Our Mission : To provide the best of technical skills, professional ethics and human values.

OUR ACHIEVEMENTS

Anish Sarangi of EEE, 5th Sem. has recently won the Bronze Medal in the 48th All India Student Design Competition 2017 in the Electronics and Telecommunication Discipline. The competition was conducted by National Design Research Forum (NDRF) of Institute of Engineers (India). Our heartiest congratulations to Anish for winning the prestigious award!

Recently, an MoU was signed by Silicon Institute of Technology, Bhubaneswar, with CSIR-IMMT, Bhubaneswar. The MoU will likely promote active participation and collaboration between the faculty members and staff of both institutes. The Director of CSIR-IMMT Mr. S.K. Mishra and Silicon Principal Dr. Jaideep Talukdar are featured in the photograph.

From the Editor's Desk...

The World Health Organization (WHO) states that "There is no health without mental health." One's emotional well-being is as important as one's physical well-being. But unfortunately the statistics are grim - mental health problems affect 450 million people worldwide. And the affected people have to put up with stigma, ignorance, social exclusion and much more.

In January 2017 Deepika Padukone - one of the most successful actresses of Hindi Cinema - spoke powerfully to the media about her struggle with anxiety and depression. The actress's concern for mental well-being of people and her courage to speak about the problem is worth noting since mental health happens to be our society's worst kept secret. What is worth noticing is the fact that Padukone is an actress of top rank with everything working for her, yet she fell prey to depression. Mental ailments, thus, can creep in and affect us without our realizing it. What is more disturbing about the situation is that the outside world cannot discern by looking at a person that they are struggling with some mental health issue. To make matters worse, people suffering from it refrain from sharing their problems with others due to the stigma attached to it. Padukone's step, thus, is a bold step forward addressing the affliction and encouraging people to talk openly about such issues.

The need of the hour is sensitization about the importance of mental health and the ways to keep oneself balanced at the present day stressful situation. Also of paramount importance is counseling, that can save a lot of beautiful minds from losing direction. In today's fast pacing lifestyle Counselling is the need of the hour as it imparts both intervention strategies and preventive measures to maintain good Mental health.
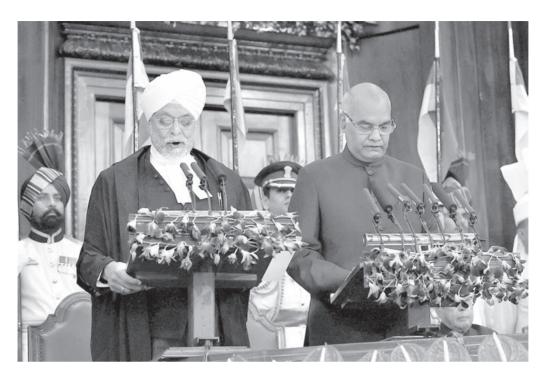
The Silicon family has put in effort to show concern for and deal with problems related to mental health and most importantly to safeguard the Mental health and Well-being of all its members by setting up a counseling cell and a trained Mental health professional for the service. We have also provided a dedicated space for mental health and counseling in SLATE where we can talk about and discuss the problems and precautions to maintain good mental health. We hope everyone benefits from it.

In this issue of SLATE our readers can get a glimpse of a few more of our achievements. One of our students, Anish Sarangi has brought us pride by winning the bronze medal in the prestigious All India Student Design Competition 2017. We look forward to more such honours where our students can unravel their hidden potential. At the same time, the MOU that we have signed with CSIR - IMMT is first of its kind in the history of the institution. We look forward to much such collaboration with research and academic institutes in the future.

We will be happy to get your feedback regarding this issue.

Priyambada Pal
ppal@silicon.ac.in

The 14th President of India: Ram Nath Kovind

Hon'ble Shri Ram Nath Kovind has been sworn in as the 14th President of India on July 25, 2017. The oath taking ceremony took place in the presence of the then Hon'ble Chief Justice of India, Mr. J. S. Kehar. Shri Kovind will have an office term for five years.

In our constitution, the President aquires the most unique and topmost position. During the framing of the constitution, Shri B.R. Ambedkar explained the role of the President of India. The President is like a king under the English constitution. He is head of the state but not the executive. He represents the nation but does not run the nation. Instead, the Prime Minister does that on behalf of him. The President takes an oath to defend and protect the law.

Shri Kovind was born in a poor family in Kanpur, Uttar Pradesh. His father sold his piece of land for his son's education. After completing his school education, he got enrolled for the law degree and also prepared for the civil services. He cleared the civil services exam in his 3rd attempt but did not join it. Instead, he decided to practice law. He served as the central government's advocate in Delhi High Court from 1977 to 1979 and then continued legal practice in the Supreme Court of India from 1980 to 1993. Meanwhile he joined Bhartiya Janta Party in 1991 and contested two assembly elections on BJP's ticket but lost them. In 1994, he was elected as a Member of Parliament from Rajya Sabha and served till 2002. During his tenure as MP, he worked to promote education in remote villages of Uttar Pradesh. He has also been a member of the Board of Governors of IIM Kolkata. After BJP came into power in 2014, he was appointed as the Governor of Bihar in 2015. As Governor of Bihar he worked hard for the development of the state. He commissioned probe against the mismanagement of funds and appointment of undeserving candidates in the Universities of Bihar.

In June 2017, Mr. Kovind was nominated as the Presidential candidate from National Democratic Alliance for the 15th Presidential elections. Former Lok Sabha speaker and Indian Diplomat Mrs. Miera Kumar was the candidate from the opposition. Mr. Kovind was declared as the president elect on July 20, finally making it to the Rashtrapati Bhawan with securing more than 7 lakh votes. Mrs. Kumar secured only 34% votes out of 10 lakh votes.

During his first speech after being elected as the President of India, Mr. Kovind said "My election as the President of India is to represent all Kovinds toiling away to make a living".

Akampan Gupta
ECE, 6th Sem.

Love is when the other person's happiness is more important than your own - H. Jackson Brown, Jr.

The Art of Googling

Life was never so easy as it is now. With the invention of Google, the internet habit of netizens has changed dramatically.Before Google came into existence, internet wasn't as famous as it is now. Google has been successful in branching out its roots deep into the daily activities of humans, may it be searching for food, a location or even clearing doubts. The search giant officially started its operations in 1998, not knowing that they would revolutionize the world of searching. Although they have been successful in revolutionizing, not every common man has been successful in utilizing it to the maximum extent. With this article I want to highlight and inform students about the art of Googling. It's called an art because Googling random words or sentences for your query don't get you your required result always. Having been an android programmer myself, I have felt the pain of not getting the perfect solution for my required code errors (although Stack Overflow comes to your rescue most of the times), the key-points which everyone must keep in mind while Googling are - Google searches on the basis of keywords.

Keywords are terms which a search engine like Google uses to find relevant content over the World Wide Web. So, the key to getting the most relevant and appropriate answer to your question on Google is to use keywords meticulously. Let us try it with an example: Let's suppose we want the logic/formula to check if a number is in Fibonacci series.

