

# Stutalk

Voice of VBITians



VIGNANA BHARATHI  
Institute of Technology



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Dr • am  
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Futur •

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Vol. 5 Issue 2  
October 2012

## Freshers Special



# FRESHERS SPECIAL

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Institute has received a grant of Rs. 1,00,000/- from DST (Dept of Science and Technology, Govt of India) to conduct a National Symposium on "Current Trends in Atmospheric Research including communication and Navigation Aspects" during 21st and 22nd December 2012.

## Faculty Co-ordinator



Mr. N.Vamshi Krishna  
Asst.Professor, Department of CSE



"Engineering is a great profession. There is the satisfaction of watching a figment of the imagination emerge through the aid of science to a plan on paper. Then it moves to realization in stone or metal or energy. Then it brings homes to men or women. Then it elevates the standards of living and adds to the comforts of life. This is the engineer's high privilege."

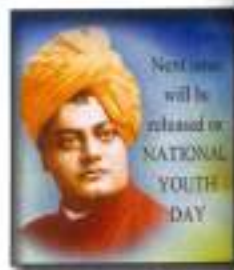
- Herbert Hoover

## Student Coordinators

- |                    |                       |   |
|--------------------|-----------------------|---|
| 1. Abhinav Saxena  | IV CSE                |    |
|                    | Technical coordinator |   |
| 2. Sri Rangarajan  | IV CSE                |    |
|                    | Technical coordinator |   |
| 3. Brahmendra U    | III EEE               |  |
|                    | Marketing coordinator |   |
| 4. Lokesh Kumar    | III ECE               |  |
|                    | Literary coordinator  |   |
| 5. Tanuj P         | II CIVIL              |  |
|                    | Designing coordinator |   |
| 6. Krishna Tejaswi | II MECH               |  |
|                    | Designing coordinator |   |
| 7. Sai Anjani U    | II IT                 |  |
|                    | Literary Coordinator  |   |

Special Thanks to  
Dr.Venkat  
Assoc. Professor Dept. of H&S

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Can we imagine a world without an Engineer's invention? From the beginning of the day till the end, whatever work we start, whatever thing we come across involves an engineer. The flyover you climb every day, the phone you use every day, the vehicle you drive every day are all the products of the endless efforts of engineers who put in their heart and sweat just to make a common man's life simpler and simpler.

Engineering is the case study of nature with the help of mathematics and Science. An Engineer is the one who effectively adapts the findings of science for the use of mankind. From the day of inventing wheel, engineering was rooted deeply and brought radical changes in the life of human beings. In the present times engineer's are the pioneers of demanding world, who design, plan and develop sustainable ways, where the technology satisfies the needs of the present generation as well as reaching to the requirements of future generation without any crisis of resources.

It's a great pride that India has had a large contribution to the engineering fraternity. Even today it is also doing so much for the welfare of man. With the contributions of

remarkable engineers such as Sir M.Visvesvarayya, and several others, India always leaves its everlasting mark on the world of engineers. With the increasing number of engineers every year, India has become a global hub for engineers all over the globe. Keeping the great contributions of Sir Mokshagundam Visvesvarayya, and other eminent engineers, as a token of respect for the great soul, in view, India celebrates his birthday, on 15 September, as the Engineers Day.

Brilliant Indian engineers carving wonders all over the world, the inspiration has an over whelming effect on young minds all over India. Engineers with innovative and complex ideas are always provided with excellent opportunities from countries across the globe. Young minds are always welcomed to the field of engineering.

*As the upcoming batch stands at the threshold of a new professional carrier, we, on behalf of the entire management, staff and students of Vignana Bharathi Institute of Technology would like to extend to you a very warm welcome. Hope your journey of the next four years will be filled with success and you all come out with flying colors.*

K.Swathi, II CIVIL  
Prasanth, III CSE  
S. Madhuri III ECE



# WARM WELCOME TO FRESHERS





## Meteorological Tower MBLM at VBIT(Sponsored by ISRO)

There is a growing need for meteorological observations conducted in urban areas. Urban populations continue to expand and meteorological services are increasingly required to supply meteorological data in support of detailed forecasts for citizens. This demands a number of observational centers and a strong database. Indian Space Research Organization (ISRO) has taken up this challenging task. ISRO has set up a large number of automatic weather stations (AWS) across the country. PRWONAM (Prediction of Regional Weather with Observational Meso-Network and Atmospheric Modeling) is a unique project of ISRO under which several stations of Mini Boundary Layer Mast (MBLM) are established to cover different places all over India.

