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Paper III ENGINEERING MECHNAICS

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UNIT-1

Systems of Measurements and Units

Learning Objectives

The branch of science which deals with motion, forces and their effect on bodies is called mechanics. The application of principles of mechanics to common engineering problems is known as engineering mechanics.

Introduction

SYSTEM OF UNITS

There are four systems of units which are commonly used and universally recognised. These are known as

(i) C.G.S. (ii) F.P.S. (iii) M.K.S. and (iv) S.I. Units

(i) C.G.S. Units

In this system, the fundamental units of length, mass and time are centimetre, gram and second.

(ii) F.P.S. Units

In this system, the fundamental units of length, mass and time are foot, pound and second respectively.

(iii) M.K.S. Units

In this system, the fundamental units of length, mass and time are metre, kilogram and second respectively.

(iv) S.I. Units (International System of Units)

The eleventh general conference of weights and measures (GCWM) has recommended a unified, systematically constituted system of fundamental and derived units for international use. In this system the fundamental units are meter (m) kilogram (kg) and second (s) respectively. But there is slight variation in their derived units. The following are the derived units.

Force	**-N (Newton)**
Stress (or) Pressure	-N / mm^2 (or) N/m^2

Work done (in joules)		-J =Nm
Power in watts		-W
	Temperature Degree Kelvin	-K
	Current (ampere)	-A

Fundamental Units

The physical quantities which do not depend up on other quantities are known as "Fundamental Quantities" and units for such quantities are known as "Fundamental Units" or "Base Units". The internationally accepted fundamental quantities are

(i) Length (ii) Mass and (iii) Time

Derived Units

If the units are expressed in other units which are derived from fundamental units are known as "derived units'.

Ex: Units of Area, Velocity, Acceleration, Pressure etc.

Units of Physical Quantities

Engineering mechanics and strength of materials are essentially "quantitative sciences". They involve expressions of quantities. For example.

(i) Height of a building is 12m

(ii) Area of cross section of land is 220 mm^2

(iii) Stress in bar is 150 Newtons per mm^2.

(iv) Radius of gyration of the section is 12 mm.

In all the above expressions of quantities; we essentially state two items, viz., a number and a known standard of measurement.

In the statement "Height of building is 12m, the standard length of measurement is 1m and the height of the building is 12 times the length of that standard. The standard of measurement adopted is known as the "unit" of physical quantity. Each physical quantity can be expressed in a number of units.

Eg. (1) Length can be measured interms of meters, millimetres, feet, yards and so on.

(2) The unit of area is the area of a square of side 1m and is stated as $1m^2$.

(3) Unit of volume is the volume of a cube of side 1m and is stated as $1m^3$.

(4) Unit of velocity is unit displacement for unit time and stated as 1m/s

(5) Unit of mass density is unit mass per unit volume and is stated as 1 kg/ m^3.

(6) Unit of acceleration is unit change of velocity per unit time and is stated as 1m per Second Square (1m /sec2).

Paper I Water Supply Engineering

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UNIT-I

1.0 Introduction

Learning Objectives

After studying this chapter, you will be able to

- Understand the importance and necessity of Drinking water in Rural and urban area.
- Know the importance of whole some water.
- Know the planning and execution of water supply schemes, executing organizations and departments in India.

1.1 Importance and Necessity for planned water supplies

Next to air, other important requirements for human life to exist is water. Water is available in various as rivers, lakes, streams, ponds etc. That the development of any city of the world has taken place near the source of water supply. Water is extremely useful to society, providing the luxurious comforts, in addition to the basic daily needs of life. It has been estimated that the human body is made up of largely of water up to 75%. A normal human need, about 2 to 5 litres of water a day to survive. It is necessary that the water required for human needs must be good and should not contains harmful impurities, or chemical compounds or bacteria in it. In order to provide sufficient quantity and quality of water. It is necessary to plan and built suitable water supply schemes, which may provide portable water to the various sections of community in accordance with their demands and requirements. Such schemes shall not only help in supply of pure water to the people for drinking, bathing, cooking, washing etc and promoting better health; but would also help in supplying water for gardens, fountains and thus helping in maintain sanitary. The water supply schemes shall help in attracting industries, consequently the reducing unemployment and ensuring better living standards

1.2 Status of protected water supply in India

Lack of safe drinking water in India is still a problem in many areas of the country. As per the U.N. report (1983), town and cities only 86% of the urban population have some provision for protected water supplies. Only one village out of ten have protected drinking water. It is important to note that 80% of India's population live in villages and only 8 crores have access for safe water. In planning a water supply schemes, it is important to first of all identify a source of water in nearby town. The source water may be under ground, well. It may be river, stream or lake. The source may fulfil the water demand of the town or city. Proper systems should than be designed for collecting, transportation and treating this water. The treated water is distributed to the residents and industries as for their requirements through a network distribution system. Public water supply schemes may consist of Intakes or reservoirs. Water treatment plant having sedimentation tank, filtration, disinfection units, elevated tanks etc. Following are the central, state and international agencies are involved in co co-ordinating and executing the urban and rural water supply scheme in the country.

1. Central Public Health and Environment organisation provide assistance to states planning development national environment engineering research.

2. National Environmental Engineering Research Institute (NEERI) of govt of India, conducts water quality surveys and treatment processes and provides design of treatment and distribution system.

3. CSIRlaboraties provides testing facilities for water quality and maintenance.

4. Public Health engineering department under take execution of large schemes for water supply.

5. State ground water departments evaluates the quality at ground water all over the state.

6. Panchayath Raj Engineering department undertakes construction and maintenance at rural water supply schemes.

7. International organizations like UNICEF (United nations health organization) provide technical assistance and knowledge from eater supply schemes.

