**HIGHLIGHT OF THIS ISSUE** 

SPECIAL FEATURE: An Interview with Dr. Prakash Patnaik



# SLATE

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Our Mission: "To provide the best of technical skills, professional ethics and human values in enriching the disciplines of Science, Engineering and Technology for social development and Nation building"



Team 'New Minds' from Silicon wins Smart India Hackathon (Software Edition) 2019



Swaraj Baral : Winner of Oratory Competition at Astha School of Management



Accolades for the Winners of MUN at Sri Sri University



Anish Sarangi wins the BEST STUDENT AWARD – 2019



Subhangi Nayak wins the YOUNG WOMAN STUDENT ACHIEVER – 2019



## From the Editor's Desk ...

## Dear Readers:

It is so gratifying to finally come up with this volume of SLATE that combines three issues from July 2018 to March 2019. A lot has happened since the last SLATE got published. Not only have we implemented the process of autonomy into our system, but we have done it quite successfully. The new students have attended the orientation and induction program, studied the newly designed course, and were part of the new examination and evaluation process which were smooth. Simultaneously, our students at the senior most level have taken their farewell from the institute after many eventful academic activities in the institute. Highlights worthy of mention during these months are some of our achievements which have found space in this volume. Noteworthy here are Amazon Web Services (AWS) at Silicon, our student achievements in various Hackathons and outstanding performance in this year's recruitment process.

Silicon is the first engineering college in Odisha to be part of the Amazon Web Services (AWS) Educate Programme, which is a global initiative to provide students and teachers resources for cloud-related learning. We feel really privileged to get this opportunity.

During recruitments this year Bikash Singh of Computer Science and Engineering has made us proud by earning the post of System Engineer-Power Programmer with a whopping salary of eight lakhs per annum from the very start. We do wish him luck to scale greater heights in future.

Last but not least, winning prizes in the various Hackathons has as if become a habit with our students. If it was the 3<sup>rd</sup> prize in the Smart India Hackathon last time, this year there are three such competitions where our student have shown their excellence. Our teams from Silicon have won the Smart India Hackathon (Software Edition) 2019 title and the Smart Odisha Hackathon 2018 apart from getting the second prize in the Tata Crucible Hackathon in March 2019. We are sure to have more winners in the future.

In this voulume we are also proud to publish a special feature interview with an eminent scientist, Dr. Prakash Patnaik from the Aerospace Research Centre, National Research Council Canada, who visited us for the National Seminar on Functional Materials for Emerging Technologies as the Guest Speaker. Our readers will hopefully benefit in many ways from this enriching conversation and also from many other features in this volume.

This volume, thus is bustling with events. Do read them and post us your comments.

Wish you a very happy summer vacation.

Priyambada Pal ppal@silicon.ac.in

## Michelle LaVaughn Robinson Obama



"Whether you come from council estate or a country estate, your success will be determined by your own confidence and fortitude." She, an epitome of character, beauty and dignity, successful in personal and professional life, is one of her kind. Michelle LaVaughn Robinson Obama an American writer, lawyer, and university administrator, served as the First Lady of the United States from 2009 to 2017. She is a graduate of Princeton University and Havard Law School. As the First Lady, Obama served as a role model for women, and worked as an advocate for poverty awareness, education, nutrition, physical activity and healthy eating.

Being the President doesn't change who you are, but in fact it reveals who you are. Being the First Lady of USA, for a tenure of 9 years, she proved herself worthy of the title 'The Most Admired Woman of America'. Through every rise and fall of America, she remained as a firm support to her people, boosting their morale at every stage of life; Being a public figure, she spoke on every tangling issue, worked hard to uplift the black community and shared her story with those million other women, inspiring and encouraging them to take 'that one step more' and run towards their aims and goals. She strived to make America, a better place to live in.

But all these while, she never ignored her family. Being the wife of President Barack Obama and mother of two daughters Malia and Sasha, she raised her kids to remain grounded and imbibed in them right character and values. Ever conscious about their health, she advised the White House kitchen to focus on organic food and made her nation aware about the Organic-Food Movement.

She once delivered a noteworthy speech at the Democratic National Convention, saying "Every day,

the people I meet inspire me, every day they make me proud, every day they remind me how blessed we are to live in the greatest nation on earth". This shows her striving nature in making the "American dream successful" and her deep care about the everyday struggles of American families and making a difference in their lives.

In the era of terrorism and disturbed youth, she left no stone unturned in helping the youth come out of their troubled times. In an emotional moment, she addressed the young Americans saying, "I want our young people to know that they matter, that they belong. So don't be afraid. You hear me, young people? Don't be afraid. Be focused. Be determined. Be hopeful. Be empowered. Empower yourself with a good education. Then get out there and use that education to build a country worthy of your boundless promise. Lead by example with hope; never fear. You are important in your own right. Instead of letting your hardships and failures discourage or exhaust you, let them inspire you. Let them make you even hungrier to succeed".

Even after leaving the White House, Michelle remained highly sought after, for her words of wisdom. She believed in speaking the voice loud and out, if it makes a difference, even though the difference is just a ripple, after all those series of ripples makes the water move. She recently published a book "Becoming", an autobiography filled with inspiring and powerful memoirs in a life filled with hardships, but crowned with the jewel of success, meaning and accomplishment.

She truly remains till date as one of the most influential women of this decade, all due to the results of her hardships and persuasive efforts.

Isha Bharadwaj

CSE, 2nd Sem.



## The Story of the Indian National Flag

Before the adoption of the National Flag which we hoist today, different versions of the National Flag had been designed. Let us discover more about the origin of the Indian National Flag.

1904 – 06: It was between 1904 – 06 when the first national flag came into existence. It was made by an Irish disciple of Swami Vivekananda – Sister Nivedita. The flag comprised red and yellow colors. Red signified freedom struggle and yellow was a symbol of victory. The word "Bonde mataram" was written on it. The flag also contained "Vajra" the weapon of Lord Indra and white lotus in the middle where "Vajra" symbolized strength and the lotus depicted victory.

1906: After Sister Nivedita's flag, there came another flag in 1906. It was tri coloured with three equal strips, of blue in the top, yellow in the middle and red at the bottom. In this flag, the blue strip had eight stars of different shapes. The red strip had two symbols, one of sun and the other of a star and a crescent. The yellow strip had 'Vande Mataram' written on it in Devnagiri script.

1907: In 1907, Madam Bhikaji Rustom Cama's flag was hoisted. The flag was designed by Madam Bhikaji Cama, Vinayak Damodar Savarkar and Shyamji Krishna Varma. The flag was unfolded by Madam Cama on 22 August 1907 at Stuttgrat, Germany, and received the status of the first Indian flag to be hoisted in a foreign land. The flag had three colours, on the top was green followed by golden saffron in the middle and the red colour at the bottom.

1916: In 1916, Pingali Venkayya, a writer and a geophysicist, designed a flag with the idea to bring the whole nation together. He met Mahatma Gandhi to seek his approval. Mahatma Gandhi suggested him to include a Charkha as a symbol of the economic regeneration of India, in the flag. Pingali created the flag from hand spun yarn 'Khadi'. The flag had two colours and a 'Charkha' drawn across them but Mahatma Gandhi did not approve of it as he was of the opinion that red represented the Hindu community and green Muslims, but the other communities of India were not represented in the flag.

**1917:** The Home Rule League formed by Bal Gangadhar Tilak adopted a new flag in 1917, as at that time the Dominion status was being demanded for India. The flag had the Union Jack at the top, near the

hoist. The rest of the flag contained five red and four blue strips. It had seven stars on it in the shape of 'Saptarishi' constellation which is supposed to be the sacred one for Hindus. It also had a crescent moon and a star at the top fly end. But this flag was not accepted by the country people.

1921: As Mahatma Gandhi wanted all the communities of India to be represented in the flag of the nation, a new flag was designed. This flag had three colours. At the top was white then green and at the bottom was red. White symbolised minority communities of India, green Muslims, and the red represented Hindu and Sikh communities. The 'Charkha' was drawn across all the bands symbolising the unity of these communities.

1931: Some people were not happy with the communal interpretation of the flag. Keeping this in view, a new flag was designed which replaced red with ochre. This colour signified the combined spirit of both religions as saffron was the colour of Hindu yogis as well as Muslim darvesh. But the Sikh community also demanded a separate representation in the flag. This resulted in another flag by Pingali Venkayya. This new flag had three colours. Saffron was at the top indicating strength and courage followed by white in the middle which is a symbol of peace and truth and green at the bottom which shows fertility and growth. The 'Charkha' was placed at the center. This flag was passed at the meeting of Congress Committee in 1931 and was adopted as the official flag of the Committee.

1947: When India got independence, a committee led by Rajendra Prasad was formed to select the National Flag of India. The committee decided to adopt the flag of Indian National Congress, with suitable modifications, as the flag of Independent India. As a result, the flag of 1931 was adopted as Indian flag but 'Charkha' in the middle was replaced by 'Chakra' (wheel) which represented Dharma or Law and hence our National Flag came into existence.

It is really amazing to see the various changes that our National Flag went though since its inception and it has been the symbol of our Nation's Pride since then. Hence this is an insight into the creation of our National Flag that talks of the diversity in various flags that our country had.

Malovika Parira CSE, 3rd Sem.

## India's Baba Dependency



Seventy-one years of independence, 1.35 billion people, 33 million gods and even to this day you find the streets of India filled with fake godmen who claim to be the entire country's 'belief system'. Sitting on their golden thrones, these leeches constantly feed on the faith of common, innocent people. How immaculately inappropriate and ironic does the word 'Godmen' sounds!

Yet, people of this country are far from realizing this bitter, naked truth. It is high time that we asked ourselves the ultimate question: Why? Why are we so spiritually insecure that we need these lowly people to support our 'belief systems'? Is it because there just aren't enough gods left anymore in this country or is it because these 'Babas' are helping our cause?

Well, the last point sounds too good to be true. In my opinion (and I fathom most people would agree to it), the single most significant cause behind this sheer idiocy is ignorance and illiteracy. See it for yourselves, what else can explain five million people blindly following a person with a criminal record!! Every now and then, a self-proclaimed 'God' materializes from thin air, acquires millions of followers and is then caught red handed of his/her crimes, which leaves the

entire country dumb-founded and shakes the conscience of his/her followers to the very core. I ask, how many times does that conscience need to be shaken before we come to terms with reality?!!?

Reading all of this, one cannot help but ponder: How to stop these horrendous acts of stupidity? This extremely evident question has an equivalently evident answer. For a transient moment there, the idea of changing and implementing laws may seem lucrative. But simply pause for a moment and consider this, are we really capable of criminalizing an entire sect of people to whom an enormous multitude of citizens have devoted their entire lives? Well, all the historical evidence of comparable cases points to the contrary.

An exponentially better approach would be to educate people, spread awareness and make them understand that faith is what we make of it and not some sneaky 'Baba' with a 10-syllabic name. We are the 'belief-system' we have been searching for all our lives. We can bring titanic waves of change all by ourselves. The moment people realize this, India will wake up to a better tomorrow.

Swaraj Baral CSE, 2nd Sem.