We are fortunate enough to get one MBLM center established by ISRO at VBIT. MBLM [Mini Boundary Layer Mast [Multi-Platform Atmospheric Sounding Testbed (MAST)] is a Meteorological tower useful to study Atmospheric surface layer as explained below.

The system (MBLM) shall be useful to study the boundary layer process at fine scale. All the data are collected at one second resolution and averaged for every four minutes. The averaged data is

sent to a receiving station at ISRO HQ, Bangalore via SMS or a GSM mobile connection. The system uses advanced high resolution sensors to measure ambient temperature, relative humidity and wind.

The surface layer is studied by the calculation of heat and moisture fluxes using the above data. Land surface models developed with these parameters are useful for regional weather forecasting, environmental monitoring, stratospheric atmospheric structure and transport processes, agricultural meteorology, pollution and climate change.

MBLM data contains total 29 weather parameters as mentioned below.

- 1 Air Temperature (3 level )
- 2 Relative Humidity (3 level )
- 3 Wind Speed (3 level )
- 4 Wind Direction (3 level )
- 5 Atmospheric Pressure
- 6 Short Wave Radiation
- 7 Long Wave Radiation
- 8 Soil Temperature (7 level)
- 9 Soil Moisture (6 level)
- 10 Rain

## Balloon experiment at VBIT (ISRO sponsored project)

Balloons are used today primarily for two purposes: For collecting information needed for weather forecast and for scientific research. Balloons play an important role in transporting weather instruments into the atmosphere upto an altitude of stratosphere level (nearly 35 km). Weather balloons typically carry packages of instruments called radiosondes with sensors (radiosonde is an instrument for collecting data in the atmosphere and then transmitting that data back to earth by means of radio waves) for measuring the temperature, pressure, humidity and other properties of air at different altitudes each day thousands of these radiosondes carried by balloons measure all possible characteristics of the atmosphere around the world. Meteorologists depend on this information for making short and long term weather forecasting.

Vignana Bharathi Institute of Technology (VBIT) started a new project in its research activities by launching the prestigious balloon flight experiments with financial support from Indian Space Research Organization (ISRO) on 20.04.2012. These balloon flights with GPS radiosonde instrument measure wind speed, direction, humidity, temperature and pressure with 4 to 5 meters resolution upto an altitude of nearly 35 km in the atmosphere.

The project is a collaborative experiment among three institutions - Space Physics Laboratory (SPL), VSSC, Trivandrum; National Atmospheric Research Laboratory (NARL), Gadanki and VBIT.

Scientific objectives of the project are:

1. To study the gravity wave activity in the Indian tropical zone.

2. To study stratosphere-troposphere exchange through observations of water vapour across the tropopause and dynamical coupling between the two regions.

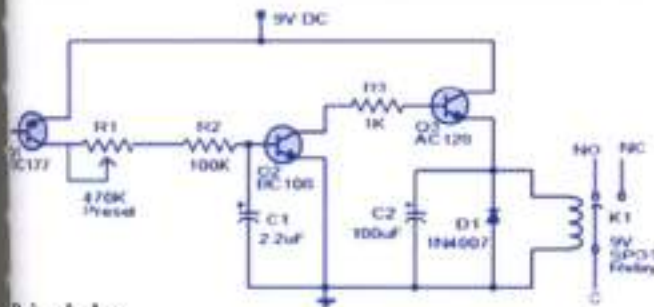
High resolution simultaneous measurements of wind and temperature are of great help to characterize gravity waves and to find vertical flux of horizontal momentum. Thus the dynamical coupling between troposphere and stratosphere will be investigated through these measurements of energy and momentum flux.

The tropical tropopause is of great scientific interest since tropical regions play a key role in global climate. The tropical tropopause region is an important source of stratosphere-troposphere exchange. Hence the data obtained from these balloon flights is used to monitor the tropopause during different seasons and to find its relation to stratosphere-troposphere exchange. Accurate measurements of the tropopause altitudes and temperatures will be of great help to study the important features of the atmosphere.

