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## From Editor's Desk...

R.DEEPTHI,MSc(Integrated,IT),5th year

Welcome to the first edition of Crux, the newsletter of the Math Computing Society. It gives us a great pleasure and a sense of achievement in bringing out the newsletter. Our aim is to make this be an effective tool in bringing out the change that is needed for the betterment of the student community. Technology is so much fun but we can drown in our technology. The fog of information can drive out knowledge and that is what "Crux" happens to be about.

"It has become appallingly obvious that our technology has exceeded our humanity", goes a saying by Albert Einstein. Akin to the above saying, we now live in a world that has technology developing in its own pace in an awfully tremendous manner. We live in a society exquisitely dependent on science and technology, in which hardly anyone knows about things it. Needless to say, the society urges its fellow people to grow in accordance with this rapid reach of technology. Over the decades, techies have been discussing, exploring and bringing in novel inventions and this scenario persists till date. When pondering on what can be done to meet the upcoming sport that the computer world will play with us, we ended up with this fresh thought which is why "CRUX" is being presented here. The starring role to be taken a lead is to be filled undoubtedly by the juvenile and refreshing minds like us. It is normally said that what you learn from your college life contributes much more than what academics can offer. There are a lot of potential opportunities to be grabbed and converted into a full-fledged, dividend yielding reality, being the students of the esteemed College of Engineering, Guindy. When the world around us is buzzing with so

much of life and energy, we cannot afford to lose out all the fun and frolic.

This portal allows us to manage, organize and handle things better. This has been designed keeping in mind the various platforms that we thought would have an impact on the students in the years to come. The sections in this newsletter cater to the needs discussed above like technical facts, creative thoughts and vocabulary as well. From student's point of view, college is a place to explore the hidden talents, get placed in a decent paying company and then life in an excellent manner. Of course, it is true in many sense. But what when you have done is a little part in contributing to the growth and getting to see your community take the next leap towards higher echelons of success, you can truly feel the sense of accomplishment and at the end of the day that is what turns out to be important. That is why MCS has been instituted and Crux is being brought out to you, to share, discuss, learn and grow. In addition, we have also planned to use this newsletter as a gateway to reach out across the years and to our distinguished alumni. As a part of this plan, we have an Alumni Feature in each issue. Crux isn't a reality without the overhaul and guidance of our esteemed staff. Every feature of this newsletter has been carefully designed to fulfill the purpose that it was originally intended, to lend a helping hand to the student community.

To end up with, this is a beginning and we hope that we can make our thoughts and innovations a reality in the prospect. Keep supporting us and have an edifying reading folks!!!

## Google Instant-Search for the new generation

Time for another big league from the most famous and favourite search engine of all techies, 'Google'. Google's decision to fix what wasn't broken is a bold bet on the future of search and the way people use the Internet. Google Instant is a fundamental shift: instead of search as an outcome, Google is trying to get people to think of search as a process in which you constantly refine your query without actually "searching" or hitting the button to produce a concrete result. Google is betting that, instant communication being the key point in all technical dimensions of the world; it has got to produce a riposte that is as unwavering as Twitter or other real-time web services, which will definitely drive the searchers anxious. After all,

D.Dorothy Amy, M.Sc(Integrated,IT),3rd year

Google has dominated the search market for years with its current approach to search results, and even though its competitors have joined forces against a common enemy, Google is still a verb that means "to search". Google would either cement its reputation as a search innovator or incur the wrath of the users who liked things better the way they were. Google Instant shows the search results as you type. The technical insight behind this establishment is that though people read quickly, they type slowly. The change that we are experiencing is that, before we needed to key in the all-inclusive details of our desired search whereas now it has turned out quite easy to reach the content of the hunted page in an astonishingly precipitous

manner. We can now adapt our search on the fly until the results match exactly with what we want. In time, we may wonder how search ever worked in any other way. What makes Google Instant still interesting is that it inclines on the fact that it crafts smarter prophecy on what we anticipated to search. The top likelihood is shown in grey text directly in the search box, so we can stop typing as soon as we see what we really need. Using Google Instant can save 2-5 seconds per search. If everyone uses Google Instant globally, it is estimated to save more than 3.5 billion seconds a day. That is 11 hours saved every second. To bring Google Instant to life, we needed a host of new technologies including new caching systems, the ability to adaptively control the rate at which we show results pages and an optimization of page-rendering JavaScript to help web browsers keep up with the rest of the system. In the end, we needed to produce a system that was able to scale while searching as fast as people can type and think—all while maintaining the relevance and simplic-

*Continued in page 2.....*

# Virtually Redefined-The Sixth Sense

M.Avinash Babu, M.Sc(Integrated,CS),3rd year

Need to make a call? Extend your hand in front and numbers will appear for you to click. Need to know the time? Draw a circle on your wrist and a watch will appear. Want to take a photo? Just make a square with your fingers, highlighting what you want to frame. Wondering??

