



JULY 2013

RENEWS

VOLUME 2 ISSUE 4

IITM celebrated its
50th Convocation



TOP STORIES

Talk by Dr. Subra Suresh
"New Era of Innovation in Global
Science and Engineering"

Kargil Vijay Diwas

Fresher's Cheatsheet

Reloaded & Refresh

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EDITORIAL

The last month was a transition period for our campus. With the old batch graduating and a new batch coming in, farewells and welcome were spread through the entire period. As our insti organised its 50th convocation, there was added flavour with Dr. Subra Suresh visiting our campus for the occasion. Freshers got time to blend in with the campus with a series of events lined up. The orientation on their arrival, was very informative and gave that proud feeling which everyone has on being a part of this rich culture called Research @IITM. An informal orientation was arranged by RAS (in-charge), with combined efforts from his research group teams, to break the cocoons of their inhibitions and mingle freely among others. Also there was Sangam Night, organized by DoMS to welcome the new scholars and bid adieu to the graduands.

Fourteen years ago, it was in this month that nation faced an uncalled crisis at Kargil, we celebrated its commemoration day jointly with Man for Force team. It was a great event to witness the stories of bravery and patriotism narrated by the veterans who had lived through those days.

A piece of advice for fresh scholars has been presented. With added flavours by articles and poems depicting various moods and messages with which they were created, we really enjoyed compiling this issue of ReNews. We thank our readers and contributors.

We hope you enjoy this issue.

Ranjan Piyush

Malini Rajan

RAS DESK

Hello everyone and welcome to the beginning of the new semester. Here is a heads up of all that happened in the month of July. We had the new batch of research scholars joining us on July 15th. We welcome them to our institute. There was an elaborate orientation held for them on July 16th where the deans and profs briefed them of all the important things in the institute. The scholars also organized a short orientation program for them on July 29th, where they were given a brief insight of all the departments and also the various facilities in campus.

There is some good news from the hostel side; the scholars can now pay the hostel fee in installments in the way he/she chooses. I would like to thank Prof. M P Maiya (CCW) and Aravind Anthur, our previous RAS i/c for taking up this initiative.

We also had a talk from Shell about their sponsored PhD program in Netherlands. They will be releasing the advert shortly. I encourage all the masters' students to apply for this program.

On an important matter, there have been instances of systematic downloading from Journals leading to the blocking of access to the institute. I request all of you to please stop doing this and please download articles only after reading the abstract and finding it useful.

AWARDS AND HONOURS

1. Dr. Rajesh Nair, Associate Professor, Department of Ocean Engineering, IIT Madras has been elected as a Member of the Society of Petroleum Engineers International Research and Development Committee for a period of three years.
2. Prof. M. S. Shunmugam, Department of Mechanical Engineering has been nominated as the Regional Editor (India) of the International Journal of Advanced Manufacturing Technology published by Springer.
3. Dr. Bijoy Krishna Das, Associate Professor, Department of Electrical Engineering has been nominated as the Associate Editor in the area of Photonics Integration of the Journal of Optical Engineering, SPIE.
4. Prof. S. Karmalkar, Department of Electrical Engineering has been appointed as the Associate Editor of the prestigious IEEE Transactions on Education.

EVENTS

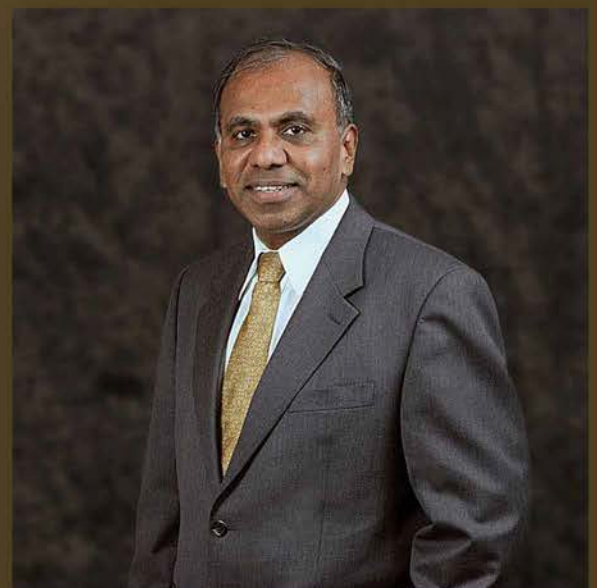
New Era of Innovation in Global Science and Engineering

As a part of the celebrations of the 50th convocation, Dr. Subra Suresh was invited to deliver a talk to the IITM community a day prior to the big event. Having a very profound career with a blend of research and leadership he is an epitome of inspiration to the younger generation. He has held offices of higher order both in the academic (Dean of engineering at MIT) and the government (Director of NSF) and is presently serving as the president of Carnegie Mellon University. He is the first Asian to hold all these three offices.

This was his maiden trip after taking his new office and he mentioned that it felt very special on coming back to his alma matter. He opened the talk by mentioning basic research as the ticket to innovation.

Focusing on the idea of return from investment in research, he made the point that basic research should not be judged on their immediate output. Going back into history, he mentioned the formation of research centers like NASA and NSF which have ever since supported the growth of innovation. Explaining the role of government, he described various instances in American history where the political leaders had resorted to science and research scholarships. This patronage of governments helped research to flourish and resulted in 201 Nobel laureates since 1951.

Not to forget the role of private philanthropy in supporting this enterprise, he cited examples of Harvard, MIT and even Carnegie Mellon. Only when the society thinks of progress it can do so to with the best utilization of available resources. The process adopted by funding agencies should be merit based and transparent. The key ingredient to success of research relies on best utilization of funds by the most deserving candidates. He mentioned technologies (GPS) and companies (Google and Qualcomm) of present that were funded initially for promoting an innovative idea. Moving his focus to the return on investment he talked about many ideas that have been transformed into multibillion dollar companies. The industrial, economic and social impact of research has been immense in the recent times



Talking about the global challenges, he urged that global solutions need to be sought for. The borderless knowledge enterprise is the need of the hour which will aim to improve the human condition with scientific technology. The shifting demographics show a greater involvement of Asian countries in scientific spending than ever in the past. Two specific technologies that have been the focus of recent times are Observation and Big Data. Right from space observatories to genomics laboratories, the resolution and amount of data is enormously huge. Nano-meters to million times size of earth, femto seconds to light years of measurement, all these are fascinating avenues that have been extensively explored.

Coming to the endeavors for fostering global research, he mentioned initiatives like Science Across Virtual Institutes (SAVI) Partnership for Enhanced Engagement in Research (PEER) which aim at funding and coordinating borderless innovation. He ended by mentioning about the last initiative he had undertaken at NSF, The Global Research Council (GRC). For the first time in history the innovations leaders from different countries came forward to work together towards setting a common body for promoting research and collaborations across the globe. To sum it's agenda in a single sentence Dr. Suresh quoted "Good science anywhere is good for science everywhere".



Ranjan Piyush
MS Scholar
Applied Mechanics



"On a journey called LIFE"

COLUMNS

Reading Between Lines

**To Kill A Mockingbird - by Harper Lee (My Rating: 4.5/5)
(Won: Pulitzer Prize in 1961)**

'To Kill a Mockingbird' is considered an American classic. As the blurb on the book states, it is about a lawyer defending a black man charged with the rape of a white girl. But even though the central theme of the book is racism, social inequality and injustice, the book is not depressing. The story is told from the perspective of the lawyer's little daughter, Scout. Scout as a distant and innocent observer manages to keep the tone of the book pleasant. Atticus is the moral guide of the book. "Shoot all the bluejays you want, if you can hit them, but remember it's a sin to kill a mockingbird" says Atticus and then he goes ahead and defends the Mockingbird of the story, an innocent black man charged with the rape of a white girl.

He believes that standing up for one's principles is very important even when it means being ostracized. He explains it to his daughter, "Before I can live with other folks I've got to live with myself."

Atticus teaches his children through his actions to respect everyone irrespective of their background, social status or colour of their skin. He wants them to see virtue even in people who are mean to them. "If you learn a trick, Scout, you'll get along a lot better with all kind of folks. You never really understand a person until you consider things from his point of view, until you climb into his skin and walk around in it". He repeats this advice to his children again and again.

The book depicts the racial prejudice and hypocrisy shown by people. Miss Gates thinks that Hitler is evil for persecuting the Jews in Germany but at the same time it is her opinion that black people should be taught a lesson and shown their place in society. But the book also depicts the goodness in people. The entire black community and a few white people like Atticus, Heck Tate, Judge Taylor, Underwood and Link Deas protect and look after Tom Robinson and his family during the time of their need. Atticus and Underwood are shown guarding the prison one night to protect Tom Robinson from being lynched by an angry and irate crowd. Another emotional scene is when after the trial the entire black community sitting in the coloured balcony stands up when Atticus passes, as a mark of respect and gratitude for his efforts.