Total 160 balloon flights are scheduled in this project in three stages to study the above mentioned objectives during pre-monsoon (April & May 2012), Monsoon (July & August 2012), post-monsoon (October & November 2012) and winter (January & February 2012) with 40 flights in each season. The data collected from these three stations (SPL, NARL & VBIT) using the above system will be utilized to quantify different wave activities in the Indian tropical zone.



## Fire Alarm Indicator



### Principle:

Transistor acts as switch based on heat sense.



### Output

### COMPONENTS:

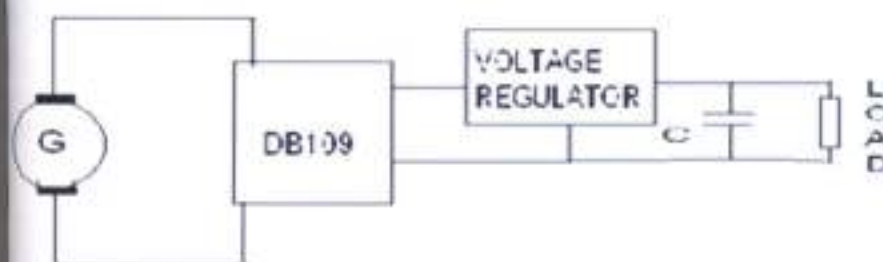
- Transistors:
  - BC 177-1 no's
  - BC 108-1 no's
  - AC 128-1 no's
- Resistors:
  - 100k-1 no's
  - 1k-1 no's
- Capacitors:
  - 2.2uF-1 no's
  - 100uF-1 no's
- Diode IN4007
- 6.500k Preset
- 7.9V Relay
- Piezo electric Buzzer

### Description

To control the fire disasters at any place we can install a fire alarm indicator. When there is a fire breakout in the room, Transistor BC177 is used as the fire sensor. When the temperature increases, the leakage current of this transistor also increases. Increase in the leakage current of Q1, transistor Q2 will get biased will be on. So, when Q2 is ON Q3 will be also ON. The transistor Q3 drives the relay which is used to drive the load i.e., light, bell, horn etc as an indication of the fire. The diode D1 is used as a free wheeling diode to protect it from back EMF generated when relay is switched.

### Construction

- The Preset R1 can be used to desire temperature level for setting the alarm ON.
- The circuit can be powered using a 9V battery
- All capacitors are electrolytic and must be rated at least 10V.
- The load can be connected through the C, NC, NO points of the relay according to your need.
- The calibration can be done using a soldering iron, and a thermo meter. Switch ON the power supply. Keep the tip of soldering iron near to the Q1. At the same time also keep the thermometer close to it. When the temperature reaches your desired value adjust R1 so that relay gets ON. Your circuit is ready!!!



### Components

- Generators
- Gearbox
- Spring
- Capacitor-10<sup>4</sup>(-3)f
- Voltage regulator-7805

### Working Principle

Mechanical energy is converted into electrical energy due to the motion of the feet during walking.

### Description

Shoe generator is basically a shoe which produces electricity while walking. The to and fro motion of crank transfers mechanical energy to the generator while walking this mechanical energy is amplified by using a set of gears between generator and crank. The crank is pushed back to its initial position by a spring. The output which is produced by the generators is rectified into dc and is fed to any chargeable device.

## Shoe Generator

### Construction

- Take a shoe and place a pair of generators in the heel.
- Generators are coupled to a crank projecting out of the heel.
- The generator and crank are coupled through a gear box .
- The terminals from the generator drawn from behind the heel through a hole which are connected to charger pin.





# Let us know

## INTEL CHIP DESIGN



Step 1: Sand - especially Quartz - has high percentages of Silicon in the form of Silicon dioxide ( $\text{SiO}_2$ ) and is the base ingredient for semiconductor manufacturing.

Step 2: Silicon is purified in multiple steps to finally reach semiconductor manufacturing quality which is called Electronic Grade Silicon. Electronic Grade Silicon may only have one alien atom in every one billion Silicon atoms. In this picture you can see how one big crystal is grown from the purified silicon melt. The resulting mono crystal is called Ingot.



Step 3: An ingot has been produced from Electronic Grade Silicon. One ingot weighs about 100 kilograms. The Ingot is cut into individual silicon discs called wafers. They are polished until they have flawless, mirror-smooth surfaces.



