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Not just magnitude, but direction also!

# VECTOR

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YOUR CODE OF THOUGHT

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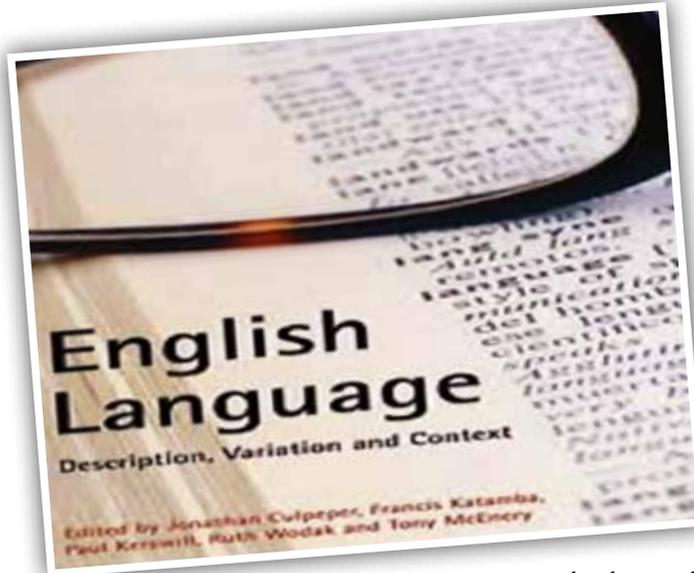
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## The Power of English

Excelling at a competitive entrance exam, acing an interview, managing a team of people in a company effectively- what do all these activities have in common? If you think it's all about intelligence then you are right in part, but doing well in all the mentioned activities also requires a great command over English.

English is the most widely spoken language. It is considered as the language for business communication. This is exactly the reason why English is so important. All entrance exams test English since it is an integral part of any occupation. Doctors, engineers, businessmen, architects, research scientists - virtually any type of occupation you can think of does require a person to communicate in English at some point of time or the other. In fact, Kent, a British research agency has found out that the top skill desired by companies such as Microsoft, BBC etc. from a candidate who wishes to get a job is good verbal communication.

Unfortunately, as students we do not focus on studying the language as much as we should. This is mostly because as young kids, we are not told how important learning English is. However, in school we at least read a bit since English is a part of the curriculum. The habit of reading actually reduces after the 10th grade - when students select their field of higher education and the spotlight falls on all subjects other than English. It is very important that one inculcates good habits such as reading good novels, reading an English newspaper and conversing regularly in English. In fact, English is so important that virtually all entrance exams have a section that tests the candidate's English skills. For example, even for a technical exam such as the GATE, the IITs have introduced a special section called General Aptitude which asks certain questions on English. The importance of English is much higher for management entrance exams. For example - in the CAT, the entrance exams to the



IIMs, the weightage given to English is more than the weightage given to Math. So for example, if a person scores 70 percentile in English and 90 percentile in Math at the CAT, the overall

percentile will be much closer to the English percentile than what it is to the Math percentile.

Also, English is unlike any other subject in that, other subjects can be mastered in a year or two but English takes many more years of practice to master. The only way to master the language is to use it as frequently as possible. Reading, listening, speaking and writing in English are the only ways in which one can improve one's English.

In conclusion - it would be farfetched to say that how well you do at exams and in life depends on how well you know English; but it is certainly true that mastering the language does give you a significant advantage over others.

## Corridors To Revelation



In about one year I'll be an ex-student of Vidyalankar Institute of Technology. My college has played an important role in my life. Apart from providing education, my college has helped me to develop my personality and increase my confidence. One such event known as Corridors to Revelation (CTR) played an important role in building my personality. I was the student head for CTR 2013 and thoroughly enjoyed putting together this event.

'Corridors to Revelation' is an event which is mainly organized for those students who have just passed 12th and are aspiring to be engineers. This event has been taking place in our college since past three years. This event mainly aims to solve the doubts of the students regarding Engineering.