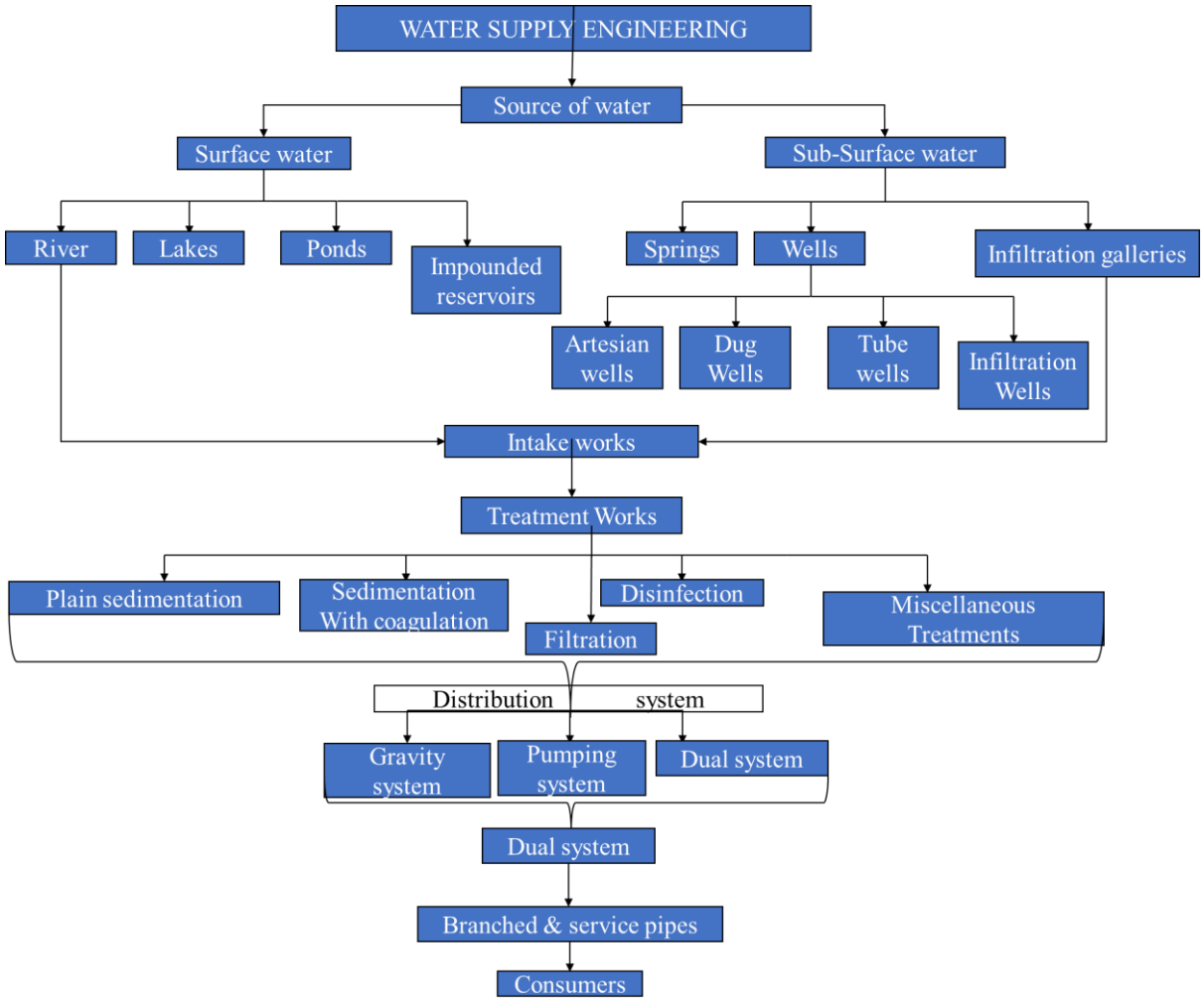

Figure 1 The complete outlines of water supply schemes

TEXT BOOK OF CONSTRUCTION MATERIALS

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UNIT 1

Introduction

Learning Objectives

After completing this unit, the student will be able to understand

- About the scope of construction technology
-

1.1 General

Engineering structures are built with both natural and processed materials. Materials used in construction, in one form or the other are known as Construction Materials or Engineering Materials or Building Materials. Stones, bricks, Sand, timber, steel, lime, cement, metals, paints, etc., are some of the commonly used construction materials.

Selection of the right material is the first and most important step to achieve quality in construction. Selection of building materials, to be used in a particular construction, is done on the basis of their properties like strength, durability, appearance, etc.

The construction professionals should have the knowledge of essential properties of various engineering materials for the selection of right material to be used in the engineering works.

The subject construction materials deals with sources, composition, properties, manufacturing, testing of various materials as per I.S.I standards and their utility.

1.2 Scope and Purpose of the Subject

Scope

The scope of this book includes wide coverage of building materials such as stones, bricks, lime, sand, mortars, concrete, asbestos, gray iron, cast iron, steel castings, aluminium, wood, architectural paints and so many others with their applications in building construction. It includes the common defects of materials and how to detect the same in them. It also encompasses the Do's and Don'ts to be followed for better durability while using certain materials.

The book is very useful for all professionals related to construction field, technocrats and students.

Purpose

Study of Construction Materials provides essential information that will help improve efficiency, productivity and economy in construction.

The purpose of study of Construction Materials is to

- Know the sources of construction materials.
- Identify and know the properties of various construction materials.
- Know how the materials are tested as per I.S.I standards.
- Know how to choose proper material from the commercially available varieties for a particular purpose of construction.
- Know common defects in the materials.
- Know various precautions to be taken while construction for better durability.

It is therefore useful for all professionals.

Construction Technology Course

Paper II : Surveying Theory

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UNIT 1

Introductio

Structure

Concept of Surveying

Purpose of Surveying

Linear and Angular measurements

Classification of Surveying

Reconnaissance, Preliminary location survey, final location survey

Learning Objectives

After studying this unit, the student will be able to

- Understand what is surveying
- Purpose and principles of suveying
- Types of Surveying
- Conversion of linear measurements from one system to other System

1.1 Concept of Surveying

Surveying is the art of determining the relative positions ofdifferent features on, above or beneath the earth's surface by taking measurements in the horizontal and vertical planes. Surveying is usually considered as a process of determining

relative positions of different points in horizontal plane. Leveling is considered as a process of determining relative positions of points in vertical plane.

Fundamental principles of surveying

The two fundamental principals of surveying are

a) To locate a new station by measurements from at least two reference points.

b) To work from whole to part.

a) Locating a new station. It is always practicable to select two points in the field and to measure the distance between them. These can be represented on paper by two points placed in a convenient position. From these reference points other points can be located by two suitable measurements in the field and drawn in their relative positions on the sheet.

The common methods of locating a point such as C with respect to two reference points such as A and B are illustrated in Fig.1.1

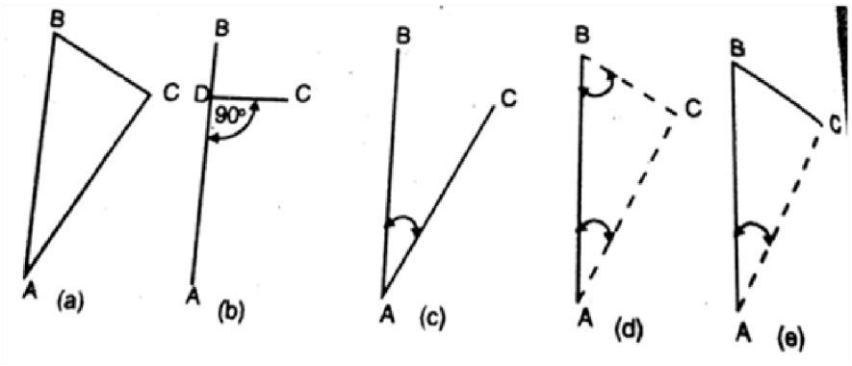

Fig.1.1

(a) Distances AC and BC are measured, and C is plotted as the intersection point of two arcs with centers A and B and radii from the measured distances.

(b) Perpendicular CD and distance AD or BD measured and C is plotted by the use of a set square.

(c) Distance AC and the angle BAC are measured, and C is plotted by means of a protractor.

(d) Angles ABC and BAC are measured, and C is plotted by a protractor or by solution of triangle ABC.

Voice controlled Humanoid Robot with artificial vision

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Abstract:

Humanoid Robot is a robot shaped in the form of a human. A Humanoid robot is used in many different fields such as education for young children, on field marketing for companies, research and development tool, entertainment and for tasks that are unsafe to be done with real people so humanoid robots are a tool for human luxury and safety. Here we are using a Humanoid Robot which is capable of Detection and Recognition of different faces or objects and can be controlled through voice. The Movement of the humanoid robot is done basing on Arduino Mega and we make mobile robot whose motions can be controlled by the user by giving specific voice commands. The speech is received by a microphone and processed by the voice module. When a command for the robot is recognized, then voice module sends a command message to the robot's controller. This paper describes a simple and easy hardware for implementation of Face, Object and speech detection and recognition. So, for this purpose we use a Library which is especially developed for image processing technique known as OpenCV(Open source Computer Vision).And for the purpose of Voice identification we use and EasyVR module attached to Arduino Mega. The system is programmed using Python programming language for object and face recognition and for controlling the mechanism of the robot we write the program in Arduino. All these data is given to the Robot such that when an person or object is identified the robot speaks the name of the person or the object and then it can be controlled by using voice commands. This Robot can be used in real time in automated systems.

Keywords: Face detection, Raspberry Pi, Opencv, Arduino Mega, Python.

I. INTRODUCTION

Human survival depends on the main five perception senses of the human sensorial mechanism defined by Aristotle as smell, hearing, touch, vision and taste. Loss of one of the main senses does not mean the death of the person, but it can significantly complicate its daily activity. It also can create discomfort and insecurity as well as requirement of company, especially in the case of vision and hearing deficiencies. The inability to recognize or identify people and objects during the stay at home or during meetings becomes a frustration (inconvenient) for blind people. It is especially unpleasant for visually impaired people when the near people are quite and do not make noises since they may not note their presence. [1],[2]

New technologies based on speech, object and face recognition have become complementary system for disabled people. Usually, they convert human environment into speech ortactile information. Blind people or people with low vision may perceive persons from the environment, familiars, friends or S colleagues at work by face detection and recognition systems. Real-time object detection face recognition, text recognition and currency bills identification are some of the large amount of developed applications.[3],[4]

So here a Robot is developed such that it has all the above mentioned features of Face and object recognition which gives speech output such that it can interact with the Humans. The system is implemented on Raspberry Pi and Arduino Mega hardware. Raspberry Pi cams have a free open code and are able to run under OpenCV libraries and C++ bindings for Python. The Raspberry Pi 5 Megapixel camera is used to capture an image. OpenCV termed as OpenSource Computer vision is the latest and popular library started by Intel in 1999. OpenCV is particularly software which is used especially for image processing in real-time. There are different versions in OpenCV and from the version OpenCV 2.4 comes with FaceRecognizer class for face recognition, such that suitable versions for Face recognition.

The robot can be controlled by using voice. Speech recognition is the process of converting speech to digital data, voice recognition is aimed toward identifying the person who is speaking. Voice recognition works by analyzing the features of speech that differ between individuals. So by this the movement of the robot can be controlled by using the voice to do things as like a human which can be used in many fields especially for blind people.

