACEMENTS

Name Of the Companies Visited Campus & Placed Students

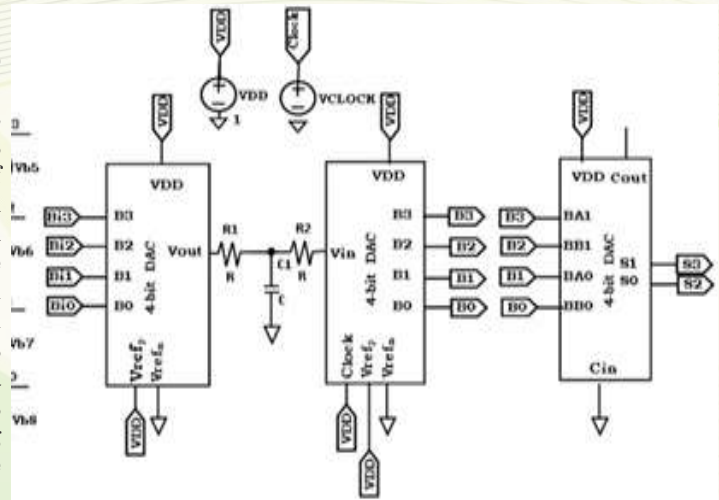
- JUST DIAL
- PROFETCH
- VALUE MEDIA SERVICES
- SWARA AKSHARA INFO. PVT. LTD.
- GLOBAL LOGIC
- SERCO GOOGLE
- OSMOSYS SOLUTIONS
- VNS IT SOLUTIONS
- APALYA TECHNOLOGIES
- TECHMAHINDRA

Faculty Technical Article :

Title - “Low-Power Analog Bus for System-on-Chip Communication”
written by DR.P.SUDHAKARA RAO.

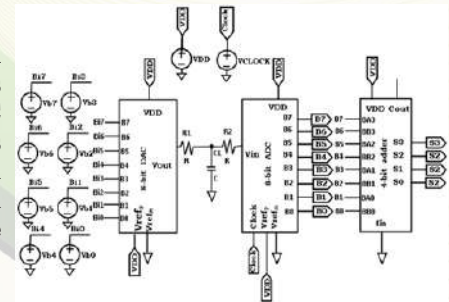
Introduction

In present ICs, power was a second order concern in chip design, succeeding the first order concerns of timing, area, testability, and cost. Nevertheless, for most system-on-chip (SoC) IC designs, low power dissipation is now one of the most momentous chip design purposes of any IC design. As power reduction is a product of overall improvement of the technology, it is not achieved through a single technological improvement. When the feature size is reduced down to the deep sub-micron region and power consumption is decomposed between the functional blocks and the communication paths between them, the power consumption has become a principal component. In relation with the multiple cores in the die, there is lack of literature on designing interconnect framework. Interconnect layout was done



Conclusion

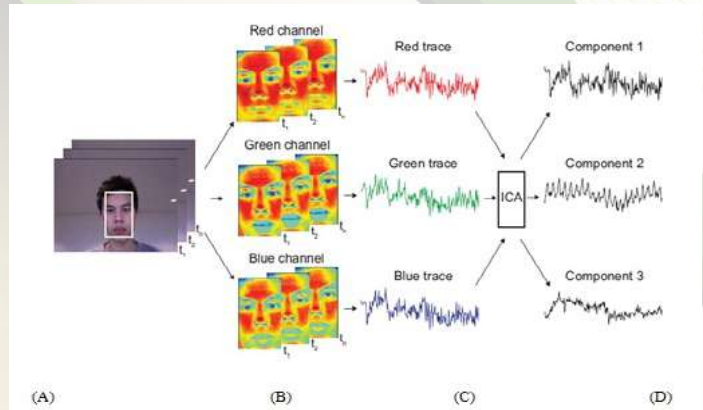
A distinctive concept of replacing parallel digital bus with an analog bus has been proposed here. A series of simulated experiments have been carried out to serve as proof-of-concept by evaluating power consumption of a single wire with DAC/ADC encoding in comparison to an n-bit parallel digital bus. The advantages of this scheme are reduced power consumption and reduced bus area, along with reduction of routing complexity, and congestion. LT SPICE simulation for an ideal case conforms that the ratio of bus power consumed by the proposed analog scheme to a typical parallel digital scheme (without bus encoding or differential signaling) is given by $P_{analog} = P_{digital} = 1/(3n)$, where n is the width of the bus.