## ADD VALUE TO YOURSELF



## I Am What I Am. So Take Me As I Am



In many ways, September 6, 2018 is as momentous a day as August 15<sup>th</sup> 1947 was. On that day although India gained freedom from foreign rule but it still remained oppressive in one aspect. On 6<sup>th</sup> of September, India's LGBT community won its battle to decriminalise homosexuality and repeal Section 377. Now, the LGBT community in India breathes freedom and lives in dignity. This is also Independence Day for them. LGBT or GLBT are the initials to what stands for lesbian, gay, bisexual, transgender and Q for Queer or those who are questioning their sexual identity. LGBTQ was recorded since 1996.

The Khajuraho temple in India contains several depictions of homosexual activities. Historians have long argued that predominant Indian Society neither criminalised same sex relationship nor viewed such relations as immoral. Transgenders had held high positions in courts of Mughal rulers in their 16<sup>th</sup> and 17<sup>th</sup> centuries. In fact, Hinduism acknowledges a third gender known as "Hijra". Section 377 of Indian Constitution which treats consensual sexual acts by adults of same sex as an offence, was modelled on British Buggary Act of 1533 and had survived on Statute in India though it had been scraped in Britain.

Homosexual activities were considered to be a criminal offence from introduction of Section 377 of Indian Penal Code in 1860 until Delhi High Court decriminalised it in 2004 in NAZ Foundation Vs Govt of NCT of Delhi. Later this was recriminalized again until Supreme Court's five Judge Bench reached a unanimous decision of decriminalising the homosexual act again on 6th of September. NAZ Foundation's Sunial Mehra & Nautej Johar, Menaka Guruswamy, Ritu Dalmia, Akkai Padmashali are one of the crusaders who have spent decades fighting for it despite all stigma and challenges.

The Court has declared what is lawful, but ultrajudicial organisations, education and political engagement are still needed to extend rights to them and realise equality for all LGBTQ people. This victory shall gather real meaning with existence of laws that shall allow same sex marriage a recognition, step child and joint adoption, serving the military openly, access to IVR for lesbian couples and MSMs to donate blood. The consent has won a battle but the war is still remaining.

The Chief Justice of India, Dipak Mishra's statement "I am what I am so take me as I am" says that no one can escape from their individuality. Now India is to join 17 Commonwealth Nations that have overturned laws criminalising homosexuality. It is a victory over prejudices and will pave the way for equal and inclusive society.

Neha Mohanty ECE, 4th Sem.

## Importance of Healthy Sleep Habits in Youth



What fantastically fancy things do we not do to maintain a healthy lifestyle and stay sound? Meanwhile we fail to realise the importance of one simple thing we do over more than a quarter of our lives - Sleep. Sleep is not just about sleeping; it has its own dimensions, requirements and associated implications on health. We normally fail to understand the importance of maintaining good sleep habits and cycles, because the effects of sleep disorders are masked by other factors, busy lifestyle, ignorance and low awareness, especially amongst youth, who are immensely busy in either assignments or in rushing like herds of sheep to their job place. Science has categorised sleep into Non-Rapid Eye Movement (NREM) sleep and Rapid Eye Movement (REM) sleep. Both have their sub-stages, as one progress from light resting state into light sleep and finally deep sleep. Maintenance of good sleeping cycles is not only a moral advice, but a proper medical advice, failing which one can develop mild and recoverable to very serious complications. The human body is a brilliant machine and it has its own internal biological clock, known as the circadian rhythm. It is responsible for all the timely activities the body performs involuntarily, for its own maintenance, well-being and for the proper conduct of its day-night cycle. This clock is very largely dependent on one's sleeping habits.

A regular sleeping schedule allows us to fall into

deep sleep for a longer period and our "internal clock" to set itself, will promote the release of very important hormones in the body, and in general helps good functionality of our body and it's systems on the whole.

In REM sleep, one experiences dreams that one may remember the next day. In NREM sleep the brain waves slow down, the heart, blood vessels, muscle tissues, repair themselves, thus called the healing sleep. The longer the NREM sleep, the more rested one feels on waking up. Consecutive sleep deprivation is linked to an increased risk of heart and kidney diseases, high blood pressure, diabetes, and stroke. As we all know, high B.P. and diabetes are two very famous or rather infamous names when it comes to occurrence in today's youth. Some advices for us all would be, trying to fix our sleeping and waking times.

Limiting gadget and TV use before sleeping, taking a warm bath before bed, avoiding big meals 1-2 hours before bedtime and limiting caffeine, tobacco, and alcohol use when winding down after work would fix our sleeping cycles. Stress relief must be thought upon because the amount of stress the youth lives under, is also a major factor determining such health risks. All this leads one to live even more happily, fresh, energetically, and live more.

Disha Kumari CSE, 6th Sem.

## PROFILE OF AN ORGANIZATION



## Maruti Suzuki India Limited



In this summer I had an opportunity to visit Maruti Suzuki India Limited (MSIL) plant for my summer internship. After the induction program in Gurgaon plant, all the interns were divided among two plants i.e Gurgaon or Manesar in NCR. I got the opportunity to learn and get industry experience in the Gurgaon plant.

Maruti is a car that allowed the middle class in 1980s to dream big. The idea of cheap car was mooted by Manubhai Shah who was a Commerce minister in Jawaharlal Nehru's cabinet. A small car for the Indian pockets was to be produced in the public sector. Sanjay Gandhi had just returned from an apprenticeship with Rolls Royce in London and was planning to start a 'People's Car' project in India. Maruti Ltd was set up in June 1971 with Sanjay Gandhi as its first Managing Director. After the emergency the Congress party eventually fell flat on its face during the 1977 general elections and Maruti was liquidated in 1977, by the new Janata Dal government and was closed down by a high court order in 1978.

Maruti Udyog Limited (MUL) took over the assets of the "Erstwhile Maruti Ltd" with the efforts of Dr. V. Krishnamurthy on 24th Feb 1981. In October 1982, the Government of India signed a joint venture agreement (JVA) with Suzuki Motor Corporation of Japan. Its production started in 1983 with the Maruti 800. Today Suzuki Motor Corporation (SMC) has 56.4 percent stake in MSIL. Currently, Kenichi Ayukawa holds the position of Chief Executive Officer, Executive Director & MD for Maruti Suzuki India Ltd.

Maruti Suzuki manufactures and sells popular cars such as the Ciaz, Ertiga, Wagon R, Alto K10, Swift, Celerio, Swift Dzire, Baleno and Baleno RS, Omni, Alto 800, Eeco, Ignis, S-Cross.

In June 2018 it crossed the 20 million cars production milestone in India. The figure was reached in just 34 years and 5 months since its inception, beating out Japan's earlier benchmark of 45 years and 9 months. It has 40000 employees and revenue of US\$11 billion. Maruti Suzuki has 1,820 sales outlets across 1,471 cities in India. It sells hatchbacks, sedans, MUVs and SUVs in India through its ARENA and NEXA channels, certified pre-owned cars through TRUE VALUE, and commercial vehicles through its Maruti Suzuki Commercial channel.

NEXA was launched in 2015 under new dealership format for Maruti's premium cars like the Ignis, Baleno, S-Cross. The Ciaz and ARENA is a part of company's transformation 2.0 initiative. It is built on the pillars of design, technology and experience. A substantial difference is noted in terms of safety features, as vehicles sold from Nexa outlets come standard with dual front airbags, along with ABS (Anti-Lock Braking System).

In 2019 Maruti Suzuki Swift won The Indian Car of the Year Award.

Akampan Gupta *ECE, 8th Sem.* 

Satya

Satya

Mr. Satya Prada Nayak of CSE, 8th Semester has a well rounded personality. He exhibits brilliance and consistency in academic performance and his passion finds expression in multudinous extra curricular activities he participates in. He is the elected Secretary General, Silicon Students' Council for the year 2018-2019.

Disha: Congratulations Sir on being elected as the Secretary General of this college. You have always been a consistent member of the Silicon Students' Council. Now how do you feel being elected the SG of the college?

Satya: Well, first of all Thank you Disha! Being the Secretary General of the college feels really good, I would be lying if I say it doesn't feel good to be known, but again that feeling comes in with a lot of responsibilities and expectations as well. Well, Silicon Students' Council is the first team that I got hooked up with in Silicon after winning the Section Prefect elections. The then Secretary General and the following Secretary Generals were models of inspiration for me. Since then it was a desire of mine to become the SG.

**Disha**: Sir could you walk me through the progression in your career till the current role?

Satya: I am a "Not-so-bright" kind of student. But Silicon made the best version of myself by helping me how to use my potential to the full. When I joined Silicon I thought this would be a very strict college (as per reviews from seniors). But whatever this college does or plans is always for the betterment of its students. Silicon transformed me from an irresponsible teen to a responsible student. This inspired me to take things and challenges seriously, because of which I have become who I am today.

**Disha**: What are the qualities that you think are required to stand out among your peers?

Satya: The qualities that will make a person to stand out from his peers is standing with his peers at all hard times. The dedication to work, the sanity with which you undertake your responsibility, make you different. What makes a man to lag behind is his



selfish motives. Giving up these things would always be beneficial.

**Disha**: How have you structured your academic goals with your active participation in ISTE and ED Cell?

: Apart from the Silicon Students' Council these two are the only two clubs, in which I have invested my time, because the concept of these two societies have always fascinated me. The events that ISTE conducts are very technical and are of basic skill testing sessions which every person with a technical background must possess. Now coming to ED Cell it has a very wonderful concept of sponsoring well deserving ideas. That's justice, the better the idea, the better it gets funded. This makes the cell worthy to be worked for. Investing time in these cells have never affected my academic schedule, In fact I got a lot to learn by working for ISTE and the ED Cell.

**Disha**: What role has Silicon played in shaping your personality and other skills?

: Interaction with faculty members, has mostly been a really good experience for me. At SIT the management—student interaction is pretty good. Getting to interact with such diverse personalities has undoubtedly aided my personality. Silicon has also helped me in enhancing my time management skills, event management skills, leadership skills, contributing a lot to my overall personality development.

**Disha**: Thank you Sir for sharing your valuable experiences.

**Satva**: You're most welcome.

## IN CONVERSATION



Dr. Ambarish Gajendra Mohapatra from the department of Electronics and Communication Engineering is a rare personality and a true engineer. His genuine interest in analysing and solving problems has made him a much admired mentor to students participating in different



Hackathons. In this interview with Akampan Gupta of 8th semester of ECE branch, he shares his views on his areas of interest and expertise.

Akampan

: Hello Sir! You have been one of the major reasons for which our team has won Hackathon in the past as well as recently. Could you please elaborate on your role in supporting our students during the same?

Dr. Ambarish: Everyone in this world has some inherent qualities. Someone can think in a different way to solve problems while others have the skills to develop some platform to facilitate these solutions. If these two aspects are running on the same track, and if they will synchronize with each other's idea then the target will be achieved by the team. My role is to motivate the team to select the best possible approach for solving every objective of the problem statement keeping synchronization among them all.

Akampan

:You are from the electronics background but generally you guide the students from Computer Science branch. Please elaborate on that.

Dr. Ambarish: IoT is one of my major focus areas where my research efforts are invested. It is a beautiful technological development which empowers the innovators to connect more and more physical devices to communicate with each other in a very smart way.

> To realize these technological advances, skill sets on both computer science and electronics engineering are required to a great exteant. Moreover,

the stream computer science in higher engineering application gets subdivided into several categories and among all those categories there are Analog Electronics and Digital Electronics (Digital Systems and Design). So it's very necessary to have a lucid idea about electronics else the engineer would face problems. In the similar context. Computer science students are excellent in logic building and implementing cutting edge programming languages. However, their understanding on electronics aspects and embedded systems are not at par. On the contrary, students with electronics background lack in computer programming. Hence, electronics students with electronics background take help from computer science department and computer science students take help from electronics people. This phenomenon, however, promotes collaborative research and development work.