II. RELATED WORK

Robots are indispensable in many manufacturing industries. The reason is that the cost per hour to operate a robot is a fraction of the cost of the human labor needed to perform the same function. More than this, once programmed, robots repeatedly perform functions with a high accuracy that surpasses that of the most experienced human operator. Human operators are, however, far more versatile. Humans can switch job tasks easily. Robots are built and programmed to be job specific. You wouldn't be able to program a welding robot to start counting parts in a bin.

Today's most advanced industrial robots will soon become "dinosaurs." Robots are in the infancy stage of their evolution. As robots evolve, they will become more versatile, emulating the human capacity and ability to switch job tasks easily. While the personal computer has made an indelible mark on society, the personal robot hasn't made an appearance. Obviously there's more to a personal robot than a personal computer. Robots

require a combination of elements to be effective: sophistication of intelligence, movement, mobility, navigation, and purpose. Without risking human life or limb, robots can replace humans in some hazardous duty service. Robots can work in all types of polluted environments, chemical as well as nuclear. They can work in environments so hazardous that an unprotected human would quickly die.

In human beings the otoliths and semi-circular canals (in the inner ear) are used to maintain balance and orientation. In addition, humans use their own proprioceptive sensors (e.g. touch, muscle extension, limb position) to help with their orientation. Humanoid robots use accelerometers to measure the acceleration, from which velocity can be calculated by integration;[5] tilt sensors to measure inclination; force sensors placed in robot's hands and feet to measure contact force with environment; position sensors, that indicate the actual position of the robot (from which the velocity can be calculated by derivation) or even speed sensor

III. . HARDWARE

A. RASPBERRY PI:

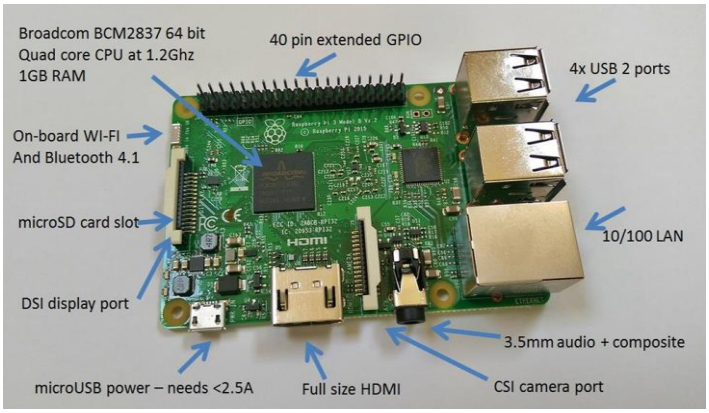

Fig-1 : Raspberry pi Board

The Raspberry Pi is the heart of the system. We make use of a Model B Raspberry Pi 3 which has a size specification as 85.60 mm × 53.98 mm (3.370 in ×2.125 in), and around 15 mm deep. It has a 1 GB built in RAM and operates at 700MHz. It has 4 USB ports and an Ethernet port. It has a total of 40 pins out of which 26 are General Purpose Input and Output pins named as GPIO and 4 supply pins out of which 2 are 5V and 2 are 3.3V and 8 Ground pins and 2 Do Not Connect (DNC) pins. So these pins can be used to program any values and can be used to interface with any of the sensors. Both Input and Output can be supplied by these pins. A HDMI port to connect to a display. The power input is 5V 2A with microUSB port. There is a MicroSD card slot which is used to load operating system in pi and used to store necessary files. There are 4 USB ports which are used to connect peripherals.

B. PI-CAMERA :

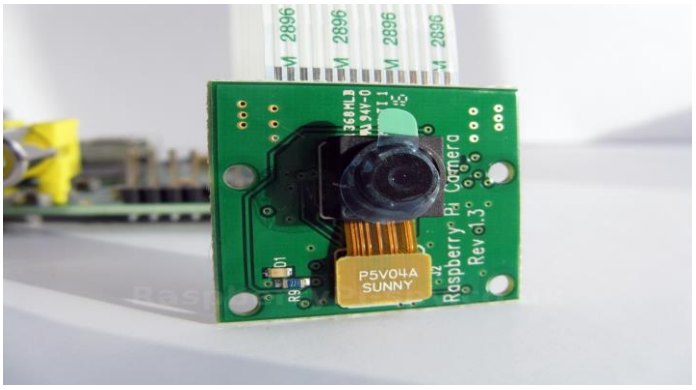

Fig-2: Raspberry pi Camera Board

The above shown figure is the Camera module of Raspberry pi camera which is and official product from Raspberry pi. We are using camera module 1 which has technical specifications of 5 Megapixel camera of resolution 2592*1944 and weighs around 3 grams which has an Omnivision OV5647 Sensor. We interface this sensor with Raspberry pi for image processing.

In an autonomous robot, it needs to perceive its environment through sensors in order to make logical decisions on how to act in the world. One important sensor in a robot is using a camera. There are different types of high-end camera that would be great for robots like a stereo camera, but for the purpose of introducing the basics, we are just using a simple cheap webcam or the built-in cameras in our laptops.

C. ARDUINO MEGA

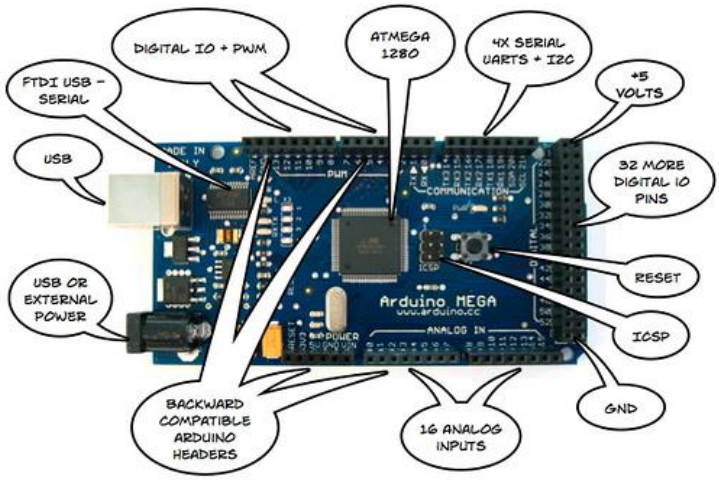

Fig-3: Arduino Mega

The Mega 2560 is a microcontroller board based on the ATmega2560. It has 54 digital input/output pins (of which 15 can be used as PWM outputs), 16 analog inputs, 4 UARTs (hardware serial ports), a 16 MHz crystal oscillator, a USB connection, a power jack, an ICSP header, and a reset button. It contains everything needed to support the microcontroller; simply connect it to a computer with a USB cable or power it with a AC-to-DC adapter or battery to get started. The Mega 2560 board is compatible with most shields designed for the Uno and the

former boards Duemilanove or Diecimila. This is used for controlling the servos which make the movement of the Robo.[6],[7]

The servo motors are connected to the Arduino Mega Board and programmed in such a way that they can be controlled by using the voice commands received by Easy Voice Recongnition (VR) shield. An Easy Voice Recognition shield is trained with unique voice such that the voice than has been programmed can only be used to control the movement.

D.VOICE RECOGNITION SHIELD

Fig-4: *Voice Recognition Shield*

The EasyVR Development Board can be used to program commands and sounds into an EasyVR module and quickly test it. Just put your EasyVR module on top of the DevBoard then connect the microphone and an 8 ohm speaker and you are ready to go. The DevBoard features a Freescale JS8 microcontroller programmed as a USB-Serial adapter to convert data sent between a PC and the EasyVR.[8]

IV. PROPOSED SYSTEM

The proposed system consists of both hardware units and software

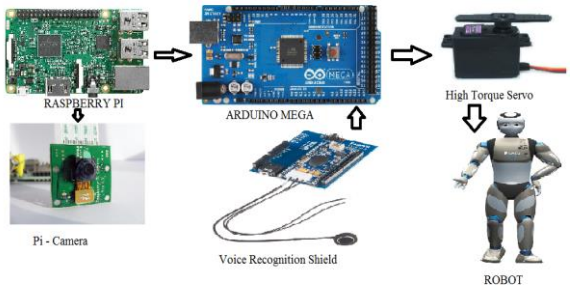

Fig-6 : Block Diagram of System

The Raspberry pi and Arduino Mega are combined in this system for interfacing with the humanoid robot and can be controlled wirelessly through voice recognition commands and the robot even had a capability of recognizing a person or and object which provides an artificial vision to the Robot and the entire system can be observed in fig: 1.

FACE RECONGITION:

The system is programmed using Python programming language. We have developed three algorithms, for face detection from a given image, from a folder of images and for real time face detection.[9],[10]

A. **Face detection** from a given image Histogram equalization is done on the input image. Haar classifier is used for image calculation process and once face is detected, a red bounding box is drawn on the detected face. Detected face and sub faces are saved and time taken for detection is printed.

