ICERYX

VOLUME 06 ISSUE 02

THE VOICE OF ICE

SARANATHAN COLLEGE
OF ENGINEERING

FOREWORD :

The department of Instrumentation and Control Engineering is built with the strong team of enthusiastic and evergreen students for the outcome based studies. The platform for the outcome based studies is developed by making the students to do mini projects from second year onwards and also successful participation in various curricular and co-curricular activities. ICERYX is the platform that shows our students' outcome based studies.

FROM THE EDITORIAL BOARD :

Dear readers,
It's our pleasure to provide you with interesting articles every two months. From this edition, the magazine of ICERYX is getting its new form. Hope you would like to read it this way. Many new measures have been taken to bring in more fervent readers for our magazine. From the Public Relations team, we express gratitude to everyone who supported us in this endeavor. Stay tuned on to update yourself with the deeds of our department as well as the outside world. Happy reading!

PR TEAM

MAHALAKSHMI.S.P, SECOND YEAR
SHARVIN SHAKESH.P, SECOND YEAR
AKASH SAMI.R, SECOND YEAR
SURYA.P, SECOND YEAR
KIRTHIKA.V, SECOND YEAR
NISHA FRANCY, SECOND YEAR
R.MILAN PATEL, PRE FINAL YEAR
B.IRFHANNA AMEER, PRE FINAL YEAR

CONTENTS

INFYTQ – A LEARNING APP FOR ENGINEERING STUDENTS

Infosys Launches InfyTQ – A Learning App for Engineering Students

•Infosys announced the launch of InfyTQ, a next-generation digital platform to offer the best learning and engagement experiences for engineering students in India.

•InfyTQ is a free platform open to all engineering students in their third and fourth year across India. The platform encourages holistic development by imparting technical as well as professional skills and help them become industry ready.

•InfyTQ will be available on both mobile and desktop and is equipped with a plethora of content, courses, and news to establish talent readiness at an industry level through online assessments and certification.

•With InfyTQ, students will benefit from the always-on, anytime, anywhere learning, catered through a continuous transfer of digital skills and expertise from the Infosys innovation ecosystem. The platform will also assist students to stay connected with the organization, keep up with the latest happenings, and familiarize themselves with Infosys' culture and value system.

•The learning courses will be centered around conceptual and practical aspects of technology to ensure a thorough understanding of the fundamental building blocks. This includes extensive hands-on learning to aid the intelligent application of concepts in the real world.

•The platform will evolve and offer advanced learning materials and enable virtual programming environments for certain sets of students to further hone their

technical skills.

•In addition, the platform also offers courses on professional skills to help students navigate the art of effective contextual response, inter-personal relationships, communication and email, etiquette among others.
•Students can install the platform on their mobile, or access the desktop version and register to get access to high-quality content and learning material to be ready for a dynamic industry.

InfyTQ at Saranathan:

•Final year students of various departments including Department of Instrumentation and Control Engineering registered for the python course at InfyTQ portal.
•Four different modules which included Fundamental programming using python , OOP Concept using python , Data Structure concept using python and DBMS and SQL in python was covered in the training classes which scheduled in June 2019.

•In between students were asked to complete the assignments and get the much necessary hands on experience in programming using python.

•Programming is inevitable and with the right skills and equivalent sufficient platform like InfyTQ students can make most use of it and get the much needed exposure through the Infosys Certification program which occurs all over India on specified dates.

MILAN PATEL .R
PRE-FINAL YEAR

LIST OF WEBSITES WHICH TEACHES YOU CODING/PROGRAMMING

1. CodeCademy.com
2. Coursera.com
3. Edx.org
4. Udemy.com
5. GitHub.com
6. Hackpledge.org
7. CodeAvengers.com
8. KhanAcademy.org
9. FreeCodeCamp.com
10. SoloLearn.com
11. **www.hackerrank.com**

Harley-Davidson's Livewire Electric Motorcycle

It's simply an impressive-looking motorcycle, with none of the kit-bike artifacts that have marred pioneering electric motorcycles from smaller companies.

Harley addressed that issue at the 2019 Consumer Electronics Show on January 7, 2019. Yes, The Motor Company officially declared, the 2020 LiveWire will be produced, it will cost $29,799.

The Motor Company showed two lightweight electric prototypes that hint about what Harley-Davidson electric motorcycles may follow by 2022 or so.

The LiveWire will be a high-performance motorcycle, with the single-gear-ratio, clutch-less machine ripping from a stop to 60 mph in less than 3.5 seconds and topping out at 110 mph, according to Harley.

And while battery capacity wasn't given, we were told the MIC combined range will certainly be more than 110 miles. The MIC-combined-range rating for electric motorcycles averages range at 70 mph on the highway with the EPA urban-duty cycle range, and the 110 mi-lesstrongly suggests the battery in the LiveWire has

slightly more than 10 kWhof usable capacity. It also suggests that highway range, at least at 70 mph, might be around 70 miles plus or minus.