Akampan

: How did you find your love for Hackathon?

Dr. Ambarish: Hackathons are the events, where a large number of aspirants come together to collaborate and solve a problem using various technical methodologies. These are often sponsored by reputed companies and government agencies. These events are competition based and revolve around solving technical problems of the sponsor companies. Basically, it is a unique Open Innovation Model for identifying new and emerging technological innovations to solve the challenges faced by the people in our country. This is the main reason why I have been inspired to be a part of the hackathon mission and to contribute to it.

Akampan

:Please share some of your achievements to motivate our readers?

**Dr. Ambarish:** Well, achievement is a very subjective term. However, the way I achieved my Ph.D. degree, the articles published

during the research work and the appreciations received by my students during various Hackathon competitions are some of my achievements.

Akampan

: You have good experience of the industry. What is your opinion about the current trends?

Dr. Ambarish: If you've been following the news on exciting tech trends like artificial intelligence, then you will probably be aware that emerging technologies are changing the way we work and interact with others. In fact, with things like machine learning and touch commerce becoming increasingly popular across every industry from banking to healthcare, technology is revolutionizing the way we do business and making high-tech approaches an integral part of our lives. One of the biggest tech trends to emerge in recent years is the Internet of Things. Simply put, the Internet of Things (abbreviated IOT) is the idea that all technological devices can be connected to the internet and to each other in an attempt to create the perfect marriage between the physical and digital worlds.

> Another exciting emerging technology is machine learning, which is essentially a computer's ability to learn on its own by analyzing data and tracking repeating patterns. For example, social media platforms use machine learning to get a better understanding of how you're connected with those in your social network. They do this by analyzing your likes, shares and comments and then prioritizing content from your closest connections, serving you that content first.

> Virtual reality has been a popular component of video games for several years and this trend is continuing to expand. In addition to video games, VR is likely to affect companies across the board as they adopt the technology to help them engage customers more effectively and optimize their sales and marketing efforts. It's also a potentially

useful tool for learning and is increasingly being adopted by educational organizations.

Cognitive technology is in the same vein as machine learning and virtual reality except that it's a broader concept. For example, the cognitive technology umbrella includes things like natural language processing (NLP) and speech recognition. Combined, these different technologies are able to automate and optimize a lot of tasks that were previously done by people, including certain aspects of accounting and analytics.

Moreover, few other industry revolutions are Smart Manufacturing / Industry 4.0, Human machine interaction, Monitoring and control, High performance computing / cloudbased simulation services, Highperformance, high precision processing, Intelligent/ sensor-based equipment, Computing (low power computing, high performance computing, new computing (non von Neumann, beyond CMOS, beyond Moore)), Heterogeneous components & more than Moore (MEMS, NEMS, sensors, transducers) and Heterogeneous integration/embedded systems.

Akampan

: How do you indulge yourself in free time?

Dr. Ambarish: Basically, I utilize my leisure hours in reading research articles of good publishers like IEEE, Elsevier, Taylor & Francis, Willy and Springer. Sometimes I like to discuss with students about their ideas and problems which they face during their projects. I watch training videos to visualize the current industry trends as well.

Akampan

:Do you have any message for the students?

Dr. Ambarish: Yes, "Our greatest weakness lies in giving up. The most certain way to succeed is always to try just one more time." Thomas A. Edison

Akampan

: Thank you Sir.



## **Induction Programs at Silicon**

## Induction Program for the freshmen, 2018



The Induction Program 2018 for the newly enrolled B.Tech. students under the autonomy course was organized from 3<sup>rd</sup> August 2018 to 18<sup>th</sup> August 2019. There were many information sharing sessions, talks by external as well as internal speakers and other activities during the program names of external speakers & sessions. There was also a movie show in which students watched the movie "The Theory of Everything" which is on the life of Stephan Hawking. There were nine external invited speakers of eminence, in addition to the speakers from Art of Living, Toast Masters Club and Bhubaneswar E-Waste Management team. Some of the noted Alumni members also addressed the students. The 1st year students along with some seniors presented a cultural program on 14<sup>th</sup> August. The closing ceremony had a session on feedback and experience sharing by the students and speech by the Principal, the Dean Academics and the Director.

## Induction Program of Silicon Students' Council

The Induction Program for the Silicon Students'



Council was conducted in two phases. Phase-I was conducted on 1<sup>st</sup> August 2018 and the Phase-II on 18<sup>th</sup> August 2018. During Phase-I, the Dean Students' Affairs and the Dean Academics addressed the Students' Council. During Phase-II the Principal, the Chairperson of the Anti-Ragging Squad, FIC Residence and FIC Sports and Cultural Committee addressed the Council along with a discussion on a prepared agenda on various issues.

## Induction Program for Scholars' Club



## Chairman's Address

The Chairman Mr. Joe Madiath addressed the staff members on 21<sup>st</sup> July 2018 to mark the beginning of a new academic session with address by the Principal, Dean Academics, on the appraisal process of 2017-18 and a report on the achievements of the Institute.

## Silicon launch Amazon Web Services

A demonstration on Amazon Web Services was shown on 17<sup>th</sup> July 2018 in the Video Conference Hall. Silicon is the first Institute identified by Amazon, as one of the participants for its Education Program in

Odisha. Under this scheme up to 75 faculty members and 500 students would get \$200 and \$100 free cloud space respectively for their research activities.

## Orientation Program and Welcome Function 2018

The Orientation Program for the newly inducted students was organized on 3<sup>rd</sup> August 2018 and the Welcome Function was held on 4th August 2018. The 2-day program consisted of various activities such as interaction sessions of parents with the Faculty Advisers and interaction of parents of boarders with the Residence Committee.

The Induction Program of the Scholars' Club was held on 8<sup>th</sup> September 2018. 75 students were inducted to the club out of which 18 received the merit scholarship. 50% of the total members were nominated by the departments and other 50% were selected by their CGPA. The Principal, Deans, Professors and HODs attended the program. The members were presented with the golden band and a 32 GB pen drive as a gift.

## **Induction Program for Newly Joined Faculty Members**

The Induction Program for the newly joined faculty members was organized on 10<sup>th</sup> August 2018. Ten faculty members attended the program. They were provided all information on HR rules and the ERP process. Mr. Chittaranjan Behera and HR Cell conducted the sessions.

## **Interactive Sessions at Silicon**

## Talk on Social Entrepreneurship and Gender Equality



Ms. Cynthia Hellen, the founder & CEO of SMPLCT Lab NY which is a socially conscious innovation laboratory creating sustainable products, made a presentation on opportunities in social entrepreneurship and gender equality at Silicon on 11<sup>th</sup> August 2018. The event was attended by a good number of faculty members, staff and students who found the talk inspiring. Ms. Hellen's visit to India was sponsored by the US Department of State and the US Consul General of Hyderabad.

## **Expert Talk on Entrepreneurship**



An expert talk on Entrepreneurship Development was arranged by the Entrepreneurship Development Cell on 26<sup>th</sup> October 2018. Mr. J. K. Rath, Director, Mechem Private limited delivered the talk on his journey as an entrepreneur and highlighted the opportunities of entrepreneurship in the current scenario in Odisha. More than 70 students attended the talk.

## Interactive Talk Session by B. K. Savita



Brahma Kumari Sister B. K. Savitha spoke to students and staff in two separate meetings on 10<sup>th</sup> November 2018. She spoke to students on Relationship Management. And she spoke to staff members on Positive Thinking. Both the sessions were attended by a large number of students and faculty members.

## **Industrial Talk**





An industrial talk was organised by the Department of CSE & IT on 28<sup>th</sup> December 2018. Mr. Gourav Kumar from Thought Spot delivered a talk on the Importance of Thinking Big in Life. In the inspirational talk, he told about his journey to IISc Bangalore and put a glimpse of life at IISc, Bengaluru. He highlighted different research opportunities and dove into Query Optimization. In the end, he spoke on the things being done at Thought Spot and Interacted with the students.

## Visit by Mr. Abhijit Sen



Mr. Abhijit Sen, Founder Director of Syllogistek Systems Private Ltd., visited Silicon Institute of Technology, Bhubaneswar on 15<sup>th</sup> & 16<sup>th</sup> January 2019. He gave an Industrial Talk titled "Revamp You" to the 6<sup>th</sup> semester students. The talk focused on the latest IT Industry trends, industry challenges and industry offerings that can help differentiate students in the industry. He addressed the 4<sup>th</sup> semester and 8<sup>th</sup> semester students as well.

Abhijit had an interaction with a selected group of CS/IT/MCA faculty regarding the latest trends in IT where the faculty expressed their eagerness to keep abreast of the latest technologies.

## Interaction Session with Mr. Rajesh Menon

Mr. Rajesh Menon, an Entrepreneur & Digital

Marketing Expert visited the Institute on 8th and 9th



February 2019. Currently he is the CEO & Founder at Agencyonnet.com, Managing Director at Impact Marketing Services Pvt. Ltd. On 8<sup>th</sup> February he delivered the Industry Lecture to 6<sup>th</sup> semester students on Digital Marketing followed by an interactive session with the class representatives and interested students from final years. He also had an interactions with all incubates on MSME and in-house projects, with faculty members, and Deans and HODs' about various issues, also the possibility of offering courses on digital marketing and about utilizing the digital marketing process for our admission.

## **Interaction with Prof. A.K. Tripathy**

AICTE-INAE distinguished Prof. A.K.Tripathy visited the college on 15<sup>th</sup> March 2019. Many faculty members interacted with him and discussed on recent trends and research opportunities on Electrical Engineering.

On 4<sup>th</sup> September Prof. A. K. Tripathy started his activities at Silicon as an AICTE-INAE distinguished Visiting Professor. The Department of EEE is coordinating activities such as Special lectures, Students Projects and Research Consultancy during the current academic year by Prof. Tripathy.

## **Observation Days at Silicon**

## **Observation of Independence Day**

Silicon observed the 72<sup>nd</sup> Independence Day of the country in its premise on 15<sup>th</sup> August 2018. The Principal Dr. Jaideep Talukdar hoisted the national flag which was followed by the national anthem. The Silicon Theater Club played a street act on GST on this occasion. The Meta-Academics Cell organized a debate competition on the topic "India in the Era of Social Media" on the occasion.

## World Mental Health Day 2018

The Department of Basic Sciences and Humanities observed the World Mental Health Day on 10<sup>th</sup> October 2018. A Slogan Writing Competition was held on the topic "Young People and Mental Health in a changing world" in the morning session and a Speech Competition was conducted on "Internet addiction and its impact on Mental Health of Generation Z" in the afternoon session. The Principal, Prof. Jaideep

Talukdar addressed the students and talked about the importance of Mental Health. Dr. Saswati Jena, the Counselling Psychologist of Silicon talked about Stigmas attached with Mental health and seeking the professional help and how to take maximum benefits of The Counselling Cell of Silicon Institute of Technology. The students had shown their enthusiasm and they have touched many dimensions of Internet addiction and shared their opinions. Dr. Saswati Jena's talk on "Types of Internet Addiction and how to get rid of this addiction" on 27<sup>th</sup> of October, 2018, concluded the observation with giving away of prizes to the student winners.