The next day, his kitchen table is loaded with food sent to him by the black townfolk. It is a novel about coming of age. Atticus is frank and honest with his children and he never hides anything from them. So owing to the harsh realities of the world. Jem takes it harder than Scout. "How could they do it, how could they?" he cries. Atticus replies, "I don't know but they did it. They've done it before and they did it tonight and they'll do it again and when they do it - seems that only children weep."

The book ends on a positive note. "Most people are (real nice), Scout, when you finally see them" says Atticus as he tucks his daughter in bed. The book is simply about black and white, the good and the bad in people. If you haven't read the book, read it and trust me you will go back and read it again just to relish the beauty of this book.

Prajakta Naval
PhD, Biotechnology



'A lazy day, a cozy corner and a good book: a perfect stress buster'

Kargil Vijay Diwas

EVENTS

" A nation which forgets its defenders will be itself forgotten"

--Calvin Coolidge

Back in the summer of 1999, the three words Kargil, Dras and Batalik resonated across every nook and corner of the country. A country that stood up for the freedom of its citizens guarded by its brave sons valiantly sacrificing their lives. They shed blood and we reciprocated the contribution through teary eyes. The struggle was intense, in a theatre of war atop the mountain peaks. The Kargil War that began in May 1999 is considered one of the toughest battles ever fought with the level of ingenuity and expertise shown by Indian troops as well and truly extraordinary. The Indian government's offensive to clear the sectors affected by the Pakistani intrusion, called Operation Vijay, ended successfully on 26th July 1999.

This day is observed every year as the Kargil Vijay Diwas and is celebrated at various places across the country, including the actual theatre of war.

Though the Operation Vijay was a success but it took its toll, many of our beloved ones lost their lives, more so were injured. Our valiant Heroes of the Indian Army, Indian Air Force, Indian Navy and paramilitary forces all contributed to the cause of protecting us from the encroaching enemy. Indian suffered 527 casualties and 1366 brave men from the armed forces, were injured. In order to ensure that we shouldn't forget the true heroes who lay their lives for our safety and well being, we at IIT Madras celebrated the occasion to remember those who are not here with us but they are definitely up in heavens looking down upon us. We at IITM feel indebted to the contribution of our valiant heroes who sacrificed their today for our tomorrow.

The Kargil Vijay Diwas was celebrated in our institute at The CLT complex.

The programme began at around 5:45 and before the actual programme began

I had some time to brush up with the heroes themselves, the armed forces officers and members of the army staff. The strength and courage their morale boosting words instill in us is awe-inspiring. One could easily spot these war veterans well decorated with

honours received in recognition of their bravery and contribution to the cause. I was privileged to exchange a few words with Col. Krishnaswamy who had received the Vir Chakra twice, one signified by his medal and the other with a bar over the ribbon, the bar over the ribbon is indication that the army personnel has received the honour twice or more depending upon the number of bars on the ribbon. He hailed from the Jammu and Kashmir Rifles an infantry regiment of the Indian Army, a regiment which is the only one of its kind in the world to have received the highest degree gallantry award 'Param Vir Chakra' twice in the same war one for Capt. Vikram Batra and the other for Rifleman Sanjay Kumar.



The event started with a welcome note to all the esteemed War veterans and members of the army staff and to the faculty members of IITM and students present at CLT. Col. Raman started off the proceedings with an informative redrawing of the intricacies and difficulties that lay ahead of the Indian Army in Kargil War. The Operation Vijay was considered by war strategists throughout the world as an almost impossible pursuit. The Pakistani intruders had seized the control of the mountain peaks, in the months prior to the war when both the sides were supposed to pull out their troops from the posts in freezing winters and the Indian Army was at a considerable disadvantage. The whole plan of the Pakistan Leadership was to disrupt the supplies between Srinagar and Leh. Nevertheless Indian Army showed nerves of steel and marched on and took back every inch of the Indian territory that the Intruders had seized. The War effectively came to an end when Nawaz Sharif owing to serious international pressures pulled out his troops out of the warring areas and succumbed to India's terms, thereby marking a new era in the proficiency of the young Blooded Indian Army.

Prof. LS Ganeshan acknowledged the amount of debt we owe to our valiant heroes and thanked the officers and members of army staff present at the event for their kind presence. He also mentioned the contribution of IITM in the Kargil War in 1999 that was initiated by Prof. Pranav Deshmukh through a fund collection drive.

Commemoration of Kargil War Heroes is one of our foremost duties and the call of duty echoed through the hearts of the audience present. The students along with the faculty members were then asked to raise their doubts over the Kargil war which were gladly and lucidly clarified by the war veterans present at the event. The questions ranged from disputes over LOC and delineation and demarcation of territory to minimal paycheques of members of army staff which were met with firm answers and at times with quite beaming suggestions by the esteemed guests.

A past that we all should be proud of, a future that we have to protect. Few excerpts on the undying bravery and facts about Kargil war in a nutshell :-



*The terms such as Kargil, Dras, Batalik, Tiger Hill, Totoling and others became household names, because of Kargil war being the first televised war of India, infact media did help in improving India's cause at the world level.

*Capt. Vikram Batra, a hero with unmatched braveness, 'Sher Shah' a title deemed upon him by the Pakistani Army themselves, was truly a lion, after every peak he wanted more, he didn't ever stop and was seen in the video calling to his senior and exclaiming "sir ab ye dil mange more". Such was his courage even the enemy feared him, he challenged the enemy in its den and roared to them that they shouldn't expect any mercy from him. He received Param Vir Chakra for his bravery and courage and for the intellect he showed which gave Indian Army an advantageous position in the war.



He was ably supported by his men, one of whom Hawaldar Ram Kumar was trained at Officer's Training Academy, Chennai before being posted to Kargil. He is alive today and describes the arduous tasks they had to do to drive the enemy away in and around Kargil along with the courage pumping swansongs of Capt. Batra's bravado. It was Capt. Batra's own decision to choose the toughest task for him, to win back the tiger hill and like a brave soldier took the bullets right in his chest..

*Capt. Manoj, rifleman Sanjay Kumar, Yoginder Singh Yadav, Capt. Sourabh Kalia, Flight Lt. Nachiketa and several others fought fearlessly to protect the pride of our motherland. All of these brave sons had

just one regret that they could do it only once. The pride of dying for their country stood in their hearts as the first and foremost.

Kargil Vijay Diwas is being celebrated every year with great enthusiasm since last five years in Chennai in association with various institutes and a dignified group of war veterans. Lots of shells and artillery were fired to win back our lands from the Pakistani intruders, an offensive described by war strategists as the most intense since World War 2. Some names of the regiments that fought in the Kargil War Jammu and Kashmir Rifles, the Ladakh Scouts, 11 Gorkha Rifles, 12 J&K Rifles, 18 Garhwal Rifles and several others. The Ladakh Scouts were a local militia and were approved by the Indian army to help in the Kargil War for their knowledge of the local terrain. 27 medals were won by Ladakh Scouts for their bravery and fearlessness.

In all 2 lakh 55 thousand shells were fired using 300 guns, the chief of army staff also gave unit citations for no goal is accomplished without a team effort.



The event pushed us to the brink of emotions, a documentary was shown at the SAC after the talks at CLT. It was a two part documentary one titled Kargil by Air and Sea which duly explained the importance of Air Force and the Navy in mounting up the pressures on Pakistan. The then Pak Prime Minister himself acknowledged that Pakistan had supplies of no more than a week to sustain themselves in case a full-out war had broken out. The IAF helped to destroy the chief supply towns of the Pakistani Army and also provided a clear ground for the Indian Soldiers to march on. The second video showed words of shamelessness and cowardice given in various interviews by Gen. Musharraf, the culprit behind the unfortunate events at Kargil. Even Nawaz Sharif himself acknowledged that Kargil was a mistake and that they underestimated the might of the Indian Army. In the end, the onus lies on us now, we are the future, we have to decide what next. The brave soldiers, the valiant sons of India who sacrificed their lives for our safety shall never be forgotten. They achieved what was unfathomable and considered almost impossible by dint of their sheer courage. They were the bravest among the brave, held their ground against the enemy in the toughest of weather conditions. As a way of remembering those who are in heavens, who laid their lives for us, we should place some flowers at a table, well lit by a candle and convey our heartfelt gratitude to our heroes, on Kargil Vijay Diwas every year

“I am never coming back home,
I have lost the smiles I have earned still afloat with hope;
you keep believing and the feel keeps me afloat,
brimming with the same spirit as on the day I took birth.

All those around me said the time would come,
when I would be the hope, its tough I say;
to keep up with the promises I made,
I'm never coming back home.

If I could ever say to you how I felt,
might not be important but it matters to me;
If perhaps you do me a favour,
keep with you the courage and the flame.
I promised but,
I am never coming back, I'm never coming back home.”