Harley-Davidson has told Cycle World the MIC combined range of the LiveWire will be more than 110 miles.

Certainly, highway range limitations are one of the reasons that Harley-Davidson is positioning the LiveWire as an urban vehicle, best for ripping down city streets or commuting to and from near suburbia. Where DC fast charging is available (more and more places as VW and other auto companies build out public charging networks), the LiveWire can go from a 0 to 80 percent charge in 40 minutes.

Notable is a full-color TFT dash that integrates with both your cellphone (for Bluetooth music and on-screen navigation) and an onboard Panasonic-supplied telematics module. The telematics module has GPS and connects with the cellular network at LTE (fast) data speed, and allows Harley to offer the “Harley Connect Service” through an app downloadable to your phone.

-ARAWINDHAN .R
SECOND YEAR

LIST OF WEBSITES WHICH TEACHES YOU ENGLISH LANGUAGE

1. *Duolingo.com*
2. *EnglishCentral.com*
3. *StackExchange.com*
4. *Newsinlevels.com*
5. *Lang-8.com*
6. *LearnEnglish.de*
7. *Listen-and-write.con*
8. *Abcya.com*
9. *ManyThings.org*
10. *Cdlponline.org*

SMART WATER MANAGEMENT USING SMART TAPS

Idea

The source idea of this project is Smart Water Management using Smart Taps.

By automating taps, we can measure the amount of water being used by an individual. This amount is displayed on a website. If the water being used exceeds a given threshold, a notice is put up on the website displaying that there is excessive usage.

The user can remotely switch the tap on or off using the website. Taps are attached to the servo motor, which is controlled via the online website. Furthermore, If it exceeds another specified quota, then the tap is automatically shut.

If the tap is switched off and flow is detected by the flow sensor, the user is notified of the presence of a leakage in the tap through the tap. Flow sensor calculates the rate at which water is flowing through the pipe, and the amount of water flown through the tap. It acts on the principle of a hall effect sensor.

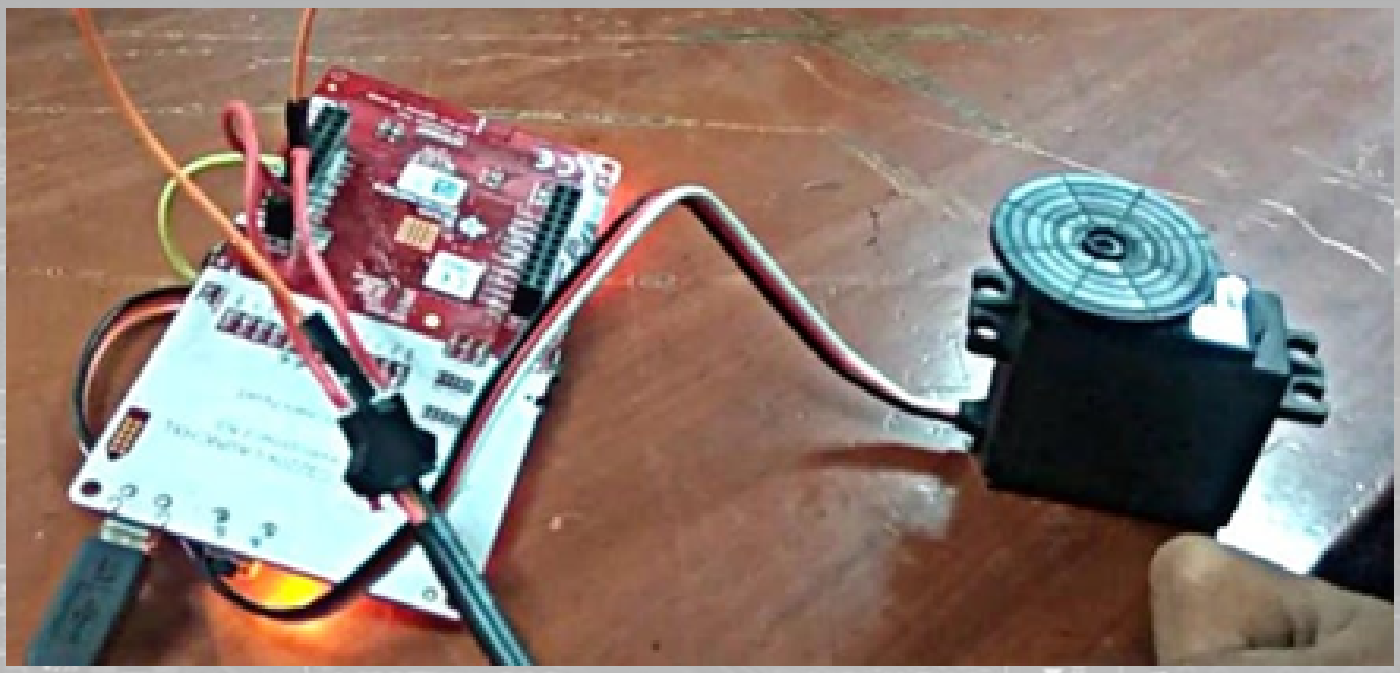
Why?