## Silicon celebrated its Foundation Day



Silicon celebrated its Foundation Day on 10<sup>th</sup> September 2018. Prof. Omkar Nath Mohanty delivered the Foundation Day Lecture on the occasion. He spoke on "Creating Engineering Professionals for Nation Building". Prof. Mohanty emphasized on the quality of technical education to build right kind of professionals for different levels of technical manpower requirements. He also talked about the background of the accreditation process and its significance.

## Vigilance Awareness Week and National Unity Day

The Vigilance Awareness Week was celebrated from 29<sup>th</sup> October to 3<sup>rd</sup> November 2018 and the National Unity Day on 31<sup>st</sup> October 2018. All students along with the faculty members took pledge inside the classroom between 9:50 am to 10:45 am on 31<sup>st</sup> October 2018 both for National Unity and Integrity.

## Achievement in Vigilance Awareness Week Elocution Competition

Three of our students got prizes in the Vigilance Awareness Week debate competition held by NALCO from 29<sup>th</sup> October to 3<sup>rd</sup> November 2018. In English Elocution, Silicon got both the 2<sup>nd</sup> and the 3<sup>rd</sup> prizes: Sanath Kumar Swain, 3<sup>rd</sup> semester EEE got the 2<sup>nd</sup> Prize

and Swaraj Baral, 1<sup>st</sup> semester CSE got the 3<sup>rd</sup> Prize. Shweta Santoshi, 3<sup>rd</sup> semester ECE received the 3<sup>rd</sup> Prize in Hindi Elocution.

## **Republic Day Celebration**



The Republic Day was celebrated with Prof. Jaideep Talukdar (Principal) hoisting the National Flag at Silicon which was followed by recital of the National Anthem. Prof. Talukdar addressed the gathering and emphasized on how women are leading in many areas. He cited the example of women leading so many contingents in the Republic Day Parade in New Delhi for the first time. He also recalled the contributions of the freedom fighters and asked the students to contribute their share in nation building. The celebration ended with refreshment and sweets.

## **Martyrs Day**

Silicon observed Martyrs Day (Saheed Divas), the death anniversary of Mahatma Gandhi with two minutes silence prayer at 11:00 am. on 30<sup>th</sup> January 2019. All Siliconites stood at their respective workplace and observed the silent prayer when the bell rang at for the same.

## Celebration of International Women's Day



To celebrate the International Women's Day, the

## SLATE NEWS



Industry Interface Cell, on behalf of Silicon Institute of Technology, organized an event on 9<sup>th</sup> March 2019. This Year's Campaign theme for International Women's Day celebration worldwide was Balance for Better. Ms. Soumya Mohapatra, Group Manager Diversity and Inclusivity Lead for Infosys, Bhubaneswar was the Key

Speaker during the address session. Many Faculty Members and Staff attended the talk.

The Silicon Meta-Academics Cell conducted a poster presentation and a slogan writing competition. A special award of the Best Young Student Achiever Award was given to Ms. Shubhangi Nayak of IT branch for her leadership skills.

## **Events of the Sports and Cultural Committee**

## Consonance 2018



The Annual Music and Dance Competition Consonance 2018 was by the Silicon Music Club. Top 8 students were selected from the audition rounds for the song and dance categories. Akash Kumar Jena was declared as the winner and Punyadeep Pattanaik was declared the runners-up for Song category. H. Rukshar was the winner and Subha Snigdha was the runners-up for the Dance category.

## Rhythmnova



The Annual Fest of Silicon Music Club, Rhythymnova, was successfully conducted in the evening of 12<sup>th</sup> January 2019. The event was inaugurated by Director-in-charge, Principal, Dean Academics, FC Music Club and Student Secretary. The

events constituted of solo song, solo dance, group dance, musical band, were well coordinated and executed. The auditions for the same were held on earlier dates.

## Annual Athletic Meet

The 12<sup>th</sup> Annual Athletic Meet of Silicon Institute of Technology was held in the Silicon ground on 19<sup>th</sup> January 2019. It started with inauguration at 9 am by Dr. Saroj Kanta Misra, Dean (Administration & Student Affairs) followed by oath taking ceremony by Biswajit Parida (Sports Secretary of Silicon Student Council) along with the participants. Various sports and games events were conducted with success.

## **Silicon Sports Meet**



Inter college Sports Meet for Volleyball and Basketball was held from 4<sup>th</sup> to 8<sup>th</sup> of February 2019 in the Bhubaneswar campus of Silicon. All the matches were played smoothly between 4 pm to 8 pm with true sportsman spirit and were enjoyed by the audience. Nine different colleges had participated under volleyball category. They were TRIDENT, CET, DRIEMS, GIFT, GITA, OEC, SILICON (W), KMBB and SILICON. The winner and runners-up teams were GITA and SILICON respectively. Similarly, thirteen different colleges participating under basketball category were NIST, TRIDENT, BGU, KIIT, CVRCE, DRIEMS, CET, Sri Sri University, GITA, Silicon(W),



OUAT and SILICON. The winner and runners-up team were KIIT and SILICON respectively. All the matches

had been judged by external referees and coordinated by the sports officer. The prize distribution ceremony was held on 8<sup>th</sup> of February 2019.

## Aurabinda Misra Memorial Open Quiz 2019 and Inter-college Computer Science Quiz

Silicon Quiz Club in collaboration with CSI Student Chapter of Silicon organized the Aurabinda Misra Memorial Open Quiz 2019 and Inter-college Computer Science Quiz on 9<sup>th</sup> February 2019. Thirty-three teams participated in the preliminary round out of which eight teams were selected for the final round. The prelims and finals of the Quiz were conducted by Quiz Master Ankit Jena. He is an alumnus of CET Bhubaneswar and is one of the best-known Quizzer in the Country with Nation Quizzing Titles under his name. The Tech Fest

## NOESIS & ZYGON 2019

NOESIS 2019 was organized on 14th, 15th and 16th of February 2019. There participants from different colleges and even Silicon. The total numbers of events conducted were 32. There were five other fun events which were also of major attraction. It had several alluring prizes for the winners.

The Annual Function ZYGON 2019 was organized with all pomp and show on 14<sup>th</sup>, 15<sup>th</sup> and 16<sup>th</sup> of February

2019. The three days of the Annual Function had



several cultural renditions, which included songs, dances, a band performance and the runway. The opening ceremony was marked by lighting of lamps, a welcome address by Principal, an odissi dance and a welcome song. All the three days had prize distribution ceremonies to felicitate the winners of various cultural and literary events including commemorating the contributions of the various secretaries and core team members of several students' clubs and cells.





## Quizzarama

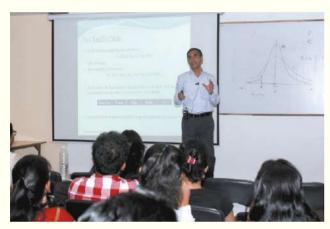
Silicon Quiz Club organized Quizzarama on 16<sup>th</sup> March 2019 inside the college premise. Quiz Master Sajjan Parida conducted the quiz. The 1<sup>st</sup> prize was bagged by Ritwik Tripathy and Toyad Pattnaik. 2<sup>nd</sup> prize was awarded to Arnab Banerjee and Harsh. Siddhant Panda and Swaraj Dash were the 3<sup>rd</sup> prize winner.

## **Open Mic**

The annual event of the debating club of Meta-Academics Cell was conducted with an exhibition of the debating skills of the students of Silicon. It was an open air event conducted successfully by the students.

## **Seminars and Workshops**

## **DAUR-2018**



A one-week National Workshop on Data Analytics Using R (DAUR 2018) was Organized from 6<sup>th</sup> to 12<sup>th</sup> July 2018 by the Departments of CSE, IT, and MCA in Collaboration with OITS, Bhubaneswar, CSI-Silicon Student Chapter and ISTE-Silicon Students' Chapter. Dr. Debasish Samanta from IIT, Kharagpur and Dr. Rudra Mohan Tripathy from Xavier University, Bhubaneswar acted as resource persons.

## **Seminar by Team MANAM**

A seminar was conducted by the members from MANAM Foundation on 8<sup>th</sup> September 2018 in the college. Around 120 students attended the program. Two Speakers: Ms. Anuradha Mahapatra and Ms. Somya Sucharita Mohapatra from MANAM Foundation spoke on Mental Health and Hygiene, Selfawareness & Self-assessment and Suicide Prevention.

## IoT Workshop

An 8-day workshop on Internet of Things (IoT) was conducted from 4<sup>th</sup> to 13<sup>th</sup> September 2018 by the Department of Computer Science and Engineering in association with LectureNotes Technologies, Bhubaneswar. The workshop covered topic from basic Bluetooth and Wi-Fi communication to Sensor communication techniques. Arduino, NodeMCU,

Light sensors (LDR), Sonar Sensors, Temperature and Humidity Sensors were provided as a part of the training kit to 165 participates for having expertise on IOT.

## Entrepreneurship Awareness Camp



The Entrepreneurship Development Cell of Silicon organized an Entrepreneurship Awareness Camp from 22<sup>nd</sup> to 24<sup>th</sup> September 2018. More than 150 students from different semesters actively participated in the awareness camp. Dr. R. N. Behera, Senior Director (Technical), NIC, Dr. A. K. Rath, CMD, Hemlata Hospitals and Research Centre, Dr. B. S. Pani, Mr. S. K. Rath, Assistant Director, MSMEDI and Mr. Chitta Ranjan Pattnaik, Regional coordinator, EDII addressed and interacted with the students during the program

## **NWIVP-2018**

The Department of Electronics & Communication Engineering organized a 2-day National Workshop on Image and Video Processing between 28<sup>th</sup> and 29<sup>th</sup> of September 2018. There were 127 student participants in the two-day workshop. Dr. Aditya Acharya, SIT Bhubaneswar spoke in the introductory session on the broad area of image processing and computer vision. Dr. Priyadarshi Kanungo from C. V. Raman College of Engineering delivered a talk on "Moving object detection and tracking". Dr. Suvendu Rup from IIIT

Bhubaneswar gave a talk on video compression on the 2<sup>nd</sup> day. A hands-on-training session on Image Processing was taken by Prof. Nihar Ranjan Panda, SIT Bhubaneswar on the same day. The workshop was convened by Dr. Aditya Acharya.

## FDP on Effective Communication and Self Motivation



The HR Cell arranged an FDP for faculty members on 5<sup>th</sup> December 2018. It was a continuation of the Induction program conducted on 10<sup>th</sup> August 2018. Thirty-five faculty members attended the program. There were four talks during the program. Er. Nitai Dhall, working Trustee addressed on Silicon Core Values, Dr. Saroj Misra, Dean Administration spoke on Effective Communication Skills, and Dr. Debabrata Kar Dean Academics told on Broader Perspective of Faculty Responsibilities and Prof. P. K. Rath, Retired Professor of Psychology Department, Utkal University delivered on Self-Motivation, Counselling and Motivating students.

## **Eduvance IoT Workshop**

A two-day IoT workshop was organized by Eduvance in collaboration with Microchip on 2<sup>nd</sup> & 3<sup>rd</sup> of November from 10 am to 5 pm at VLSI and Communication Lab, Silicon Institute of Technology. Mr. Sidharth Bhatter, director of Karkhana Club educated on the basics of Arduino and Raspberry Pi and highlighted on the future scope and market demand of IoT. In the afternoon session, some hands-on were conducted on Arduino and ESP8266 Wi-Fi Modules and participants worked on projects like LED Controlling, Home automation, Door Controlling. 85 no of student participants learned their dream stream i.e. Internet of Things and made it successful.