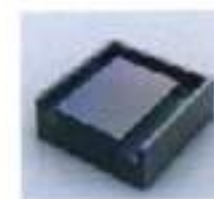
Step 4: The liquid (blue here) that's poured onto the wafer while it spins is a photo resist finish similar as the one known from film photography. The wafer spins during this step to allow very thin and even application of this photo resist layer.



Step 5: The photo resist finish is exposed to ultra violet (UV) light. The exposure is done using masks that act like stencils in this process step. When used with UV light, masks create the various circuit patterns on each layer of the microprocessor. A lens (middle) reduces the mask's image. So

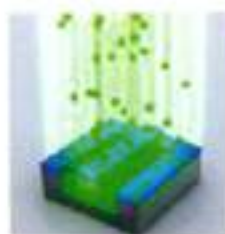
what gets printed on the wafer is typically four times smaller linearly than the mask's pattern.

Step 6: Usually hundreds of microprocessors are built on a single wafer but this picture focus is only on a small piece of a microprocessor. A transistor acts as a switch by controlling the flow of electrical current in a computer chip.



Step 7: The gooey photo resist is completely dissolved by a solvent. The photo resist is protecting material that should not be etched away. Revealed material will be etched away with chemicals. Now desired shape becomes visible.

Step 8: There's photo resist applied, exposed and exposed photo resist is being washed off before the next step. The exposed areas of the silicon wafer are bombarded with various chemical impurities called Ions. Ions are shot onto the surface of the wafer at very high speed.



Step 9: After the ion implantation the photo resist will be removed and the material that should have been doped (green) has alien atoms implanted now (notice slight variations in color).



Step 10: Three holes have been etched in insulation layer (magenta color) above the wafer. These three holes will be filled with copper. These will make up the connections to other transistors. The wafers are put into a copper sulphate solution as this stage. The copper ions are deposited into the holes through a process called electroplating.

The copper ions travel from the positive terminal (anode) to the negative terminal (cathode) which is represented by the wafer.

Step 11: On the wafer surface the copper ions settle as a thin layer of copper. The excess material is polished off.



Step 12: Multiple metal layers are created to interconnect in between the various transistors. These connections are determined by the architecture and design teams that develop the functionality of the respective processor. While computer chips look extremely flat, they may actually have many layers to form complex circuitry.



Step 13: This fraction of a ready wafer is being put to a first functionality test. In this stage test patterns are fed into every single chip and the response from the chip monitored and compared to "the right answer".



Step 14: The wafer is cut into pieces (dies). The dies that responded with the right answer to the test pattern will be put forward for packaging.

Step 15: The substrate, the die and the heat spreader are put together to form a completed processor. The green substrate builds the electrical and mechanical interface for the processor to interact with the rest of the PC system. The silver heat spreader is a thermal interface where a cooling solution will be put on to. This will keep the processor cool during operation.



**Note: A microprocessor is the most complex manufactured product on earth. In fact, it takes hundreds of steps - only the most important ones have been visualized in this picture story to help you understand microprocessors.**



## Water Power Clock



Can we run a clock without battery or external power supply? YES! We can.

Water Powered clock runs itself on natural power with built-in memory chip. It is ideal for home or office. Clock

works on filling the tank with water and you can change the water after 12-14 weeks.

*WOW!! Hurry Up! Let us Buy!*

## Sony Smart Watch

First was the Smartphone, now the Smart watch. I knew this would happen and just like how many states outlaw use of cell phones while driving, this will soon be there also.

This watch informs you when you have a Twitter, Email or Facebook message and allows to read them on a 1.4 inch screen. So there you have it, the Smartphone is in your pocket and the Smart-watch on the wrist telling you the same dumb texts or Facebook or Tweets to distract you while driving



## Latest Technologies

### Imagine Carrying Laptop Like a Yoga Mat!

Sounds Exciting!!!! Isn't it???



Germany's Orkin Design proposes rolling up both devices into one ultra-portable package. The Roll top concept will take advantage of advances in flexible OLED and touch screen technologies to create a cylinder-shaped laptop computer that can be rolled out to form a notebook, a tablet, or display monitor. The Roll top concept proposes

bringing everything together in a flat panel display that's wrapped around a central cylinder. The top of the column detaches and acts as a power plug while the carry strap doubles as a power cord the central column also contains speakers, a camera, USB ports, and a LAN port.