What most people would type in the search bar-"Write a program to input a number and print whether it is in Fibonacci series or not". Sure it would give you your desired result looking at the advancement of Google search, but is it the best way to search? Certainly not. Having a look at the above query , we can certainly see that a lot of unrequired words were present in it. Instead a few keywords would have done the job. So the above query could be filtered to "How to check if a number is in Fibonacci series ?" After we get our search results, upon proper observation, we can see that in the heading of the webpages, a few words are highlighted with dark blue colour.Those are the words which are a close match to your given query.Now, let us search for the same query,but only using a few words,I.e., "Check number Fibonacci series." Type it and press enter, surprisingly you still get almost the same result.But does that query even make sense when you read it? I don't think so. That's where the concept of keyword comes into play, Google took those few words and ran up its database to search for results matching those keywords and voilà!

Using keywords can certainly save your time and help you get required search results. Keyword searching becomes more important when we are searching for more technical things within a short time, for example, solution to an error in code.There are a few other tricks In Google which most of us are unaware of. Here is a list :

1. Search specific Websites - If we want to search for our query but only within a specific site ,such as Wikipedia, we can do that by typing this way - "History of Silicon site:Wikipedia.com"

2. Dictionary definitions - Use Google directly as a dictionary for finding definition by searching this way - "DEFINE: slate"

3. Mathematical tool - We can use it as a calculator, convertor,etc. e.g. - 5 miles to km,sqrt(8912)

The above few novelties can surely save the hassles of handling the extra bunch of apps and softwares, but remember there are even more cherries on the cake. Two outstanding features which have remained aloof to our usage despite being glaring ones, are : Google Image search and "I'm feeling lucky".

Google Image search is a special feature using which we can search on the Google using an image. For e.g.- If you have an image of a person which you know is a celebrity but are unaware of his name, you can shoot up a Google image search using that image and Google would return you similar images and hence you can know more about your picture. It can be accessed by clicking on the camera icon present in the Google search bar.

The second interesting feature is the "I'm feeling lucky" button. The button which we all have seen but have been too lazy to use it ! When you type your query in search bar and press the "I'm feeling lucky" button, Google takes you directly to the most relevant website bypassing all the other search results. The "I'm feeling lucky" button was named so because a user would feel lucky that they could directly go to the page they were searching for, with just a single button click!

With these bag of tricks, Googling will become a world in itself, a world of infotainment, a world where satisfying the lust of your knowledge seems too easy, a world where "you click" and the "world flicks" in a fraction of seconds.

Abhishek Kaushik
CSE, 2nd Sem.

Be happy for this moment. This moment is your life - Omar Khayyam

5

Are we socially active or actively social?

The social media seems to be playing a crucial part in the present generation's social life. It is considered as a rising trend in today's world. Accessibility that a person has to the internet through smart phones, computers, and other devices has made accessing information easy and connecting with people a lot more easier. Because of having such a modern explosion in popularity, social media has become the new trend to follow when it comes to socializing. But even though it seems to be strengthening communication, it has also weakened it in some way.

Social media has a greater influence on people today than it has ever before but technology influences social media. Further advancement in technology directly has effects on social media and it changes the way people communicate on daily basis.

Social media networking allows for a communication outlet. Facebook, WhatsApp, Twitter, YouTube are some of the popular social media platforms which millions of people use on daily basis. With the help of these websites and apps, today we are able to get in touch with people thousands of miles away from us.

This easy way of access to these social sites has made people addicted to it. From constantly checking their profiles, to sharing and posting their life events, people are putting their physical and mental health at risk. These so called social sites are also becoming a great threat to a person's privacy. Not only have these networking sites on the negative side by making it easier

to access a person's identity but also increased cybercrimes.

Sharing, posting, updating profiles is making people believe they are socializing and in a way they are. By being actively social, having fun communicating with cyber friends can be fun most of the time, but it also weakens a person's verbal communication skills. Day by day people are shying away to have a well versed conversation with people they meet in person. On the contrary they are at ease while conversing via messages with total strangers.

With its growth and popularity skyrocketing, one has to also accept that social media is both an advantage and a disadvantage when it comes to socializing. The real question is which one surpasses the other. And as we know it has taken communication to new heights but there will be shortcomings and social media will be used to do things which it was not originally intended for. But instead of ignoring the problems we can try to curb them step by step.

It is clear that social networks have become a part of people's life. It assists people to become more socially capable. However, they are also making them equally clumsy and incompetent. Thus it's essential to exercise with caution and restraint when dealing with such issues. People need to socialize rather than staying active on social media most of the time.

Preetika Patra
EEE, 4th Sem.

The Need of Value Based Classes for Senior Secondary Students

Value is a word which the dictionary defines as a fair return or equivalent in goods or services or in simple language we can say that it is the worth of something. The value of a commodity or service can be decided by a higher Authority, Manager, Customer, etc. But when we talk about a human soul it has to be the soul that has to decide its worth. In today's modern age of ultra quickness sadly everybody, in fact everything, decides the worth of a person except that person himself/herself. Ultimately for living a life that has some purpose, value can be added only by an individual.

We are living in the world where everybody is in a rat race; the irony being that though the participants are human beings and it should be called human race yet for ages it is known as rat race and will also be known as rat race. If we roughly estimate that a person lives about seventy years he/she hardly got any opportunity to determine their worth. Firstly worth is shown to children by parents. But the fact of the matter is if the child is a girl she gets a different worth and if the child is a boy he will definitely get a different worth. The value that a child gets from its parents become the core of Individuality that will carry forward its legacy but our childhood is immersed in the differential worth that we get based upon our gender which was not under our control. If we somehow overcome this gender barrier the next roadblock is Education. Education in itself is not a hindrance but the way we treat it becomes an identity crisis for many. Often a child who scores well and is academically very good is bound to get a different value from parents, teachers, friends and society. But for those whose passion lies elsewhere and academics is not their cup of tea will surely get a different type of value and characterization from everybody. In fact it will very likely bring a negative change in their lives.

After the initial struggles of gender and education the focus then shifts to Career. In these days of soaring unemployment getting a job itself gives you a sense of security and being unemployed destroys your identity. The sad fact is that even family and society give more worth to a person who has a job rather than a person who does not have one. And finally the biggest struggle is maintaining relations. Relationship with family and colleagues really matter and if one is good at them he/she will be labelled as a good human else a rebel; The point no one thinks is how is one's relationship with themselves. As we talk about worth and value which is self-given by an Individual, where does she/he have time in their entire lives to think upon it lest taken any action about it. But at the end it is we who should add value to our lives.

Value is something that nobody else should decide; we should consider ourselves worthy individuals who have distinct identity. Gender can never add value to our lives until we allow it. Though society may have norms and traditions, if we can stand still and strive hard to achieve our dreams and carve a niche for ourselves the same society that blamed us yesterday will celebrate with us tomorrow; therefore an Individual determines value and not gender. Similarly Grades and Report Cards do not have the power to determine the worth of a person. A person should not consider Academics as the sole basis for their worth. Everyone must have a passion in life and we must always go after it and when we finally achieve our goals, our values will be determined not by the outcome of passion but that we were courageous enough to take a challenging path and go for our dreams. Apart from Academics one should be involved in games, co-curricular activities that teach us many things and not make one confined to books.