This idea can be scaled to the taps placed in hostels as students on campus are quite ignorant about the amount of water they use everyday. Notifying them of their usage could go a long way in preventing wastage.

- A leaking faucet can waste 4,000 drops of water, which is equal to a litre of water.

- On an average one person wastes about 0-45 litres water per day. To understand it better, it is 30% of water requirement per person per day.

A number of IoT Smart water management systems were tailored for major cities, or houses, but there doesn't exist a system



that is tailored for hostels (which have a large number of users) and this system is created to be user friendly.

Steps for Implementation

Step 1

Make the connections. Connect the data pin of the servo to pin 3 on the launchpad, and connect the data pin of the flow sensor to pin 4

Step 2

Upload the sketch onto the launchpad, after editing the SSID and password for WiFi connectivity.

Step 3

Open the serial monitor and copy the IP address onto your web browser.

Step 4

Pour water through the flow sensor, and refresh the page to see if the value for amount of water used changes. Click on switch off and switch on buttons to move the servo.

Further Comments about hardware used

CC3220

The applications MCU subsystem contains an industry-standard ARM Cortex-M4 core running at 80 MHz. SPI flash for Wi-Fi network processor service packs, Wi-Fi certificates, and credentials.

With on-chip Wi-Fi, Internet, and robust security protocols, no prior Wi-Fi experience is required for faster development. The CC3220MOD integrates all required system-level hardware

components including clocks, SPI flash, RF switch, and passives into an LGA package for easy assembly and low-cost PCB design. The CC3220MOD is provided as a complete platform solution including software, sample applications, tools, user and programming guides, reference designs

The CC3220 Sketch (code) uses the external interrupt (int 0) on CC3200 pin (P03). This is used to read the output pulses coming from the water flow sensor. When CC3220 detects the pulse, it immediately triggers the pulseCounter() function. This function then counts the total number of pulses detected (interrupts).

Flow Sensor

Effective water management involves supplying water according to the real requirement, and thus measuring water is very essential step in water management systems. There are many water flow measurement techniques as well as different types of water flow meters used to measure the volume of water flow in pipelines but these all are too costly. This article describes ideas for design and development of low cost automatic water flow meters, with the help of readily-available and low-cost water flow sensors.

Hall-Effect Water Flow Sensor

Accurate flow measurement is an essential step both in the terms of qualitative and economic points of view. Flow meters have proven excellent devices for measuring water flow, and now it is very easy to build a water management system using the renowned water flow sensor YF-S201. This sensor sits in line with the water line and contains a pinwheel sensor to measure how much water has moved through it. There is an integrated magnetic Hall-Effect sensor that outputs an electrical pulse with every revolution. The “YFS201 Hall Effect Water Flow Sensor” comes with three wires: Red/ VCC (5-24V DC Input), Black/ GND (0V) and Yellow/OUT (Pulse Output). By counting the pulses from the output of the sensor, we can easily calculate the water flow rate (in litre/hour – L/hr) using a suitable conversion formula.

Flow rate can be determined inferentially by different tech-

niques like change in velocity or kinetic energy. Here we have determined flow rate by change in velocity of water. Velocity depends on the pressure that forces the through pipelines. As the pipe's cross-sectional area is known and remains constant, the average velocity is an indication of the flow rate. The basis relationship for determining the liquid's flow rate in such cases is Q=VxA, where Q is flow rate/ total flow of water through the pipe, V is average velocity of the flow and A is the cross-sectional area of the pipe (viscosity, density and the friction of the liquid in contact with the pipe also influence the flow rate of water).

• Pulse frequency (Hz) = 4.5Q, Q is flow rate in Litres/minute
• Flow Rate (Litres/hour) = (Pulse frequency x 60 min) / 4.5Q
In other words:
• Sensor Frequency (Hz) = 4.5* Q (Liters/min)
• Litres = Q * time elapsed (seconds) / 60 (seconds/minute)
• Litres = (Frequency (Pulses/second) / 4.5) * time elapsed (seconds) / 60
• Litres = Pulses / (4.5 * 60)
Connecting the water flow sensor to CC3220 requires minimal interconnection. Connect the VCC (Red) and GND (Black) wires of the water flow Sensor to the 5v and Gnd of CC3220, and link Pulse Output (Yellow) wire of the water flow sensor to CC3220 pin P03. Note that the water flow sensor is not a power-hungry type; it draws a maximum of 15-20mA at 5V DC input!
Servo Motor
Futaba S3003 - Servo Standard
Specifications
Modulation:Analog
Torque: 4.8V: 44.00 oz-in (3.17 kg-cm); 6.0V: 57.00 oz-in (4.10 kg-cm)
Speed: 4.8V: 0.23 sec/60° ; 6.0V: 0.19 sec/60°
Dimensions:Length:1.57 in (39.9 mm)
Width:0.79 in (20.1 mm)
Height:1.42 in (36.1 mm)
Gear Type:Plastic
Rotation/Support:Bushing
Rotational Range:60°
Pulse Cycle:30 ms
Pulse Width:500-3000 µs
Connector Type:J
Because servo motors use feedback to determine the position of the shaft, you can control that position very precisely. As a result, servo motors are used to control the position of objects, rotate objects, move legs, arms or