This year the event took place on 21 June. The event began with a seminar where the parents and the students attending were briefed about the various branches about engineering. They were also informed about the various courses offered at VIT. The students and the parents were also taken on a guided tour of the college to explain to them how an engineering college works. At the end of the tour the students were led to the department stalls where the students and parents got their queries resolved regarding the syllabus and the future scope of each branch offered by VIT. These department stalls were managed by our college students under the guidance of the faculty. Four such sessions took place and around 150 students attended this event.

I would like to use this opportunity to thank Fondekar Ma'am for guiding me and giving me a chance to organise this event. Also I would like to thank all the students and the faculty members for making this event a successful one.

-Shraddha Rao  
BE INFT

India's currency the rupee has fallen to an all time low, putting pressure on nearly every facet of the once booming economy. The depreciation is affecting many who are already hurt by the country's high inflation rate. Effects of the rupee's depreciation will spread across much of the Indian economy, with most people eventually feeling the pinch. Not only will imports, such as electronics and auto parts, be more expensive but fuel costs will likely also go up. India is the world's fourth largest importer of oil relying on imports for 80 percent of its crude needs. Rising fuel prices means higher transportation costs that will hit consumers already dealing with high food inflation.

India is not alone in seeing its currency depreciate. Other emerging markets like Brazil and South Africa have also been affected by the strengthening of the dollar. But economists here say the rupee was already under pressure from a high fiscal deficit, untamable inflation and a lack of foreign direct investment. However, the depreciating rupee is ex-

## Why Is The Rupee Falling?



pected to boost earnings of the companies in the information technology & pharmaceuticals sector.

Factors like strengthening of the dollar index overseas, strong importers demand and the continuous capital outflows have put more pressure on the rupee. The depreciation has exposed India's structural problems, such as an elevated current ac-



### WHY IS THE RUPEE FALLING?

-  Stronger demand for the currency will push up its price and vice versa
-  The US Federal Reserve has announced phasing out of easy monetary policy the third round of quantitative easing (QE3) that will take out money from countries such as India raising demand for dollars
-  Part of this money came into Indian equities
-  Capital inflows totalled \$88 bn (Rs.4,84,000 cr) in 2012
-  With Fed signaling a rollback, portfolio investors are withdrawing money from Indian markets

count deficit (CAD), balance of payment, inflation and adverse fiscal deficit. If the depreciation in the rupee continues, then it will further swell inflation, making it difficult for the RBI to cut policy rates this month also. A weak currency has historically had an adverse impact on equity markets, given their sensitivity to FII flows.

Moreover, the rupee's depreciation will lift input costs across many sectors amidst weak demand environment as reflected in low double digit top line growth expected in 2013-14.

Student Editor: Ganesh Chandrakant Gite (VIT-MMS 2nd year)

# How Technology is Changing the Way Kids Learn

**T**echnology is by no means synonymous with learning. When you think technology, you think touch screens, tablets and wifi. Throw in a cheaper Internet connection for courtesy's sake. But technology as a doorway to greater knowledge does not necessarily come to mind. Suffice it to say that you're not the only one with similar beliefs. This century has been dubbed the age of information. Why? Simply because information is literally at our fingertips. The world wide web is like a hinterland of knowledge with pockets of information to be extracted, some superficial while some need excavating.

The extent of what you can find on the Internet is staggering to say the least. It is like going to the world's largest supermarket where you can get anything under the sun and probably some more. Attending schools and colleges may as well become a thing of the past as you can get online courses, video tutorials, e-books and downloadable content. You can also get certified from the comfort of your home. Online learning portals let you connect to an entire community of students, peers, teachers and experts sharing similar interests.