Similarly even if we are employed or unemployed that job does not determine our value but we determine our value by being an efficient professional who is an asset to an organization in case of an employed person or trying to find work or treading along a dangerous path in case of an unemployed person. One should not stick to a particular job; rather s/he should constantly evolve. And finally people's opinion should not allow us to determine our worth. If we try to please everybody then we don't have any value. Instead we should always try to have our own and an unique Identity that will guard our value when the times are tough; because WHEN THE GOING GETS TOUGH, THEN THE TOUGH GET GOING.

Therefore value is never an external remark or characterization that others have to give us. It is something that is in our hands and we need to value us so that we may not be lost in the ocean of life.

Blesson Duraiseelan
CSE, 6th Sem.

Healthy Recipes for Hostel-dwellers

"Anyone can cook", is one principle everyone should believe in, especially to remain healthy throughout their life.

Hostels are a tricky place to live in, a home far away from home. We usually satisfy ourselves with the same old noodles or instant snack items that are just enough to satiate our hunger but not our taste buds (anymore!). Moreover, they pose a serious threat to our health. Searching for healthy life hacks has become a necessity now-a-days. Steamed items are always a healthy option which can easily be made using an electric kettle. Along with a healthy eating habit, one should always remember to drink lot of fluids throughout their busy day, engage in physical activities for 20 minutes a day, sleep 'at least' for 6-7 hours daily and must remember to take their breakfast every single day.

So here are some of the novel recipes that are instant, effortless and hassle-free.

Biscuit Sandwiches

Ingredients

1. Plain biscuits
2. Filling of your choice (Fruit jam, ketchup, butter...)

Method

Take two pieces of the plain biscuits and spread the filling in it. Make it a sandwich and enjoy your little treat.

Fruit Custard

Ingredients

1. Hot water
2. Custard Powder
3. Fruits roughly diced
4. Sugar/Honey

Method

1. Measure two teaspoons of custard powder, and put it in a bowl.
2. Add ½ cup hot water to it.
3. Mix it well such that no lumps are formed and let it coagulate.
4. Dice your favourite fruits roughly and set them aside.
5. After the custard has cooled down and is set, put your fruits.
6. Drizzle honey or sugar on top and enjoy the instant desert!

Egg Salad

Ingredients

1. 2 Eggs
2. 1 Lemon and coriander
3. 1 Onion
4. Pepper and salt

Method

1. Boil 2 eggs in a kettle.
2. Once they are done, peel; cut and dice them.
3. Add salt and pepper, lemon along with it also some zest and garnish with tomato and coriander.

Vegetarian Options

One can substitute eggs with peanuts, sprouted bengal gram (Kala Chana) and mung gram as they are equally nutritious providing you with the right balance of roughage, proteins and taste.

Monidipa Ghosh
EEE, 6th Sem.

Happiness radiates like the fragrance from a flower and draws all good things towards you
- Maharishi Mahesh Yogi

Amul : The Taste of India...

According to Hindu mythology, in the Samudramanthana chapter of the Puranas, the devas and asuras fought with each other for a millennium to churn the Kshirsagar - the Ocean of milk. Lord Krishna had fondness for items prepared with milk like kheer, curd, ghee, makhan etc. In Ayurvedic medicine, one can clearly identify the use of milk and milk derivatives as "Panchagavya". Throughout the Vedic scriptures there are verses which emphasize that the cow and cattle must be protected.

In the early 1946, the farmers of the Kaira district of Gujurat approached Sardar Vallabhbhai Patel for an agricultural reform. He advised them to get rid of middlemen and form their own co-operative society, which would have processing and marketing under their control. The farmers of this area went on a milk strike refusing to be cowed down by the cartel. Under the inspiration of Sardar Patel, and the guidance of leaders like Morarji Desai and Tribhuvandas Patel, they formed their own cooperative on 14th December 1946. So the erstwhile Kaira District Co-operative Milk Producer Union Ltd. started only with 2 dairy societies and just 247 liters of milk collection per day, is today known as AMUL (Anand Milk Union Limited), a famous Indian dairy cooperative based in Anand, in the state of Gujurat, making it the "Milk Capital of India".

Tribhuvandas Patel was the founder chairman of Amul Dairy. In 1965, the then Prime Minister of India, Lal Bahadur Shastri drafted a National Dairy Development Policy Act in the Indian Parliament. He understood that the success of Amul could be attributed to four important factors. The farmers owned the dairy, their elected representatives managed the village societies and the district union, they employed professionals to operate the dairy and manage its business. The National Dairy Development Board was set up in Anand with the basic objective of replicating the Amul model and Dr. Verghese Kurien was choosen as the first chairman. Dr. Kurien was known as the "Father of White Revolution in India" and he was also associated with "Operation Flood" in India. India celebrates his birth anniversary as "National Milk Day" on 26th November annually.

Amul Model is a three-tier cooperative structure. This structure consists of a dairy cooperative society at the village level affiliated to a milk union at the district level which in turn is federated into a milk federation at the state level. Milk collection is done at the village dairy society, milk procurement and processing at the District Milk Union and milk products marketing at the state milk federation.

Amul products include Amul Milk, Bread Spreads, Cheese, UHT Milk (Ultra High Temperature), Beverage Range, Amul PRO, Ice Cream, Paneer, Dahi, Ghee, Milk Powders, Mithai Range, Chocolates, Lactose Free Milk, Amul Sour Cream, Pouch Butter Milk, Amul Cattle Feed and Recipes. These products are now available in more than 70 countries in the world. Many of the products are available in USA, Gulf Countries, Singapore, The Philippines, Japan, China and Australia. Now there are more than 750 employees in the marketing wing and more than 4 lakhs dairy farmers are associated with it. Amul is a brand which is managed by the Gujurat Cooperative Milk Marketing Federation Limited. Its daily milk production is 18 million ltr per day from its village milk cooperative societies covering all 33 districts of Gujurat.

Jigyansa Das
ECE, 6th Sem.

Let us never know what old age is. Let us know the happiness time brings, not count the years - Ausonius

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Anish Kumar Sarangi of EEE, 5th Sem has recently won a Bronze Medal for his innovative research on a system for monitoring the safety of drinking water in the 48th All India Student Design Competition 2017 conducted by NDRF. In this interview taken by Disha Kumari of 3rd Sem CSE, Anish talks in detail about his research.

Disha : Congratulations Sir for your victory. To begin with; what urged you to participate in the National Design and Research Forum?

Anish : Thank you! I had an idea in my mind for a long time and wanted a platform where I could showcase it. I believed that this idea could be something revolutionary for the PWD Department of India. So, when I came to know about the competition from Tarini Sir, I immediately sent the paper and the result that came out was good.

Disha : You have won a bronze in Electronics and Telecommunication stream in the 48th NDRF competition. How do you feel about it?

Anish : I had almost forgotten that I had submitted a paper in this competition. Out of nowhere, surprisingly, when the news came that I have won a bronze, it was exciting but it was more of a confidence boosting event for me.

Disha : Can you give us a brief idea about your research topic?

Anish : I had learnt from somewhere that a large population of the country in rural as well as in urban areas are not able to access safe drinking water. Even if there is an access, there is no checking or monitoring of the level of safeness that the water possesses. According to figures, more than 40% of water in Delhi is wasted through leakage or is stolen. So, to counter these two challenges I designed a system based on IOT.