**Bajwa Roodra Pratap Singh
&
Rahul Yadav
MS, Mechanical Engineering**



"The stochastic distribution of quantities is a solution encoded in a problem, if you analyse the channel within....you find me."

EVENTS

TO GREENER PASTURES...

Orientation programme for MS and PhD Scholars

To a stranger, a cluster of stars in sky may be just that-a cluster of stars-but to someone who can read the skies, they are the compass to guide a traveler. No matter where you go, you must know how to read the skies. Research is the journey of life into unknown lands and one can imagine the anxious excitement a research scholars gets the morning he/she starts a journey towards Central Lecture theatre (CLT) for the orientation programme. For all those who had 'unavoidable' reasons and could not make it to the venue or for those who let their attention wander freely into unforeseen future here is what all you missed. For the rest, if you like to relive the moment, please read on!

Welcome note from director and deans

When I reached the hall, it was packed with, as John Nash in 'A Beautiful Mind' movie would have put it, "eager young minds". So I found myself squatting along the steps listening to Prof. L.S.Ganesh's oxymoron of carrying bitter sweet memories when one leaves IIT-Madras. He gave a formal introduction of all the department heads and other important people in IITM system. Along with Prof.L.S.G, DOST, the dais was occupied by Prof.Bhaskar Ramamurthi, director IIT-M, Prof. Sarit K. Das, dean academic research, Prof.Ramamurthy K, dean academic courses.

Next it was Prof. Bhaskar Ramamurthi, director IITM, who welcomed the 250 PhD and 170 M.S scholars (these numbers were given by our director during welcome note). He said it is an objective of IITM to increase the number of PhDs to 400 per year. He encouraged the M.S scholars to convert to PhD, if the research problem they are about to undertake is interesting to work on. With an increasing number of scholars in the campus, he observed that the number of research seminars is bursting at the seam and urged the students to attend at least a handful of seminars out of the lot. Regarding accommodation, Professor said the new hostel for ladies shall be hopefully ready by January, 2014 and shared the disappointment that the gents' hostel needs at least a year for completion.

Prof. Sarit Kumar Das, dean academic research, enthused scholars not to see research as a difficulty but as a challenge. He also pointed out the absolute freedom a research scholar enjoys at IITM. He made a statement saying institute cafeteria was open till 2:00 am. Your correspondent is yet to find it!

Prof. Ramamurthy, dean academic courses, welcomed the students and explained about the courses and funding.

IITM is a dynamic and vibrant institute with plethora of activities. The session that followed gave brief glimpses and relevant info on various activities here. It requires someone with a good sense of humor to keep the session going on as only information alone are perceived as dry as dried leaf on the grounds during Chennai summer. Prof. Sarit K Das was best suited emcee as he sprinkled humor here and there to make the session lively.



Traveling kits for journey of research life

The session started with introduction to alumni affairs and finished with patenting. Every talk conveyed important information a research scholar may need at some point of time during his/her research life.

Prof. R.Nagarajan, dean IAR, gave an overview of the role of International and alumni affairs. Any research scholar with one journal to his/her credit can have 80% of the “out of the pocket” expenses reimbursed from alumni funding, according to dean IAR. This is additional to the institute funding of 1.25 lakh for international conference with or without a journal published. The funding comes from our director's batch, 1980. He signed off on a note asking the scholars to give back!

Research scholars and Dr. Praksh M. Maiya, chairman council of warden, have one thing in common: a research scholar wants to get out in maximum 3 years/5 years and so does our chairman council of wardens! For research scholar the reason is complicated but for Dr. Maiya it is accommodation. There are 17 hostels at IITM with 6 catering facilities and Dr. Maiya went on to explain the wardens for individual hostels and gave contact numbers (list is in the website please refer to it-<http://ccw.iitm.ac.in/>). He spoke on the privatization of the catering facilities at IITM and also on the introduction of bio-metric system in mess (Now students need not worry about forgetting the mess card in lab and cut a sorry face). He made an announcement that a new post of Registrar is created and Lt. Col. (Retd.) Jayakumar is appointed for the post..

Shifting the attention to extra-curricular activities, it was Dr. Udayachandran Chakkingal, cultural advisor, who explained about the cultural and technical fest at IITM. On a lighter vein, Dr. Sarit K Das was reminiscent about the day when he entered the class to find just two students in the class. On enquiry, Professor came to know that the Indian cricketing team has come to practice at Chemplast cricket stadium at IITM and all students had left to see Sachin Tendulkar play! He advised the students to have physical activity everyday as they are the best stress busters.

This was followed by Dr. Mahesh V Panchagnula's talk on the role of Center for Innovation in changing the ideas into products. He is the faculty advisor of Center for innovation. He encouraged the students to come up with new ideas. I particularly liked the reference to "dosa machine". Centre for Innovation project was started in 2006, with the class of 1981 (Prof. R. Nagarajan batch), IIT Madras donating Rs 80 lakh for the lab in memory of their Silver Jubilee.

Everyone in life goes through ups and downs. Some people go down steeply and need a hand to bring them back to life. That's what Mitr is all about, according to Dr. C. Vijayan.

He asked scholars to close their eyes and imagine them how they see themselves at graduation day, after 10 years from now. He gave homework to close the eyes and imagine about life after 100 years or so—stone carrying my epitaph itself would have eroded by then! Still it was refreshing to mentally get out of CLT for a while. His reference to research as crossing English channel and the guy/girl getting enlightened after crossing 70 % of the channel about the purpose of life and planning to go back to start was charming. He advised the scholars to think and dive.

Dr. N. Ramesh Babu, Training & Placement Advisor, explained the role of branch councilors and research affairs secretary in acting as interface between students and placement cell. He showed some alarming statistics of MS/PhD placement—I assuaged myself and the guy next to me saying that was just the people who got placed through the campus placement. He highlighted the point of lack of communication skills among the students being the major setback for placement. He enumerated the steps taken to ensure scholars a job, one among them being research handbook.

On the matter of health, Dr. Mahalakshmi M Ravi was proud in saying that Insti hospital was one of the biggest hospitals associated with any institute. She supported her statement with some statistics of having 11 medical officers, 24 visiting consultants, 30 paramedical staffs and 19 beds with 1 Operation Theater. She signed off with wishes for good health (a bit ironical).

Next time you spot a star tortoise on grounds, don't

do a 'favor' by putting it into waters. Star tortoise is a terrestrial species! This comment invited a lot of laughs when Dr. Susy Varughese mentioned it. She made IITM even more fascinating with the information on 50-55 species of butterflies, rare flowers, and natural habitats. Please read your mails sent by team Prakrithi to help in maintaining the well being of all species at IITM.

COLUMNS

Exchange experience

My name is Miriam and I am an industrial engineering student at University of Duisburg-Essen in Germany.

As there exists a good cooperation between my university and the Department of Management Studies of IIT Madras, I decided to join DoMS for two quarters in September 2011 together with three boys and two girls of my batch.

Our first impression of India was determined by the Chennai traffic in Rush-Hour. We were completely impressed that despite the chaos around as everything seems to work. Entering the campus after that felt like entering an oasis of silence and peace. Thanks to our guides Arshwarya and Soumya our rooms in Sarayu Hostel were ready and all the basic stuff was there already. We also had our first of many Dosas at Tiffany's.

Although Arawind (Research scholar at DoMS) helped us a lot, it still took the complete following week to get all this registration work done. After that we decided that we deserve a small holiday before the classes start so all of us went for a 10-days trip through the south. To describe all the wonderful places we saw and people we met would take too long but highlights were the Kerala Backwaters and Hill-Station.

With the great Indian culture to boast, it is saddening to acknowledge the need for complaints Committee against sexual harassment. Dr. Preethi Aghalayam, chairman women's forum, urged women to come forward if at all there arises a need. (Refer to this page to know about the committee-<http://www.iitm.ac.in/complaintcommittee-please>).

Finally, it was about patents and Intellectual property rights. Mr.R. Sundaram, Chief Techno Economic Officer IC&SR, briefed the procedure on filing patents and explained the importance of patenting. (The details can be found in <https://icsr.iitm.ac.in/?q=node/patents>). He touched on the topics of competitive index and India's position in it (India occupies 59/144 in The Global Competitiveness Index 2012–2013 rankings-World Economic Forum Global competitiveness report, 2012-2013).

With the minds sagging under the quantum of information within the span of 2 hours, we came to the end of the session with Dr.Sarit K Das's special address to MS and PhD scholars in two separate sessions. It was an enchanting session which drove off the drowsiness that was starting to settle in. Dr.S.K. Das quickly went through the courses, credits, DC/GTC meetings. He shared his experience of what is research and what it means to be passionate. Few people may be eloquent about not giving up research for money or luxury. When it comes to real world scenario, the number dwindles to a fraction. Prof.S.K. Das has made it to one among the handfuls when he turned down the offer from a renowned university and one that was ready to offer a very handsome etc. Quoting Albert Szent-Gyorgyi

“Research is to see what everybody else has seen, and to think what nobody else has thought”, professor made me go back to my orientation programme where someone was saying “everybody knows the sky is blue.but a researcher asks why it is so”. Dr.Sarit was against the “delta addition” to the research and asked students to define their own problem. As portrayed in the novel “Veronika decides to die”, it is the monotony that drives people crazy. Professor was happy no two days in his life were same and asked scholars to make every day new.