hands of robots, move sensors etc. with high precision. Servo motors are small in size, and because they have built-in circuitry to control their movement, they can be connected directly to an CC3220.
Most servo motors have the following connections:
• Black/Brown ground wire.
• Red power wire (around 5V).
• Yellow or White PWM wire.
In this experiment, we will connect the power and ground pins directly to the CC3220 5V and GND pins. The PWM input will be connected to one of the CC3220 digital output pins.

- SHARVIN SHAKESH .P
SECOND YEAR

ARDUINO FOR BEGINNERS

More and more makerspaces around the world are looking to add coding and electronics to their maker education programs. One of the best ways to do this is by integrating an Arduino board into makerspace projects and lessons.

We've found that a lot of maker educators haven't taken the plunge into coding or Arduino because they think programming is scary. Because of this, we wanted to make sure this tutorial was written for the absolute beginner with no experience whatsoever.

This tutorial is a high level view of all the parts and pieces of the Arduino ecosystem. In future posts, we will take you step by step in creating your first simple Arduino project.

What Is Arduino?

Arduino is an open source programmable circuit board that can be integrated into a wide variety of makerspace projects both simple and complex. This board contains a microcontroller which is able to be programmed to sense and control objects in the physical world. By responding to sensors and inputs, the Arduino is able to interact with a large array of outputs such as LEDs, motors and displays. Because of its flexibility and low

cost, Arduino has become a very popular choice for makers and makerspaces looking to create interactive hardware projects.

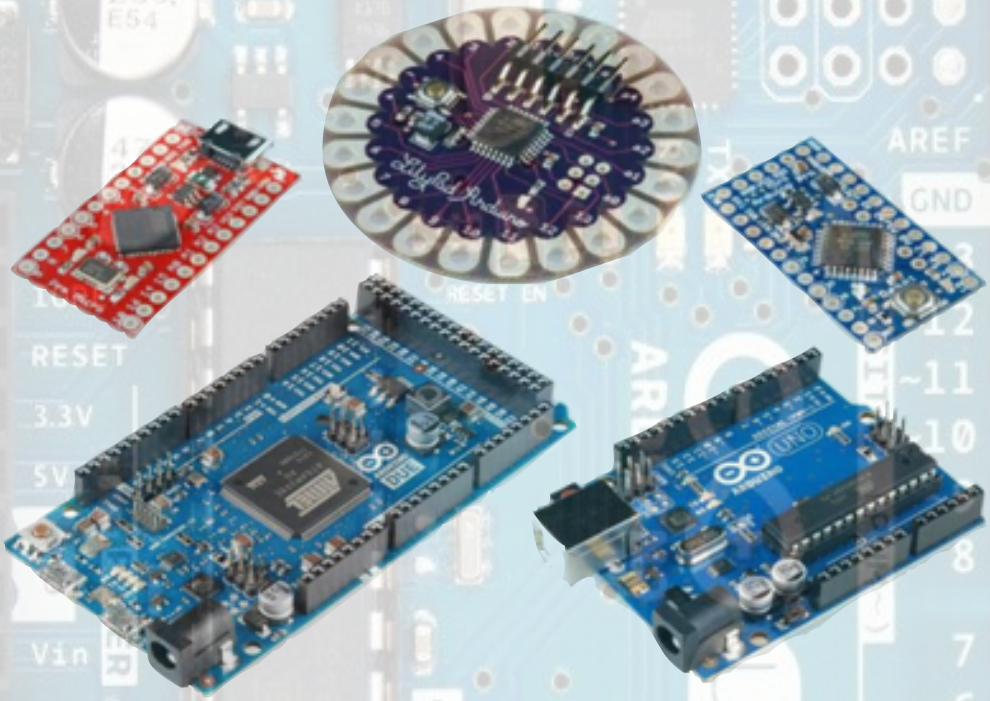
Arduino was introduced back in 2005 in Italy by Massimo Banzi as a way for non-engineers to have access to a low cost, simple tool for creating hardware projects. Since the board is open-source, it is released under a Creative Commons license which allows anyone to produce their own board. If you search the web, you will find there are hundreds of Arduino compatible clones and variations available but the only official boards have Arduino in its name.

In the next section, we're going to discuss a few of the Arduino boards available and how they differ from each other.