Student Technical Article : Title - “ Medical Mirror ” **written by Sammeta Deepthi**

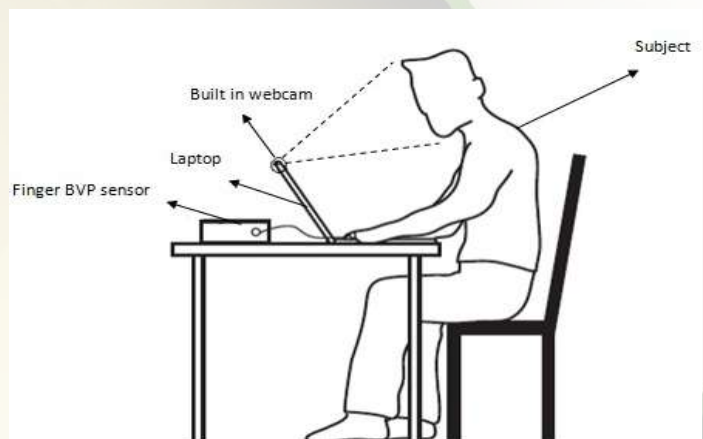
Introduction

We used a basic webcam embedded in a laptop (built-in iSight camera on a Macbook Pro by Apple Inc.) to record the videos for analysis. All videos were recorded in color (24-bit RGB with 3 channels x 8 bits/channel) at 15 frames per second (fps) with pixel resolution of 640 x 480 and saved in AVI format on the laptop. 12 participants (10 males, 2 females) between the ages of 18-31 years were enrolled for this study that was approved by the Massachusetts Institute of Technology Committee On the Use of Humans as Experimental Subjects (COUHES). Our sample featured participants of both genders, different ages and with varying skin colors (Asians, Africans and Caucasians). Informed consent was obtained



Conclusion

This concept describes a novel methodology for recovering the cardiac pulse rate from video recordings of the human face and implementation using a simple webcam with ambient daylight providing illumination. This is the first demonstration of a low-cost method for non-contact heart rate measurements that is automated and motion-tolerant. Moreover, this approach is easily scalable for simultaneous assessment of multiple people in front of a camera. Given the low cost and widespread availability of webcams, this technology is promising for extending and improving access to medical care.



WORKSHOPS

| S.no | Topic | Date- Month- Year | Resource Person | No.of students | Fill a Gaps |
|------|---|----------------------------------|--|-------------------|---|
| 1 | Arranged a workshop on “ Trends in Electromagnetic fields theory | 05-10- 2015 06-10- 2015 | U.Appalaraju Geethanjali Eng College, Hyd | 90 | Uniqueness theorem |
| 2 | Arranged a workshop on “Pre amplifier Circuit design aspects | 20-08- 2015 21-08- 2015 | Mr.Rajiv Patnaik, PGP Electronics | 98 | Design of different types of feedback amplifiers using op-amp |
| 3 | Arranged a workshop on “RTOS μ cos PORTING ” | 24-08- 2015 25-08- 2015 | Mr.Rajiv Patnaik, PGP Electronics | 89 | \leq cos RTOS |
| 4 | Arranged a workshop on “Design characteristics of special function ICs” | 13-08- 2015 14-08- 2015 | Mr.Rajiv Patnaik, PGP Electronics | 100 | Special Function ICs |

SEMINAR

| S.no | Topic | Date- Month- Year | Resource Person | No.of students | Fill a Gaps |
|------|--|-------------------------|--|-------------------|--|
| 1 | Arranged one day seminar on “Basics of signals and analysis of systems | 28-08- 2015 | Mr. Satya Prasad, TIMES Education | 97 | Applications of transform techniques in signals, systems |

BEST STUDENT AWARDS

Best outgoing students of the batch are given awards based on the overall performance by considering the percentage of attendance, percentage of marks, participation in co-curricular and extra-curricular activities.



| S.No | Roll Number | Name Of The Student | Percentage | Academic Year |
|------|-------------|---------------------|------------|---------------|
| 1 | 12UP1A0405 | ALLE PURNIMA | 84.1 | 2015-16 |

BATHUKAMMA CELEBRATIONS

Bathukamma is a colorful floral festival of Telangana and is celebrated by VMTW womenfolk on 13 OCT with exotic flowers of the region. The festival has over the years become a symbol of Telangana culture and identity



TEACHER'S DAY CELEBRATIONS

5th September is celebrated as Teacher's Day all over the India every year. It is the birth anniversary of **DR. SARVEPALLI RADHAKRISHNAN** who was a great scholar and teacher. In his later life he became the Vice President of Indian Republic and later on the President of Indian Republic. This day reminds us that teachers are like backbone of our society. They play great role in building up character of students and shape their thoughts to become ideal citizens of the nation. The celebrations in the department began with the cake cutting ceremony by, **HOD DR.A.NARMADA**, ECE Department in the auditorium packed with smiling faces of students and faculty members. The students presented awestruck performances of dancing, singing and ramp walk. The students were blessed by the esteemed presence of Principal, Dr. P.SUDHAKARA RAO



FRESHERS DAY

Fresher's Welcome Party on 03 September 2015 was enthusiastically organized by the seniors **DR. ALAPARTHI NARMADA**, spoke on the occasion to the student and wished them to aim high and to become great personalities of the



YOGA DAY

The yoga day was celebrated with great enthusiasm by the students - The proceedings began at 8:30 am with the lighting of the lamp by principal **Dr. P. Sudhakara Rao**, HOD's, **V Indrani, Dr. A.Narmada, T.Srinivasulu, L.Kiran Kumar**.