Yes, to a layman, it would be something supernatural. Some might just consider it to be a superstition or something psychological. Well, all of us being aware of the five basic senses – seeing, feeling, smelling, tasting and hearing, there comes another sense called the sixth sense. It basically connects us to something greater than what our physical senses are able to



perceive. Needless to say, the invention of sixth sense technology has completely shocked the world. Although it is not widely known as of now, the time is not far for this technology to change our perception of the world. It is a system that projects information about what surrounds you over objects' surfaces, a mini-projector coupled with a camera and a cell phone—which acts as the computer and your connection to the Cloud, all the information stored on the web. Trust me, Sixth Sense can do its magic, and a lot more-everywhere. The camera recognizes objects around you instantly, with the micro-projector overlaying the information on any surface, including the object itself or your hand, later where the information can be accessed or manipulated using your fingers. The true power of Sixth Sense lies on its potential to connect the real world with the

Internet, and overlaying the information on the world itself. The key here is that Sixth Sense recognizes the objects around you, displaying information automatically and letting you access it in any way you want, in the simplest way possible. Considering this in the everyday aspect of our life, to comprehend with an example, we may be in a taxi going to the airport and just by taking out our boarding pass, the Sixth Sense will grab real time information about our flight and display it over the ticket. We needn't do any action except that we need to hold it in front of us and it works. Interesting indeed!! Clearly,

this has the potential of becoming the ultimate "transparent" user interface for accessing information about everything around us. If they can get rid of the colored finger caps and if it goes beyond the initial development phase, this is definitely going to rule the technical world to a greater extent. But as of now, all that we can anticipate about this sixth sense is that it may change the way we interact with the real world and truly give everyone the complete awareness about the environment around us or just make a few people look like dorks. It can go either way, really. Whatever it is, let us try our hands on it. Still more work is being done on the device and when fully developed, it will definitely revolutionize the world. Take a look at 6th Sense Technology; I am sure that it will blow all your five senses.

## TEKHNIKOS

N.Arun Raj,

M.Sc(Integrated,IT),3rd year

### Branding Windows with your Name!!

Open Notepad. Type the following and Save it as OEMINFO.INI in the c:\windows\system32 directory:

- [General]
- Manufacturer=Your Name Here
- Model=Your Model Here
- [Support Information]
- Line1=Your Name Here
- Line2=Your Address Here
- Line3=Your Email Address Here

2. Right click on my computer select properties, in the general tab, a button will be highlighted (support information). Click on it.

You will be able to see the changes.

3. Now if you want to display some more information, then simply increase the lines in the file. Ex: Line4=Your Working Hours Here

### Make your keyboard a "live disco":

This code when executed makes your Caps, Num, Scroll lock keys flash.. very attractive...I have tried it..trust me

Instructions:

\*paste the code in notepad

\*Save as disco.vbs

\*Run the file

This piece of code makes your keyboard a live disco...

```
Set wshShell =wscript.CreateObject
("WScript.Shell")
do
wscript.sleep 100
wshshell.sendkeys "{CAPSLOCK}"
wshshell.sendkeys "{NUMLOCK}"
wshshell.sendkeys "{SCROLLLOCK}"
loop
```

To remove "live disco" on your keyboard:  
??Open task manager, then In process. End process- WSCRIPT.EXE FILE.