Disha : What are the current applications or the future applications of your research? Would you like to expand your research in future?

Anish : As of now, it has not been implemented or designed anywhere in the world. But in the future with the cities of India being converted to "Smart Cities", it will be implemented. Yes, there is always a scope of betterment. There are certain challenges which need to be addressed in the large scale implementation of the project. I will work on it. Moreover, artificial intelligence will also come into the picture for optimization of supply and demand. I will say the present project is only 30%. The rest 70% work is still left.

Disha : You are a 9 pointer student, a Class Representative and you are engaged in so many club activities. How do you manage your work and your responsibilities?

Anish : I believe time and talent are like money for every human being. It depends on his interests where he wants to invest. Music and dance have always been a part of my life and nobody knows what an important role it has played in my life. Anybody can do it; just that it's a matter of interest.

Disha : Apart from being engaged in so many activities, you have often been cited as an example of a person with great patience and humility. So where do these qualities come from?

Anish : Thank you for such lovely compliments. I think this comes from my parents who have always taught me, "If knowledge is lost, nothing is lost but if character is lost everything is lost." I strongly believe in this phrase. No matter who we are and what we do, at the end of the day people remember our image and judge accordingly.

Disha : Thank you Sir for sparing time for SLATE. Do you have any message for our readers?

Anish : Thank you Disha for covering me. I would like to thank my parents, my mentors (Tarini Sir, Ambarish Sir and Seema Ma'am), my friends and specially my team, the new minds (Pratyush, Mohit and Somya) and all other well-wishers whose good wishes have worked in my favour. A big thanks to Ambarish Sir and Tarini Sir who guided me throughout the project. Hopefully all their blessings and good wishes will remain with me in the future and I hope that I will keep on making them proud.

Happiness is not something readymade. It comes from your own actions - Dalai Lama

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Foundation Day

The Foundation Day was celebrated on 10th September 2017. Er. Santosh Kumar Mishra, Acting Director of IMMT Bhubaneswar delivered the Foundation Day Lecture. There were 150 participants. After the lecture Er. Mishra proposed to have different collaborative activities on research and students projects.

ISTE STTP on Electrical Power System

A one-week workshop on Electric Power System was organized from 10th to 14th July by IIT, Kharagpur under National Mission Education through ICT (NMEICT), MHRD. 17 faculty members including three from outside institutes attended the program.

Induction Program for Silicon Students' Council

An induction program for the members of Silicon Students Council was organized on 22nd July 2017. This was the first such program that was organized for the council. The council members were explained about their roles and responsibilities during the program. The Principal, Dean Academics and Dean Administration & Students Affairs addressed the members in the forenoon session followed by a session where FIC Residence, FIC Canteen and Chairperson Anti-Ragging Squad interacted with the members. In the afternoon session Faculty Coordinators of different clubs explained the role and association of the Students' Council with the clubs. The sessions were interactive.

New India Pledge

As per the instruction received from AICTE, the New India Pledge was taken by all students in their respective class rooms at 9:30 am on 9th August 2017. The copies of the pledge were duly signed by the teacher in the class and the students.

Independence Day Celebration

The Institute celebrated the Independence Day on 15th August 2017. The Principal Prof. Jaideep Talukdar hoisted the National Flag and students present at the event sang the National Anthem. The Principal addressed the gathering by speaking about the freedom fighters and our responsibilities to see India grow. Members from the ZEAL enacted a short skit on GST. At the end all were invited to have sweets.

Chairman's Address

The Chairman's Address was organized on 28th July 2017 at 11:15 am. Working trustee Mr. Nitai Gaur Dhall welcomed the Chairman Mr. Joe Madiath and formally introduced him. Mr. Joe spoke about his own experience which is always an inspiration to all. He also motivated the staff to work at their own level to contribute to society at large.

As a part of the proceedings, the Director in-charge informed all staff members about the appraisal process and the enhancement of DA. He also advised members to be more sincere towards their responsibilities. The vote of thanks was proposed by the Dean Academics. The address was followed by a lunch hoisted for the occasion.

Residence Foundation Day

The Residence Foundation Day was observed on 31st July 2017. A program was organized by CCC (Campus-life Coordination Committee) in the Seminar Hall at 6:30 pm. During the program the Dean Academics and the

Dean Administration and Students Affairs addressed the boarders. Prizes for different competitions held earlier were distributed.

Seventeenth Orientation Program and Freshers' Welcome

The Seventeenth Orientation Program and Freshers' Welcome was organized on 4th and 5th August 2017. During the orientation program on 4th August the Principal, the Dean Academics, the Dean Administration & Students Affairs and others addressed the new students and their parents explaining about the different aspects of engineering education, academics and academic regulations, campus life, discipline and other important issues.

On 5th August the Department Orientation Program was organized by the individual departments in their respective venues. It was followed by the Welcome function and the Grand Finale in the main tent. The programs were conducted as per schedule with discipline.

Refresher Course on C and Data Structure

The IEEE Students Chapter organized a refresher course on C and Data Structure for the final year students. Mr. Sushant Kumar Rout from Lakshya is the resource person. The program started on 8th August and was completed on 21st August. Around 300 students

attended the evening program which would help them in the coming recruitment process.

Hands on Workshop on IoT

The department of Computer Science & Engineering in association with CSI Students Chapter organized a hand-on workshop on IoT on 2nd and 3rd of September 2017. There were 94 students who participated in the program. Five resource persons from various industries, namely, Mr. Tadit Dash (Mindfire Solutions), Mr. Abhijit Patnaik (Emtronik Technology), Mr. Jayant Rajwani (Mindfire Solutions), Mr. Suraj Sahoo (Invincix Solutions) and Mr. Surya Narayan Barik (Processmap) helped the students conduct various experiments using Arduino board and sensors. Mr. Samaleswari Prasad Nayak coordinated the program.

Theater Club

The Theater Club started its regular interactive sessions from 3rd September 2017. There are 51 students registered as members of the Club. Mr. Siba Sankar Tripathy, a graduate from Sangita Natak Mahavidyalay and a theater professional, has been appointed as the Instructor (Drama). A team has been formed with Mr. Sachin Das as the Faculty Coordinator to coordinate different activities of the club. The club organized a play "PARAKALAM" staged by Utkal Rangamancha Trust on 16th September 2017 at 5:30 pm to have first hand exposure on organization of long plays.

Entrepreneurship Awareness Camp by the ED Cell

The Entrepreneurship Awareness Camp was conducted by the ED Cell on 19th, 20th and 21st August 2017. The program started with the inaugural session where Mr. Dhirendra Kumar Kar, CEO, BIPRO Technologies, USA and Mr. S. K. Rath, Assistant Director, MSME addressed the students. There were 120 participants. Technical sessions were conducted on 19th and 20th with an Industry Visit on 21st August.

Commencement of Evening Tutorial Classes

The evening tutorial classes on five different subjects (Mathematics I, Computer Programming, AEC, NT and JAVA) started from 28th August 2017. Tutors were selected through application, scrutiny and an interview conducted by the concerned departments. Each student tutor has been attached to a faculty member for guidance. This year the classes are getting conducted in association with the ISTE Students Chapter. The day to day monitoring is being done by the Chapter.