After unlocking the catch, the user would roll out the Roll top display like a mat and then either leave it flat for 17-inch tablet computing,

or raise one end up for something resembling a notebook. The lower part of the screen is then used for keying on a virtual, onscreen keyboard while the upper part becomes a 13-inch display for viewing content. A pull-out support at the back also allows the flattened device to be used as a monitor-like display, and a stylus pen has been incorporated into the body of the panel. When rolled up, Roll top will be 11 inches (28 cm) long and have 3.26-inch (8.3-cm) diameter.



## Pavegen Sidewalks Tiles

- Create electricity when walked on



Using the power of crowd-sourcing, one British company has developed paving slabs made of recycled rubber, which when stepped on; convert the kinetic energy into usable electricity. Enough to power an LED light for 30 seconds. The technology is called Pavegen Tiles, developed in part by Laurence Kembell-Cook, a 25 year old engineering graduate. It converts human traversal into electricity. When you step on one of these devices, they depress 5mm and a small led light is lit up in order to give the user a sense of feedback for their action. The small light only uses 5% of the energy that's collected from the step. The twenty PaveGen tiles to be placed are expected to generate enough electricity to power at least half of the malls outdoor lighting needs.



## Paper Battery



Paper batteries may be folded, cut or otherwise shaped for different applications without any loss of integrity or efficiency. Stacking them multiplies power output. Early prototypes of the device are able to produce 2.5 volts of electricity from a sample the size of a postage stamp.

Generally we use paper for writing or printing, but one of the interesting facts is that low-cost, durable, lightweight battery can be made from paper by dipping an ordinary piece of paper into ink infused with carbon nanotubes and silver nanoparticles, scientists have been able to create a low-cost battery or super capacitor that is ultra-lightweight, bendable and very durable. The carbon is what gives the battery its black color. The nanotubes act as electrodes; allowing the storage of energy to conduct electricity when the paper comes into contact with an ionic solution.

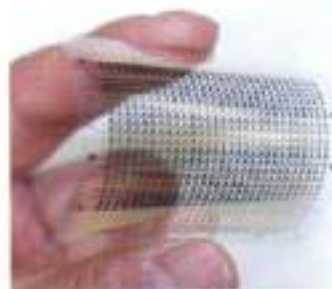
The paper battery can be crumpled, or even soaked in acidic or basic solutions and still will work. Non-toxic, flexible paper batteries have the potential to power the next generation of electronics, mobile devices and hybrid vehicles, allowing for radical new designs and applications in various technological fields.

## Plastic Memory

A new memory technology promises to store more data at a lower cost than the expensive-to-build silicon chips used. The magical ingredient isn't smaller transistors or cooked up with a semiconductor device but it is a plastic that is used in our daily life. This new technology developed by researchers at Princeton University and HP Co.

Plastic Memory is a two-terminal device. It consists of gold nanoparticles mixed into a polymer named PEDOT enclosed between perpendicular aluminum electrodes, namely anode and cathode. PEDOT conducts electricity at low voltages, but operates as a semiconductor at higher voltages.

The memory can be repeatedly written or erased using voltage pulses. Used voltages are  $-4V$  or  $+4V$ . The voltage applied to a given cell can modify the organic nature of the polymer at that spot, changing it from one state to another. This conducting plastic can store megabits of data in a millimeter square device. This memory is 10 times denser than the current memory in use.



In spite of low cost and high storage capacity, plastic memory is based on the principle of non-volatile memory, which can be read many times and is not limited to digital data only. Now, HP Corporation is ready to use this technology in the general consumer applications. Let us hope we will see more applications of plastic memory in the next coming days.

Plastic memory technology promises to store more data at a lower cost than the silicon chips used in cell phones and music players. This new technology can be read very fast with low consumption. Plastic-based solutions create a static section for incoming data. This ensures the integrity of the data on documents is preserved over long periods of time.

## Wireless Power Transmission

Wireless power transmission has been a dream since the days when Nikola Tesla imagined a world studded with enormous Tesla coils. But aside from advances in recharging electric toothbrushes, wireless power has so far failed to make significant inroads into consumer-level gear.

*What is it?* This summer, Intel researchers demonstrated a method—based on MIT research—for throwing electricity a distance of a few feet, without wires and without any dangers to bystanders (well, none that they know about yet). Intel calls the technology a "wireless resonant energy link," and it works by sending a specific, 10-MHz signal through a coil of wire; a similar, nearby coil of wire resonates in tune with the frequency, causing electrons to flow through that coil too. Though the design is primitive, it can light up a 60-watt bulb with 70 percent efficiency.