## FDP on Communication and Life Skills for Professionals

The Department of BSH in collaboration with the



HR Cell organized a Faculty Development Program on "Communication and Life Skills for Professionals" on 5<sup>th</sup> January 2019. The members of the English department worked together as the organizing team for the successful completion of the same. A total of fifty two faculty members participated in the program. Ms. Amrita Deo and Dr. Saswati Jena from Silicon, and Dr. Shradha Padhi from KIIT School of Management were the resource persons in the program.

## National Workshop on Data Science and 46<sup>th</sup> Annual Conference of OMS



Silicon Institute of Technology, Bhubaneswar organized the National Seminar on Data Science with the 46<sup>th</sup> Annual Conference of Odisha Mathematical Society (OMS) on 19<sup>th</sup>-20<sup>th</sup> January 2019. Prof. B. L. S. Prakasa Rao, former Director of Indian statistical Institute was the Chief Guest and Prof. Gokulananda Das, former Vice Chancellor of Utkal University was the Guest of Honour during the Inaugural Ceremony.

Several books, periodicals and journals were released during the inaugural ceremony which includes the Souvenir of the Conference.

During the technical sessions Prof. B. L. S. Prakasa Rao also delivered the Keynote Address. Besides, there were six other invited speakers who spoke during the





conference. Dr. Bigyani Das, Dayton, Maryland, USA, delivered the Prof. Shankar Prasad Mishra Memorial Lecture. Dr. Ratikanta Behera from IISER, Kolkata delivered the Prof. Ramanath Mohanty Memorial Lecture. Prof. Mahendra Prasad Biswal from IIT, Kharagpur delivered the Prof. Bama Charan Das Memorial Lecture. Prof. Ram Narayan Mahapatra from University of Central Florida, USA delivered the Prof. Mina Ketan Das Memorial Lecture. Prof. Mahendra Nath Mishra, Professor Emeritus, Institute of Mathamtics and Applications, delivered a talk on A Short Histroy of the Theory of Probability and Prof. Bhabani Shankar Panda from IIT, Delhi delivered a talk on Dimensional Reduction.



Research papers were presented by different researchers on wide range of topics in Analytic Functions, Functional Analysis and Sequence Space in one hand to Heat & Mass Transfer and Fluid Flow in other hand. There were presentations on Classical Geometry, Projective Geometry and Finite Geometry and also papers on Big Data Statistics & Analytic Tools, Data Simulation Algorithms and Computer Networking. The range of topics can be perceived from the articles like Comparative Study on Siddhanta Darpana to Management of Prediabetes with

Chandraprava Vatika. Also there were research papers on M/M/1 Queue, Inventory Models, Fuzzy Integrals, Hidden Markov Models, Various types of Optimization Problems and Models.

There was discussion on the syllabus of mathematics in different boards and universities of Odisha. The general body meeting of the OMS was conducted in the afternoon of 20<sup>th</sup> January 2019 followed by the valedictory function of the conference. There were 180 registered participants and 20 invited guests who attended the program.

## **NWET-2019**



The National workshop on Emerging Technologies was held from 31<sup>st</sup> January to 2nd February 2019. Sri. Hemant Sharma, C.M.D., OPTCL was the chief guest for the inaugural ceremony. Vetaran Electrical Engineer Mr. K. C. Mohapatra, Former Chairmen of OECB, was felicitated during the inauguration ceremony. The participants of the workshop witnessed a plethora of technical sessions & keynote talks delivered by eminent academicians and experienced industry professionals during the 3 days. Various industries showed interest in exhibiting their products to the participants of the workshop. There were exhibition stalls from UE systems INC, SONEL industries, Megger, etc.



NWET 2019 witnessed a large participation from industry as well as academia.

## Demo on using E-Books

A Demo on "How to use the E-books" for all the faculty members was organised on 9<sup>th</sup> February 2019 in Seminar Hall by Central Library. Mr. Dilip Kumar Sarangi, Online Product Specialist from Proquest gave the demo before the faculties and staff on access of e-books on ebook central platform of Proquest which has more than 30,000+ ebooks.

## NWRAAT-2019

The department of Electronics & Communication Engineering organized the National Workshop on Recent Advances in Antenna Technology (NWRAAT 2019) on 2<sup>nd</sup> March 2019. The workshop was designed to communicate with the students regarding the state-of-the-art technologies in the field of Antenna and Microwave communication. The participants attended the lectures and the hands on training on Antenna design and optimization using HFSS. Prof. (Dr.) B. B. Mangaraj, (Associate Prof., VSSUT, Burla) and Mr. Guru Prasad Mishra (ICRS Certified HFSS trainer) were the resource persons. There were 66 student participants including 24 from other Institutes and Universities.

## **FMET-2019**



A two-days National Seminar on Functional Materials for Emerging Technologies (FMET-2019) was organized by the Department of BSH from 1<sup>st</sup> to 2<sup>nd</sup> of March 2019. The keynote talk was delivered by Dr Prakash Kumar Patnaik, Principal Research Scientist, Air Defense Science and Technology and Program Leader, Defense Research Technologies & Sustainment, Aerospace Research Center, National Research Council Canada. There were various talks delivered by Dr Naresh Chandra Mishra, Utkal University, Dr Subhankar Bedanta, NISER Bhubaneswar, Dr Ramakanta Naik, Institute of

Chemical Technology, Bhubaneswar, Dr Dilip Mishra from S'O'A University Bhubaneswar, Dr Sayed Iqbal Hosain, Retd. Consultant-cum-joint Director, Department of Higher Education, Govt. of Odisha, and Dr Pratap Kumar Sahoo, NISER, Bhubaneswar. There were more than 170 participants including faculty members of various colleges and students.

## Workshop on Developing Writing Skills



The Silicon Publication cell conducted a one-day Workshop on Developing Writing Skills on 16 March 2019. The workshop was meant for students, especially those who write for college magazines. Mr. Surendra Nath Mohanty, a creative writer, was the resource person.

## Workshop by IEEE Students Chapter

A Workshop on 'IoT with Raspberry pi' was conducted by IEEE Student Chapter, SIT at the training centre on 2<sup>nd</sup> and 3<sup>rd</sup> February'19. There were 40 students registered from all branches. Mr. Sageer Mohammad from Tech Trunck Ventures was the resource person. These two days were utilized to appraise the students on various applications of IoT in their projects and hackathons.

## MIC-IIC Leadership Talk-Shri Ajit Doval

MHRD Innovation Council organized India First Leadership Talk series from 11.10 am – 12.30 pm on 19<sup>th</sup> March 2019. Shri Ajit Doval, National Security Advisor, Government of India delivered the talk on "Art of Decision Making". Institute Innovation Council, Silicon Institute of Technology arranged the program at Video Conference Hall. Faculty members and Students attended the talk in large numbers.



## **Student Club Activities**

### **Fundola**

The ZEAL (Zenesis of Enthusiasm about Life) club organized a program named FUNDOLA on 22<sup>nd</sup> September 2018. The objective of this event was to collect funds for helping the orphans, physically challenged and low privileged homeless children. All members prepared food items, art and craft items to sell for raising funds. Some funds were utilized on the International Deaf and Dumb Day on 26<sup>th</sup> September 2018 at Nursery Deaf and Dumb School, Pokhariput. The ZEAL team sponsored food and water packets and the Silicon Theater Club played a mime act on, Freedom Fighters, for the children.



## Ahora

The ISTE Students' Chapter of SIT Bhubaneswar organized a program named Ahora on 15<sup>th</sup> September 2018 at our college premises. There were two rounds, 1<sup>st</sup> round consists events like Visual puzzles, Logical reasoning, Verbal ability and Data Interpretation. Top 7 teams were selected for the final round which was the FinOps (Financial operations) event. 357 students participated in the program. All the finalists were provided with a detailed business model for which they had to plan the operations for two years. The winners and runners-up were awarded with cash prizes of Rs. 2000/- and Rs. 1500/- respectively.

## Swachhata Pakhwada

Silicon organised its Annual Cleanliness Drive, Swachhata Pakhwada, from 22<sup>nd</sup> to 30<sup>th</sup> September 2018. Students participated in the drive to clean their rooms in the hostel, canteen and dining area, a survey of the toilets and corridors of the Institute, and cleaned the road side near Sikharchandi Square. The 9-day cleanliness drive ended with the prize distribution ceremony in which Director-in-charge Dr. Saroj Kanta



Misra awarded the students.

## **Robotics Workshop**

The Robotics Club conducted the 3<sup>rd</sup> Robotics Workshop for the 1<sup>st</sup> year Students during October to December 2018. There were classes on Robot Designing starting from simple manual bots to complex drone architectures. Pratyush Ranjan Sahoo, Anish Sarangi, Asutosh Samal were among the trainer from the Students of the higher semester of the college.

## National Deaf Sports Championship



The students of ZEAL in association with Government of Odisha organized the 11<sup>th</sup> Odisha Deaf Senior Sports Championship and 4<sup>th</sup> Odisha Deaf Sub-Junior/Junior Championship of Odisha Sports Council of the Deaf, at Silicon on 8<sup>th</sup> and 9<sup>th</sup> December 2018. Around 200 participants from State Level Associations of Deaf and from five schools of the deaf, took part in the championship. Around 80 participants were selected for the National Deaf Sports Championship to be held on 27<sup>th</sup> to 31<sup>st</sup> January in Chennai.

## Workshop of Photography Club

The Silicon Photography Club successfully

organized a One-day workshop on "Basics of Field Photography" on 19<sup>th</sup> January, 2019. The club invited Mr. Pratyush Satpathy, a Mumbai based renowned photographer as the resource person to train our students. During the training process, he discussed regarding basics of photography like ISO, shutter speed, aperture setting and different modifications. At the end of the workshop, an on-spot competition was conducted for two categories: Mobile Camera Photography and DSLR Camera Photography. Around 40 students from Silicon Photography Club actively participated in the workshop.

## Workshop of Creative Club

The Silicon Creative Club conducted a One-day Modern Art Workshop on 19<sup>th</sup> January 2019. The workshop was graced by National Awardee Mr. Suryakant Naik as the resource person, who is currently working at National Museum of History, Bhubaneswar. Around 30 students from our institute participated actively in the workshop. At the end of the workshop, a painting competition was conducted among the participants to encourage their involvement in creative design.

## Accolades

## ISTE Odisha Section Felicitates Silicon

The ISTE Odisha section felicitated Silicon Institute of Technology, Bhubaneswar for the year 2018 for its distinguished contribution in the area of Development of Technical Education in the state of Odisha. Principal, Prof. Jaideep Talukdar, received the citation for the same during the Inaugural Function of the 21<sup>st</sup> ISTE Annual Convention held at Gandhi Institute for Technology (GIFT), Bhubaneswar on 10<sup>th</sup> November 2018.