AHORA by ISTE Students' Chapter

The ISTE Students Chapter organized the technical contest "Ahora" on 9th September 2017. The event had two rounds, where the 1st round included Spellathon, Crosswords, Wordoku and Wonder words. The second round had ABD (Architect, Build and Decorate); Contestants were supplied with some materials to build a home. There were 530 participants for the 1st round out of which 20 teams (teams of four) were selected for the 2nd around.

Winners were Kishan Mishra (AI156057), Rohit Kumar (AI156088), Rishav Parth (AI156015), Pragya Tiwary (AI156097) and the Runners-up were Venkat Giri (EC155629), Saikrishna Shukla (EC155605), Hrithik Kumar Agarwal (EC166386), Ankan Khatua (EC166401)

Workshop by Photography Club

Silicon Photography Club organized a Students workshop on "Basics of Photography" in association with Nikon India Pvt. Ltd on 16th September, 2017 from 10:30 am to 1:00 pm. 120 students participated in the workshop.

Activity by Meta Academics Club

The Silicon Meta Academic Club organized a talk on "The Art of Public Speaking" on 9th September 2017. Er. Janaki Prasad Pattanaik, a Toastmaster, was the

News from the Industry Interface Cell

Aptus DataLabs Campus Recruitment

Aptus Data Labs, a Big Data and Analytics Company providing consultancy and project delivery services to enterprises of all sizes in different niche-market domains, conducted a pooled campus drive for a few selective colleges from Odisha. Eligible 2018 passing out students from CS and IT branches went through the selection process at Hotel May Fair in Bhubaneswar on 31st July 2017. Silicon had three winners (two from CS and one from IT) and had the second highest hit-ratio.

Shared Day 1 Campus Recruitment by WIPRO Technologies & Infosys

Like the previous years, the on-campus placement at Silicon started with the Exclusive Shared Day One On-campus drive at the Bhubaneswar Campus. Premiere IT companies like WIPRO and Infosys visited Silicon as Shared Day One Partners.

Wipro visited on 25th and 26th September 2017 as a Shared Day 1 partner. Eligible students from the batch 2014-2018 at Silicon Hills and Silicon West participated in the Wipro Shared on-campus drive. We had finally

53 winners from Silicon Hills out of 54 who faced the final interviews.

GGK Pooled Campus Recruitment

GGK Tech, which has a vision to be the world's preferred Technology Company known for superlative software quality and commitment, conducted a pooled campus drive at ITER on 4th August 2017 for six participating colleges. Students from all Circuit branches with 65% throughout their career from six colleges (Silicon, ITER, OEC, CVRCE, CET and IGIT) participated in the drive. Silicon had one winner from the IT branch.

Faculty Development Program by TCS

The Industry Interface Cell organized a Faculty Development Program (FDP) on "Engineering Applications & IoT" on 15th September 2017. Mr. Deb Kumar Ghosh from TCS with 22 years of R&D experience in various engineering domains conducted the program. Besides giving a brief presentation on the fundamentals of Internet of Things, Mr. Ghosh covered more on various industry applications using IoT. There were 18 participants in total.

resource person. There were 77 student participants. Also there was a session on Stress Management and Life Skills taken by our counselor, Dr. Saswati Jena on the above mentioned date.

Activities by QWERTY Club

A new club for training the students with typing skills on standard computer keyboards was started at Silicon. The club is named as QWERTY Club. Currently it has been opened only for 1st year students and shall be opened for students of other years in due course. A typing instructor from Human Life Center (HLC) Bhubaneswar has been arranged to conduct the typing training classes. Classes started from 11th September and are being conducted from Monday to Friday from 4:30 pm to 6:30 pm in two 1-hour slots.

Awards & Recognition

Silicon received the Best Technical Institute Award in Research & Development awarded by the Ever Green Forum. Dr. Bijan Bihari Misra attended the Engineers Day program organized at Jayadev Bhawan on 15th September 2017 to receive the award on behalf of the Institute.

Activities under Swachhata Pakhwada

The Institute had received an instruction from AICTE to observe "Swachhata Pakhwada" from 1st September to 15th September. There were several activities conducted day wise during the fortnight. Silicon conducted the following activities.

Date & Activity

1st September	- Campus Cleaning
2nd September	- Hostel Cleaning
3rd September	- Canteen/Cafeteria Cleaning
5th September	- Essay Contest on "Cleanliness & Hygiene"
9th September	- Cleaning Work at Infocity Square
10th September	- Cleaning Work at Sikharchandi Temple Area
13th September	- Clean Hostel Room Contest
14th September	- Elocution Contest on "Health & Hygiene"
15th September	- Plantation Drive
16th September	- Prize Distribution

Dr. Soumya Priyadarshini Panda
Asst. Professor

Dr. Soumya Priyadarshini Panda is an alumni as well as a faculty of Silicon who happens to be one of the youngest member to complete her PhD. She is consistent and diligent in her research work and is serious about her goals in life. She has published 17 research articles so far and believes that she has a long way to go in the field of research. She was interviewed by Akampan Gupta of 5th Sem. ECE.

Akampan : Congratulations for being the youngest scholar to complete a Ph.D. from our Institution. How do you feel?

Dr. Soumya : Thank You. It feels really good when people appreciate your work.

Akampan : Please tell us about your areas of research, its scope and your research publications.

Dr. Soumya : My area of research is Speech and Natural Language Processing which is an emerging area of research in designing different human computer interactive systems. Speech Synthesis and Speech Recognition are the areas where I started my research work. Currently I am focusing on the Speaker Recognition technology for development of voice-based authentication systems. All these areas have wider scope for research in designing different apps in various languages and also in the field of Artificial Intelligence, Robotics and Data Sciences. About my research publications, I have published 17 research articles till date in various reputed international journals and conferences and a few are under processing.

Akampan : Please let us know, how in such an early age you came to know what you really wanted to become; was it your ambition since childhood or it developed over time?

Dr. Soumya : I don't think I have achieved anything yet. It's just the beginning of my career in both teaching and research. It was not exactly an ambition since my childhood, but as everyone has an aim in life, I always dreamed to be a researcher. During my under graduate studies I decided to build my career in research and teaching. However, I did not have any prior knowledge about research, neither found proper guidance to proceed. With my interest and family support, I enrolled for higher studies. Luckily, I was attached with motivating and supporting guides at both M.Tech. and Ph. D. which gave me proper direction to enter in to the

research world. With continuous hard work I was able to complete my Ph.D. in 3 years and then got an opportunity to join Silicon as an Assistant Professor.

Akampan : What was the most challenging moment in your career, and how did you overcome these impediments?

Dr. Soumya : The most challenging moment was, when I started my Ph.D. work in a completely new area, where I did not have any prior knowledge. It is always easier to start your work in an area where you have knowledge of a few basic concepts. But that was not the situation in my case. I worked really hard to solidify the basic knowledge in my research domain. I have studied a large number of research articles covering the available technologies and recent developments which gave me the confidence to proceed. Dedication towards work, regularity and hard work helped me overcome the challenges.

Akampan : We are living in the age of technology - how do you keep yourself focused? Please share some tips.