B. **Face detection** from a folder of images After Histogram equalization of the given image, Haar classifier is again used for image calculation process. The difference from the first algorithm is that in addition to saving the detected face to a specified folder, the algorithm also checks if each image belongs to the source directory. If yes, the current file is named as a valid image with the file name. Otherwise, the file is named as an invalid image.

C. **Real time face detection** Video is captured real time using the webcam. As long as a face is detected, a red bounding box is drawn and the video is displayed in the output window.

Recognition is done using and image recognition algorithm which takes an image from the camera as input and verifies the image with the images in database and gives the output as image if any one matches from the database of else says the image is unrecognized. So for this recognition part we have to train the image recognition algorithm with as many as images available for each images such that the accuracy if the recognition increase. So for this part of recognition we can use a predefined algorithm or else we can develop a new algorithm of our own. Here we are creating a algorithm of my own for face recognition.

OBJECT DETECTION:

For Object detection we build a Haar Cascade with a set of “Positive” and “Negative” images. The set of positive images contains the images of the objects that we want to find. With these positive images we build a vector file which puts all these positive images together. So we can detect only images which are in the trained in the positive images set and the negative images may be thousands of images which are not positive and can be anything.

So with a single positive image we can use the command opencv_createsamples to create a bunch of positive examples, using your negative Images and positive images are superimposed on these negatives and will be angled in every direction.[11],[12] So after creating a set of positive images we can write python script which uses these set of positive images to recognize an object. So run the python script so objects can be detected

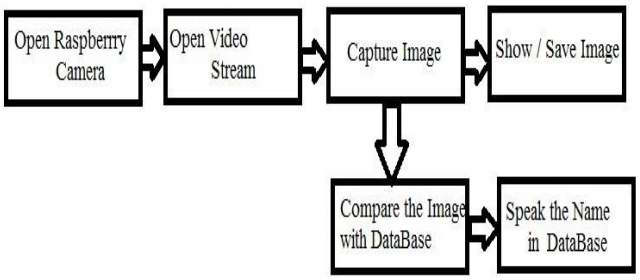

Fig-7 : Block diagram for Face and Object Recognition

So, Fig-6 shows the block diagram of face recognition and object detection using Raspberry pi. We connect Raspberry pi camera to Raspberry pi board and we write a python script using openCv library for face and object recognition and then we execute the python script such that the camera opens and captures the image from the video streaming for every second and process the captured image and compares the image within the DataBase to find out whether there are any positive samples of the captured image. If there are any positive samples then it recognizes the sample from and gives the name of the image as an audio output by using text-to–speech command in python. By this we will able to know the object or person which is in front of the Robot. Such that we can give a voice command to the robot to take further necessary action.

V. CONCLUSION

So, finally here we concluded that we are making a Humanoid robot which can interact with the human and gives a speech output which can is audible to humans such that basing on these voice output one can control the movement of the robot such that the robot can take necessary action. So, a physically handicapped people can't do there works by them and even a blind person cant recognize the person, so this robot can be used as an assistant and even to so tasks which humans cant able to do. So this robot is much more useful in these fields and not only in these fields the robot can be used in many other fields as our requirement.

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59. ANALOG TO DIGITAL CONVERTER USING SUCCESSIVE APPROXIMATION REGISTER METHOD

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The data converters are prerequisites in digital processing of analog signals. Now-a-days a larger percentage of mixed signal applications require energy limited system solutions. Analog-to-digital converters (ADCs) are critical component in such systems. Hence the stringent requirement on energy consumption requires the ADC design to be low power. Hence the circuits are to be designed with low power and low voltage to enhance the system for long sustainability, less power consumption and maintenance free operation, especially in the circuits like Analog to Digital converters (ADCs). So here is the selection of right architecture which is very crucial. Day by day more and more applications are built on the basis of power consumption. So SAR ADC will be useful for medium speed, medium resolution and low power consumption. The successive approximation technique uses a very efficient code search strategy to complete n-bit conversion in just n-clock periods. In this project, we propose a novel design for successive approximation register analog-to-digital converter. This analog-to-digital converter contains successive approximation register, Shift register, D-Flipflop, Transistor based R2R Ladder type digital-to-analog converter and a comparator. This circuit is simulated using Tanner EDA Tool.

Transistor-based R-2R ladder type digital-to Analog Converter (DAC), Transmission gate D-Flipflop, Comparator, Successive Approximation Register (SAR).

60. PROSPECTS AND ISSUES IN INTERNET MARKETING IN INDIA

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Though the Internet provides a new means for conducting business but fundamental of doing business remain unchanged. The present study has designed to examine the marketing strategy on Internet. For this purpose, it says that by integrating the Internet technology into the marketing strategy, business firms will be able to use the Internet as a tool to gain competitive advantage, this article explains Internet marketing mix, which consists five P's: product, price, promotion, place and personalization. The concept of marketing has not changed in essential has a result of using the Internet as a new marketing channel but Internet offers an unlimited opportunity for business. Internet marketing goes beyond banner advertising and e-mail marketing. It includes all the activity aimed at creating a distinct niche for the business like segmentation, differentiation etc.

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61. DESIGN AND DEVELOPMENT OF COMPACT MICROSTRIP PATCH DUAL BAND ANTENNA FOR WIRELESS COMMUNICATIONS

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In this paper, a novel dual band microstrip patch antenna based on composite patch antenna and radiating part. By selecting a suitable offset feed position, it is feasible to provide 50 Ω characteristic impedance and thus making better impedance matching. The proposed antenna has been improved broader bandwidth by using RT Duroid substrate. The radiating part is plays a important role in creating a lower operating band (2.45 GHz) in addition to achieve miniaturization. The proposed antenna has to be fabricated with RT/Duroid substrate and dimensions of19X 22X 1.6 mm. The measured _10 dB andwidth of 200 MHz at 3.45 GHz and 990 MHz at 5.45 GHz, which is quite useful for Industrial, Scientific and Medical (ISM) and Wireless applications.

62.A SYSTEM FOR CHILD RESCUE FROM BORE WELL

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Bores yield water during drought. Hence more bore wells are drilled on the surface of the earth. When water gets depleted, the motor along with casing pipe are removed and the surface is left uncovered. As a result children fall into these abandoned bore wells and get trapped in them. It is a very difficult and risky process to rescue the child from the narrow hole of the bore well. Previously, the usual method followed is that the depth of the hole was found initially and later a parallel pit was dug to rescue the child. The digging process is expensive and time consuming. Any delay in the rescue process can cost the child his or her life. So the main objective is to design a portable system which is cost effective. It must also be capable of moving inside the narrow hole with the help of dc motors and operate according to the user's commands and avoiding any injuries to the body of the subject during the rescue process. Lack of visualization is the biggest difficulty in the rescue process. Therefore, a wireless night vision camera is attached to the system which aids in night vision. The entire system is controlled by controlled by Arduino Uno which helps in operating the dc motors based on the observations in the video streaming captured by the camera. The system also contains an Ultrasonic sensor to measure the distance at which the target is located, a temperature sensor and a gas sensor to measure the temperature and presence of any gas near the child along with water sensor to detect the presence of water. Control of the entire system is through Arduino Uno. On the whole this system can be named as a "Child Saver Machine" which helps in saving the child within a short period of time securely and without any difficulties.

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63. LOCATING BLOOD VEESELS IN RETINAL IMAGES BY USING VESSEL ENHANCEMENT FILTERING TECHNIQUE

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MOHINI DURGA. JUPUDI
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Automatic detection of retinal blood vessels are used for the diagnosis and the treatment of different ocular diseases including diabetic retinopathy (DR), glaucoma and hypertension. The blood vessels in the fundus retinal images are detected by using novel method. The pre processing of the retinal image is done by using image enhancement technique. The vesselness filter and Adaptive thresholding methods are used to detect the vessels. The performance of the algorithm is compared and analyzed with data bases of retinal images using accuracy. Mat lab is used to Implementation of algorithm.

Keywords—Data bases, vesselness filter, Accuracy.

64.HYBRID FRACTAL SLOTTED ANTENNA FOR WIDEBAND APPLICATIONS

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This paper presents a design of microstrip patch antenna using a combination of Koch and Minkowski with ground plane variation for wideband application. Bandwidth and gain of the proposed antenna are optimized by varying the length of the ground plane. FR4 epoxy material has permittivity of 4.4 is used as a substrate and has thickness of 1.6mm. The operating frequency of proposed antenna is 3.2 GHz. The parameters like return loss, gain and VSWR are analyzed by simulating the design using HFSS15 software. The simulated result shows the designed antenna works on multiple frequencies where return loss is below -10dB with VSWR less than 2 is the desired condition for the antenna to work efficiently for practical application. The simulated results of proposed antenna are compared with measured results and observe the reasonable agreement with each other.