Continued from page1....

ity people expect from Google. As part of our current rollout, Google Instant will become the core search experience on Google.com for Chrome, Firefox, Safari and IE 8. When the declaration about Google Instant was made, users trying out one-letter queries with Google Instant turned Google Trends into alphabet soup, and later in the day Google Instant still ranked as the No. 1 result in hot searches of the day. As few recital problems were reported, both professionals and amateurs put Google through its paces, although some people on slower Internet connections recounted problems. The longer-term effects of this shift will bear watching. Almost immediately, the legions of search-engine optimization consultants struggled to figure out what effect Google Instant would have on their businesses. Google certainly isn't killing search, but it's making a huge bet that even though people like things the way they are, it has come up with something even better. And yes folks, Give Google Instant a try and let Google know what you think!

## From Bits to Yottabytes

P.Drusilla M.sc(Integrated,CS),3rd year

Had we honestly had an idea of there being something bigger than Gigabyte. We normally do have a doubt of what comes next in the sequence, regarding data storage measurements. There is something called 'Yottabyte' which many of us aren't aware of. A Yottabyte is a measure of theoretical storage capacity and is 2 to the 80th power bytes or, in decimal, approximately a thousand Zettabytes, a trillion Terabytes, or a million trillion Megabytes. As of 2010, no system has yet achieved one Zettabyte of storage. In fact, the combined space of all the computer hard drives in the entire world does not amount to even one Yottabyte. According to one study, all the world's computers stored approximately 160 Exabytes in 2006. As of 2009 the entire Internet was estimated to contain close to 500 Exabytes. The unit symbol for the Yottabyte is YB. It would take approximately 86

trillion years to download a 1-Yottabyte file. The cost of buying a 1 Terabyte hard drive today is \$100. It would cost \$100 Trillion dollars to buy a Yottabyte of storage for just the hard drivers. To make it more clear, the following chart describes the storage capacities.

```
Bit=0 or 1;
Nibble=4 Bits ;
Byte=8 Bits ;
Kilobyte=1024 Bytes;
Megabyte=1024 Kilobytes;
Gigabyte=1024 Megabytes;
Terabyte=1024 Gigabytes;
Petabyte=1024 Terabytes;
Exabyte=1024 Petabytes;
Zettabyte=1024 Exabytes;
Yottabyte=1024 Zettabytes;
```

And now it is time to ponder what after Yottabyte. It is no wonder if it is ascertained in the lead of our next edition!!!



# From the alumni's board

T. Bharathi Priyaa, IIM-B

My tryst with this university came to a successful end last year when I passed out of the Department of Mathematics. One could refurbish within a five year period into both good or even bad which has its dependence on the environment and the opportunities one is provided with. Fortunately, for us at Anna University and at the Department of Mathematics, the scope for attaining new avenues to excel in was a plenty and all being presided in the right direction. To put it short, let me describe what I went through all these 5 integrated years in my course of study.

Well, the very first year started with all the apprehensions and excitement as envisaged. With the faculty on one side reminding us what serious study this could be, we had seniors on the other side trying to chill us out explaining the strategies of how a college life should be pursued. So what kept us going? Everything from the Guindy times crossword, the brain scan issues(stuck into the notice board), occasional NSS meets, those ravishing dilemmas over which society to be part of, a wild rush to attend the club meets(as a minimum, some of them J) after college hours. Once, we got the sense of belongingness, and then there entered the phase where we got to conduct some of these contests and symposia with all zeal and pride during the second year. As far as academics are concerned, we also got into working on projects and the like. As a Joint Secretary to our own Mathematics colloquium, I had to work for our department symposium (which eventually becomes a part of you over all the five years of study). Every year, we see Mathrix getting ma-

tured and becoming better and better. Having tried and tested with Innovative ideas, Mathrix was our own platform to learn, prosper and explore.

Once we were kicked into third year, it was time to think about Internships. To have all the resumes in place, projects duly completed and can be vouched for when asked turned out to be an ideal situation. Seldom do we kowtow to that. Few of us tried to do good academic projects during the second year summer and that really helped us in securing the seventh semester internship as well.

To speak about, seventh semester internship was a shift in paradigm for me and few of my friends. That was when I learnt the routes of tuning my academic learning to suit the never ending corporate demand. Just then we craved to extend our learning to our juniors and with the entire best scaffold from our department staffs and juniors, the Math Computing Society saw its inception with its own pride and honour. MCS was ascertained to embrace the students of our department not just to earn a corporate exposure, but also to learn about the impending opportunities that are laid wide open for graduates like us.