Dr. Soumya : I usually maintain a disciplined life with sincerity towards my work. I fix deadlines for all my work and always try to complete the task before my set deadlines. In my opinion, all that matters to be focused towards your goal is your interest. If you are serious about your goals and you know what you are doing, nothing can divert you from your path. It's like a habit to do things at the right time - if you maintain that you will automatically remain focused; if not, you will very easily get diverted.

Akampan : Please suggest what technologies we should study or preparations that are required for starting research work and what are the research opportunities for the students?

Dr. Soumya : First of all you need to find out an area of your interest. There are different technologies used in different areas of research. A preliminary study on few basic concepts in that area is required. Also, you have to focus on the recent developments going on in that area and the associated issues which will help you to proceed. Some innovative work in the final year project may help in building your career in research as well. There are plenty of opportunities available for the students these days under different research programs with fellowship/internship under various Universities/ Institutions or even in the Industry sector in India as well as abroad. All pertinent information can be easily found over the Internet; you need to only spend some time to find a suitable one of your liking.

Akampan : Since you have been such a consistent and diligent student yourself, what advice would you give us?

Dr. Soumya : In my opinion, it's not that being a student you need to focus on your studies/career all the time. There is nothing wrong in enjoying student life; these days won't return in your life. But there must be a proper balance. Regularity in studies is very important and the focus of your studies should not be diverted towards only getting marks. This won't help you for a better career. No one can judge your abilities better than you. Therefore, set your goals as per your abilities and interests. Everyone may not get rank 1 but putting your best effort and belief in your abilities will help you to achieve your goals and a better future ahead.

Akampan : Thank you for sparing time Ma'am. I hope that this inspires the students.

Dr. Soumya : Thank you Akampan.

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Success is getting what you want. Happiness is wanting what you get - Dale Carnegie

This is not the End

Oh! My Country,
Oh! My Country,
you are my pride,
but what is happening I wonder,
Is it right?
Corruption and scams,
are killing you from inside,
and we the children of yours,
are doing nothing from our side.
This is not the end,
this is not the end so soon,
We, the young ones, promise,
To bring back your pride very soon.
Wake up my friends wake up!
this is not the time to sleep,
but to free our country,
from corruption's grip.
Tyrants shall pay the price,
as they are the reason,
behind the tears,
in our country's eyes.
Oh! My Country,
Oh! My Country,
don't you cry!
this is not the end,
but beginning of a new sun to rise.

Abhijeet Sahu
AEI, 4th Sem.

Call from the Siachen High

I'm a soldier on duty
In the lap of the Siachen so high,
Gazing at the miles ahead,
Keeping firm on my tired thigh.
From here, I can clearly see
The map of my motherland far and wide,
Looking like a beautiful bride.
Full of freedom, full of pride,

Full of forests, full of flowers,
Full of mines, rich with rivers
Flowing fast round the year,
Wherever you go, nook or corner,
You'll find ample manpower.

I can see in broad daylight,
In twilight and in the dark at night,
Temple, Church and the Mosque,
(all) stand quite close and in a que.
So, I can't make it out.
Why do you fight, why do you shout!!

Come crossing the plains
And stand beside me.
Peer and tell who's Hindu,
Who's Muslim and who's Christian.
Finally, you'll be bound to say,
No one is nothing but an Indian.

Hence, I'm here to fight out the foe,
To protect my country
Till I'm standing on my toe.
To see you all happy all the while,
Tolerant to each other with blissful smile.

One day for sure you'll hear,
The soldier is martyred and not any more.
May my body be found lynched or
Gets buried deep under heavy snow cover.
It's my command or prayer to you all.
please never fight
Questioning my cast and creed,
Who was I and what my religion was.
For, all that I know, so also you all,
Simply I'm a proud Indian
Born in India, a son of the soil,
Jai Hind

Tejaswini Panigrahi
EEE, 2nd Sem.

Do Indsutries really help in India's Development....!!

Industries are now playing a vital role in each and every part of our modern day life. One question arises in my mind: do industries help in the country's development? Many a people talk about how industries have made our life luxurious and at the same instant some people talk about how industries destroying the earth.

In my point of view, industry helps in a country's development but it also causes the earth's natural resources to be polluted which is a great loss for humanity. Some industry do work for the welfare of the people and some just do work for monetary gains. They do not think of the resources and the unity among the country is being destroyed. A best example for both is Jio. Mr. Mukesh Ambani, India's no. 1 buiseness tycun, had started jio service to help the poor and needy peoples of india. It helps all the people to talk freely, watch exciting videos, and news, to update themselves in dat today activities. Some people had got job in jio companies. But after that some people questioned that, was jio launched so as to make black money of Mr. Mukesh Ambani white. Do all the political parties had link with Mr. Ambani? Another most powerful industru like tata, has its empire covering each and every part of our country. Not only in our country its product are being at outside of our country too. Though it is a very old and faithful company it does not have any kind of blame till date. The name of the CEO of TATA has never been enlisted within the richest people of our country. "Once the CEO was asked that being so famous and just having a large empire your bame has never been enlisted to the richest man of our country! Sir why..? He said a beutiful line.. -- "we work for the benefit of people not for money." Another example of a famous named and famed company os Bhusan plant in jharsuguda. It is a famous company but now its name is going down, it is beause this company causes alot of pollution in the area.

Many industries had implemented many power projects like biodiesel, hydroponics, integration of renewal energy system which helps the remote area people grow up and get work in that projects. They all are benefitted from this. Industries has also play a great role in increasing India's economy. About 60-70% of total inovation in India comes from the industries. For instance the share of industrial section to national incomewas 26% and per capita income in year 2000 was 36,240 dollar.

So I just want to conclude with my thought that directly or indirectly industries are helping in Industries are helping in India's development rather it detoriates the wealth and biological resources.

Shibasis Tripathy
Mech., 2nd Sem.

Notification

Submissions for different features of SLATE *can be made through soft copy and sent to the e-mail ID: publication@silicon.ac.in. For* Students' Corner, *stories, poems, short essays, compilation of interesting facts and scanned copies of sketches or paintings are invited.*

Mental Health and Counselling: The Forbidden Horizon!

Mental health and Counselling are the concepts which paint some not so positive shades and they depict gloomy connotations in our cognizance. These are some of the aspects which we like to seclude and keep it cocooned rather than disclosing it in front of others. Because in India we are conditioned in such a way, that these two terms always grab the stigma of mental illness, insanity, inefficiency and inability to an individual and this ultimately culminates in pushing an individual towards a state of denial in reality expression.

However, in reality, the scenario is disastrous and the following statistics manifested the poor condition at grassroots level:

● 60 million people in India suffer from mental disorders which is equal to the entire population of Italy

● There is a severe scarcity of mental health professionals and facilities in India; like 1 Psychiatrist for 4 lakh Indians and in total 4,000 psychiatrists, 1,000 psychologists and 3,000 social workers for the whole of the country

● 1 in 5 Indians need counselling either Psychological or Psychiatric. In other words 20% of our population need counselling

The above tip-offs depict a hazardous situation of Mental health in India. Health is no longer defined as the absence of diseases or disabilities; rather as a state of complete physical, mental, and social well-being. So it is said, "There is no health without Mental health" as both are inextricably connected to each other. To substantiate this thought, "The Mental Health Care Bill, 2017" was passed in both the houses of Parliament and it states that it is the constitutional right of every citizen of India to access mental health services from mental health professionals. To join and to take this endeavour forward, following issues should be taken care of sequentially.