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65. ANALYSIS OF MICROSTRIP PATCH ANTENNA USING DEFECTED GROUND STRUCTURE DGS

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The microstrip patch antenna is a metallic device, which contains a radiating metallic patch on one side of the dielectric substrate and a metallic ground plane on the other side of the substrate. In this paper a microstrip patch antenna has been designed with the Defected Ground Structures (DGS), which are used to miniaturize the size of patch antennas. This antenna is designed on a FR-4 substrate having the size of 27X30 mm2 and having the dielectric constant 4.4 and thickness 1.6 mm.

66. LOW POWER CARRY LOOK AHEAD ADDER USING ADIABATIC LOGIC

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For many years, designing of high speed low power circuits with CMOS technology was a difficult challenge for research community. There are various levels at which design problem related to low power and increased demand can be addressed; these levels are - software level, architecture level, algorithm level, circuit level and process technology level. In this paper we have designed a 4-bit Look Ahead Carry Adder using CMOS technology. The objective of this paper is to put different approaches that reduce the consumption of power of Look Ahead Carry Adder. Conventional Look Ahead Carry Adder is compared with Adiabatic Look Ahead Carry Adder.

67. AUTOMATED ATTENDANCE USING FACE DETECTION AND RASPBERRY-PI

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The traditional way of taking attendance in a class includes a pen, attendance book and a person. Thus the drawbacks arise as it consumes time, needs manual work and attendance can also be manipulated. Also, there are chances of students not responding to their attendance and later claiming for the attendance. The new procedure of taking attendance using face recognition is easier and therefore overcomes all the above mentioned drawbacks. The hardware platform includes the camera to capture the image. The main controller unit is Raspberry-pi. The software platform used is Python programming language and Open CV image processing library. The working procedure starts with a buzzer giving a beep sound which aims at attaining attention of the students towards the camera to capture the image. The camera then captures the snapshot of classroom in which, the Open CV detects the faces and thus are processed and are compared with the student image database. The matched faced students are marked present and the remaining students are considered to be absent. We also need to discuss the approach of

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camera planning based on the result of the position estimation in order to improve face detection effectiveness.

68. DESIGN AND IMPLEMENTATION OF QPSK USING REVERSIBLE LOGIC

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In this present paper BPSK modulation technique, a subsystem module of digital communication utilizing reversible logic is proposed. Later on a QPSK modulation technique using reversible logic is executed and the QPSK modulator unit will be demonstrated using VHDL code and simulation will be done to confirm functionality in the framework. The advanced digital system arrangement of QPSK is composed using a reversible logic gates which yields in low power, less required zone and less measure of delay. Reversible logic is mostly used to develop low power circuits and furthermore utilized as a part of quantum computing, optical computing and DNA computing to create zero power dispersal. QPSK is generally used modulation technique in satellite radio applications.

69.AN ENHANCEMENT TECHNIQUE TO IMPROVE BER IN WIRELESS LAN USING MIMO-OFDM

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The Multiple Input Multiple Output and Orthogonal Frequency Division Multiplexing innovation is utilized for creating different remote correspondences in wireless. The mix of MIMO-OFDM gives change in Bit Error Rate, limit and unwavering quality in wireless transmission. To accomplish high throughput, MIMO with more prominent type of balance is utilized. The MIMO-OFDM innovation in remote uses most extreme data transfer capacity with less cost. Space time block coding along with MIMO gives improvement in Bit Error Rate. The performances of the various systems are calculated by comparing the BER and SNR.

70.DESIGN OF COMPARATOR USING CMOS LOGIC, DOMINO LOGIC AND GDI TECHNIQUE

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This paper implements a 8 bit comparator circuit using CMOS logic, DOMINO logic and GDI Technique. In CMOS logic during inverter circuit operation ,when voltage level shifts from high to low and vice versa, short circuit current occurs which leads to power loss. So GDI Technique is one of the

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power saving technique and saves power consumption. So in this paper, a comparative analysis is done among Domino logic, GDI technique and CMOS logic for which comparator is used as reference circuit. Power consumption of Domino logic, GDI Technique, and CMOS logic at different voltage levels (voltage scaling) is being compared. EDA-Tanner tool version 14, 0.25µm technology is used to implement the circuit and for simulation purpose.

Keywords—Domino Logic, CMOS comparator, GDI comparator, voltage scaling, power saving mechanism

71. EFFICIENT ENERGY MINIMIZATION TECHNIQUE FOR MASSIVE MIMO UNDER PILOT CONTAMINATION

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Pilot Contamination is the main limiting factor of TDD (Time Division Duplexing) Massive MIMO (Multiple Input Multiple Output) system which limits the user capacity of down link massive MIMO. The capacity-achieving GWBE scheme, which can achieve the identified user capacity and satisfy the SINR requirements, has been proposed and compared with the non-capacity-achieving WBE and FOS schemes. Further, this project is enhanced by varying the carrier power based on distance of the user from antenna base station. First, need to measure the distance of the user through uplink access communication link. Based on the primary parameter, power up calculations can be calibrated and assigned to each received signal for more strengthening.

72.PEAK TO AVERAGE POWER RATIO REDUCTION WITH NEAR-OPTIMAL PERFORMANCE IN OFDM

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N. Mounika, Assistant Professor, P.S.C.M.R College of engineering and technology

M. Naga Lakshmi Kalyani, Assistant Professor P.S.C.M.R College of engineering and technology

Chosen mapping SLM plans are broadly used to decrease the peak-to-average power ratio (PAPR) in orthogonal frequency division multiplexing (OFDM) frameworks. Different time domain approaches have been proposed for lessening the quantity of inverse fast Fourier transforms (IFFT) tasks required to create the applicant signals in customary SLM plans. Be that it may the subsequent time domain produced signals are fairly correlated and for this reason the PAPR depletion overall performance is severely degraded. As a consequence, the existing have a look at proposes a unique PAPR reduction method in which frequency-domain phase rotation, complex conjugate, sub-carrier reversal and cyclic shifting activities are altogether utilized so as to extend the range of the candidate signals. Furthermore, to bypass the multiple-IFFT drawback, all of the frequency-domain operations square measure born-again

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into time-domain equivalents. It's shown that the sub-carrier partitioning and re-assembling processes square measure key to realizing low-complexity time-domain equivalent operations. Moreover, it is shown on paper and numerically that the machine complexness of the planned theme is considerably less than that of the standard SLM methodology and also the PAPR reduction performance is among 0.001 decibel of that of SLM. Overall, the results indicate that among all of the low-complexity architectures planned within the literature, the tactic planned during this study most closely approximates the PAPR reduction performance of the standard SLM theme. Index Terms Orthogonal frequency division multiplexing (OFDM), peak-to-average power ratio (PAPR), selected mapping (SLM).

73. FINGERPRINT RECOGNITION FOR PERSON IDENTIFICATION AND VERIFICATION BASED ON MINUTIAE MATCHING

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There are various types of applications for fingerprint recognition which is used for different purposes. Fingerprint is one of the challenging pattern Recognition problem. The Fingerprint Recognition system is divided into four stages. First is Acquisition stage to capture the fingerprint image. The second is Pre-processing stage to enhancement , binarization ,thinning fingerprint image. The Third stage is Feature Extraction Stage to extract the feature from the thinning image by use minutiae extractor methods to extract ridge ending and ridge bifurcation from thinning. The fourth stage is matching(Identification, Verification) to match two minutiae points by using minutiae matcher method in which similarity and distance measure are used. The algorithm is tested accurately and reliably by using fingerprint images from different databases. In this paper the fingerprint databases used are FVC2000 and FVC2002 Databases, we see that ,the FVC2002 database perform better results compare with FVC2000 database. The recognition system evaluate with two factor FAR and FRR ,In this system the result of FAR is 0.0154 and FRR is 0.0137 with Accuracy equal to 98.55%.

74. RECONFIGURABLE PATCH ANTENNA FOR WIRELESS APPLICATIONS.

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This paper deals with the design of reconfigurable patch antenna. This design includes a patch which is placed on FR-4 substrate with relative permittivity of εr=4.4. This antenna can be used for wireless applications such as 4G, Satellite, and Radar applications by reconfiguring. In this work

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rectangular patch is designed with U-shape slotted antenna using HFSS software and pin diodes are used for reconfiguration i.e. to select different frequency band depending upon wireless application. The design antenna is fed by 50-Ω line feed and substrate having dimensions 26.32(L) x 34(W) x 1.5(h) mm3.