The Internet however is just the tip of the iceberg. Toddlers and young kids are growing up adopting digital technologies before they even learn how to spell or read. This shows a greater relative cognitive difference between kids and adults who at times take even, ahem, longer to get accustomed to certain technologies. Note that though the adults have a deeper understanding of what is “beneath the hood”, it is ultimately the lower age group acting as early adopters of new technology. Retail site Angiolotto did a research which concluded babies as young as six months are already



playing with their parents' electronic devices while more than 50 percent children between 5 and 8 years old have used tablets as educational tools. These statistics continue to rise as kids age. 71 percent of teenagers think they learn more about IT outside of school than in their classes. Using tablets and computers becomes second nature to children as these are touch oriented and have a high level of inter-

activity. Involving the sense of touch facilitates the learning curve as it is more intuitive and most educational apps/software provide immediate feedback to the child regarding progress and performance.

Traditional means of education have become a little obsolete paving the way for interactive learning as the mainstream solution. This results in a faster diffusion of newer

technologies and innovations allowing them to be accepted faster and understood better. However, the trend witnesses an apprehensive older generation of parents who find themselves allowing kids access to technology which they can barely catch up with. For children, it means larger and better avenues of learning while at the same time keeping up with the fast paced technological world.

## The perks of being an Engineering student!

**E**ngineering as a career choice? For some of you, it was an obvious inclination toward technology and the decision to pursue engineering came naturally. For some others it could as well have gone about this way-“Mrs. Iyers's son is in the US earning lakhs per year. Engineering got him there. Why should Mrs. Kaur not let her puttar tread down the same bright future?” For the rest of you, I assume, you still have no clue why you are here. Nevertheless now that you are, all hell breaks loose once you start with these 4 years of your student life. It's a mix of strenuous vivas, month long exams that never seem to end, exhausting schedules but with its own dash of fun, friends, hangouts, inside jokes, and all the little bouts of joy that you are able to attain in between lectures.



Just to get some facts out right at the beginning, your life as an engineering student would most probably go down strictly according to these few universal truths:

1. Every class WILL have a student A and B. A would be the handsome and studious kind while B would be the joker-cum-average guy

- who feels he knows everything there is to know.(Well just until the Mechanics results are out.)
- ATKTs will sooner or later turn you from being an atheist to a firm believer in the heavenly power.
- For a Mumbai University student, no reference book can ever match up to the potentials of 'Easy Solutions'.
- When the exam starts, the first few minutes are spent in finding out

- which questions are from the syllabus you covered and the next few on analyzing your classmates' expressions to re-assure yourself that you aren't the only one.
- In vivas students blurt out not what is asked but what is known to them. It's up to the examiner to ask the right questions accordingly.
- The more boring the lecture, the higher the chances of you discovering the hidden cartoonist in you.

Now that the facts are out in the open, looking at some of the myths going around the college; most endearing of them all being: “I will study from the start of the next semester.” I wouldn't say anything more about how that plan works out. Semesters start off, lectures and practical sessions take up most of your gifted life, assignments start pouring in and with fests and events another semester goes by within the blink of an eye.

And how can the day be done without a trip to the cafeteria. It might as well be the easiest and one quick stop way to know about all the things happening around the campus at one go. Here's probably how the CCTV's feed would go like:

**8.00 am:** Chairs sitting on top of tables and probably 3 fans working. Cleaning is in progress.

**8.45 am:** Students start pouring in. Animated conversations about who's dating whom, new hair-cuts, new movie releases, submission dates, 'that' boring lecture are heard all around.

**11.00 am:** Two professors enter discussing how the student quality has declined over the years.

**1.15 pm:** 1) Student X is made to order a huge pile of food for a number of people. It's X's birthday. 2) Some guy consoles a visibly heart-broken girl at table 4.

**4.45 pm:** Time for that last meal before you step out into the outside wide world.

[Oh and during viva times, external examiners are frequent visitors to this holy shrine. Everyone knows where to find them.]

With all this happening in our daily routine, there's hardly any time left for what is actually supposed to be done. And that's where the PL comes in. PL is the holiest time for an engineer as “thy shalt readeth the books boughteth for the first time.” Before the PL starts you make grand plans of hangouts with friends and each one would boast about the ignorance towards a subject each one has. In any case on the day of the exam, everyone thinks they are prepared to pass, somehow. But even if you don't, and end up getting an ATKT, it doesn't really matter as long as your attitude towards it is healthy enough. It's all about the good times in between!