● Mental health is not an alien concept, rather it is the indispensable part of each individual and it has to be nurtured with care. The issues related to mental health has to be dealt with positivity and empathy. Complete acceptance is required to promote mental health

● Once acceptance triumphs, then there will be open discussion about mental health and mental illness. It is really essential and important that every individual is ready to speak out the state of his/her mind without any fear of discrimination and denigration. Then it will open many doors of solution

● In this non-judgmental environment the individual will feel empowered to seek professional help. Counselling will help the person to utilise the inner potentialities to the most and to help in becoming a fully functioning individual to face the demands of life events positively

It is the combined duty and responsibility of us to convert the forbidden horizon of Mental health and Counselling into the valley of acceptance and accessibility, which will promote hope, optimism, resilience, happiness, contentment, peace and solace as we all need these to excel. Prevention is always better than cure. Let's all join hands to fight against the taboos and stigma attached to it and to contribute in promoting mental health and counselling.

Dr. Saswati Jena
Counselling Psychologist
saswati.jena@silicon.ac.in

My Journey so Far

As naive as a child, I entered the gates of Silicon Institute of Technology in 2010, not knowing it would be so difficult to leave that place. Life changed in those 4 years. I have my heart at room no 213, Girls Hostel and I still hear the musings of the corridor. I met the most wonderful people of my life in Silicon and faculty members who have had a tremendous role to play in shaping who I am today. The memories are still fresh in my heart.

I had always wanted to do my Masters from a reputed Institution because somewhere in my mind there was a sense of my calibre becoming obsolete with time. So, in my 2nd Year, one fine evening I enrolled in TIME. Getting competitive in a class of 30 at TIME is entirely different from competing with 1.74 lakh crazy minds of the country. CAT 2013 was a mess, with absolutely no strategy in mind and no winning instinct. In 2013, Placement season arrived with good news at my door and the dream for MBA was withheld. Being an Applied Electronics and Instrumentation Engineer and managing an offer letter from Infosys Limited, in 2014 is when all the chaos in life began. As against the mass, I had a very disappointing experience at Mysore, because I could not make sense out of anything. Be it food, lectures, tests... Nothing. I had sleepless nights for months thinking what am I heading to . But I believe this was necessary, because it is in the darkest of times that you search for a tiny ray of hope and that's when the journey begins.I got posted in Bhubaneswar DC in a project that did not work out. After 9 months, in May 2015, I was transferred to Bangalore DC. In July 2015, I enrolled at TIME, Koramangala,this time just for AIMCATS and discussion videos. I lived in an apartment very close to my office and that gave me the flexibility of taking out 2-3 hours during lunch hours and evening snacks. Along with office hours, 6-7 hours per day is all that I could manage during weekdays and during weekends I went for AIMCATS. I did not miss a single practice paper and was sure to solve the materials at least once before mid-September. This gave me ample time to revise and strategize for the test. It is not about only knowing the solution, but the speed and the accuracy. The pattern was changed for CAT 2015 with 34 questions in VA-RC, 32 in DI-LR and 34 in Quantitative Aptitude with 60 mins each and non-navigable sections. VA-RC and Quant Sections were easy, but DI-LR section was shockingly difficult. And the worst part was DI-LR being the 2nd section, induced a fatigue factor for the last section i.e Quant. But I managed to hold my nerve for the 3rd section and with a decent score got admission into XIMB and am currently pursuing Human Resource Management.The journey has been nothing less than great.

A word of advice for my juniors:

Be very careful and rigid about what you want from your life and start early. Don't let your dreams be overshadowed by temporary temptations. And hold on to them very tight. It is just once that you are gifted with this life. Make it count! Also, don't forget to have fun "rationally".

"Nothing splendid has ever been achieved except by those who dared believe that something inside them was superior to circumstance."

- BRUCE BARTON

Swapnila Moharana
AEI, Batch of 2014

Fostering Green & Sustainable Solution

Sustainable growth comes from the Spanish word "*Sosteniblecrecimiento*".

The Spanish, the originators of this concept, believed that growth should be everlasting and should make a lasting impact on the subject under consideration. With this objective, ensuring sustainable growth is an abiding component of our civic duties and ethical outlook. The Silicon Green Club has been actively involved in bringing about radical changes in the campus life and mindset of the inhabitants of this small abode called Silicon. Its eye-opening campaigns, plantation drives, mass awareness programmes and keen outlook to bring about a dynamic transformation have driven SGC to the pinnacle of the repository of achievements and led to the bagging of many accolades. Believing in perpetual and incremental progress, SGC, in an attempt to broaden the horizon of vision of the members of Silicon family had organized many events which ended up boosting the environmental ethics of everyone in the institution.

The Silicon Green Club pioneering the concept of Green growth has been set on the mission to popularize and promote sustainable growth. Green Growth means fostering economic growth and development while ensuring that natural assets continue to provide the resources and environmental services on which our well-being relies. To do this one must catalyze investment and innovation which will underpin sustained growth and give rise to new economic opportunities. Sustainable development provides a practical and flexible approach for achieving concrete, measurable progress across its economic and environmental pillars while taking full account of the social consequences of greening the growth dynamic of economies. That potential includes the provision of critical life support services - clean air and water, and the resilient biodiversity needed to support food production and human health. Natural assets are not infinitely substitutable and green growth policies take account of that.

There are numerous events organised by SGC round the year, which includes the mass awareness campaign, plantation drives, seminar and talks on sustainable growth and many more. One such event recently organised was "The idea challenge" where students had to propose ideas and innovative solutions on energy management, waste management, water management, pollution control, global warming reduction and Green buildings and eco-friendly infrastructure using Automation, Mechatronics, Robotics, IOT (Internet of Things), Instrumentation & Control using microprocessors and controllers.

Students came out with brilliant ideas on sustainable growth using IOT technologies, water management techniques based on IOT (smart water pump control system), health and hygiene maintenance based on IOT, menstrual waste management techniques and many more. Along with this SGC has successfully organised a whole lot of events which were aimed at making this world a better place to live in and make our environment more green and clean. With these tiny efforts, SGC hopes to bring significant changes in the near future.

Content Contribution: **Ritika Gupta**
5th Semester, SGC Member
Compilation & Value Addition: **Prof Seema Behera**
FC, SGC

Solution to the problem of last issue: There were two problems in the last issue.

1. Four persons want to cross a bridge which is old and can carry two persons at a time; also both the persons must walk at same speed. As it is night they need their only flash light to guide while crossing the bridge. They have only 17 minutes to cross. Each person walks at different speed. A takes 1 minute, B takes 2, C takes 5 and D takes 10. Of course they can walk slower but no faster. How they can cross the bridge?

2. Find all primes p such that $p^2 + 2p$ is a prime. Show that there are no others.

Solution for 1: They can cross the bridge in the following way. First A and B cross the bridge and then A comes back. Then C and D cross the bridge and B comes back. Finally A and B cross the bridge.