I will end with some of the “don’ts” about experiment that I found humorous in his talk:

When you do not know what you are doing, do it neatly.

Team work is essential. You can blame others.

If reproducibility is a problem, do the experiment once.

If enough data is collected, anything can be proved by statistical methods.

On the whole, it was a wonderful experience to sit back and savor the pleasure of being in the most prestigious institute of our country and listen to professors' words, again.

Honestly I got re-oriented. I hope the new scholars found it as a sparkling start to an illustrious career ahead.

Welcome to IIT Madras!

I took 4 classes each quarter which gave me enough time to discover all important sights and places in Chennai and travel a little at the weekends (and yes, Taj Mahal is even more beautiful than on post cards). In general there is a big difference between our classes at home and at DoMS. While there are no attendance rules, midterm quizzes or assignments at or University there are lots of them at IIT. The good thing was that we made good friends through all these late-night group works. In Addition to that, we learned to appreciate last minute submissions and flexibility what is totally against the German nature of organizing everything to death.

Living at the campus was an experience itself. The daily fight with monkeys in the bathrooms in the morning, collecting the laundry they stole from all over the campus, trying to convince a grumpy old monkey to leave your room after he chose the best of your apples you thought you kept safe, feeding dear with water melon, trying to get what you ordered in food court, walking around and enjoying the silence in such an exotic and beautiful surrounding at night, monsoon rains, coffee with friends at CCD, power cuts with 40 degrees in your room, trying to make the Gurunath staff understand what you want to buy (pantomime was the most successful way to explain) and so on...

We also took part in some of the loads of activities offered at the campus like a Salsa-Class, Cooking-Class (Dosa doesn't taste the same in Germany), Onam Celebration, Dandia-Night and DCL of course which was an unforgettable event and I found out that I am apparently a pretty good bowler. Another highlight was Saarang. We went for every Pro-Show and just enjoyed the stimmung ambience at the campus and supported our girls from Sarayu performing an amazing dance

Vasanth Kumar Gurushankar
MS, Applied Mechanics



"I like to go along R.K.Laxman's "common man" and see how how the world works!"

Sangam Night 2013

Sangam Night is an annual cultural festival of Department of Management Studies(DoMS) for research scholars. The main purpose of this event is get together of all scholars. It was started in 2008. From 2008 onwards we are celebrating once in a year. The meaning of Sangam is community among the people especially in this context community among the scholars.

This event is not only as an occasion for the graduated and current scholars to get-together but also as a farewell for the scholars who will be graduating that year and alumni of earlier batches.

The objective of Sangam Night is developing the cultural talents of the research scholars, improving their capabilities to work as a team and raising their level of self-confidence in interacting with fellow scholars, senior scholars and peers. On this day we remember our achievements for the past year like people won awards in various conferences, paper publication and different cultural events.

This year we celebrated Sangam night on 20th July. The event started with a prayer song followed by a speech by HoD Prof. G. Srinivasan and Dean students Prof. LS Ganesh. All scholars showcased their talent in all possible ways. The main attraction of the Sangam night was colourful cultural activities which ranged from singing to varied form of dancing. Be it Tamil, Telugu, Malayali or Hindi we discovered very talented singers among the scholars. Sangam night provides a platform for scholars to show their talent other than academics and research.



Everybody enjoyed the event and had a good time. The celebration of Sangam night ended with appreciation of Teaching Assistants by HoD, achievements of scholars, interaction with alumni scholars followed by dinner. Dedication, hard work and team spirit of all the scholars at DoMS made this event a huge success.

Another side effect of our stay in India is that especially I fell in love with Indian food. In general, nearly every foreign girl gained weight while the guys surprising lost (should that be due to the absence of the typical German "Feierabend-beer"?)

All in all, all of us enjoyed our stay a lot and were really impressed by the Indian hospitality and friendliness. Most of us were planning to come back for holidays again, I even came back to DoMS to write my thesis and I am quite sure that this wasn't my last stay in India at all.

Miriam Zacharias
Exchange student
Parent university: University
of Duisburg, Essen



This year we had many colourful dance performances. To name a few we had duet dance, classical, contemporary, retro style, expression less dance and lot more. Every performance was unique in its own way. We chose different themes and styles for all the performances which made the event very interesting and exciting.

Additional attraction of the event was "Funny awards". These awards had several funny categories e.g. 'Best comedian of dept.', 'Night owl', 'tom and jerry of dept.', 'likely to be prime minister' etc. In the same way we had several funny games to engage the

Venkataprasad Palakiti
PhD, DoMS



"Striving for excellence with dedication, hard work and will power"

*Alice Wonders: "Vaseline without petroleum.
Is it possible?"*

A Passing Thought

From across the lab, I heard Ashok scream. He was inoculating LB broth with bacteria. His fingers had touched the mouth of the test tube while it was too hot. We play with fire every single day. But we are not careless. No. Not every day. He left everything and ran to the sink to put his fingers under cold, running water. I took care of inoculation. I had Vaseline with me, and let him use as much as he needed to cover that bean shaped burn on his index finger. He asked me how I came to have Vaseline with me. I replied that I had purchased it to lubricate my new sandals, since their edges hurt my toes. "We can use coconut oil on such chappals, but Vaseline lasts longer and does not attract ants", I explained.

Petroleum jelly is used for several medical uses like first aid on burns, cosmetic uses like cleaning up make up, veterinary uses on canine paws and turtle shells to control fungal infection, and also to prevent metal surfaces from tarnishing. I thought about the fact that petroleum jelly comes from petroleum, a fast depleting resource. And I wondered if petroleum was the only source from which we could get it.

Down the Rabbit Hole.

I peeped into the internet, which sometimes appears like a deep, dark well. Vaseline is the registered trademark of Unilever. The name Vaseline was first used by Robert Chesebrough, the inventor of petroleum jelly. He was the first to make kerosene from the oil of sperm whales. The discovery of petroleum rendered his invention obsolete. And so he travelled to oil rigs in search of commercially useful materials. He collected the black "rod wax" that deposited on rigs and interfered with the drilling operations, and refined it to yield a clear, light coloured gel, which he marketed under the trademark Vaseline, for which he was awarded a US Patent. Vaseline was made by the Chesebrough Manufacturing Company until 1987, when Unilever purchased the company.

Petroleum jelly nowadays is manufactured from "vacuum residue", the heaviest crude oil refinery fraction, which is known to contain large amounts of carcinogenic substances. Several cleanup steps are performed to remove these harmful substances, in order to obtain a product safe to apply on the

ReConnect

Our prime objective is to build a common platform for the interaction of research scholars (IITM and International) and alumni. We have embarked on this mission, with a vision to make research at IITM worthy by creating various opportunities for research scholars. This would be achieved by broadcasting up-to-date information regarding MoUs signed with foreign universities, exchange programs, PhD and Post Doctoral opportunities through our International and Alumni Relations (IAR) office. We would be inviting our PG alumni to share their research experiences in IITM either through a talk or an article for ReNews

We are also trying to rope in PG alumni for the existing leadership lecture series and have an exclusive lecture series on cutting edge research technology in distinct fields, in order to infuse confidence among research scholars for achieving greater heights.

ReFresh

It has been two weeks since the arrival of new scholars to campus. After getting an enchanting view of the campus life and its various facets, it was time for them to finally have a blast. The RAS and his team had organized this orientation to welcome the freshers in this vast research community at IITM. On discussing over a series of meetings with various teams of the research groups the final plan was charted for 29th evening. It was going to be a first event of its kind to involve only the research scholars and introduce them to the campus from a scholar's perspective. This led to lots of doubts and fingers were crossed as to what would be the turnout (given the past records of such events).



A NEW BEGINNING.....

skin. Even after all these steps, commercially available petroleum jelly still contains parts-per-million quantities of these substances, and hence it is listed as a probable carcinogen in the European Union's Dangerous Substances Directive. As a result of this classification, the use of petroleum jelly in cosmetics is limited. However, the same directive says that "The classification as a carcinogen need not apply if the full refining history is known and it can be shown that the substance from which it is produced is not a carcinogen." This was the motivation behind a process patent to produce synthetic petroleum jelly from a non-carcinogenic source, i.e., natural gas, by converting the mixture into synthesis gas and then separating heavier hydrocarbons from it to make petroleum jelly.