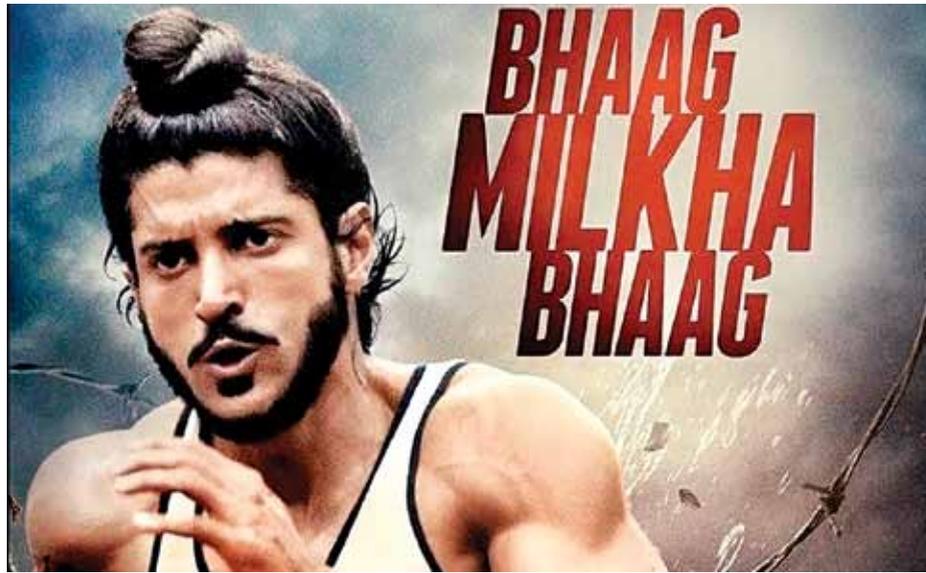
—Shreya Prabhu,  
TE Comps

# Film Review – Bhaag Milkha Bhaag

**B**haag Milkha Bhaag is the story of the greatest athlete, the greatest sportsman India has ever produced. In an age of Tendulkars, Dhonis, and Anands, this champion of a man, who has won 77 out of 80 International races he has participated in, is forgotten. So to make a movie on Milkha Singh, to reincarnate his personality was a debt on our generation to him.

Unfortunately Bhaag Milkha Bhaag doesn't live up to expectations. With the running time of 3 hours 15 minutes, the movie is excruciatingly long, filled with melodrama in a vicious ploy to emotionally blackmail the audience into liking this movie. The unnecessary flashbacks, showing every race in slow motion, redundant songs sprinkled across the movie are just some of the reasons which make you curl your fist in anger.

Farhan Akhtar, who portrays Milkha Singh, leaves no stone unturned in developing the perfect physique. His dedication to the role is commendable. The same cannot be said about his acting though. His Punjabi is awkward to say the least. His performance in critical scenes feels really average, except one scene where he contemplates his future in front of the mirror after crashing out in the heats of 1956 Melbourne Olympics. In another scene, when Milkha revisits Pakistan after the horror of witnessing his family getting murdered, the cinema hall burst out laughing at what was supposed to be the most harrowing experience in Milkha's life. I guess that settles Farhan's acting credentials. Sonam Kapoor plays Biro, Milkha's love



interest. Her only job in this movie, like every other movie she has ever done, is just dancing around with her dupatta while giving the largest laugh possible. Reports suggest she took only 11 lakhs as her payment. After watching the movie, you'd feel that's overpriced. Divya Dutta, who portrays Milkha's elder sister Isri Kaur, is a delight to watch. Her overprotective nature towards Milkha brings out a special relationship which is heartwarming

and heartbreaking at the same time. The moment when Milkha goes to meet Isri in 'India da coat' is one of highlights of the movie. Other character roles of Pawan Malhotra as Milkha's coach, Dalip Tahil as Pandit Nehru, Yograj Singh as Indian coach, are played decently.