Solution for 2: For p = 3 we have $p^2 + 2p = 17$ which is a prime. If p > 3 then either p = 6m + 1 or p = 6m - 1 (every prime greater than 3 is either of the form 6m + 1 or 6m - 1 but the converse is not true). In that case 2^p will take a form 3j - 1 (an odd power of 2 can be expressed as 3j - 1; this can be proved by induction starting with 2^1) and p^2 will take the form 3k +1. So their sum $p^2 + 2p$ will be a multiple of 3 hence cannot be a prime.

Prof. H.S.M. Coxeter: I am fortunate to have some type of link with two of the great geometers of recent times. One of them is Prof. J. W. P. Hirschfeld from UK. He was one of the examiners of my Ph. D. thesis and I had referred to some of his works in Finite Projective Geometries during my Ph. D. work. After the examination of my thesis I was provided with the remarks made by the examiners on my thesis and I was more than happy with a very good remark from Prof. Hirschfeld. Prof. Hirschfeld has done extensive work in finite geometries and has published a lot including some good books.
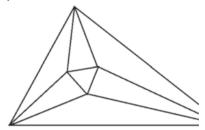
The second person is Prof. H. S. M. Coxeter, born and educated in England. Prof. Coxeter was a good friend of Prof. Sahib Ram Mandan from IIT, Kharagpur. Prof. Sahib Ram Mandan was the Ph. D. supervisor of my Ph. D. supervisor Prof. Arun Sanyal. Prof. Mandan may be considered as one of the best Indian geometers of 20th Century. I had got the opportunity to go through a manuscript prepared by Prof. Mandan on Geometry. He had prepared the script persuaded by Prof. Coxeter which was mentioned in the preface and also notes on many interesting communications between Prof. Mandan and Prof. Coxeter were mentioned at different places of the manuscript. Unfortunately that manuscript never got printed.

Here I am mentioning couple of results of geometry mentioned in the book "Introduction to Geometry" by H. S. M. Coxeter. I have gone through this book which was presented by Prof. Coxeter to Prof. Mandan with his autograph and a note on the first page. In 80s of the 20th Century when internet was not there in India, going through such a copy of a book was a pleasure. On pages 23 & 24 of this book Coxeter has mentioned about the Morley's Theorem, which states: **The three points of intersection of the adjacent trisectors of the angles of any triangle form an equilateral triangle**. Surprisingly this theorem was stated for the first time by F. Morley in 1899 and after 10 years two different proofs of the theorem were published,

a trigonometrical proof by M. Satyanarayana and an analytical proof by M. T. Naraniengar. This is considered to be a surprisingly recent theorem on triangles. A rough sketch is provided to have an idea about the theorem.

There is another statement in elementary geometry which looks obvious but the proof is not that simple or you may say that it could not be proved till the 20th Century. The theorem is about isosceles triangle and called as Steiner-Lehmus theorem. **Any triangle having two equal internal angle bisectors (each measured from a vertex to the opposite side) is isosceles**. The converse of this theorem is very easy to prove and it goes back to Euclid. There were many proves for this theorem developed during the late 19th century and the early 20th century but most of them were, even by great mathematicians, faulty. There were very few correct proves but were very lengthy. However Coxeter has supplied a very small and interesting proof for this theorem which he has mentioned as an exercise in page 9 and then provided the answer in page 420. In the exercise he has provided a small hint i.e., if a triangle has two different angles then the smaller angle has the longer bisector.

Coxeter died on 31st March 2003 at Toronto, Canada at the age of 96.

Problem of this issue: Find a set of nine single digit numbers $\{x_1, x_2, x_3, x_4, x_5, x_6, x_7, x_8, x_9\}$ other than the set {1, 2, 3, 4, 5, 6, 7, 8, 9} with a sum of the numbers equal to 45 and the product of the numbers equal to 9!.

Saroj Kanta Misra
drsaroj@silicon.ac.in

I had been to heaven once... Sikkim

I recently came across a news report which read, 'Sikkim sparkles in NSSO sanitation survey'. And my reaction was, 'why not... I have seen it myself ... It is indeed the cleanest state among all others I have been to'. I visited Sikkim when I was in class seve. We planned the trip in the month of June, after my sister's tenth class results came out.

Hailed as one of the world's last utopias by legendary Buddhist guru Padmasambhava, Sikkim is listed among the loveliest destinations in India. Then there are stunning views of Khangchendzonga, the world's third-highest mountain, visible from almost any viewpoint in the state. Little wonder that this tiny former Himalayan kingdom is such a haven for travellers.

We (me and my family) reached New Jalpaiguri by train at night; from there we took a cab to Gangtok. The driver like all other drivers around Sikkim was a travel guide as well. He told us about some of the restrictions and warnings to keep in mind. It was then that we realised that Sikkim is a much disciplined state. You cannot spit, or throw garbage around or perform objectionable things there. There is also a ban on use of plastic bags. We reached Gangtok in the morning. We checked in our booked hotel 'Silver Fir', which offered a perfect view of the grand M.G.Road. It is the M.G.Road that is the town centre of Gangtok. It is more like a long stretch of open mall where locals and tourists enjoy their leisure or just sit and relax on one of the many benches laid along the middle and both sides of the road to soak in the ambience. The road has all kind of shops and restaurants. We enjoyed that day by simply shopping around M.G.Road. Next, we got a list of 25 places to visit given by our hotel manager at my father's request. We planned on categorising the spots of an area: East Sikkim, West Sikkim, etc. And then we decided on visiting maximum places around an area.

We visited various monasteries including Romtek monastery and Phensang monastery. The Romtek monastery is also called the Dharma Chakra Centre. It is believed that if you rotate the 'Wheel of Dharma', it gives you the power to cut through all obstacles and illusions. The Fair-wheel is one of the Buddhists symbols. There is a beautiful shrine temple in the monastery.

We enjoyed the view of various waterfalls like seven-sisters waterfalls, Rimbi falls and Sangay waterfalls. We didn't face any difficulty with the language. Most of the people understood Hindi well. English is spoken and understood by many. Most of the people we came across spoke Tibetan, Sikkimese, Lepcha or Nepali. Some other sights we visited included Flower Exhibition Centre, Namgyal Institute of Tibetology (museum), some famous parks, etc. We also enjoyed our ropeway ride, which was a double-cable ropeway. It offered us view of the Gangtok Township, starting from Deorali bazaar, then the Sikkim Parliament.

We specially planned our trip to Lachung, Yumthang and Zero-point. We had an over-night stay at Lachung, which is a village in north Sikkim. It took us about 6 hours to come to Lachung from Sikkim. The journey to Lachung was very scenic. We didn't have much time to explore the village, but after the overnight stay at one of the hotels at Lachung, we started off for Zero point at around 4 a.m. in the morning. Our driver cum guide told us that these are the melted mountains. We came across many melted mountain springs. Zero point is basically Indo-China border with mountains covered with snow. Even in June, the mountain was covered with snow. We were advised not to climb high, because of breathing problem due to lack of oxygen at such high altitude.

The only companion that accompanied us throughout our journey was the Teesta River. This mighty river appears dangerous yet its swiftness attracted us. Our one week trip to Sikkim was cherishable.

Aditi Srivastava
ECE, 4th Sem.

Silicon

...*beyond teaching*