When is it coming? Numerous obstacles remain, the first of which is that the Intel project uses alternating current. To charge gadgets, we'd have to see a direct-current version, and the size of the apparatus would have to be considerably smaller. Numerous regulatory hurdles would likely have to be cleared before commercializing such a system, and it would have to be thoroughly vetted for safety concerns.

Assuming those all go reasonably well, such receiving circuitry could be integrated into the back of your laptop screen within roughly the next six to eight years. It would then be a simple matter for your local airport or even Starbucks to embed companion power transmitters right into the walls so you can get a quick charge without ever opening up your laptop bag.





We all have dreams. We all have the ability to make our dreams come true as well. In our daily life, many things challenge us from time to time. Sometimes we can feel them slipping through our fingers like grains of sand. Seeing our dreams fall away from us can cause us to lose hope and feel as if there is nothing more we can accomplish in life. But, remember, that there are infinite ways to achieve our dreams.

'Never give up' always give you a second chance. We may fail sometimes but it absolutely does not mean that we will fail every time. Thomas Alva Edison, one of the most famous inventors in the 20th century, tried more than one thousand times before he found out that tungsten was the right material for the electric bulb. It's not likely to achieve a great success by the first try. The real success is always based on a great deal of failure.

## Success Mantra

"Never ever give up because I can always see the coast and it brings me courage all the time." This is what the girl who swam across the English Channel successfully answered when the reporter asked what had made her reached her goal. To be able to see the goal helps us a lot when we feel frustrated somewhere and even almost lose our confidence. In the long term to success, hope is our belief and it can make us be very strong when we face great difficulties. Some people failed simply because they lost their sight of their goal although they are very qualified and capable.

No matter how hard we work for our success, if our thoughts are saturated with the fear of failure, it will kill our effort, neutralize our endeavors and we will be ready to give up. It is necessary that we should be confident enough to succeed, and must be committed for the achievement of goals.

Hence, if we are really passionate for something and want to achieve it by hook or crook, then we need to put on hard work for the same, have patience and intellect along with it. Giving up is always a sign of failure and not a passion. So, "Never give up" is always the secret mantra of success.

***"Never give up" is always the secret to success"***

## Inspiration Real Story

Nicholas James Vujicic is an Australian motivational speaker born on 4 December, 1982 with the rare Tetra-amelia disorder: limbless, missing both arms at shoulder level, and legless but with two small feet, one of which has two toes. Initially, his parents were devastated. Vujicic was otherwise healthy.

Throughout his childhood, Nick dealt not only with the typical challenges of school and self-esteem issues but also struggled with depression and loneliness. Being bullied at his school, Vujicic grew extremely depressed, and by the age of 10, started contemplating suicide.

A key turning point in his life was when his mother showed him newspaper article about a man dealing with a severe disability. This led him to realize he wasn't unique in his struggles and began to embrace his disability. He began to master the daily tasks of life. He learned to write using the two toes on his left foot with a special tip that slid onto his big toe. He learned to use a computer and type using the "heel and toe" method. He learned to throw tennis balls, play drum pedals, get himself a glass of water, comb his hair, brush his teeth, answer the phone and shave. These are only some of the aspects to talk about his greatness.

When he was seventeen, he started to give talks at his prayer group, and eventually started his non-profit organization, "Life Without Limbs". Nick graduated from college at the age of 21 with double major in Accounting and Financial Planning. He began his travels as a motivational speaker, focusing on the topics that today's managers face. In 2005 Vujicic was nominated for the "Young Australian of the Year" Award.

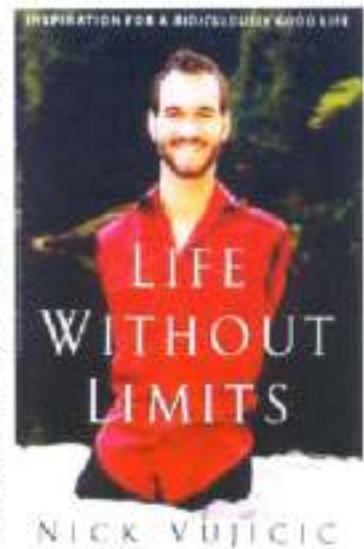
By the age of 25, Nick hoped to become financially independent. He wished to promote his words through television shows such

as well as by writing books. Vujicic's first worldwide television interview featured on 20/20 (ABC) with Bob Cummings was aired on March 28, 2008. He marketed a DVD for young people titled "No Arms, No Legs, No Worries: Youth Version." He starred in the short film The Butterfly Circus which won the Doorpost Film Project's top prize of 2009 and the Best Short Film award at the Method Fest Film Festival, where Vujicic was also awarded Best Actor in a short film. His first book, Life Without Limits: Inspiration for a Ridiculously Good Life was published in 2010.