The music, composed by Shankar-Ehsaan-Loy with lyrics penned by Prasoon Joshi is flawless. Each song depicts a different time in Milkha's

life. Melodious and soulful, this is one of the finest works of the trio and Prasoon Joshi. The director is Rakeysh Omprakash Mehra, who earlier brought us Delhi 6 and Rang De Basanti. He clearly goes overboard by exaggerating every scene to a point where it dilutes the power of the moment. The screenplay, also written by Prasoon Joshi, could have been crisper rather than cheesy. The locations are amazing. Watching Milkha toiling in the snows and sands of the Himalayas is indeed thrilling.

But the story of this great Milkha Singh is so fascinating and inspiring that all of these shortcomings don't really matter. His patriotism is unparalleled. During the promotional spree for the movie, Milkha Singh repeatedly said he has only 2 regrets in his life. And he puts his failure to win a medal for India in 1960 Rome Olympics above him having to witness his family getting murdered. Such is his love for India. He expects this movie to inspire the next generation so they can win a medal for India. To quote him, "Jo medal Rome mein mere haathon se gir gaya tha, main chahta hoon koi desh ka nau-jawaan khada ho aur woh medal India ke liye jeet kar aaye". Everyone should watch this movie at least once to know the extreme hardships Milkha Singh had to go through for his entire life. It was this knowledge that prompted me to yell "BHAAG MILKHA BHAAG!" during the epic finale versus Pakistan's ace runner Abdul Khaliq.

—Akshay Elavia  
TE Computer Engineering

## Vidyalankar School of Information Technology

(Affiliated to Mumbai University)

Vidyalankar College Marg, Wadala (East), Mumbai-400037.

### T.YB.Sc (IT) SEM VI Result Ranks (March 2013)

Rank I



**Kotre Anagha Prakash**  
678/800

Rank II



**Shirke Julee Shashikant**  
645/800

Rank III



**Sherugar Deepika Suresh**  
623/800

### T.YB.Sc (IT) SEM VI Subject Toppers

Internet Technology



**Sherugar Deepika Suresh**  
124/150

Digital Signals And Systems



**Kotre Anagha Prakash**  
136/150

Data Warehousing



**Kotre Anagha Prakash**  
115/150

Project Management



**Kotre Anagha Prakash**  
124/150

IPR And Cyber Laws



**Bajaj Udit Satish**  
92/150

Project



**Gawde Yashodhan Vasant**  
192/200

## Vidyalankar School of Information Technology

(Affiliated to Mumbai University)

Vidyalankar College Marg, Wadala (East), Mumbai-400037.