Types of Arduino Boards

Arduino is a great platform for prototyping projects and inventions but can be confusing when having to choose the right board. If you're brand new to this, you might have always thought that there was just one "Arduino" board and that's it. In reality, there are many variations of the official Arduino boards and then there are hundreds more from competitors who offer clones. But don't worry, we're going to show you which one to start with later on in this tutorial. Below are a few examples of the different types of Arduino boards out there. The boards with the name Arduino on them are the official boards but there are also a lot of

really great clones on the market as well. One of the best reasons to buy a clone is the fact they are generally less expensive than their official counterpart. Adafruit and Sparkfun for example, sell variations of the Arduino boards which cost less but still have the same quality of the originals. One word of caution, be careful when buying boards from companies you don't know. might want to consider the LilyPad board from Sparkfun. The LilyPad is designed to be easily sewn into e-textiles and wearable projects. If your project has a small form factor, you might want to use the Arduino Pro Mini which has a very small footprint compared to other boards. Check out Sparkfun's Arduino Comparison Guide for a breakdown and comparison of the top boards out there.



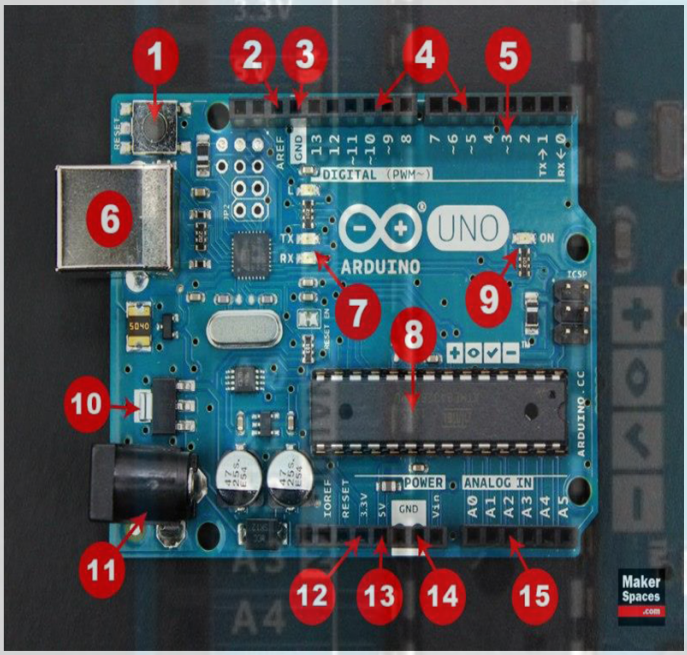
Next, we're going to focus on our favorite Arduino board which we recommend beginners start with.

Another factor to consider when choosing a board is the type of project you are looking to do. For example, if you want to create a wearable electronic project, you might want to consider the LilyPad board from Sparkfun. The LilyPad is designed to be easily sewn into e-textiles and wearable projects. If your project has a small form factor, you might want to use the Arduino Pro Mini which has a very small footprint compared to other boards. Check out Sparkfun's Arduino Comparison Guide for a breakdown and comparison of the top boards out there.

Next, we're going to focus on our favorite Arduino board which we recommend beginners start with.

Arduino Uno

One of the most popular Arduino boards out there is the Arduino Uno. While it was not actually the first board to be released, it remains to be the most actively used and most widely documented on the market. Because of its extreme popularity, the Arduino Uno has a ton of project tutorials and forums around the web that can help you get started or out of a jam. We're big fans of the Uno because of its great features and ease of use.



Board Breakdown

Here are the components that make up an Arduino board and what each of their functions are.

1. Reset Button – This will restart any code that is loaded to the Arduino board

2. AREF – Stands for "Analog Reference" and is used to set an external reference voltage

3. Ground Pin – There are a few ground pins on the Arduino and they all work the same

4. Digital Input/Output – Pins 0-13 can be used for digital input or output

5. PWM – The pins marked with the (~) symbol can simulate analog output

6. USB Connection – Used for powering up your Arduino and uploading sketches

7. TX/RX – Transmit and receive data indication LEDs

8. AT mega Microcontroller – This is the brains and is where the programs are stored

9. Power LED Indicator – This LED lights up anytime the board is plugged in a power source

10. Voltage Regulator – This controls the amount of voltage going into the Arduino board

11. DC Power Barrel Jack – This is used for powering your Arduino with a power supply

12. 3.3V Pin – This pin supplies 3.3 volts of power to your projects

13. 5V Pin – This pin supplies 5 volts of power to your projects

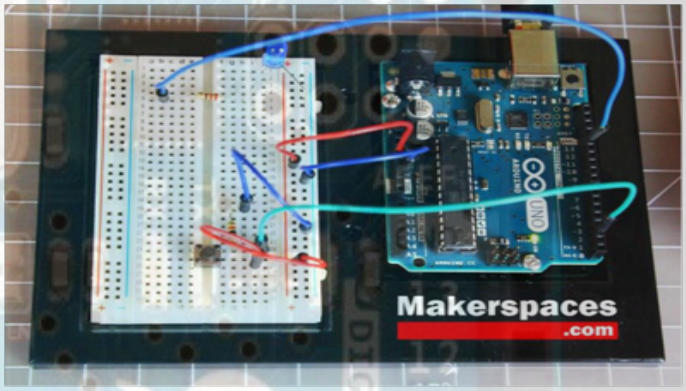
14. Ground Pins – There are a few ground pins on the Arduino and they all work the same

15. Analog Pins – These pins can read the signal from an analog sensor and convert it to digital

Arduino Power Supply

The Arduino Uno needs a power source in order for it to operate and can be powered in a variety of ways. You can do what most people do and connect the board directly to your computer via a USB cable. If you want your project to be mobile, consider using a 9V battery pack to give it juice. The last method would be to use a 9V AC power supply.