On 12 February 2012, he married, Kanae Miyahara. Vujicic currently lives in California. Today, this limbless young man has accomplished more than most people wish to accomplish in a lifetime. It is more than an achievement and it is unthinkable by normal human being.

***"If I fail, I try again, and again, and again. If YOU fail, are you going to try again? The human spirit can handle much worse than we realize. It matters HOW you are going to FINISH. Are you going to finish strong?"***

Nick Vujicic





# Stu Corner

## Riddles

1. What can run but never walks, has a mouth but never talks, has a head but never weeps, has a bed but never sleeps?
2. You use a knife to slice my head and weep beside me when I am dead. What am I?
3. What jumps when it walks and sits when it stands?
4. Until I am measured, I am not known. Yet how you miss me, When I have flown! What am I?
5. I'm light as a feather, yet the strongest man can't hold me for much more than a minute. What am I?



**'THE RIDDLE'**

## General Knowledge

1. What do you call a person who is one hundred years or older?
2. Which is the world's first credit card?
3. In X-Rays what does X mean?
4. What is Vexillology the study of?
5. How can we determine age of a tree?



## Interesting Facts

1. A 'jiffy' is an actual unit of time for 1/100th of a second.
2. It took radio broadcasters 38 years to reach 50 million audience, television 13 years and the internet just 4 years.
3. No piece of paper can be folded in half more than 7 times.
4. A volcano has enough power to shoot ash as high as 50 km into the atmosphere.
5. By recycling just one glass bottle, the amount of energy that is being saved is enough to light a 100 watt bulb for four hours.
6. There have been 113 space shuttle flights since the program began in 1981.

## Ganesha Symbolism



## Puzzles

1. Of three men, one always tells the truth, one always tells lies, and one answers "yes" or "no" randomly. Each man knows which one each of the others are. You may ask three yes/no questions, each of which may only be answered by one of the three men, after which you must be able to identify which man is which. How can you do it?



2. You have two slow-burning fuses, each of which will burn up in exactly one hour. They are not necessarily of the same length and width as each other, nor even necessarily of uniform width, so you can't measure a half hour by not-ing when one fuse is half burned. Using these two fuses, how can you measure 45 minutes?
3. You must cut a birthday cake into exactly eight pieces, but you're only allowed to make three straight cuts, and you can't move pieces of the cake as you cut. How can you do it?

4. You've been asked to buy 100 chocolates, using 100 rupees to do so. You may buy no more or less than 100 chocolates, and the total price must be exactly 100 chocolates. There is no sales tax. Red chocolate cost Rs.6.00. Yellow chocolates cost Rs.3.00. Blue chocolate cost Rs.0.10. How many of each must you buy?

## VBIT Students meets CEO, Pega Systems



VBIT Students attending talk on 'Tech Trends for Next Gen', organised by 'The Hindu Education Plus' in association with Pegasystems to throw light on the trends in new technologies and innovations in the IT sector. Alan Treffer, founder and Chief Executive Officer of Pegasystems Worldwide interacting with participants. Image courtesy 'The Hindu Education Plus' 20th August 2012.



## WORKSHOPS

1. Department of H&S organized a one day workshop on "Challenges in Teaching English to the Students of Vernacular Background in Professional Colleges" on 07th September 2012 .Prof. D.S.Kesava Rao, NIT Warangal, Prof. M. Hari Prasad, EFLU and Mrs. SreeLakshmi, Associate Professor, VBIT gave lectures on the title.
2. Department of Information Technology conducted an Online Spoken English Workshop by IEEE Mumbai in which two students got qualified and certified.
3. Department of ECE in association with IEEE and IETE branch associations organized a two day workshop on "OCTAVE" on 14th, 15th September 2012 (Resource Persons: Sri Lanka Satya Prasad - Associate, Academic Chapter Swecha and Prof. Nookala Srinivasa Rao ECE Dept-MREC, Associate, Academic Chapter-Swecha were the guest speakers.)
4. Department of ECE in association with IEEE-VBIT SB and IETE branch associations organized a two day workshop on "Chip Designing using HDL" on 21st & 22nd September 2012 .(Resource : Vedic School of VLSI Design conducted this workshop.)