### T.YBAF SEM VI Result Ranks (April 2013)

Rank I



**Lehal Rohit Sajjan**  
472/600 (78.67)

Rank II



**Sharon Eukveni Hariramamit**  
463/600 (77.17)

Rank III



**Satra Ankit Hemant**  
455/600 (75.83)

### T.YB.A.F SEM VI Subject Toppers

Financial Accounting VII



**Kaka Ritika Kailash**  
77/100

Cost Accounting Paper IV



**Sharonrukveni Hariramamit P**  
92/100

Auditing Paper IV



**Dhandurt Priyanka**  
80/100

Financial Accounting :  
Paper VIII



**Lehal Rohit**  
91/100

Taxation Paper IV :  
Direct Tax Paper – II



**Satiya Bhavini**  
91/100

Management Paper II : Principles  
Of Management & Applications



**Lehal Rohit**  
77/100

# The Smartphone and the Not-So-Smart Buyer

From the title most of you must have got an idea what this article is going to be about. Many of you must have already read about articles that tell you what to look for when you buy a Smartphone, as there are many such articles on the internet and also featured in newspapers. Then why should you continue reading this article you may ask. My answer to your this question would be, the most common thing about the articles done on this topic before is that they tell you what to look for when you buy your next Smartphone, but none of them seem to tell you about the many tricks that the companies, that manufacture and sell these Smartphone resort to, to boost their sales, that you need to be aware of. You may check the features of the Smartphone using the tips provided in the above mentioned articles but some shortcomings of the device may be so smartly hidden by the manufacturer that you may not notice them until you actually buy the device and use it. With this follows the constant sulking about how you were cheated and the occasional heartache every time your friend shows off a feature on his/her Smartphone that you were promised when you bought yours. The funny thing about all this being that the company did not actually lie to you but also did not tell you the truth.

So to rescue you my friends from this cruel and selfish world of advertising, I am writing the following points that cover how shortcomings in a particular feature of a Smartphone are smartly hidden by the manufacturer.

**1) OPERATING SYSTEM:** The very reason that we require or want a Smartphone is that it runs on an operating system that allows us to multitask or do much more than just call or message. Android, iOS, Windows, Blackberry OS are some major operating systems in the market. iOS and Blackberry are proprietary software and can be found only on devices by their respective companies, i.e. Apple and Blackberry respectively. Android is an open source operating system from Google while the right to use Windows Phone OS can be acquired from Microsoft. What this means is that to experience iOS and Blackberry OS you may have to shell out a little more cash than you would for the other two in the list. It's actually just a question of taste, if you prefer closed environment and highly secure software that can be least modified but provide smooth functionality you should prefer iOS and Blackberry OS. However if you like to play around with your device and would like to customize its each every aspect you should go for android. As for Windows phone OS it is new and refreshing in terms of graphics and more functionality is added to it with every update.

**2) Screen Size:** The part of your device that you will interact with most when you use the device is its screen. The larger the screen the better the device is the norm these days, or so it seems. Although a large screen is a big plus when you use a Smartphone, it's not the only aspect of the display that matters, what also matters is the screen resolution. While configuring games to play on the pc we are asked what resolution we want to play the game at, and what we observe is that higher the resolution we set sharper are the graphics we obtain. The same convention goes for smart phones. Higher the resolution of the display sharper the



screen of the device. This aspect matters when you use the device for web browsing and plan to read a web page. A higher resolution ensures that small text is readable and also images and text don't tear when you zoom in on them. Manufacturers nowadays provide large screens on devices in all segments, i.e. from low end devices to high end flagship devices. Then why does a 5 inch from a Chinese manufacturer cost 8,000 INR and a 4.7 inch from a well established brand cost 25,000 INR? Look closely; most devices in the lower segment of the market have a resolution of not more than 480x800 pixels, while those in the upper tier have resolutions as high as 1920x1080 pixels. The lower tier manufacturers fail to provide such resolutions on their device because they can't allow the cost of the device to increase. However sometimes even top tier manufacturers resort to such moves believing that being a comparatively well known company they can get away with it by advertising the quality of the material of the display and its size, thereby sidelining the resolution, and believe me, it does work. Sometimes terms such as AMOLED, Clear Black technology, IPS Panel, etc. and similar terms are used to highlight the display quality. These are various hardware and software innovations employed by manufacturers in display technology, and are effective. The confusion occurs when companies call their displays by different names forcing costumers to think that their displays are better than the rest of the companies though the technology applied may be same.

**3) RAM:** Although the processor is a very much advertised component of the device, believe me, without enough RAM to support it even the mightiest of processors fail to deliver. This will be confirmed by anyone who uses a pc. A minimum of 512 Mb of ram is sufficient to get the device running, but falls short when it comes to the support the device will receive in the future in terms of updates as also while running games or multitasking on your device. This happens because even if the processor is powerful, the RAM is unable to handle rendering such a large amount of data. Like the screen resolution, lower tier devices, i.e. below 10,000 INR have RAM not more than 512 Mb. Top mid-tier to higher end devices i.e. 15,000 – 40,000

INR have RAM starting from 768 Mb to as high as 2 Gb. The importance of the RAM is often sidelined by highlighting the power of the processor or in some cases even advertising the internal memory as RAM thereby further confusing the customer. The overall memory of the device is divided into the RAM and internal storage. RAM requirement also depends on the Operating System.