75. IRREDUCIBLE AND STRONGLY IRREDUCIBLE IDEALS IN A REGULAR Γ-SO-RING

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The first and third authors introduced the notions of partial Γ-semiring and Γ-so-ring. Also they introduced the notions of prime and semiprime ideals in a Γ-so-ring R. In this paper the notions of irreducible and strongly irreducible ideals in a Γ-so-ring R are introduced. It is proved that "An ideal P of a complete Γ-so-ring R is prime if and only if it is semiprime and strongly irreducible". Also it is proved that "If R is a regular complete Γ-so-ring with left unity, then an ideal P of R is prime if and only if it is irreducible".

76. INTERNET OF THINGS (IoT) OPERATED ROBOTIC ARM

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The design analysis of an IOT based "Pick and Place" Robotic arm has been presented in this paper. This work unravels the fact that man would always want to adhere to safety precautions at workplace and even in its environment, to be able to handle some specific tasks, like sending the robotic vehicle to hazardous environment to obtain samples for chemical analysis. It works in alliance with Internet. It can be accessed by Blynk app and the application can control the movement of vehicle as well as its robotic arms. This system comprises of a Wi-Fi module which work as the receiver for vehicle. This sends commands to the microcontroller unit which execute according to the signals received by Wi-Fi module. In this work, the design of a robot is presented which will move around in four directions and

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is equipped with gripper for pick and place operation. These operations will be controlled by a user friendly interface called NODE MCU. Depending upon the button clicked on the Blynk app, proper motional commands are given to robot by microcontroller. This project is in aimed to design and develop a mobile robot which can move according to the button pressed on App. This prototype can be employed in chemical industry for handling of chemical materials of hazardous nature, or for movement of heavy objects in any industry and where humans can't survive.

77. A NOVEL APPROACH TO DETECTION OF STATIC OBJECTS USING BACKGROUND SUBTRACTION METHOD

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This paper provides an attempt to develop an intelligent system to detect the unattended object using image processing technique. As there is a potential security threat nowadays due to the leaving unattended objects in public spaces like cinema halls, shopping malls, airports, railway stations, etc. and it is challenging task for the security personnel to check and react to the threat, there is a great need for automatic detection of unattended object in these areas. So, our project considers identifying the unattended object from a live stream of video, as the present automatic surveillance system cameras have higher processing capabilities and has made it possible to develop intelligent systems which can possibly detect the suspicious objects in the public places which can save lives of many and prevent damages of the public property. The technique we used in this proposed system is dual background segmentation approach.

78. SUSTAINABLE WATER MANAGEMENT SYSTEM FOR MULTIPLE CROPPING BASED ON IOT

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Farmers are utilizing more number of methods in smart agriculture to improve their crop production. But all the existed techniques are used for specific crop management system and cannot useful for yielding their crop according to seasonal basis and also affected due to water management system. By Influencing these factors concerned to introduce a new concept in the smart agriculture for utilizing the same equipment for different seasonal crops. The main objective of this paper is to design a new model for agricultural extension with a monitoring and controlling technique is used in smart agriculture along with to provide the water management facility in the system for growth of various types of crops based on season. This proposed concept is useful to support smallholder farmers in developing countries by providing customized information and services that increase their crop productivity with high efficiency, more profitability, and environmental sustainability without affecting the other factors,

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able to reduce the more number of equipment for different crops by simply software compatibility in the proposed hardware and this will helpful to reduce the equipment cost for farmers.

79. THE CREATIVE ENTREPRENEUR

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Creativity and Entrepreneurship are close the related. Creativity is the generation of innovative and new ideas. Entrepreneurship is starting up of new Business on own. Entrepreneurship very risky job. Successful Entrepreneurs are all gifted with the trait of excellent creativity. Motivation is also very much related to creativity and Entrepreneurship. In this paper the relationship of creativity and Entrepreneurship has been studied in detail. Also the methods of creative Entrepreneurs have been highlighted.

80. WIRELESS ENERGY TRANSFER

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Wireless Energy Transfer (WET) is an electronic device which is used to transmit the electrical energy from one device to another device without using wires. During transmission and distribution the percentage of power loss is approximately 28% due to the resistance of wires used in grid. Due to overcome the above mentioned issue, a new technique was proposed for wireless charging and it mainly works on the principle of inductive coupling. With this idea of inductive coupling, the data can be easily transmitted through air from one device to another device eliminating the need of cables, wires, metals etc. Hence, the electrical energy can be easily delivered the wireless power to electronic devices without having any power loss during transmission and distribution. WET is very efficient, reliable and it has low maintenance cost. In this paper, Wireless Energy Transfer based product was designed with applicable safety standards and regulations and it can be used for number of applications like to charge the electronic devices like mobiles, laptops etc, at a certain distance with an efficiency of 40-95%. On the other hand, power loss of this technology is very less as compared to wired electricity transmission.

81. SYMMETRICAL AND ASYMMETRICAL MULTI-LEVEL INVERTER WITH REDUCED SWITCH COUNT FOR PERMANENT MAGNET SYNCHRONOUS MOTOR DRIVE

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95. A COMPARISON BETWEEN SFLA AND WAVELET BASED ZERO ACTIVE POWER TRACKING TECHNIQUE FOR IMPROVING DVR CAPABILITY AND VOLTAGE SAG

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ANDHRA PRADESH TALANGANA

In this paper we enhance the power quality problems in terms of voltage sag. To protect the system this paper proposes a concept of DVR. Here wavelet based zero active power tracking technique for enhancement of DVR capability has been proposed. The main aim is to enhance the abilities of DVR to maintain acceptable voltages and last longer during compensation. The discrete wavelet transform uses filter banks for the analysis and synthesis of a signal. By this technique we can gain the less energy being taken out of the dc-link capacitor, resulting in smaller size requirements. The Shuffle Frog Leaping Algorithm (SFLA) combines the benefits of the genetic- based and the social behavior-based PSO algorithms. Here a comparison is made between SFLA and wavelet. These systems are verified using mat lab/simulink. Here THD values are compared.

96. AN ACCIDENT OR INCIDENT REPORTING DEVICE USING IOT

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1Associate Professors of CSE, (2, 3, 4 & 5) IV B.Tech (CSE) Project Team,
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Technology is getting advanced day by day, we should utilise that in an advantageous way such that we should implement something useful in a practical way for our life. The society is in need to reach people, who are close enough to solve real problems such as accidents, incidents, unwanted situations due to many reasons are heading high and we are in red alert. In this context, we are putting an end point to the accidents/incidents in public.In the time of an accident the vehicles could send a message to the nearby ambulance drivers, police stations as a notification or as an alert in the mobile application we developed. Other general public gets it as a notification in their newsfeed in the mobile application. For this, the people who have the mobile application should have their respective user accounts in it. In this scenario, we have designed a product that can stick to the vehicle and communicate with the people mentioned above, within the seconds of the accident. This device may hold the neighbour information and also gives the geographical location and obtain the information to communicate.

97. HUMAN BRAIN TUMOR DETECTION USING FAST BOUNDING BOX AND SUPPORT VECTOR MACHINE

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M. Nagaraju, Assitant Professor, IT Department, Gudlavalleru Engineering College,
Navvena Meka, Student, ECE Department, PSCMR College of Engineering & Technology ,
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As the internet is evolving rapidly in this technological world the representation of data and information over website is a must and is the front face for any organization. The website that contains everything represents the process, presentation, results, Gallery and many other facilities helps to project the website at its maximum for the better understanding of the user. In this scenario the PSCMR POLYTECHNIC College is a fastest growing organization at its best among the recent debuted colleges in the state. The organization possesses excellent facilities, experienced faculty with full of energy and talented students who are admitted from POLYCET of AP. The organization is at its best to provide the students with energetic activities and enlightening academic events along with annual extravaganza. In order to project and propel the good works of the organization a website with latest technology and advanced features can only spot light the best of the organizations and students efforts. We have decided to prepare a website that meets the standards of the latest technology and also user friendly to communicate and the student body and also this culminating society. We are using the 1HTML5, 2CSS 3, 3PHP 5, 4MYSQL 5 for Website design and database management and the XAMPP for hosting the website in local host. After completion of the local development we deploy in the respective web hosting for the POLYTECHNIC College. We also use 5WORDPRESS 3 for better development of the website.