I must say, college seemed a wee bit different once we were back after the internship for that was the ideal time to realize what our true potentials are (or lack of it) and fire up working on it. With so much more maturity than how we started our first yr, we (tried to) spent the remaining two years wistfully weighing the career options and placed our bets on it. Many went for placements and hardly any

opted for higher studies. It was also helpful to choose your final internship depending on the option one had chosen for one's self. Placement (is) was always a difficult time, but I tell you guys, keep your heads up and know that isn't the end of the world (seems silly now, but when the pressure is building up, remind yourself not to take it too seriously). That's my two cents on Gyaan. Come what may; don't miss out on the fun. Needless to say, all the five assimilated years have showered in my life with wholesome memories and it keeps cherishing always within me. And what more, undeniably my college life has been the premier one that will remain fresh in thoughts forever and ever.



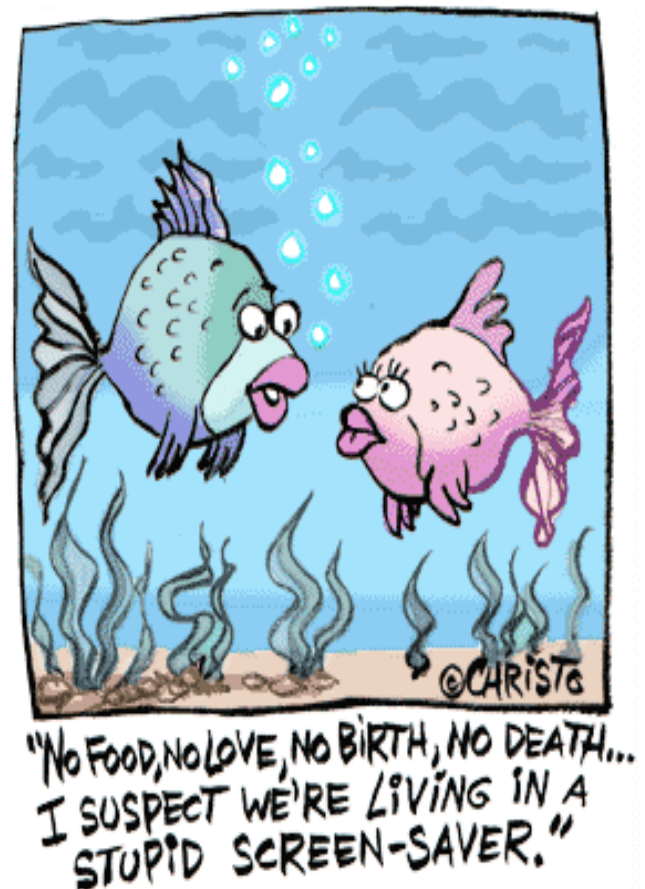
**ACROSS:**  
15. FEELS  
13. MEAN IT  
10. SUNSHINE  
7. ROBO NAUT 2  
6. 8  
3. 450  
1. HOLD PLEASE  
**DOWN:**  
2. NOEL NAVAL  
5. WIKILEAKS  
8. 2519  
9. 24  
11. MASERATI  
12. 204  
14. ARE  
16. STRUT