**4) INTERNAL MEMORY:** The internal memory is the pre-installed memory of the device. The higher the internal memory the better because a part of this memory is already utilized to install software components to run the device, so you get less memory than what was advertised. So why do you need high internal memory if even lower end devices provide slots for expanding the memory? The reason being some operating systems require that applications are installed only on the internal memory. Although newer iterations of these operating systems do support installation on external memory, it is sometimes the applications that require you to install them on internal storage so as to provide faster access and higher security. Thus a minimum of 8GB of internal storage is recommended as about 1-2 GB of this is required by the O.S so you get around 6GB. When a device is lacking in internal storage its expandable memory and ram are often advertised but if you can't install the amount of applications you want to, there is no use of investing in a smart phone.

**5) Processor/ Chipset/GPU:** This is often the most advertised part of any Smartphone, which is because it does really matter. However what is advertised is the number of cores that the processor is made of. Though it is important it is not the only thing that defines processing power. What is also important is the chipset that it is coupled with, the build of the processor and last but not the least the integrated graphics chip of the processor. It is important to check the build of the processor, i.e. how new it is and what kind of performance can be expected from it. This can be done by verifying the manufacturer of the processing unit. The top players in the market can be named as Nvidia, Intel, Qualcomm, Samsung, Apple, Broadcom and MediaTek. The first 5 in the list cater mostly to the

top mid-range and higher segment in the market while Broadcom and MediaTek cater to the low end and the mid-range segment. You might have often seen manufacturers advertising that their quad core device is priced at half the price of a quad core higher end device. This difference is due to the difference in the architecture used in the processing unit. The low cost device though quad core may have an old processing chip while the higher end device of course has a relatively new, more efficient and powerful processor. That is also the reason some dual cores from higher segments perform significantly better than lower end quad core devices. Hence always remember when something is priced lower than it should, there is definitely some sacrifice to promote cost-effectiveness. So while purchasing such devices be ready for some sacrifice and don't bother complaining.

**6) Camera:** Another quite a lot advertised feature in the Smartphone. You can find top tier devices with cameras with sensors as powerful as 12 to 13 megapixels. Also devices with 5-8 mp sensors are found in the mid-range segment and devices with 2 to 5 mp sensors are found in the lower tier. Sometimes devices with 8 mp camera sensors are found in the lower midrange segment. The difference between the sensors of these devices and higher end devices can easily be seen from the amount of captured detail, colour, and sharpness of the picture. This difference is due to the technology used in making the sensor. So when a 8 mp sensor 8,000 INR device does not give the quality of a 5mp sensor 25,000 INR, it is because a more advanced camera sensor technology has been employed in the higher end device. So next time you see a low end device advertising its high megapixel sensor camera be sure to check the technology behind the sensor.

So I hope after this comprehensive tour of the Smartphone market, next time you see an advertisement that shouts "Quad core processor! 5-inch screen! 8 megapixel camera! At half the price of the best Smartphone in the world with these same features!!". You will have the sense and knowledge to say "NO thank you".

—Mayuresh A. Pednekar  
SE – Electronics  
VIT

## INDUCTION CEREMONY

An induction ceremony was held on 18, 19 and 20 July for all the first year students of Vidyalankar Polytechnic. The students were provided with information on the various aspects related to academics and code of conduct to be conformed to in the campus. A special mention of the dress code, which makes Vidyalankar Polytechnic a well known college in the field of Engineering, was made. Principals K.V. Kumaran Sir and Ashish Ukhidve Sir along with the heads of the departments were present to give an overview of the institution. Like all other years Vidyalankar Polytechnic welcomed its first year students with new dreams and aspirations.