## INDUSTRIAL TOURS

1. Two days industrial tour to "Srisailem Hydro Electric Project" was organized by Mechanical Department exclusively for IV year students.



## INAUGURALS



1. Ganith, a Math Club of VBIT was inaugurated by Prof. V. Kannan of Hyderabad Central University on 18th August 2012.

2. Eco-club, a Green initiative club was inaugurated by Mr. Vijay Rama Kumar on 24th August 2012. The club focuses its attention on the environmental issues.



## STUDENT BRANCHES

1. STREET CAUSE collaborated with ECO-CLUB conducted plantation drive in the college premises on 15th September 2012 on the occasion of Engineers Day.



## ORIENTATION

Orientation Program for the 2012-16 batch students was held on 26th September at the college campus.

### IEEE-VBIT SB

1. A Technical Discussion on "Grid Collapse" was conducted on 16th August 2012.
2. IEEE VBIT-SB, being a proctored center, conducted National Programming League by NIT Warangal on 25th August 2012.
3. IEEE-VBIT celebrated Teacher's Day on 5th September 2012 in the honor of Sir. Sarvepalli Radhakrishnan.
4. 15th September 2012 was celebrated as Engineers Day, in the honour of Sir.M. Vishveshvaraya. To relive the essence of this day IEEE-VBIT SB has come out with a plan to celebrate it in a technical way. PES, IEEE-VBIT conducted an event "Teenovision - Inventing from Scrap."
5. Talk on HTML-5 by Mr. Neil Gosh - Chairman, IEEE Gold Affinity group- Hyderabad Section.

## SEMINARS/GUEST LECTURES

1. ECE students had a guest lecture on "Recent Trends in Telecommunication Technology" on 18th August 2012 by Mr. P.Ravi Prasad, Joint Director, IT&C Wing, AP Secretariat.
2. Mechanical students had a guest lecture on "Engine Vibrations" on 20th August 2012 by Mr. Murali, NIT Warangal
3. CSE students had a guest lecture on "Computer Networks" on 14th September 2012 by Mr. Radha Krishna, a scientist from CCMB.

## SPORTS

1. VBIT Kabbadi Team won second prize in the competition held in Gopal Reddy Engineering College on 19th August 2012.

2. Sandeep and Naresh Naik, students of IT and ECE respectively secured second and third positions in "Short put" competition held in Gopal Reddy Engineering College on 19th August 2012.



### IEEE-VBIT SB

1. Student based work shop is going to be held on robotics under Power & Energy Society.
2. IEEE Day celebrations is going to be held on 6th October 2012.
3. CODEX-Coding Competition is being held under IEEE Computer Society.
4. DRUPAL training programme, a two day hands-on workshop scheduled on 18th & 19th October 2012 under IEEE Computer Society.

**UPCOMING EVENTS**

This Month

|    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|
| 5  | 6  | 7  | 8  | 9  | 10 | 11 |
| 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 26 | 27 | 28 | 29 | 30 | 31 |    |





**VIGNANA BHARATHI**  
Institute of Technology

# VIBRANT STUDENT FORUMS

ROBOTICS CLUB



CSE & IT BRANCH ASSOC.



ECE BRANCH ASSOC.



STUTALK-NEWS LETTER



IEEE-STUDENT BRANCH



MECHANICAL BRANCH ASSOC.



ELECTROKZ  
EEE BRANCH ASSOC.



MCA BRANCH ASSOC.



IETE-STUDENT BRANCH



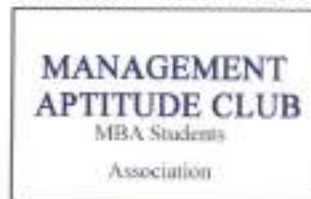
SOCIAL SERVICE ASSOC.



MATHS CLUB



MBA BRANCH ASSOC.



MUSICAL CLUB



SPORTS CLUB



ENVIRONMENTAL CLUB