## CROSS WORD ANSWERS

## RIB-TICKLING CARICATURE

A. Lakshmi Shardha

M.Sc(Integrated,CS),3rd year



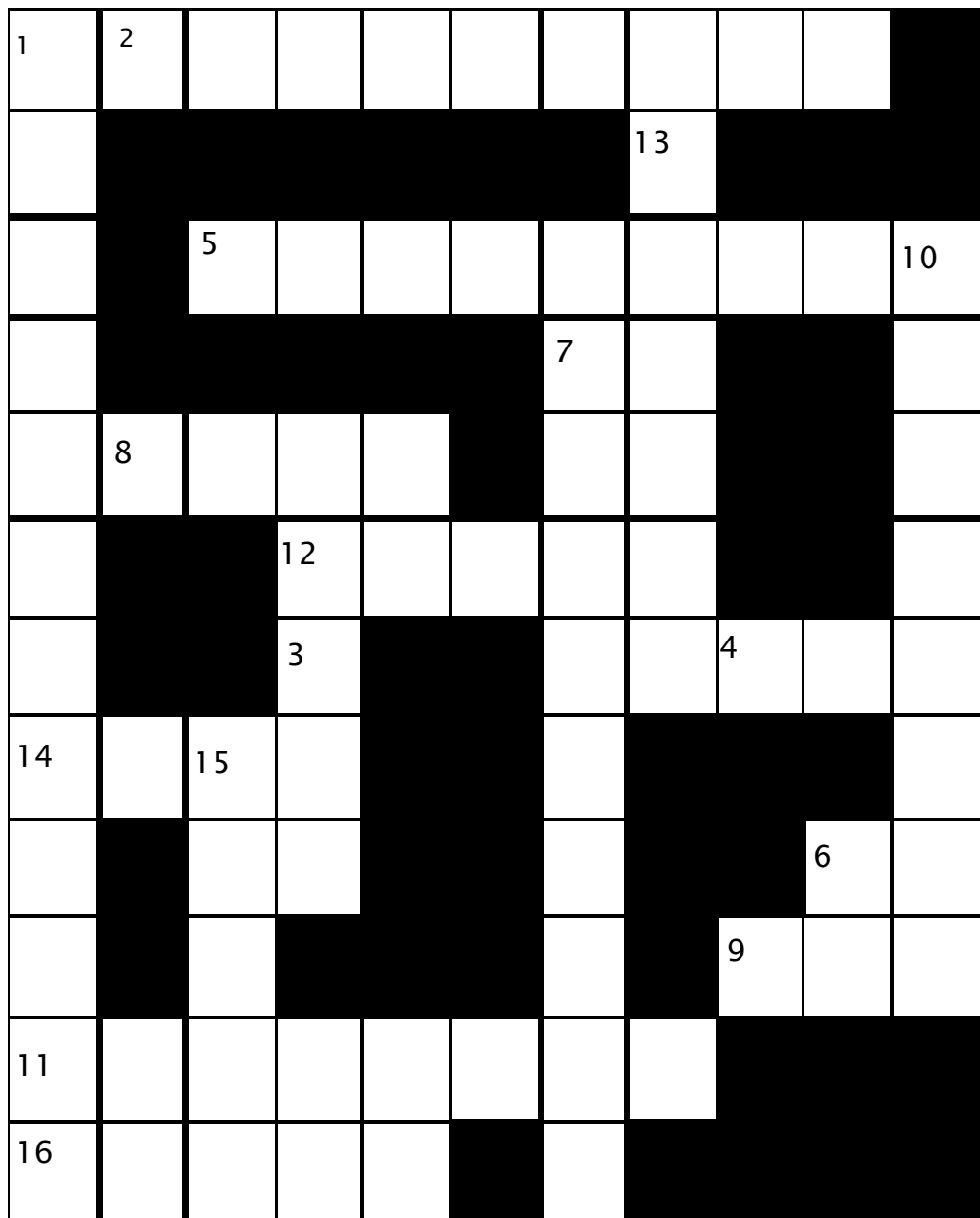
# Nature- that enlivens our cognizance

"Each moment of the year has its own beauty, a picture which was never before and shall never be seen again" goes a saying by Ralph Waldo Emerson. And yes, that one day made me contemplate over the above. Being a college goer, I had to travel by bus that drives me with the feel of "Oh! No" every day and it is no wonder in Chennai. I love to travel in MTC buses but during peak hours it falls into exception. Interestingly, I dare to have a healthy walk to my home than to stand in those terribly crowded buses, waiting for more than 20 minutes in traffic! And explicitly that day, while getting inside the bus, I discerned that no two people can simultaneously endure those petite steps simultaneously but I was purely shocked after counting nine heads outside the bus. Buses looked like statues at that tick while the senseless loud horns creaked my ears badly. Fully drenched in sweat, I felt myself boiling hot inside a pressure cooker. At length, my bus started moving in a sluggish manner. As my bus crossed a bakery, the cakes that were sweltering and that aroma mesmerised me and reminded my

N.Deepika, M.Sc(Integrated,CS),3rd year

empty stomach to cry loudly! I lost my whole stamina and was about to faint then. Amazingly, the nippy air breezed my dripping face which is when I realised my bus crossing the Porur Lake that had always been my beloved place to pass by- a wonderful sight of nature blending the bluish sky and the water together. The fresh and cold air veers to give a full meals energy! Everyone's face in the bus gave a wide smile forgetting all the tiredness. But it lasted only for a while. After two stopovers, I got a pew as the bus was getting empty. Folks, I can swear you even now, that one minute refreshment gave all the passengers, a great relief from their temporary worries. I felt that moment heavenly which made me forget all my hunger and annoyance in no time. Nature's gift did all the magic. So always stay close to nature and feel it. Because the earth feels delighted to fondle your bare feet and the winds long to play with your hair! Discovering this idyllic place, we find ourselves filled with a yearning to linger here, where time stands still and beauty overwhelms. Lose yourself in nature and find peace!!!