Arduino Breadboard



Another very important item when working with Arduino is a solderless breadboard. This device allows you to prototype your Arduino project without having to permanently solder the circuit together. Using a breadboard allows you to create temporary prototypes and experiment with different circuit designs. Inside the holes (tie points) of the plastic housing, are metal clips which are connected to each other by strips of conductive material.

- MAHALAKSHMI .S.P
SECOND YEAR

APTI PREPZZ

1. The ratio of the present ages of a mother and her daughter is 7:1.Four years ago, the ratio of their ages was 19:1. What will be the mother's age four years from now?
a) 42 years b) 38 years
c) 46 years d) 36 years

2. After 25kg of water had been evaporated from a solution of salt and water, which had 20% salt, the remaining solution had 30% salt. Find the weight of the original solution.
a) 75Kg b) 52Kg
c) 68Kg d) 50Kg

3. When 125 is subtracted from a number, it reduces to its 37.5 percent. What is 25 percent of that number?
a) 50 b) 75
c) 125 d) 175

4. Two candidates fought an election. One of them got 62% of the total votes and won by 432 votes. What is the total number of votes polled?
a) 1500 b) 1600
c) 1800 d) cannot be de termined

5. 32% of 825 + 25% of 1440 = 1025 – (?)
a) 456 b) 206
c) 223 d) 401

6. Harshad bought 15 pieces of DVD players for 4500rs each and sold all of them at the total price of 8100rs.What is the per-cent profit earned in the deal?
a) 50/3 b) 20
c) 41/2 d) 25

7. A gold bracelet is sold for 14500rs at a loss of 20%. What is the cost price of the gold bracelet?
a) 15225 b) 16800
c) 17400 d) 18125

8. If an article is sold for X ru-pees, there is a loss of 15%. If the same article is sold for Y ru-pees, there is a profit of 15%. The ratio of (Y-X) to (Y+X) is
a) 3:20 b) 20:3
c) 17:23 d) 20:23

"LEARN TO EMBRACE CHALLENGES RATHER THAN AVOID THEM"

9. S varies directly as R and T varies inversely as R. At some particular time, R=20, S=40 and T=10. If S is changed to 20, then the value of T would be equal to

a) 10 b) 20
c) 40 d) 80

10. A sum of money is divided among 160 males and some females in the ratio 16:21. Individually each male gets 4rs and a female 3rs. The number of females is

a) 198 b) 270
c) 280 d) 284

- KIRTHIKA .V
SECOND YEAR

ATTRACTIVE PRIZES FOR THE TOP THREE SCORERS OF APTI !!!

Send your response to
iceprteam2@gmail.com

FIRST COME FIRST SERVE*

Too Young

by
Lang Leav

Too young for love
Too young to know
How far a touch,
A kiss can go

Too old for comfort
Or childhood charms
Too old to be held
In your mother's arms

The world is so hard
When you're in between
Your future world
And childhood dreams

WORDS OF ROBIN SHARMA

1. Discover Your Calling

When I was growing up, my father said something to me I will never forget, “Son, when you were born, you cried while the world rejoiced. Live your life in such a way that when you die the world cries while you rejoice.” We live in an age when we have forgotten what life is all about. We can easily put a person on the Moon, but we have trouble walking across the street to meet a new neighbor. We can fire a missile across the world with pinpoint accuracy, but we have trouble keeping a date with our children to go to the library. We have e-mail, fax machines and digital phones so that we can stay connected and yet we live in a time where human beings have never been less connected. We have lost touch with our humanity. We have lost touch with our purpose. We have lost sight of the things that matter the most.

And so, as you start this book, I respectfully ask you, Who will cry when you die? How many lives will you touch while you have the privilege to walk this planet? What impact will your life have on the generations that follow you? And what legacy will you leave behind after you have taken your last breath? One of the lessons I have learned in my own life is that if you don’t act on life, life has a habit of acting on you. The days slip into weeks, the weeks slip into months and the months slip into years. Pretty soon it’s all over and you are left with nothing more than a heart filled with regret over a life half lived. Bernard Shaw was asked on his deathbed, “What would you do if you could live your life over again?” He reflected, then replied with a deep sigh: “I’d like to be the person I could have been but never was.” I’ve written this book so that this will never happen to you.