At the End of the Day

Petroleum jelly is a mixture of hydrocarbons obtained from petroleum refinery residues by repeated distillation. It is a generic thing today, and there are several manufacturers for it, with different trade names. Although there is no substitute for petroleum, the fossil fuel, there are several substitutes for petroleum jelly, both commercial and home-made, that use agricultural products, mainly due to popular demand for "all-natural ingredients". It made me wonder why petroleum or fossil fuels or anything obtained from them is being regarded as "not natural".

I got a shock to find that petroleum jelly may contain traces of carcinogens. I had not even thought about this. But, for my original question, I did find an answer. As of today, we get petroleum jelly only from petroleum. However, recent advances have made it possible to synthesize it. Hopefully, these methods will be implemented soon, since they promise a product that is safer to use.

Malini Sundar Rajan,
PhD, Biotechnology



Lost... in... words...

Hindi poetry was presented by Ajay and Jayant, musical presentation by Chaitanya and Mithun, and songs by Sriranjini and Abhishek. The atmosphere was really charged with the amazing dance by Akhil Vijayan to the tunes of *mai aisa kyu hu*. Ramya's Bharatanatyam dance was terrific. During all these, Aditi held the stage and very efficiently managed the course of events. At the end RAS briefed the scholars on non-academic facilities in and around campus. From travel to campus to eateries and snacks joints all were mentioned. Explaining the organization structure various research group teams, he mentioned that all the teams work independently and enjoy freedom in all respects. He also gave a glimpse of all the teams and mentioned their core objectives. The scholars enjoyed every bit of it and thanked the organizers for putting up such an event.

Surprisingly, the organizers were overwhelmed to see a full house at CLT. This energized the whole organizing team. The show began with high tea and a funny animated orientation video on what not to do in labs. Following that, a very interesting question was asked by RAS as "why you have chosen MS/PhD over M.Tech or some other vocational courses". More than the question, the replies given by new scholars were thoughtful and humorous.



The freshers were really enjoying the session and to ensure participation and interaction task based games were introduced. Random people were selected from the audience and asked to perform specific tasks based upon a lottery. The level of confidence and creativity of the participants was appreciable. A glimpse of each department, facilities available and their unique features were highlighted by the branch councilors. Also the central facilities available (library, central workshop and computer centre) on campus were discussed.

To keep the session going off a series of cultural activities were lined up. Freshers actively participated in cultural activities.

Aditi Yadav
MS, DoMS



ReTune

ReTune is one of the Research Affairs Teams looking after cultural events for Research scholars. A cultural Night – ReLoaded, was organized by ReTune on July 6th in Central Lecture Theater as our first step towards an everlasting journey of bringing Research Scholars to showcase their talents and having a great time together. Even though it was the first event of its kind, ReLoaded got a marvelous response from fellow scholars.

No prerequisite needed for participation was the uniqueness of this event. Singing, Karaoke, Dancing, Story and Poetry telling and solo instrumental performances were the attractions. The event started with invocation followed by poetry reading by Suyash Gupta. Tanneru Hemanth Kumar, Sriranjani, Sruthi, T Rajesh Kumar Dora and Navneeth K perked up the CLT by their singing. Niraj, Immanuel and Shubham performed instrumentals. Aditi made CLT dance on beats by her breathtaking performance Aravind (RAS) made everybody comfortable and connected by his effective and very informal anchoring. Audience felt bucked up by all these and came forward for spot performances, indeed certifying the success of this event.

Niraj, Shubham & Sumit



COLUMN



खानाबदोशी

जो पास है वो अब रास नहीं ,
जो रास है उसकी आस नही,
कभी दूँडे गम तो कभी खुशी,
में और मेरी खानाबदोशी ..

जूझती, छटपटाती बैचेन सी ,
पिंजरे में कैद इक जान सी,
खुद से ही इंकलाब करती,
में और मेरी ज़ेहादी ..

है अभी यहाँ तो कभी वहां ,
मन उड़ चला जाने कहाँ,
कभी दूँडे आस कभी बैरागी,
में और मेरी आवारगी ..

इक तृप्ति की बस आस है ,
फिर भी सरोवर ना रास है,
है ये भी कैसी बंदगी,
में और मेरी तिष्णगी ..

उन्मुक्त दूँढता फिरे पनाह,
कहीं थमने की लिए कामना,
फिर वही पनाह करे कैदी,
में और मेरी आज़ादी ..



Aditi Yadav
MS Scholar, DOMS

SUMMER SOUP CINEMA

The very thought of writing some article sounds so odd to me that I occasionally pick a pen and paper to do so. I even had a long history of writing less and am so frustrated about writing anything that I won't even attend my History exam papers to the full during my schooling days. When I feel I had crossed the pass mark line I would switch to a slow lane, just killing my time till the bell rings. Saying so much, then why am I penning this down? I actually started off writing my Internship report and ended up with this?

Really I don't have any special stories in my limited memory to share with, so here I am cooking up one for you all. This is not the summer of 2013 but some old summer (2012) and my "soup" story; as many of my friends tease me saying so.

Reel rolls out in IIT Roorkee, scene 1- long queue and scorching heat has confined me to stay in that crowded and poor air conditioned lounge inside Punjab National Bank Branch. My friend was standing in the queue which was as long as the tail of "Hanuman". Just to help him out we used to take turns while standing in the Q to make that elusive DD worth 20k and hopefully secure an M.Tech seat, the next day.

During one switching, I sat beside this girl, or it would be right to say she sat beside me, my "soup" story queen. As all girls look great for a man deprived of a girl friend, she seemed exceptionally pretty and cool. She turned towards me - "I am so and so and here for admission in M.Tech Thermal. I am from aerospace background. few blah blah. then few more. Would you like to have something to drink? I will pay". I heard the last few words crisp and clear. Sweet. Never ever ever I heard a girl will do that (may be to me). She made an offer which nobody can refuse-"kanna manasila rendu laddu potti"...

We went to the nearby juice stall had some Cool Milk, and the chat went on. Soon it turned out to be one sad tale for me- she was engaged to some "Duke of France" (I was pissed off while hearing this as I didn't want one more sister...). Her worries were whether she will make it here, as she did some Equivalent Course and not regular B.Tech. Sorry, but I wasn't ready to carry yet another sad story for being a friend of a girl. But then the miracle happened as my dear friend came and saved me from more of mess- a real friend indeed.

I called him and introduced him to her (just being a gentleman). I didn't have much to say and I left her there on the lounge and went for lunch. But the story was about to explode, as all may know that what will happen if your friend is also a stag and you got(as he says till now and forever...) a cool looking girl. I never was allowed to forget her. Every now and then he will bring this story.

But it wasn't me who found her but the other way around. She saw me again the next day and said she was all alone in this place and needed a friend like me ("kya...alone in this place, spare me. For the past three days we were running from pillar to post to get some food and water as enormous crowd had turned up for admission ; ill planned counseling ;and there is one poor girl alone in this forest ...pity."). I certainly believe god has given girls some special radar to sniff out poor chap like me from this sea of men, just to be their friend ... It wasn't her mistake, but why me?

But it wasn't me who found her but the other way around. She saw me again the next day and said she was all alone in this place and needed a friend like me ("kya...alone in this place, spare me. For the past three days we were running from pillar to post to get some food and water as enormous crowd had turned up for admission ; ill planned counseling ;and there is one poor girl alone in this forest...pity."). I certainly believe god has given girls some special radar to sniff out poor chap like me from this sea of men, just to be their friend ... It wasn't her mistake, but why me?

As I have already said I am good chap and I have to be the good guy and accepted her FRIENDS REQUEST. I took her to the counseling hall and waited there for hours. My friends (4 more than "the one") also joined me and the story went viral. I remained the same old good chap and introduced her to my buddies. That evening her roll call came and she was on the queue and while submitting her applications, the staffs found some hitch. I enquired her about this and she said it was with her degree .She did take enough precaution by bringing a bundle of certificates from all known authorities from her institute, and yet there was no clear go for her. I felt bad .She was on the verge of breaking to tears. This was something I never could stop and in some frantic efforts to console her I said some good words and she was a bit relaxed. Within few moments a higher official came and approved her admission and she was all so happy. There was the end of this happy story. Neither did I wait to hear thanks from her nor did she bother to say one, though we had each other's phone number.

An year passed but this story won't leave me, so here I am trying to close it and give credits to all my friends who always teased me about this by saying "yennalum kannappa, aval oru thanks polum parayathe poyallo."(subtitle -"still kannappa, she should have at least thanked you.") The story remains fresh in my mind. (Any similarities to Vijay's movie "Shajahan" is purely coincidental and there is a small difference of "e" to "a" between a reel and real story.)