## Silicon comes First in Smart Odisha Hackathon 2018

The Smart Odisha Hackathon 2018 was a part of the Make In Odisha Conclave 2018 which took place at CET, Bhubaneswar from 13<sup>th</sup> to 14<sup>th</sup> November 2018. There was one level scrutiny after which the final round of Hackathon, a 36 hour non-stop coding event was conducted. Two groups from Silicon made it possible to the finals and the team saswat32\_55b6 won the first prize. Moreover, this team has been highly appreciated by the Bhubaneswar Municipal Corporation (BMC) and the authorities from BMC have shown their interest to work more on this project.

## Silicon Receives Award on National Energy Conservation Day

The Bureau of Energy Efficiency, Ministry of Power, Govt. of India and Department of Energy Govt. of Odisha observed the National Energy Conservation Day on 14<sup>th</sup> December 2018. A program was organized on that day in which Silicon was given an Award of Appreciation based on an application process. The application was processed by the Department of EEE.

## First Prize in Trithon

Two groups from Silicon were selected to participate in the finale of the 24-hour Software Hackathon organized by Trident Academy of Technology on 16<sup>th</sup> and 17<sup>th</sup> of February 2019. The teams from Silicon were "ZeroBug" headed by

Anubhav Gupta (CSE) and "Inception" headed by Utsav Kumar (EEE). Out of the 27 teams that were selected to the finale, Team ZeroBug won the first prize in all problem statements presented there. The cash prize was of Rs. 50,000/-. The solution which team ZeroBug presented was based on agriculture application named as "KishanBandhu".

## First Prize @ YugMa-2019

Astha School of Management organized a national level Oratory Competition "YugMa-2019" on 21<sup>st</sup> and 22<sup>nd</sup> February 2019 to celebrate the birth anniversary of Sri Ma, The Mother. It was an event of several rounds. Three of our students, Mr. Swaraj Baral from 1<sup>st</sup> year CSE, Ms. Sushree Priyadarshini from 2<sup>nd</sup> year AEI, and Ms. Malovika Parira from 2<sup>nd</sup> year CSE were selected to participate in the competition. Mr. Swaraj Baral bagged the first prize consisting of Rs.25,000/- cash prize, trophy, and certificate.

## Silicon Wins Smart India Hackathon (Software Edition) 2019 Title

The team from Silicon named "New Minds" was selected for its solution to problem statement on Petroleum Tanker Pilferage (under the Student Innovation category). The team proposed an IoT based anti-pilferage solution which was highly appreciated by all jury members and bagged the First Prize of Rs. 1.00 Lakh. The event was held at VelTech University, Madras, which is the nodal center for all Student Innovation ideas. The winners were Anish Kumar Sarangi, Pratyush Ranjan Sahoo, Satya Prada Nayak, Subhangi Nayak, Priyatosh Sahu and Rituparna Sahoo.

### **Tata Crucible Hackathon**

Silicon Institute of Technology won the 2<sup>nd</sup> prize title in Tata Crucible Hackathon West Zone on 23<sup>nd</sup> March 2019. Anubhav Gupta, Disha Kumari, Rashmi Ranjan Pradhan, and Saswat Sarangi showcased their talent at the National Level.



## **Events of the Staff Welfare Committee**

## Free Eye Testing and Watch Servicing Camp

Staff Welfare Committee set up a Free Eye Testing and Watch Servicing camp on 17<sup>th</sup> November 2018 from 11:00 am to 3:00 pm. Many Staff Members attended the camp and seized the opportunity.

## Free Check-up Camp for Four Wheeler



A free check-up camp for four wheelers was held at Silicon premises by Jyote Motors on 1<sup>st</sup> December 2018. Many faculty members availed the facility of Vehicle health Check-up up, Electrical check-up, Drywash, Road Test in case of technical issue.

## Staff Sports Activities, Staff Sports Meet, Cricket and Volleyball tournaments



The Staff Welfare Committee organized different sports activities for staff members during the last few months. The cricket tournament was organized by dividing all players into six teams namely Khandagiri, Lalitgiri, Udaigiri, Ratnagiri, Puspagiri and Dhauligiri. Team Udaigiri emerged as the winner. Mr. Jitendra Pradhan was the player of the finals and Mr. Partha Sarathi Behera was the player of the tournament. The volley ball tournament was played on 12<sup>th</sup> December 2018 between two teams named Safe Sets and Way Out. Team Safe Set was the winner and Mr. Baburam Bal was the player of the match. The Staff Sports Meet was organized on 5<sup>th</sup> January 2019 with several events for men and women.

## Staff Award Function



The Staff Award Function of Silicon Institute of Technology, Bhubaneswar was held on 2<sup>nd</sup> March 2019. Nine staff members received the 15 Years Long Service Award and 32 staff members received the 10 Years Long Service Award. Besides eight faculty members were felicitated for their Ph. D. degree. Prizes for sports and cultural activities conducted earlier during the year were also distributed. During the program cultural events on song and dance were presented by staff members including an Odia one act play "PILISAZA".





## Institutional Membership of Institute of Engineers



Silicon became an Institutional Member of the Institute of Engineers India on 8<sup>th</sup> September 2018. Dr. S. M. Ali, the Director (Membership), Institution of Engineers (India), handed over the Membership Certificate to the Principal. Dr. Ali spoke about benefits which are available to an Institutional Member and other members of IEI. Along with the certificate Silicon got access to a number of e-journals of Springer. The FIC Library will look into the process of establishing the access and communicating the same to all faculty members. Mr. Pradipta Kumar Jena has been assigned the responsibility of starting the Students' Chapters of IEI.

## **Blood Donation Camp**



The Silicon Student's Council along with the Commissionarate Police Cuttack & Bhubaneswar jointly set up a blood donation camp on 27<sup>th</sup> October 2018. Sri Satyajit Mohanty, IPS, Commissioner of Police inaugurated the camp followed by a plantation drive organized by Silicon Green Club.

## **QWERTY Training Classes**

The touch-typing classes of QWERTY Club (Batch-3) started on 20<sup>th</sup> August. Total 39 students from

1<sup>st</sup>, 3<sup>rd</sup>, and 5<sup>th</sup> semesters of all branches joined the club this time. The training classes are being held on Mon-Fri every week from 3:30 pm to 6:00 pm. Many of the students have completed the lessons and are now practicing on Typing Tutor software and most of them have achieved a speed of 25-30 wpm. By the end of the training, all students are expected to achieve at least 30-35 wpm. The training is being given by Dr. Debabrata Kar, Dean (Academics).

### Alumni Meet



The Alumni Meet was hosted on 28<sup>th</sup> December 2018 by the college at the North Lawn. 214 alumni members from different graduating batches attended the meet. The Principal Dr. Jaidep Talukdar delivered the welcome address. A small cultural program and other entertainment programs were followed by dinner.





## **Parents Meet**

The 17<sup>th</sup> Parents Meet was held on 12<sup>th</sup> January 2019. Dr. Jaideep Talukdar, Principal, delivered the welcome address and Dr. Debabrata Kar, Dean (Academics) presented the achievements and activities during 2018. Er. Sanjeev Nayak (Working Trustee) and Dr. Saroj Kanta Misra, Dean (Administration & Student Affairs) addressed the gathering on placement, higher studies and other issues.

## **Book Exhibition**

A Book Exhibition was organized in the Institute premises on 1<sup>st</sup> and 2<sup>nd</sup> February 2019. Four Vendors participated in the Exhibition with more than 2000 titles of both foreign and Indian editions on display for students and faculties. 390 titles were recommended by the visitors.

## **Tech-O-Meter by ISTE Students Chapter**

ISTE Students' Chapter of Silicon organized the event ISTE Tech-O-Meter on 2<sup>nd</sup> February 2019. There were 350 participants. The event Tech-O-Meter comprised two rounds: 1<sup>st</sup> round included Engineering, visual perception, logic & reasoning, sports, entertainment, decision making etc. Top 8 teams were selected for the finale. The final round included Case Study based on real life problems. There were cash

prizes of Rs. 1500 and Rs. 1000 for the winner team and runners-up team respectively.

### **Farewell Function**

Silicon bid goodbye to the 2015-2019 batch on 27<sup>th</sup> March 2019. Many students shared their experiences. Mr. Anish Kumar Sarangi got the Best Student Award for the batch. Miss Subhangi Nayak got the Young Woman Achiever Award. Mr. Bikash Kumar Singh and Mr. Priyatosh Sahu received the Best Placement Award and Best Achievement Award respectively. The core team of SLATE and Digital Digest were awarded for their contribution to the magazines. Principal, Dr. Jaideep Thalukdar addressed the gathering and spoke about their future prospects.



## Student Attends Global Learning Program at Dubai



Abhishek Kaushik, currently a B. Tech. 2<sup>nd</sup> year CSE student was selected for Global Learning Program, Dubai in January 2019. He was one of the 28 delegates selected from various reputed universities of India to attend the program. The motto of the program was to give the delegates an immersive experience of the start-up ecosystem of Dubai and promoting the idea of learning by travelling. The program consisted of mainly three parts Live projects, Industry Immersion, Final Presentation.

In live-projects, Abhishek along with his team worked on finding a solution for a real-life problem of low cashflow for a digital marketing start-up based out of Dubai. The industry immersion consisted of visits and immersions into several local startups of Dubai, the major attraction being the visit to Careem, a billion dollar start-up and the Dubai equivalent of the Indian "Ola". The sessions consisted of talks from some prominent personalities of Dubai, namely, Forbeslisted CEO, Geet Bhalla, Veronica Giles - Manager of DTEC, Daniel Atkins, CEO of Curtin University. The best of the lot being the session by Samia Hasan, Founder of Unwind-the-Grind. The program also included visits to the famous Dubai Mall, Palm Jumeirah, Mall of the Emirates and Desert Safari. A keynote speech by Lucy Chow, Director WAIN started the final day & concluded with presentations by the teams.

The program helped him know about the functioning of start-ups and learn from the struggle of the founders, along with that, the live-project helped him understand the nitty-gritty of a business.

## An Interview with Dr. Prakash Patnaik



Dr. Prakash Patnaik is the Principal Research Officer at National Research Council, Ottawa, Canada's Aerospace Research Centre. He has received the prestigious and well deserved North Atlantic Treaty Organization (NATO) Science and Technology Organization's Panel Excellence Award in December 2018 at Athens, Greece for his longstanding service and extraordinary scientific contributions to NATO's Applied Vehicle Technology (AVT) panel. His leadership and expertise in the field of high temperature metal alloys and coatings used in gas turbine engines has strengthened the core of AVT. Prof. Patnaik visited Silicon for a guest lecture during a two-day National Seminar on Functional Materials for Emerging Technologies. The SLATE team had an opportunity to interact with Prof. Patnaik. This interview was taken by Ms. Disha Kumari of CSE, 6<sup>th</sup> semester.

Disha

: You have been awarded with many prestigious awards throughout your career for your research. So how did your research start from the very scratch?

Prof. Patnaik: The first thing is you should be passionate about what you are doing. I did my Metallurgical Engineering from NIT, Rourkela and my M.Tech. from IIT, Kharagpur. Then I joined McMaster University of Canada in the Material Science and Engineering department, which is one of the top four institutes of Canada. When I saw people talking about quantum physics, at first I was totally lost. Then I had to do a lot of hard work.

> I was unable to understand their books of 1978 editions at first. So I had to go back to the 50's publications because the original editions always give you more information than the new edition. When you start looking

deep into science, you get the encouragement to do the research.