As a professional speaker, I spend much of my work life delivering keynote addresses at conferences across North Amer-

ica, flying from city to city, sharing my insights on leadership in business and in life with many different people. Though they all come from diverse walks of life, their questions invariably center on the same things these days: How can I find greater meaning in my life? How can I make a lasting contribution through my work? And How can I simplify so that I can enjoy the journey of life before it is too late?

My answer always begins the same way: Find your calling. I believe we all have special talents that are just waiting to be engaged in a worthy pursuit. We are all here for some unique purpose, some noble objective that will allow us to manifest our higher human potential while we, at the same time, add value to the lives around us. Finding your calling doesn't mean you must leave the job you now have. It simply means you need to bring more of yourself into your work and focus on the things you do best. It means you have to stop waiting for other people to make the changes you desire and, as Mahatma Gandhi noted: "Be the change that you wish to see most in your world." And once you do, your life will change.

2.Every Day, be Kind to a Stranger

On his deathbed, Aldous Huxley reflected on his entire life's learning and then summed it up in seven simple words: "Let us be kinder to one another." All too often, we believe that in order to live a truly fulfilling life we must achieve some great act or grand feat that will put us on the front covers of magazines and newspapers. Nothing could be further from the truth. A meaningful life is made up of a series of daily acts of decency and kindness, which, ironically, add up to something truly great over the course of a lifetime.

Everyone who enters your life has a lesson to teach and a story to tell. Every person you pass during the moments that make up your days represents an opportunity to show a little more of the compassion and courtesy that define your humanity. Why not start being more of the person you truly are during your days and doing what you can to enrich the world around you? In

my mind, if you make even one person smile during your day or brighten the mood of even one stranger, your day has been a worthwhile one. Kindness, quite simply, is the tent we must pay for the space we occupy on this planet.

Become more creative in the ways you show compassion to strangers. Paying the toll for the person in the car behind you, offering your seat on the subway to someone in need and being the first to say hello are great places to start. Recently, I received a letter from a reader of The Monk Who Sold His Ferrari who lives in Washington State. In it she wrote: “I have a practice of tithing to people who have helped me along my spiritual path. Please accept the enclosed check of $ 100 with my blessing and gratitude.” I quickly responded to her generous act by spending one of my audiotape programs in return so she received value for the gift she sent me. Her gesture was a great lesson in the importance of giving sincerely and from the heart.

- AKASH SAMI .R
SECOND YEAR

Charge of the Light Brigade

Half a league, half a league,
Half a league onward,
All in the valley of Death
Rode the six hundred.
"Forward, the Light Brigade!
Charge for the guns!" he said:
Into the valley of Death
Rode the six hundred.
"Forward, the Light Brigade!"
Was there a man dismayed?
Not though the soldier knew
Some one had blundered:
Their's not to make reply,
Their's not to reason why,
Their's but to do and die:
Into the valley of Death
Rode the six hundred.

Cannon to right of them,
Cannon to left of them,
Cannon in front of them
Volleyed and thundered;
Stormed at with shot and shell,
Boldly they rode and well,
Into the jaws of Death,
Into the mouth of Hell
Rode the six hundred.

Flashed all their sabres bare,
Flashed as they turned in air
Sabring the gunners there,
Charging an army, while
All the world wondered:
Plunged in the battery-smoke
Right through the line they broke;
Cossack and Russian
Reeled from the sabre-stroke
Shattered and sundered.
Then they rode back, but not,
Not the six hundred.

Cannon to right of them,
Cannon to left of them,
Cannon behind them
Volleyed and thundered;
Stormed at with shot and shell,
While horse and hero fell,
They that had fought so well
Came through the jaws of Death
Back from the mouth of Hell,
All that was left of them,
Left of six hundred.

When can their glory fade?
O the wild charge they made!
All the world wondered.
Honour the charge they made!
Honour the Light Brigade,
Noble six hundred!

-Lord Alfred Tennyson

WØRDS ØF WISDØM

Here is the list of 12 simple things that we can impart in our day to day life to have a gleaming future…!

1.Don't take your parents for granted.
Your parents may nag you, and you may feel as if they don't understand you. But they love you unconditionally, so appreciate them as often as you can.

2.Getting a bad grade isn't the end of the world.
In a few years, you won't even remember most of your grades. If you get a bad grade, learn from your mistakes and prepare better for the next exam.

3.Use the Internet as a tool for education more than entertainment.
The Internet can keep you entertained for hours. But with sites like Udemy, Udacity and How Stuff Works, the Internet can also make you a far more educated person.

4.Stress is a fact of life, but it should never become a way of life.
This means that it's normal to feel stressed and tired once in a while. But if you feel stressed and tired almost every day, then you need to reevaluate your life to see what you ought to be doing differently.

5.Learn to manage your money.
As a student, you probably don't have tons of money. That's a good thing, because you can learn to spend, save, invest and give with little risk. Learn money management skills while you're still young!

6. Make sleep a priority.
Research has proven that sleep is essential for health and brain function. Make it a priority to get eight hours of sleep a night, and you'll be a happier and better student.