Cast Credits:

- 1) Ajo joseph("the one")- who was so shy that he acted sleepy, when I brought her to the counseling hall where she spoke to all my friends except him, as he was sleeping.
- 2) Dhanesh Ayyappan – master mind behind the spreading of the story. Master Flirtsman
- 3) Joseph Joe- The good guy.
- 4) Nikhil Mannadath- One more good guy.
- 4) Kannappa Palaniappan P- protagonist of this soup cinema.
- 5) Leading Lady- my friend(another sister), whose were about are a mystery to me and I never tried to find it . She is somewhere out there,

and here I am- KaPpa, the good chap.

Kannappa Palaniappan P
M.Tech, Ocean Engineering

"I will Run for sMILEs.."



She stood on the water's edge,
 Looking out at the horizon,
 Ever amazed by its tranquil magnificence.
 Her feet half sunk into the sand,
 each wave moved the ground beneath her feet,
 taking her in just a little more.
 Wondering how she didn't remember
 the last time she was here,
 the last time she felt this way,

SUNRISE

She let the grains slip between her fingers,
 watching, waiting, savoring the anticipation.
 She wondered if waiting was more enjoyable.
 As the warm formless gold finally touched her skin,
 she realized she would forget this feeling,
 and come back to learn the beauty of this experience, yet again.

Supriya V Thathachary
 MS, Electrical Engineering

*"I see myself being confused and sorted at the same time,
 I'm still discovering myself :)"*



HeLa

Henrietta Lacks – a name few people would recognize or pay attention to unless of course you have something to do with biotechnology or its related subjects. Even within this community, it wouldn't be surprising if the name didn't evoke any thought because she is known more popularly to the world by her acronym "HeLa". Ask any Cancer biologist and they would say – "HeLa?? Well, it's an immortalized cell line commonly used in labs." But behind this very powerful cell line lies the story of a woman whose early and painful death in 1951 has today in fact saved millions of lives worldwide. So why is her story that important for us to know? It is a question better answered in detail or if simply put, we wouldn't like it if it had happened to us or our near and dear ones...

My interest in her story began in a rather mundane fashion – it was Cell Biology end-semester exam and I had to cram stuff from the net too apart from huge books, burning the midnight oil. As is a bad habit among so many of us, I strayed away from the topic of academic relevance – "Cancer cell lines" when I decided to wiki the full-form of HeLa. A strange sounding woman's name led me to a brilliant article written on her life in the John Hopkins Magazine (<http://www.jhu.edu/jhumag/0400web/01.html>) which is ironically where the story of Henrietta Lacks – the beautiful woman who loved to paint her toe-nails red, a mother of five and a loving wife ended and that of HeLa – the first human immortalized cell line which would go on to revolutionize the medical and scientific world accounting for over 60000 scientific papers with an estimated 10 new studies getting added every day began. Henrietta was just 31, already a mother of 5, when she went to John Hopkins hospital (the only one to treat black patients in those times, in proximity to her home) complaining of feeling a knot in her womb.

The doctor examining her detected a lump in her cervix almost the size of a quarter which caused extensive bleeding – it was unlike anything he had seen at that time. Biopsies revealed it to be malignant and thus she was diagnosed with Stage 1 epidermoid carcinoma. Even as she was being treated with radium tube inserts, a sample of her cervix was sent to George Gey, the head of tissue culture at JHU who having spent several decades unsuccessfully trying to develop a cancer cell line had recently turned his attention to cervical cancers. While Henrietta's condition worsened by the day, with profuse bleeding and excruciating pain being her only constant companions, Gey was just beginning to unravel the immense potential and ruthlessness with which the HeLa cells attacked the culture medium, latching onto test tube walls, piling layer upon layer in petri plates and doubling astonishingly in 24 hours. Further these cells simply wouldn't stop dividing or die because of a very active telomerase ensuring that the chromosomes in these cells never shortened. Six decades since, HeLa cells still divide and are estimated to be numbering in trillions (more than the actual number of cells in Henrietta's whole body!!) and have travelled to virtually every part of the world and even to space where the effects of zero-gravity on human cells was studied using the HeLa cell line even before Yuri Gagarin became the first man to orbit outer space! A testament to HeLa's ferociousness is the fact that several years after the cell line became widely available for research, it started contaminating other cell lines in labs and several researchers have gone on to dedicate their research careers to monitoring the degree of contamination and trying to unsuccessfully control the spread of HeLa. Infact in 1970s when the Soviet scientists thought they had discovered a cancer causing virus, it was HeLa instead that had permeated the Iron curtain!

If human cells on a petri plate could exhibit such ferocity, one can only imagine what they must have done inside Henrietta's body. Sure enough, the cancer was metastasizing so rapidly that tumors invaded virtually every organ in her body and Henrietta would scream to her Lord to save her. The day she succumbed to the cancer and lay all alone in the JHU morgue-October 4, 1951, George Gey, the pioneer of HeLa cell line, went on a television program "Cancer Can Be Conquered" holding a vial of his great discovery and remarked, "It is possible that, from a fundamental study such as this, we will be able to learn a way by which cancer can be completely wiped out." By now HeLa cells were in demand all over the world and so many more samples of Henrietta's cells were taken straight from the autopsy table. Even as Henrietta had become all but a memory in her clueless and extremely poor family's mind, HeLa was pioneering all kinds of research in all parts of the world. Most notably HeLa cells were what enabled Jonas Salk to develop the Polio vaccine as the virus would grow only when HeLa embraced it. HeLa cells have also been used to research cancer, AIDS, effects of radiation at nuclear test-sites, gene mapping and innumerable other pursuits; the cell line has spawned a billion dollar medical industry that still thrives on it and has created numerous scientific careers. Yet, until 1975, the Lacks family knew nothing of HeLa except that their mother had died of cancer 20 years back; when they accidentally realized through an acquaintance, much to their horror, that Henrietta's cells were still alive in labs, they contacted John Hopkins by which time, researchers around the world were struggling with a peculiar problem – How to control HeLa cells from overpowering and contaminating every other culture? Other cell lines simply couldn't catch up to HeLa!! The researchers knew nothing about the source of HeLa to be able to control the spread except that the source was a dead black woman. So to them, getting to the Lacks family was like a prayer answered and once again the Lacks were hounded – this time for their blood and tissue samples which gave researchers precious clues about Henrietta like her blood group. All along the poor and illiterate family was led to believe that the tests were being done to ascertain if they themselves had the genes that triggered the cancer which ravaged their mother. But these and several other questions that they had remained just that – questions; they never heard from the researchers again...

The Marine Connection

Every drop that splashes on me
 Brings a whole new world of freshness,
 I sit there almost night and day
 With Nature and me it's always togetherness;

The warm sunshine on calm water
 Makes it glitter like gold,
 But sometimes the breeze and the surging waves
 Leaves me shivering in utter cold;

The breeze on the shore
 Is fresh, healthy and pure,
 But as it strikes against my coiffure
 It ends up in a nest for sure;

You've got to see the Drive
 In event of a heavenly downpour,
 It strikes the pleasure chords within you
 'God-sent' drops meeting earthly doors;

Families, friends and lovers all over
 Some caring, loving and some kissing all over!
 They come here to take the stress off their lives,
 Some brothers and sisters, some husbands and wives;

For me the Drive will always be
 A constant source of energy,
 I sit here, relax and feel divine
 It develops a peculiar 'synergy';

Man goes on to compile and build
 Places of ephemeral pleasure
 But the Drive has been for centuries now,
 And so will it be - radiating the eternal leisure!

Ankit Sharma
 MS, Electrical Engineering



"I am thoroughly inspired by natural beauty and an avid writer when it comes to penning down nature"

Till 2010, members of the Lacks family and Henrietta herself largely remained unknown to the world and she remained buried in an unmarked grave. In 2010, a book documenting the journey of both HeLa and the Lacks family titled, "The Immortal Life of Henrietta Lacks" by Rebecca Skloot was finally published becoming an instant best-seller in US and suddenly people woke up to the concept of Informed Consent. The Lacks family still argues that they had not been asked for consent while Henrietta's cells were being taken indiscriminately; this was a standard practice in the 1950s when patient samples removed during surgery were considered the property of the physician and strangely even today Informed Consent in such cases is not really required except in few countries!! Ironically, while HeLa has saved millions of lives and generated huge profits for the medical industry, several members of the Lacks family still cannot afford a basic health insurance (a requisite in US) and live in poverty. Sixty plus years after their discovery and having sailed through innumerable ethical debates, HeLa cells still stir up newer debates. In March 2013, the full genome of HeLa was finally sequenced and published only to be withdrawn shortly after due to objections raised by bioethicists as it may reveal certain genetic traits of Henrietta's descendants. The HeLa story has many facets to it – it's morbid and fascinating, painful and exciting all at the same time. It's the story - of a woman who died early because of a cancer that killed her and then made her immortal; of an illiterate poor black woman who was responsible for thousands of research papers which she could never even read; of a family repeatedly used by the research community without being told why; of a family who knew lesser about their mother and her famous legacy than the rest of the world.