100. TURBO CODED STBC MIMO OFDM WITH DWT BASED I/Q BALANCING SYSTEM

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The MIMO-OFDM technology is used for developing various wireless communications. The concept proposes a turbo-detected multi antenna- multi-carrier (OFDM) receiver scheme. The combination of MIMO and OFDM gives improvement in Bit error rate, capacity and reliability. To achieve high throughput, MIMO with higher orders of modulations is used. The MIMO-OFDM technology in wireless helps to use maximum bandwidth with less cost. Space time block coding along with MIMO gives improvement in Bit Error Rate. The performances of the various systems are evaluated by comparing the BER and SNR. Here a good performance in terms of low BER is achieved with the use of better channel coding technique. To improve the efficiency in terms of data transmission, Orthogonal Frequency Division Multiplexing (OFDM) is integrated into MIMO for digital modulation. DWT based MIMO-OFDM with turbo decoding overcomes the drawbacks in FFT based method like low data transmission and hard decision decoding systems. Discrete Wavelet Transform (DWT) is presented as an alternative for the Fast Fourier Transform FFT since there is no necessity for Cyclic Prefix (CP) due to the overlapping properties of DWT.

101. PROJECT STATUS INFORMATION SYSTEM(PSIS)

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ELECTRONIC ENGINEERING TECHNICIAN (E.E.T)

First Year

(w.e.f. 2018-19)

Intermediate Vocational Course

Paper I : **Circuit Theory & Electronics Components**

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Paper - I Circuit Theory & Electronics Components

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As per the latest Syllabus

PROBLEM SOLVING AND PYTHON PROGRAMMING

K. Nageswara Rao
Shaik Akbar
Immadi Murali Krishna

```
from Tkinter import *
m1 = PanedWindow()
m1.pack(fill=BOTH, expand=1)
left = Label(m1, text="left pane")
m1.add(left)
m2 = PanedWindow(m1, orient=VERTICAL)
m1.add(m2)
top = Label(m2, text="top pane")
m2.add(top)
bottom = Label(m2, text="bottom pane")
m2.add(bottom)
mainloop()
```

Winners Wisdom
SCITECH

Performance Preview on Image Super Resolution Using Wavelets Transform Based on Samples

Vicharapu Balaji, Ch. Anuradha, P.S.R. Chandra Murty and Grandhe Padmaja

Abstract In Image analysis with Wavelet change, super resolution is amazingly critical. In our proposed work to acquire Super resolution of the input image two prominent wavelet transforms are used namely Discrete and Stationary Wavelet Transform. In general Single frame resolution can be refined by different augmentation procedures like interpolation also leads to Blur and obscure edges. Thus, this paper input is taken as any sample image from the set and then applying basic wavelet filters as specified, i.e., DWT and SWT to get a super resolved image. Then on the super resolved image wavelet filters are applied.

Keywords Super resolution · DWT and SWT · Interpolation · High frequency (HF) · Low frequency (LF)

1 Introduction

The method to reconstruct a high resolution images assumes an essential part in various medical imaging and electronic applications as high resolution images are craved and often required. Pixel density is more in high resolution images as it gives more subtle elements of data which is required in the basic application, for example, medical diagnosis, satellite perception and mammography images. One essential methodology for single edge super determination in interjection in which

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Automatic Brain Tumor Detection Using Fast Fuzzy C-Means Algorithm

Srikanth Busa, Navya Sree Vangala, Padmaja Grandhe and V. Balaji

Abstract Brain tumor is an uncontrolled development of tissue in any piece of the brain. The tumor is of diverse sorts, and they have disparate particular and divergent taking care of. At present, most of the existing algorithms detect only single tumors and does not serve the need for multitumor detection. This paper is to execute of simple algorithm for recognition of extent and state of multiple tumors in brain magnetic resonance images. Divergent sorts of calculation were created for brain tumor recognition. In any case, they may have a couple of deficiencies in identification and extraction. After the division, which is done through fuzzy c-means calculations the brain tumor is recognized and its definite area is distinguished. Looking at toward alternate calculations, the execution of fuzzy c-means gives a sufficient result on brain tumor images. The persistent stage is controlled by this procedure.

Keywords Brain tumor · Fuzzy C-Means · Thresholding · Median filter Region of interest (ROI)

1 Introduction

Brain, a part of the central nervous system, regulates and controls all the functionalities of the body like talking, walking, sensations, and so on. It as well has control on our thought process, emotions, intellectual, balance, and autonomic functions. The brain is a soft malleable mass consisting of two cerebral hemispheres within the skull. The brain contains cerebrospinal fluid which circulates through

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is equipped with gripper for pick and place operation. These operations will be controlled by a user friendly interface called NODE MCU. Depending upon the button clicked on the Blynk app, proper motional commands are given to robot by microcontroller. This project is in aimed to design and develop a mobile robot which can move according to the button pressed on App. This prototype can be employed in chemical industry for handling of chemical materials of hazardous nature, or for movement of heavy objects in any industry and where humans can't survive.

77. A NOVEL APPROACH TO DETECTION OF STATIC OBJECTS USING BACKGROUND SUBTRACTION METHOD

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This paper provides an attempt to develop an intelligent system to detect the unattended object using image processing technique. As there is a potential security threat nowadays due to the leaving unattended objects in public spaces like cinema halls, shopping malls, airports, railway stations, etc. and it is challenging task for the security personnel to check and react to the threat, there is a great need for automatic detection of unattended object in these areas. So, our project considers identifying the unattended object from a live stream of video, as the present automatic surveillance system cameras have higher processing capabilities and has made it possible to develop intelligent systems which can possibly detect the suspicious objects in the public places which can save lives of many and prevent damages of the public property. The technique we used in this proposed system is dual background segmentation approach.

78. SUSTAINABLE WATER MANAGEMENT SYSTEM FOR MULTIPLE CROPPING BASED ON IOT

U. Bhagyasree1, T.Sireesha2, V. Veeranjaneyalu3, V. Lidia4,, V. Dileep5

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Farmers are utilizing more number of methods in smart agriculture to improve their crop production. But all the existed techniques are used for specific crop management system and cannot useful for yielding their crop according to seasonal basis and also affected due to water management system. By Influencing these factors concerned to introduce a new concept in the smart agriculture for utilizing the same equipment for different seasonal crops. The main objective of this paper is to design a new model for agricultural extension with a monitoring and controlling technique is used in smart agriculture along with to provide the water management facility in the system for growth of various types of crops based on season. This proposed concept is useful to support smallholder farmers in developing countries by providing customized information and services that increase their crop productivity with high efficiency, more profitability, and environmental sustainability without affecting the other factors,

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95. A COMPARISON BETWEEN SFLA AND WAVELET BASED ZERO ACTIVE POWER TRACKING TECHNIQUE FOR IMPROVING DVR CAPABILITY AND VOLTAGE SAG

First author Second author V.PRAVEEN EEE Department SNV.GANESH EEE Department PSCMRCET VBIT ANDHRA PRADESH TALANGANA

In this paper we enhance the power quality problems in terms of voltage sag. To protect the system this paper proposes a concept of DVR. Here wavelet based zero active power tracking technique for enhancement of DVR capability has been proposed. The main aim is to enhance the abilities of DVR to maintain acceptable voltages and last longer during compensation. The discrete wavelet transform uses filter banks for the analysis and synthesis of a signal. By this technique we can gain the less energy being taken out of the dc-link capacitor, resulting in smaller size requirements. The Shuffle Frog Leaping Algorithm (SFLA) combines the benefits of the genetic- based and the social behavior-based PSO algorithms. Here a comparison is made between SFLA and wavelet. These systems are verified using mat lab/simulink. Here THD values are compared.

96. AN ACCIDENT OR INCIDENT REPORTING DEVICE USING IOT

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Technology is getting advanced day by day, we should utilise that in an advantageous way such that we should implement something useful in a practical way for our life. The society is in need to reach people, who are close enough to solve real problems such as accidents, incidents, unwanted situations due to many reasons are heading high and we are in red alert. In this context, we are putting an end point to the accidents/incidents in public.In the time of an accident the vehicles could send a message to the nearby ambulance drivers, police stations as a notification or as an alert in the mobile application we developed. Other general public gets it as a notification in their newsfeed in the mobile application. For this, the people who have the mobile application should have their respective user accounts in it. In this scenario, we have designed a product that can stick to the vehicle and communicate with the people mentioned above, within the seconds of the accident. This device may hold the neighbour information and also gives the geographical location and obtain the information to communicate.

97. HUMAN BRAIN TUMOR DETECTION USING FAST BOUNDING BOX AND SUPPORT VECTOR MACHINE

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M. Nagaraju, Assitant Professor, IT Department, Gudlavalleru Engineering College,
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PSCMR Polytechnic Website using Open Source Wordpress CMS Tool

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***Abstract*—** As the internet is evolving rapidly in this technological world the representation of data and information over website is a must and is the front face for any organization. The website that contains everything represents the process, presentation, results, Gallery and many other facilities helps to project the website at its maximum for the better understanding of the user. In this scenario the PSCMR POLYTECHNIC College is a fastest growing organization at its best among the recent debuted colleges in the state.