As soon as I completed my masters I started applying for MIT, Stanford and a couple of more institutes. The MIT authorities replied and they were like "Why don't you join MIT? Are you a fool or what? Just come and do your PhD". It is always your determination, aspirations and mentors that take you to a higher level of success. Success is a combination of many things.

Disha

: So from the very beginning you were focused on your career as a research scientist?

**Prof. Patnaik**: Absolutely. 100%. Nobody could change my

determination also.

Disha : What are your thoughts about the development of Indian Research

Organizations for the last 5-6 years?

**Prof. Patnaik**: I think there is a lot of opportunities here in India. I know some of the organizations which are doing great in this field. For example DRDO, CSIR, IMMT. I have spent one summer in IMMT during my training period in IIT. They have the facilities but they don't have the capacity. You need to know the difference. Facility is a "bunch of machines" but capacity is "a bunch of machines handled by intelligent people" who can take machines to another level. Another problem is India is the country of large population but that's now turning into a good problem because half of the population is youth. So I hope the youth will bring some good changes in future.

> Almost every educational institute must have a group of mentors, not from their own organization but from outside. In institutes like Silicon, they should try these kind of models for mentorship. When I come to India, I see a lack of enthusiasm in students. There is a lack of hunger for knowledge. Sometimes they feel shy and hesitate to talk to me, but when you want to learn something you have to forget all those things that are pulling you back.

Disha

: Sir, it was really great talking to you. Thank you so much for sparing time for this

interview.

Prof. Patnaik: It's my pleasure..



## News from Industry Interface Cell Indian Navy University Entry Scheme (UES 2019)

The Industry Interface Cell organized a student address session for the 2019 graduating batch students interested for the Indian NAVY University Entry Scheme (UES) 2019 on 13th July 2018. Station Commander from ECHS Chilka, Cdr. D.K. Mishra, a specialist in Gunnery and NBCD (Nuclear Biological Chemical Damage Control and Fire Fighting), having experience of sailing in various warships as a specialist and a trainer, addressed the interested students. In his motivational speech, Cdr. Mishra, besides talking about the role of Indian NAVY in defending Mother India, guided the students on UES 2019 (Eligibility, Career Path, Revised Pay Scale, Selection Process and Application Procedure).

Captain S.C.Das, Command Recruitment Officer, Eastern Naval Command, Visakhapatnam conducted the UES 2019 first round screening process at Silicon on 18th Sep' 2018 for the registered 2019 Graduating Silicon candidates.

## GyanSys Info Tech Campus Recruitment

GyanSys Info Tech, a mid-tier global Systems Integrator associated with SAP, Salesforce and Microsoft, conducted an on-campus drive at Silicon for the 2019 graduating batch eligible students on 6th August 2018. The company offering a higher pay package than the premiere Day1 on-campus visitors selected five students (3 from CSE, 1 each from IT and ECE).

## **Industry Interaction Session**

The Industry Interface Cell organized two separate Interactive Lecture Sessions for the 2019 graduating batch students from Silicon by Mr. Mohar Mishra, CTO & Co-founder from Acesocloud and Mr. Biswa Bhusan, Senior Lead Talent Acquisition from Infosys on 11th August 2018.

While Mohar talked about the growing demand of Data Analytics and Big Data solutions with the products developed by Acesocloud in healthcare domain using Data Analytics tools and techniques, Biswa Bhusan talked about Infosys specific fresher on-campus recruitment practices.

## **Acesocloud Campus Recruitment**

Acesocloud Software Solutions Pvt Ltd, a fast growing Silicon Valley based tech-start-up offering cloud-based analytics and mobile solutions in health care domain using latest technologies, conducted an exclusive oncampus drive at Silicon on 17th August 2018 for interested 2019 graduating batch MCA and B.Tech. students from all branches. Twelve students (7 from CSE, 3 from IT, 1 each from AEI and EEE) were finally selected by Acesocloud offering a higher pay package

than the premiere Day1 exclusive on-campus visitors.

## Black Knight Technology Campus Recruitment

Black Knight Technology Inc, premier provider of software and data analytics solutions to Mortgage and Consumer Loan, Real Estate and Capital Markets verticals, visited Silicon on 21st August 2018 for an exclusive on-campus recruitment of 2019 graduating batch students from CS, IT and ECE branches. Seven students (1 from CSE, 2 from IT and 4 from ECE) were finally selected by the company.

## **Aptus Data Labs Campus Recruitment**

Aptus Data Labs, an innovative Data Engineering and Advanced Analytics company offering industry based analytical solutions and consulting services, visited Silicon on 25th August 2018 to select students from the 2019 graduating batch. The company targeted students from CSE and IT pool for the post of Data Scientist, Full Stack Developer. Three students from CSE were selected by Aptus Data Labs at a pay package higher than the premiere Day1 exclusive on-campus visitors.

## Silicon Techlab (STL) Campus Recruitment

Silicon Techlab (STL), a successful ISO certified CMM Level 3 company from the Silicon valley in Odisha offering productized services in education, healthcare and e-government domains, visited Silicon on 8th September 2018 to select students from the 2019 graduating batch MCA students. Three students were selected by STL.

## **Shared Day-1 Campus Recruitment by Wipro Technologies**

Like the previous years, for the Exclusive Shared Day One On-campus drive, premiere IT companies like WIPRO and Infosys visited Silicon as Shared Day One Partners.

Wipro visited on 28th September 2018 as a Shared Day-1 partner. Eligible students from the batch 2015-2019 at Silicon Hills and Silicon West participated in the Wipro Shared on-campus drive. We had finally 92 (87 from Silicon Hills and 5 from Silicon West) selected from 97 Silicon students (both campuses) who faced the Final interviews.

## **Shared Day-1 Campus Recruitment by Infosys Technologies**

Infosys visited Silicon on 8th and 9th October 2019 as a Shared Day 1 partner for the 2019 graduating batch students. Eligible students from both Silicon Hills and Silicon West participated in the Exclusive Infosys Recruitment Process. Infosys rolled out 135 offers finally at the end of the two-day selection process. While Silicon Hills had 127 offers including 2 MCAs, Silicon West had 8 offers.

Four from Silicon who were short listed from top 1000 in Round 2 of the #HackwithInfy Pan India Contest

conducted for the first time by Infosys. The students went through the Pre-Placement Interviews (PPI) at Infosys Bhubneswar DC for System Engineer at a Higher CTC one for System Engineer Power Programmer and three for System Engineer Other Roles. All these four students were selected for the following post.

S.N.	Name	Branch	Offer	CTC
1	Amit Kumar	CSE	System-Specialists	5 LPA
2	Bikash Singh	CSE	System Engineer-Power	8 LPA
1			Programmer	
3	Priyatosh Sahu	CSE	System-Specialists	5 LPA
4	Yash Agarwal	CSE	System-Specialists	5 LPA

These offers are in addition to the 135 offers made by Infosys for the 2019 graduating students.

## Financial Software and Systems (FSS) Recruitment:

FSS, a global leader in financial payments domain offering services in the areas of electronics payments and financial transaction processing solutions, visited Silicon on 10th and 11th October 2019 for exclusive on-campus recruitment from the 2019 graduating Career 70% throughout CSE and IT students. FSS, at the end of the process, made five offers which three students from CSE and two students from IT.

## **Automated Data Processing (ADP) Recruitment:**

ADP, a Fortune 500 Company, conducted an off-campus recruitment drive at Silicon on 1st and 2nd November 2019 for seven participating colleges which included two Govt. engineering colleges CET, Bhubaneswar and Govt. College of Engineering, Kalahandi. Out of 800 plus participating eligible students, six students were selected. Silicon had the highest hit-ratio with two offers, one each from CSE and IT. ADP offers a CTC higher than the premiere oncampus visitors.

## **Mindfire Solutions Recruitment:**

Mindfire Solutions is a renowned home grown software development company known for its software product development, QA and Testing services. Mindfire selected two 2019 graduating MCAs from Silicon on 23rd October 2019 for their Testing domain.

## **Mindtree Ltd Recruitment:**

Mindtree, offering services in areas like e-commerce, mobile application, digital transformation, data analytics, ERP etc., visited Silicon for the on-line test on 11th October 2019 to recruit 2019 graduating batch students. The final interviews for the short listed students from the on-line test were held on 3rd November 2019. Eight candidates Mindtree Minds were selected from Silicon with four from CSE and two each from ECE and AEI branches.

## JBS Capacitors Pvt Ltd Recruitment:

JBS Capacitors Pvt Ltd., a home grown manufacturer of electronic equipments, selected four 2019 graduating MCA students from Silicon on 14th November 2019.

## **IBM Off-campus Recruitment:**

IBM conducted an off-campus recruitment drive at KIIT on 4th December 2018 for 2019 graduating women candidates from CSE and IT branches. One student from CSE branch at Silicon was selected.

## **Ekistics Solutions Recruitment:**

Ekistics, a Bhubaneswar based social business start-up focusing on IT Services conducted a drive for short listed 2019 graduating MCA students from Silicon on 9th December 2018 and selected one student.

Ekistics is the winner of prestigious BIRAC BIG Grant 2018 and recognized as top 5 startups in BioAsia 2019.

## Business Intelligence Professionals Pvt Ltd (BIPROs) Recruitment:

Business Intelligence Professionals Pvt Ltd (BIPROs), a home grown CMMI Level 3 company offering services in Application development and Big Data Analytics, selected one 2019 graduating candidate from CSE branch on 14th December 2019 through a pooled campus drive.

## Collabera Services Pvt Ltd Recruitment:

Collabera, ranked among top 10 globally renowned Information Technology (IT) and Professional Staffing Services Firms, visited Silicon on 15th December 2019 for an exclusive on-campus drive to select 2019 graduating batch B.Tech students. Three students, one each from CSE, ECE and EEE branches were selected by Collabera.

### **Industrial Lectures:**

The Industry Interface Cell at Silicon, with the help of faculty co-coordinators from the respective departments, started the Industrial Lecture sessions for the 6th semester students from the month of December 2018. Industrial Lectures are a part of the BPUT syllabus, which covers topics of cutting edge technologies or of latest industry trend. These are delivered by resource persons from the industry with evaluation of the students at the end. The Industrial Lectures conducted during December 2018 are:

Industrial Lecture During December 2018

On 28th December 2018, Er. N.K. Jagdish, of Associate Engineer Qualcomm India Pvt. Ltd. gave away the talk on Modern SoC Design Flow in VLSI Industry while Er. Gourav Kumar, of Thoughtspot, Bangalore delivered on Technology Trend in the IT industry; Motivation for Higher Technical Education-M.Tech/Ph.D. in Computer Science; Life at Thoughtspot.



## **NIIT Technologies Recruitment:**

NIIT Technologies visited Odisha for a pooled campus recruitment drive of eligible 2019 graduating batch career students from CS, IT and MCA. The drive was conducted on 3rd to 4th January 2019 at KIIT for selected engineering colleges. One student from CS branch was selected.

## Sevya Multimedia On-campus Recruitment:

Sevya Multimedia, a technology consulting company, which develops scalable products and solutions for Web, Mobile and Enterprise through its off-shore development centers at Hyderabad and Greater Noida, visited Silicon on 10th and 11th January 2019 to recruit students from AEI, ECE and CS/ IT branches. Ten students, two from AEI and eight from ECE, were selected at the end of the drive.

The state of the art Advanced VLSI Laboratory at Silicon is being used by Sevya Multimedia to train all their Pan India recruits from the 2019 graduating batch.