Whether a researcher or just a normal person, the simple question one has to ask oneself while taking up sides on the ethics debate is – Would any of us have liked to be in Henrietta's shoes – to have our cells taken out while we lay dying, packaged and sold like a commodity? Had Informed Consent been a practice in 1950s, would Henrietta have agreed to have her cells taken for research? And if she had said yes, could she have anticipated the extent of exploitation that the HeLa cell line ultimately suffered?

Considering that the Lacks family wasn't given a penny as compensation, exactly how much would compensate for the profits that the biomedical industry reaped? Doesn't it become the medical fraternity's obligation to screen at least the surviving members of the Lacks family for the cancer which was so malignant? Regardless of what the outcome of the ethics debate maybe, HeLa and through it Henrietta Lacks will live on turning 93 this August 1st ...

Aarthi V

MS Scholar

Department of Biotechnology

कवित्व का रस

“कविता लिख कर क्या मिलता है?”

किसी ने पूछा

“स्याहमयी पन्नों को करके क्या मिलता है?”

किसी ने पूछा

रस मिलता है, रस मिलता है, रस मिलता है।।

मन में घुमडते सुंदर भावों को

जब लिखता हूँ

तब रस मिलता है, रस मिलता है, रस मिलता है।।

तुम क्या जानो बात एक कवि हृदय की

मन को पँख लगा उड़ते उस स्वछंद हृदय की

हवा से करता बात, नापता धरती, सूरज, मंगल, चाँद,

झरने, नदिया, वन, पहाड़, पक्षी, पशु, इंसान

अनगिनत स्मृतियों तथा अनुभवों को

जब कलमबध्द करता हूँ

तब रस मिलता है, रस मिलता है, रस मिलता है।।

कभी यही रस ममता की शीतल छाया बन जाता है

कभी यही रस प्रेम, भक्ती और श्रृंगार की नदी बहता है

कभी यह रस वीरों का शौर्य, साहस बन जाता है

वही वीर फिर मातृभूमि पर प्राणार्पण कर जाता है

पर तुम क्या जानो

शब्दों की ताकत से तुम अभी मुझे अनभिज्ञ, अनागत लगते हो

संवेदनहीनता के जड़त्व में जकड़े हुए से लगते हो

संवेदनशीलता के उस ऊंचे जब मंज़र पर तुम पहुंचोगे

“कविता लिख कर क्या मिलता है?”

फिर यह प्रश्न कभी न पूछोगे, यह प्रश्न कभी न पूछोगे।।



पुष्पेन्द्र शर्मा

शोध छात्र (वायुगतिकी)

वांतरिक्ष विभाग

भारतीय प्रौद्योगिकी संस्थान, मद्रास

Enslaving Moments

Too hard to handle, the pain of life,
All drowns in water as time goes by.
Nothing to curse and no one to cry,
Life is not just a pain, but a work to follow by.

The time I spent dormant, nurtured my mind,
It helped me to pass misery and fly along my dark side.
Soon all seemed to fade as ditches came by,
Helpless I felt as more and more time passed by.

Whether books surrounded me or I surrounded them,
The question pondered deep inside my head.
Failures shadowed the success and mistakes covered the best,
Lonely I became with unpleasant events that were not at rest.

Still everyone asked me to be still and calm,
And my inner self advices me to remember that my choices
shall not harm.

I feel the agony enslaving my soul,
Inside every bone a thirst to do more.

I still think "Was my decision wise?
Was I in hurry to claim something as right?
Had I already known what was going to happen,
Could I have changed the outcome in some fashion?"

On the contrary many laugh,
And show me my why my decisions are wrong.
Their bantering is what hurts me most,
And fear of hearing this, kills me more.

I wish to proclaim what is rightfully mine,
I need a spark to light my mind.
My lamp still has a little oil to burn,
But if you shall pour, it will burn ever more.

I think I took a lot on my platter,
I misjudged my capabilities and tried to grasp a lot of matter.
I believe I didn't see my true self,
And so I am the first one to curse myself.
I get frustrated on seeing all jumping and bumping,
I wish to cut loose and dive in water.
I prefer swimming to sitting,
But still water alone cannot sustain a life.

Fresher cheatsheet

Welcome freshers, to the prestigious
research creatures' club of IIT Madras.

This cheatsheet lists some very
important rules and regulations that
you must follow to join the hall of fame
of badass research scholars.

First things first. Do not complain that
the internet is very slow. Live through
it. Plus, you have *everything* in DC.

In general, it is difficult to get an
appointment to meet any of the Deans.

But, there is a shortcut to Dean's
office. IITM has lavishly subscribed to
a lot of journals and proceedings
including that of IEEE. Spend a
night-out and write a script to
download articles in bulk. Next day
when you wake up, you will be warmly
greeted by one of the Deans to his
office for an hour-long lecture. Do try
once. At least, coffee will be good.

You can see some visually pleasing
blackbucks grazing the grass and
roaming around the campus. Before
flashing your camera in front of them,
beware. For one thing, you will just be
one of hundreds of people taking
photographs of deer everyday in the
campus. But the main point here is,
they have sharp close-to-a-metre-long
horns. So make sure that you pack some
chapattis in your bag from the mess to
use them as leather armours.

If you are going to mail your guide about
your progress or update on a Saturday
night, say 10pm, postpone it a little.
Send the mail at 1am.

From dawn to dusk my heart ponders,
About the beauty in which I could wander.
Even a little chirping bird agitates me,
Bounded by these chains, I wish to be set free.

For all I desire is a little more happiness,
A method to sustain my burning flame.
Encouragement arouses my soul no more,
Cause now I see failures even more.

I talk to west wind and listen to drizzling rain,
I shatter glass to hear its pain.
In hope of some remedy to soothe my soul,
I do not even restrain from getting foul.

I urge god to stand by my side,
To help me fight and resist the evil might.
With this much endurance I feel strong,
And again in morning I will stand up tall.

Suyash Gupta
MS, Computer Science



Join gymkhana to play badminton. Krishna and Cauvery have shuttle grounds too. You need some good practice to electrocute mosquitoes. Electric racquets are in high demand in Guru. So get out of your bed and hurry up.

It is easy to transform yourselves to an IITM undergrad. Get a round neck Saarang tee and chequered trousers. You should brim with confidence and should act like you know everything. In between small talks, put some f-words and s-words. Also put words like insti, GC, game of thrones and GTA. Important - put put into everything.

Talk to your parents at least once a week. There is a high probability that you login to your state bank account one day and find your balance as, er... well..., zero rupees. You need to have someone to save you from bankruptcy.

There are good Andhra messes outside Taramani gate. Behold. Scholars do not go out just for *gongura*. There is a rumour that in the first floor of a blue painted house in the second left cut when you go out to the right side of Taramani gate, they sell some chemical compound named methyl-3-(benzoyloxy)-8-methyl-8-azabicyclo-octane-2-carboxylate. Not for the faint hearted.

There will be a time when every researcher goes through an existential crisis phase. Experiments will laugh at you. Simulations will give segmentation error. Your guide will question you for one hour every two hours. Your boy or girl friend (I mean if at all you have one) will date someone else (I mean if at all they get one). No one will upvote your answer on Quora. Your twitter follower count will stop at 17. Even Saravana Bhavan coffee will taste like mess coffee. That is the right time to join to the tree census team of IIT Madras. At least, you will get satisfied that you can count numbers - one, two, three...

Thanks for listening to me.

Now open your laptops, write and send your articles to Ranjan and Malini if you want to stop ReNews from publishing sarcastic articles like this.

A P Vijay Rengarajan
PhD, Electrical Engineering



5S IN IIT LAB

Introduction:

5S and Visual controls to be the foundation of Lean Manufacturing systems. Lean Manufacturing systems aims to remove the seven wastages (over transportation, over inventory, excess motions, long time waiting, over production, over process, defects of the product) in the industry. 5S and Visual Controls are workplace organizational tools (department) that provide the necessary groundwork for workplace improvement. 5S and Visual Controls ensure that there is a place for everything and that everything is in its place -clean and ready to use.

Lean Manufacturing	
JIT	Kaizen
5S	TQM

Table.1 Lean Manufacturing Tools

Objective:

To study the effect of 5S and implement in IIT Madras Department labs.

The '5S' Process:

The 5S process is a structured program to systematically achieve total organization, cleanliness, and standardization in the workplace. A well-organized workplace results in a safer, more efficient, and more productive operation. It boosts the morale of the workers, promoting a sense of pride in their work and ownership of their responsibilities. 5S was invented in Japan, and stands for five (5) Japanese words that start with the letter 'S': Seiri, Seiton, Seiso, Seiketsu, and Shitsuke. An equivalent set of five 'S' words in English have likewise been adopted by many, to preserve the "5S" acronym in English usage. These are: Sort, Set (in place), Shine, Standardize, and Sustain.