The organization possesses excellent facilities, experienced faculty with full of energy and talented students who are admitted from POLYCET of AP. The organization is at its best to provide the students with energetic activities and enlightening academic events along with annual extravaganza. In order to project and propel the good works of the organization a website with latest technology and advanced features can only spot light the best of the organizations and students efforts. We have decided to prepare a website that meets the standards of the latest technology and also user friendly to communicate and the student body and also this culminating society. We are using the [1]HTML5, [2]CSS 3, [3]PHP 5, [4]MYSQL 5 for Website design and database management and the XAMPP for hosting the website in local host. After completion of the local development we deploy in the respective web hosting for the POLYTECHNIC College. We also use [5]WORDPRESS 3 for better development of the website.

Keywords*—[6]*XAMPP, Website, Wordpress, MySql, CSS, PHP., Introduction (*Heading 1*)

This template, modified in MS Word 2007 and saved as a "Word 97-2003 Document" for the PC, provides authors with most of the formatting specifications needed for preparing electronic versions of their papers. All standard paper components have been specified for three reasons: (1) ease of use when formatting individual papers, (2) automatic compliance to electronic requirements that facilitate the concurrent or later production of electronic products, and (3) conformity of style throughout a conference proceedings. Margins, column widths, line spacing, and type styles are built-in; examples of the type styles are provided throughout this document and are identified in italic type, within parentheses, following the example. Some components, such as multi-leveled equations, graphics, and tables are not prescribed, although the various table text styles are provided. The formatter will need to create these components, incorporating the applicable criteria that follow.

I. INTRODUCTION

The website for any organization is a mandatory to represent the academic and student information to be available to the user all the time. The PSCMR Polytechnic College at Vijayawada makes the difference in representing the college activities and the student performance to the society at its best. In this scenario they follow the manual procedures and record everything in a huge pile of records that sits in the shelves. Unless the user have to have some handy information in the form of a website, mobile app it would be difficult for anyone to understand and estimate the career path for student career. The polytechnic college admissions are crucial for the students who pass through SSC and have to possess POLYCET RANK. The POLYCET RANK is the key part of the admission process that differs with candidates who join with NRI or Management quota.

Proposed System: In this system we have designed a special process for the students who have enrolled and are studying the Polytechnic study for various branches of engineering. The courses available on campus are Civil Engineering, Mechanical Engineering. The students with capacity of 60 in each are worth more for the industries from small scale to huge government organizations. The website provides a unique platform that provides the students in formation, their achievements, activities, events, research, faculty credibility's etc.,

II. REQUIREMENTS SPECIFICATION

Functional Requirements: Functional Requirements specify which output file should be produced from the given file they describe the relationship between the input and output of the system, for each functional requirement a detailed description

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GETTING TO OPERATING SYSTEM USING FINGER GESTURE

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ABSTRACT: In today's modern age of technology the Human Computer Interaction is at its zenith of innovation. However, there is lack of interfacing technologies to manipulate real-time behaviour for operating various computer systems, software or devices. Even though to overcome this problem there are several alternative solutions, like speech recognition system, colour marker based or glove based interfacing devices. But these devices are less portable have complex structure and less accuracy. So to recover these disadvantages, we are introducing the concept of hand gesture recognition system using only web camera of laptop. This will help to use real time interfacing in digital world without any additional sensors or additional hardware. Its simplicity improves efficiency and portability of system, making the project extensively useful.

KEYWORDS: Human Computer Interaction, speech recognition, colour detection, real-time behaviour, software, hardware.

INTRODUCTION

In everyday life we use various communication tools to communicate with the world surrounding us. One might think that the word or language is the one of the most important tool that is used during communication. But there are lots of other important factors present in process of communication, these factors are as important as word or language. Some of these factors are facial expressions, eye contact, speaking tone, body movement or hand gestures. These aspects of communication help us to express our message in more natural and straightforward way than other way of communications like letters or emails does. If these elements of communications are so important in everyday interaction, why not to try and use this factors to communicate with the digital world? Some factors of communication mentioned above, are already being used to interact with computers and other systems. Some examples are face detection, speech recognition system, retina scanning biometrics and motion detection sensors. But one of the most common elements of communication is not widely used for computer interaction, hand gesture. We often use hand gesture in communication with people in real world, we can use hand gesture to interact with the digital world also. This will give the field of Human Computer Interaction the natural method to interact with computer systems, and will make interaction with computer more real-life and easy. There are some existing technologies that use hand gesture to interact with computer, but they are either highly expensive or cumbersome to use in

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Project Status Information System(PSIS)

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***Abstract* - The Project entitled "Project Status Information System (PSIS)" deals with the various levels of project development and will account for time used in analysis, design programming, testing and verification etc. Information systems development projects range from one-person projects that take very little time and effort to multiple person, many year efforts costing millions of dollars. The goal of Project Status Information System (PSIS) is to prevent projects from coming in late and going over budget. Project Status Information System (PSIS) gives the management a clear picture of the usage of time by various projects i.e. utilized time and unutilized time. Every activity, no matter how small or large, requires use of the commodity called time. There is no substitute for time as there are substitutes for other resources. As such it is one of the most precious of resources. By analyzing the results provided by the software they might rectify the defects in utilizing time and take remedial actions.**

Project Status Information System (PSIS) takes time sheet as input. The input may be in non-standard format differing from project to project. Project Status Information System (PSIS) produces output in the form of reports. This output gives a clear picture of the time used at various levels of the project.

In Project Status Information System (PSIS) new project information is entered by the technical manager, based on the project information project manager will assign activities to employees who are working under him.

***Keywords* – Project Status Information System (PSIS), Project management, Project monitoring, Project modules.**

I.INTRODUCTION

By manual system projects, clients, project time details information is stored in different registers, while retrieving the information it is every time taking process to search the information in each register as it is very fast through the computerized Project Time Analysis and *Reporting System.*

In manual system after each and every transaction the updating in the registers is little bit different in computerized system. The process of updating is automatic according to the new system. Human errors can be avoided due to the less manual involvement. The system provides different report and getting reports of the required requirements is very fast and easy in computerized system. But using simple web portal anyone can carry out their project related work which is the main aim of Project Status Information System (PSIS) [1]. It provides clients, users and developers a simple web portal to manage and monitor the overall project activities. All the modules of the system have a unique user id and password. Then any module can login into the system using their id and password to get authenticated further. PSIS allows the group of users to provide at least three project domains and then the system will automatically assign the team leaders [2] to the groups of

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Adaptive ROI Search for 3D Visualization of MRI medical images

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Abstract. **To smooth the progress of high point study of medical image data in research and in clinical medical environment, a covering for the 3D toolkit is developed to overcome the drawback of searching mechanism in medical images. The main aim of this application is to develop a scalable search engine for the three dimensional medical images. User can choose a Region of Interest (ROI) and repeatedly detect the equivalent region among all the return images. Magnetic resonance imaging (MRI) is an extremely developed medical imaging method used to extract information about the human soft tissue structure. So we propose a new algorithm, namely Cluster Based Image Search and Retrieve-CBISR, is randomly reduce searching time and provide accuracy result for MRI Images.**

Keywords: Cluster Based Image Search and Retrieve (CBISR); Medical Imaging; Image retrieval; Region Of Interest (ROI).

1. INTRODUCTION

Brain Tumor is a frequent brain disorder, according to a survey almost 60 million people effected approximately around the world. The Brain tumor is the result of a fleeting and unexpected electrical trouble of the brain and extreme neuronal free that is obvious in the MRI signal representative of the electrical action of the brain. In the proposed algorithm, a variety of brain signal are taken out from the MRI sign alone or in presentation with the MRI signal pending. The patients are clandestine into two classes, Tumor and non-Tumor. In adding, some other linked issues, Such as dataset and evaluation measures are also discussed. Lastly, the appearance of algorithms is evaluated, and their capability and limits are described.[10].

2. RELATED WORK

1. R. Eswaraiah: In telemedicine, normally medical images are transmitted via the internet. During this move tamper may be introduced deliberately or by accident into medical images. Proposed a new WaterMarking, technique in telemedicine to detect tamper in medical images while transferring in unsecured networks like the internet [4]

2. Koulaouzidis: Proposed to describe the use of MATLAB in three-dimensional reconstruction in capsule endoscopy. The programmed that were intended enables us to observe dissections of the gain 3D structure along three axes. [7]

3. Kimor: Proposed to Magnetic Resonance Imaging is turn out to be an extensively use a method of high quality medical imaging. Magnetic resonance imaging (MRI) is an higher medical imaging method as long as rich in order about the human yielding tissue structure. Mathematical morphology provides a methodical move toward to analyze.[2]

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