# Mind Bender



H.Padmasree,J.Mohanapriya, M.Sc(Integrated,CS),3rd year.

## DOWN:

- 1.Call waiting line.(10)
- 3.How many number of coins of 1.5 cm in diameter and 0.2cm thick has to be melted to form a right circular cylinder of height 10 cm and diameter 4.5 cm?(3)
6. The size of a wooden block is  $5 * 10 * 20 \text{ cm}^3$ . How many such whole blocks you will take to construct a solid wooden cube of minimum size?(1)
7. NASA and GM launched the first humanoid Robot into space. It is the first ROBOT which could tweet. Its first tweet was on july 26 .Name the robot.(9)
10. Name the foreign policy of South Korea signed with North Korea which resulted in greater political contact between the two nations and some historical moments for the Korean peninsula.In 2000, Kim Dae Jung was awarded the Nobel Peace Prize as a result of this policy.(8)
- 13.Be serious.(6)
- 15.Hydro electric provider.(4)

## ACROSS: (left to right)

- 2.Who is the recently appointed MD of Tata International?(9)
- 4.Timothy and Urban play a game with two dice. But they do not use the numbers. Some of the faces are painted red and the others blue.Each player throws the die in turn. Timothy wins when the two top faces are of the same color. Urban wins when the colors are different. Their chances are even.The first die has 5 red faces and 1 blue face. How many red and how many blue are there on the second die?(enter the red in first box and blue in second box)
5. Which international organisation has the slogan " we open governments"?(9)
- 8.Which is the smallest positive integer that leaves a remainder of 1 when divided by 2, remainder of 2 when divided by 3, a remainder of 3 when divided by 4, ... and a remainder of 9 when divided by 10?(4)
- 9.P is a prime number which is greater than 3,then  $2P-1$  is always divisible by X. Find X.(2)
- 11.Name the Italian luxury car manufacturer with a Trident as its emblem.(8)
- 12.The number of squares in a chessboard.(3)
14. is for more than one(3)
- 16.March proudly in support.(5)

# Internet Access-A Leap Ahead.

A.Ranjitha, M.Sc(Integrated,CS ),2nd year

Internet is undoubtedly an outstanding technology that promises beneficial potentials. Agree? Ever worried of owning non-GPRS enabled mobile phones?? If yes, then here is the full stop for it. About 54 per cent of the phones that are sold in India are ultra-low-end and less than three per cent are Internet enabled. There is a strong need to deliver the value of Internet experiences on low-end devices used by users in emerging markets like India. HP Labs India, has developed a new technology that shall allow users of non-GPRS enabled phones to browse the internet, via SMS and voice services whereas the traditional method 'Site on Mobile' is based on Cloud Computing technology that allows the masses to access the Internet. You are probably right if you think if such a technology will overload the user's phone with simple SMS', which can be overcome by the employment of what is called 'Task lets', only sites optimized for this sort of viewing can be accessed via SMS. These task-based interactions on the website are cho-

sen by the site owners, and will allow users to access only that relevant content/function, instead of the entire page and so are the service's tagline is "packaged web interactions on mobile". While the services are currently free, no known sites have been optimised yet. The 'invitation only alpha release -product' access is limited to site owners as of now, and not for end-users. "We make your web content reach billions", is how they are enticing the site-owners to create Task Lets and customize their web pages. Expecting full-fledged services to start soon.

Send in your feedbacks to  
cruxmcs@gmail.com

## MCS EVENTS ON THE HORIZON

- Coding event in c, c++ , Java - Onsite
- Online Programming contest - Fortnightly
- Creative writing contest
- General Aptitude test
- Tech Quiz

Roll up folks...Kindle the innovative buds in you for the events are sure to make a flashing difference! .

REACH US AT  
[www.mcs-au.in](http://www.mcs-au.in)