7.Write things down.

Your brain isn't a perfect storage device, so write things down. Use a notebook or an app like Google Keep to ensure that you don't forget anything important. If you write things down, you'll be more organised and less stressed.

8.If you need motivation to study, go to the library.

When you're surrounded by people who are studying, you'll feel inspired. Don't underestimate the effect your environment has on your motivation.

9.Learn to embrace challenges rather than avoid them.

Choose to see challenges as fun opportunities to learn. Even if you can't overcome the challenge, you would have still grown as a person.

10.Don't blame others.

The sooner you stop blaming others, the sooner you'll learn to take full responsibility for your life.

11.Go to every single class.

If the class is boring, see it as an opportunity to improve your ability to focus. If the class is about a topic you've learned before, see it as an opportunity to review the information.

12.Be grateful.

Grateful people are the happiest one. No matter what situation you're in, there's always something to be thankful for: college, friends, family, food, health, nature, technology, etc.

- SURYA .S
SECOND YEAR

LIST OF WEBSITES WHICH TEACHES YOU COMPUTER IT NETWORKING

1. Coursera.com
2. EdX.org
3. Oedb.org
4. Online-learning.harvard.edu
5. CodeCademy.com
6. Alison.com
7. Mva.Microsoft.com
8. Mylearn.vmware.com

BOOK REVIEW

THEORY OF EVERYTHING
By Stephen Hawking

Stephen Hawking is widely believed to be one of the world's greatest minds, a brilliant theoretical physicist whose work helped to reconfigure models of the universe and to redefine what's in it.

Hawking presents a series of seven lectures - covering everything from the big bang to black holes to string theory - that capture not only the brilliance of Hawking's mind but his characteristic wit as well. Of his research on black holes, which absorbed him for more than a decade, he says, **"It might seem a bit like looking for a black cat in a coal cellar."**

He briefly describes the ideas of the universe from Aristotle, Newton, Einstein, Augustine, Hubble, Friedman, Galileo, and many more scientists and philosophers. In 1928, an Indian, Subrahmanyan Chandrasekhar calculated that a cold star of more than about one and a half times the mass of the sun would not be able to support itself against its own gravity. This mass is now known as the Chandrasekhar limit.

According to the author, the laws of physics do not distinguish between the past and the future. In other words, life would be just the same for the inhabitants of another planet who were our mirror images and who were made of antimatter.

This book is a boon for physics lover. The author didn't include complicated mathematical equations. He kept language simple and easily understandable. The author mixes science with philosophy. It exhibits a subtle sense of humor in the book. It's a short read. Stephen Hawking poses interesting questions about God. All in all, a recommended reading.

- NISHA FRANCY
SECOND YEAR

SPORTS ACTIVITIES

NAME	YEAR	EVENT	PARTICIPA-TION	PLACE
S. ABBAS ABDUL SALAM	III	SPORTS DAY	JAVELIN THROW	GOLD
			SHOTPUT	GOLD
			BASKETBALL	GOLD
			DISCUSS THROW	SILVER
N. NAINA MO-HAMED	III	SPORTS DAY	KHO-KHO	SILVER
S. RAJESH KU-MAR	III	SPORTS DAY	KHO-KHO	SILVER
B. PR-BHAKHARAN	III	SPORTS DAY	KHO-KHO	SILVER
G. MANOJ KU-MAR	III	SPORTS DAY	800, 5K, 10K MTS	SILVER
			1500 MTS	BRONZE
			BASKETBALL	GOLD
			KHO-KHO	SILVER
J. JEEVAN RAJ	III	SPORTS DAY	KHO-KHO	SILVER
P.K. RAVINDRAN	III	SPORTS DAY	BADMITON	GOLD
M. KARTHIKEY-AN	II	ANNA UNIVERSI-TY ZONALS	BADMITON	SILVER
		OPEN STATE		BRONZE
		TRICHY DIS-TRICT OPEN		GOLD
		SPORTS DAY		GOLD
SHIVA SHANKAR	I	SPORTS DAY	BASKETBALL	GOLD
BENITO	I	SPORTS DAY	KHO-KHO	SILVER
HARIHARAN	I	SPORTS DAY	BASKETBAL	GOLD
			TRIPLE JUMP	GOLD
			LONG JUMP	SILVER
			RELAY	SILVER
PRANAV SAJESH	I	SPORTS DAY	KHO-KHO	SILVER
NITHIS ROSHAN	I	SPORTS DAY	KHO-KHO	SILVER
NITHISH ANAND	I	SPORTS DAY	KHO-KHO	SILVER

ART GALLERY

LINGTAN .N
SECOND YEAR

KIRTHIKA .V
SECOND YEAR

PHOTO GALLERY

- SANCHALi.S
PRE FiNAL YEAR

Brought to you by the Public Relations team of The department of Instrumentation and Control Engineering, Saranathan College of Engineering, Trichy.

Post your valuable feedback to
iceprteam2@gmail.com