1. SEIRI

It refers to the act of throwing away all unwanted, unnecessary, and unrelated materials in the workplace. People involved in Seiri must not feel sorry about having to throw away things. The idea is to ensure that everything left in the workplace is related to work. Even the number of necessary items in the workplace must be kept to its absolute minimum. Because of seiri, simplification of tasks, effective use of space, and careful purchase of items follow.

2. SEITON

This step consists of putting everything in an assigned place so that it can be accessed or retrieved quickly, as well as returned in that same place quickly. If everyone has quick access to an item or materials, work flow becomes efficient, and the worker becomes productive. The correct place, position, or holder for every tool, item, or material must be chosen carefully in relation to how the work will be performed and who will use them. Every single item must be allocated its own place for safekeeping, and each location must be labeled for easy identification of what it's for.

4. SEIKETSU

It consists of defining the standards by which personnel must measure and maintain 'cleanliness'. Seiketsu encompasses both personal and environmental cleanliness. Personnel must therefore practice 'seiketsu' starting with their personal tidiness. Visual management is an important ingredient of seiketsu. Color-coding and standardized coloration of surroundings are used for easier visual identification of anomalies in the surroundings. Personnel are trained to detect abnormalities using their five senses and to correct such abnormalities immediately.

5. SHITSUKE

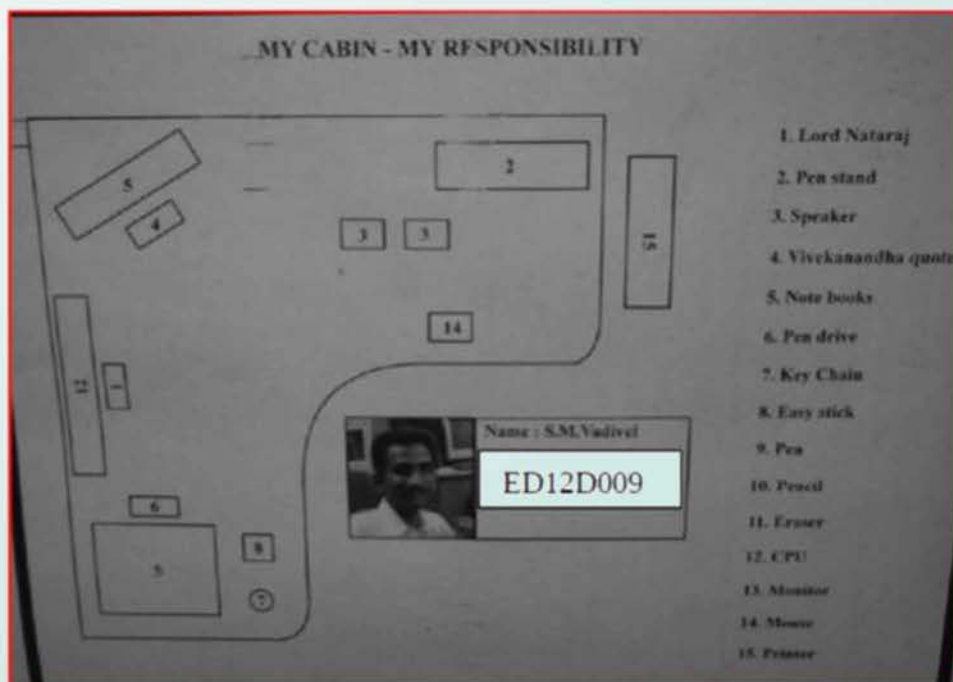
It denotes commitment to maintain orderliness and to practice the first 4 S as a way of life. The emphasis of shitsuke is elimination of bad habits and constant practice of good ones. Once true shitsuke is achieved, personnel voluntarily observe cleanliness and orderliness at all times, without having to be reminded by management.

Before 5S	After 5S
 <p>Ergonomics Room</p>	 <p>Ergonomics Room</p>
 <p>Student Cabin</p>	 <p>Student Cabin</p>
 <p>Drinking Water Area</p>	 <p>Drinking Water Area</p>
 <p>Dustbin Area</p>	 <p>Dustbin Area</p>

RBG Entrance with mark



Cabin Layout



Acknowledgement

My sincere thanks to my guide Dr.Venkatesh Balasubramanian who has initiating to implement '5S' in RBG Labs and our Head of the Department Dr. Nilesh Jayantilal Vasa who has continually encouraging me this kind of activities. My special thanks are to my RBG lab mates Robert, Vijaylohan, Rahul and Shalini for their continue support and friendship during the implementation.

Vadivel S M
PhD, Engineering Design



KARGIL VIJAY DIWAS

The Kargil War is considered one of India's greatest victories in war. What if the unsung hero of the nation had a chance to express his opinion on the topic? What if he decided to record his thoughts on our little conflict in the border? What if he wrote...

வானமும் இங்கே இரண்டு போனது
வள்ளை பணியும் கருநிறக் கற்களாய் ..
நாளடைப் பொழுதென ஒரு நாள் விடியாமோ ?
நாளும் செய்யும் கடமைகள் மாடியாமோ ?

Vaanamum inge irundu ponadhu,
Vellai panyum karunirak karkalaai...
Naalai pozhudena oru naal vidiyumo?
Naalum seiyum kadamaigal mudiyumo?

எல்லையைக் காக்க என்னை அனுப்பினார்,
எல்லையே இல்லா பொறுப்புகள் தந்தார்,
எல்லாச் செயல்களும் எடுத்து மாடித்தனே,
எஞ்சியது எந்தன் எதிரியின் உடல்தான்

Ellaiyai kaakka ennai anuppinaar,
Ellaiye illa poruppugal thandhaar,
Ella seyalgalum edutthu muditthen,
Enjiyadhu endhan edhiriyin udaldhaan.

போர்க்கு வந்த பகவையன் அவனை,
போர்க்களத்தில் பாய்ந்து தடுத்தனே..
ஓர் கணத்தில் நான் செய்த வினையால்
ஓர் உயிர் என்மான் பிரியக் கண்டனே..

Poarkku vandha pagaivan avanai,
Poarkkalatthil paindhu thadutthen..
Or kanatthil naan seidha vinaiyaal,
Or uyir enmun piriya kanden..

வந்தவன் எந்தன் எதிரி தானோ?
வீழ்ந்து கிடப்படும் அவனுடல் தானோ?
வீடணனும் அர்ஜுனனும் கலங்கிய காரணம்,
வினாடியில் என்னுள் தோன்றி மறந்ததோ..

Vandhavan endhan edhiri dhaano?
Veezhndu kidappadhum avan udal dhaano?
Veedanatum Arjunanum kalangiya kaaranam,
Vinaadiyil ennul thondri maraindhadu..

ஈரூடல் ஓரயிர் என்றுநாம் இரந்தோம்,
இமமையித் திறக்கவே இரண்டைப் பிரிந்தோம்,
இன்றோ வெவ்வறோ துண்களாய் நிற்கின்றோம்..
இனியும் ஏனிந்த இடையறா சோதனை??

Eerudal oruyir endru naam irundhom,
Imai moodi thirakkave irandaai pirindhom,
Indro vevveru thoongalaai nirkindrom..
Iniyum en indha idayaraa sodhanai??

காலம்தான் தன்னிலை மாறாதோ? - சிறிது
காலம்தான் பின்னோக்கி நகராதோ? - அன்று
களிப்பூடன் நாமிருந்த நாட்கள் நினைத்தனே..
கைப்பிடி நீங்கியது கத்தியும் தானே..

Kaalam dhaan thannilai maaradho? - siridhu
Kaalam dhaan pinnokki nagaraadho? - andru
Kalippudan naamirundha naatkal ninaitthen...
Kaipidi neengiyadhu katthiyum dhaane!!

மறுநாள் நானும் மாய்ந்து போவனோ?
மறுபடியும் ஒருமறகை கலங்கி நிற்பனோ?
மரணம் வரினும் துயரில்லை - நான்
மனதில் நினைத்த காலம் வந்தால் ..

Marunaal naanum maaindhu povenno?
Marupadiyum oru murai kalangi nirpeno?
Maranam varinum thuyar illai - naan
Manadhil ninaittha kaalam vandhal....

இறப்பனே இன்பமாய் , இனியும் வலியில்லை
இன்றுமாதல் மீண்டும்நாம் இணைபிரியா
சகோதரர்தாம்
என்றெல்லாம் கனா ஒன்று கண்டிருந்தனே
எழுப்பியது போர்மணி.. எழுந்து சென்றனே...

Irappen inbamaai, iniyum valiyillai
Indru mudhal meendum naam Inaipiriyaa
sagodararthaam....
Endrellaam kanaa ondru kandirundhen...
Ezhuppiyadhu por mani... ezhundu sendren!!

JAI HIND!!

Srivathsan Narasimhan
MS, Mechanical Engineering

"Observer. Of things. Of people. Of Science. Of the World. Of Life"

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