## **Cognizant Technologies Recruitment:**

Cognizant Technologies visited Odisha for an off-campus drive at KIIT where eligible career students from 2019 graduating batch students participated. The Web proctored on-line tests were conducted between 19th to 20th January while the Technical and HR interviews on 12th February 2019. Twenty-eight students from Silicon were selected in the drive three from AEI, two from CS, fourteen from ECE and nine from EEE. Silicon had the second highest hit ratio amongst all the participating colleges.

## **PerfectVIPs On-campus Recruitment:**

PerfectVIPs Techno solutions Pvt Ltd visited Silicon for an on-campus recruitment from the 2019 graduating batch students. Eligible students from AEI, ECE and EEE branches went through an off-line test on 2nd February 2019 followed by Technical and HR interviews on 8th February 2019. Finally four candidates were selected - two from ECE and one each from AEI and EEE branches.

## **Citrix Pooled Campus Recruitment:**

Citrix conducted a pooled campus drive at KIIT for registered eligible 2019 graduating students from selected colleges like CET, CVRCE, GIET, GITA, NIST and Trident besides Silicon on 18th and 19th March 2019. One from IT branch was selected.

## Ferns N Petals On-campus Recruitment:

Ferns N Petals (FNP), a renowned corporate in the Indian Gifting industry, visited Silicon on 29th March 2019 for an on-campus recruitment from the 2019 graduating batch students for the first time. Four students, two from CS and one each from EEE and MCA were selected.

## **Industry Lecture:**

Industry Interface Cell at Silicon, with the help of faculty co-coordinators from the respective departments, conducted the Industrial Lecture sessions for the 6th semester students during the January to March 2019 quarter. The Industrial Lectures conducted are:

## **Industrial Lecture During January to March** 2019

5th January 2019, Mr. S. C. Naik, of Wapcos delivered lecture to EEE students on Ensuring optimum health of drive motors in industry.

15th January 2019, Mr. Abhijit Sen, Founder & CEO, of Syllogistek delivered lecture to AEI, ECE, EEE, CSE & IT students on Revamp You

19th January 2019, Mr. A.P. Panda, of Odisha Power Transmission Corporation Ltd (OPTCL) delivered lecture to EEE students on Odisha Power Sector.

29th January 2019, Dr. Shivoo Koteswar, Group Director: DG Digital Implementation Site-Leader and R&D Head delivered lecture to AEI & ECE students on Scope of VLSI in industry

31st January 2019, Er. P. K. Pattnaik, of Odisha Power Transmission Corporation Ltd (OPTCL) delivered lecture to EEE students on Fundamentals on protection scheme, covering protection theories and principles

1st February 2019, Er. G. P. Mishra, of Odisha Power Transmission Corporation Ltd (OPTCL) delivered lecture to EEE students on transmission line protection.

8th February 2019, Mr. Rajesh Menon, Founder, Impact Marketing Services delivered lecture to AEI, ECE, EEE, CSE & IT students on Digital Marketing.

7th March 2019, Mr. Managovinda Mishra, Founder & MD, NEMHANS Solutions Pvt. Ltd. delivered lecture to ECE students on Future Applications of Communication Technology

14th March 2019, Mr. Laxmidhar Pradhan, of RF Lead, Reliance Jio, delivered lecture to ECE students on Recent Technologies in Telecommunication.

16 March 2019, Er. A. K. Tripathy, of Power Research & Development Consultants Pvt Ltd (PRDC) delivered lecture to EEE students on Technology for Everything.

21 March 2019, Mr. Sandip Das, Chief Architect, of Health Care Consulting Group, Cognizant delivered lecture to CSE & IT students on Preparation for Placement in IT/ITES companies.

Bikas

**Bikas** 

Mr. Bikash Singh of 8th Semester Computer Science & Engineering branch has been recruited with the highest package i.e. eight lakhs per annum in 2018-2019 recruitment by Infosys. He had participated in HackwithInfy which invites passionate coders to compete with the best minds in programming and showcase their coding skills in a real-time challenge.

**Disha**: Hello sir! To begin with, can you tell us something about your preparation for the HackwithInfy contest?

: Hackwithinfy is a contest which basically tests the logic building and problem-solving skills of a candidate, which I certainly believe cannot be built in a day or month. It requires continuous practice and exposure to different approaches of problem-solving.

I began with learning the basic concepts of data structures and algorithms in my initial years of engineering, which served as a foundation for my preparation. Adding to it I religiously followed a schedule which comprised of solving at least 2 competitive coding questions a day from various online sites. Apart from it what really helped me was, relating each concept of programming to solve real-life problems.

**Disha**: How did you work on your coding skills?

: At first, I adhered to the programming courses that are included in our curriculum and tried to master them so that I could have the pre-requisites for learning the advanced topics.

As I mentioned, I religiously solved at least two programming questions a day, dedicating my entire day to at least find an approach to solve them. Then I went on to slowly increase my pace and explore more and more different kinds of questions which helped me develop my problem-solving skills.

After a certain level when I was confident with my basics, I went on to learn advanced topics and algorithms and tried implementing those concepts on online coding platforms like hackerrank.com, codechef.com, hackerearth.com which have been the most productive distraction of my life yet.

Disha : How did Silicon and its faculty help you



with regard to HackwithInfy?

Bikas : Some faculty members have played a very crucial role; they were not only been a constant support from the very beginning but also tried to clear all my doubts. It was a treat to learn the concepts of algorithms from Rudra Tripathy sir, Samleswari sir. And Priyabrat sir's support is worth mentioning here as well.

**Disha**: How are these projects helpful from your point of view?

: The projects were really very helpful. I was able to figure out certain things after implementing them. It seems to me that once you build a project using your existing knowledge and skill set, it gives you a sense of achievement and completeness, which is great in itself. I have made various projects ranging from creating and designing websites to projects based on machine learning and Internet Of Things and all of these have helped me enormously.

Disha: Who is your role model?

Bikas: My father. He is a se

: My father. He is a self-made man who believes in working hard and has provided me constant support in everything I have done. He has always pushed me to be the best that I could be at whatever I did. His constant support through the activities and projects I am passionate about makes me want to do them better.

**Disha**: It was a pleasure talking to you Sir.

**Bikas**: Thank you Disha.

**Bikas** 

## MENTAL HEALTH: LET'S TALK



## Social Anxiety Disorder (SAD) - Beyond Just Shyness and Introversion

"The greatest discovery of my generation is that human beings can alter their lives by altering their attitudes of mind."

- William James, American Psychologist (1842-1910)



Anxiety is a prevalent phenomenon manifested by human beings across the globe irrespective of class, culture and gender. When there is excessive anxiety interfering with daily functioning and well-being then it is categorised as Anxiety Disorder. The Global estimation of population affected by Anxiety Disorder is 3.6% (264 million) as per the WHO – 2015 report. Anxiety disorders refer to a group of mental disorders characterized by feelings of anxiety and fear, including Social Anxiety Disorder (SAD), Generalised Anxiety Disorder (GAD), panic disorder, phobias, obsessive-compulsive disorder (OCD) and post-traumatic stress disorder (PTSD).

Social Anxiety Disorder (SAD) always gets confused with Shyness and Introversion. Author Susan Cain explained about introverts in (her book) *Quiet* as "Shyness is the fear of social disapproval or humiliation, while introversion is a preference for environments that are not over stimulating". Originated by Carl Jung, introversion is being connected to inner thoughts and feelings compared to the outer world. Shyness and introversion are marked characteristics of such persons. Although these people are comfortable with it, these two are not necessarily the pre-requisites for Social Anxiety Disorder.

Social Anxiety Disorder, also named as Social Phobia, is the irresistible fear of being disgraced and dishonoured in front of others and being judged negatively. The signs and symptoms of SAD manifest in three broad dimensions!

- **a. Physical Symptoms:** Persons with SAD manifest physical symptoms of blushing, shaking or trembling, increasing heart rate, shaky or soft voice, concentration problem, black out, sweating, blushing, dizziness, nausea or vomiting etc.
- b. Emotional Symptoms: They become excessively self-conscious and anxious in everyday social situations and show intense worry for days, weeks, or even months before an upcoming social situation. They become uncomfortable by thinking being watched or evaluated by others.
- c. Behavioural Symptoms: They give excuses for continuous withdrawal and avoidance of entering into any social situations. They feel very conscious while talking in front of others, going to parties, talking to strangers, eating, drinking, writing and using the phone in front of others, using public transportation or using public toilets.

The exact source or cause of Social Anxiety Disorder is not known explicity. But the combination of adverse, damaging and destructive environmental factors (Bullying, family conflict, and abuse), heredity and physical abnormalities like, serotonin imbalance, overactive amygdala may cause this disorder.

Seeking professional help and getting the appropriate treatment are really important as SAD limits normal functions and operations of an individual, leads to higher probability of comorbidity of other anxiety issues, depression and instances of substance abuse. Counselling Psychologists and Psychiatrists play a vital role in providing treatment plans to lead a balanced life. Psychotherapy (Specifically CBT), Psycho-education intervention and medication work magically as effective treatment procedures. Therefore, correct identification and realisation of discomfort related to SAD without being confused with just shyness and introversion are the initial steps to start quick intervention with the help of trained professionals to get rid of this disorder.

Dr. Saswati Jena

Counselling Psychologist Silicon Institute of Technology, Bhubaneswar saswati.jena@silicon.ac.in Mob: 8093291243

## **Diary of a Teenager**

Shattered glass, slammed doors, the violence I've seen. Hatred was taught to me when I was just 13.

At the young age of 14, I had my 1st heartbreak. I learnt it the hard way, that promises can be fake.

At 15, I was taken over by social anxiety and isolation. A pen was my only weapon to fight against the depression.

When everyone else was busy in the dreams of sweet 16, I was struggling to forget the nightmares I had seen.

At 17, standing on the crossroads, it was hard to make a choice.

Amidst the noises of the crowd,

I had lost my voice.

At the age of 18, a warrior was born. With hopes of a better tomorrow the battle goes on and on ...

Sibayanee Sahoo *CSE*, 1st Sem.

## Midnight ...

The Sun is getting low.
The birds are chirping back home.
The blushed sky is turning purple black.
And the Moon
Its letting down her black cascade of hair.
Scented with the smell of the white flowers,
Ornamented with the stars of the world.
Slowly...she is rising...waking to her powers.

The witch has lit her pot. The flames are now green. The bones from graveyard has been bought.

Spells will be brewed.

Hatred and laughter will ring.

The midnight shall come.

The wolves have started howling.

The dementors have arrived.

Sniffing around for fear,

They have swept the sky of pitch black sight.

But the midnight...its yet to come.

Somewhere, the past is unburied.
A spirit, has been aroused.
And its walking around
Hunting for its buried desires...

Far far away,
A candle has been lit.
Three people surround it.
A murder is being conspired.
Its midnight.
(men have turned one against the other)

But fear not, O men of The Lord, Fear not, for the dawn shall soon arrive, The Sun will arise. Again it will be Bright, Warm, And Cheerful.

Isha Bharadwaj

CSE. 1st Sem.

## Steps of Life

Life is not easy
It's curly and messy
We need to solve it
For the virtue that we warted

I need to climb more steps of life
To avoid the mistakes, that I made in life
I want to fly high and high
Not willing to die
Because of the mistakes
That made my life a lie.

The ups and downs in my life
Didn't make me weak.
It helped me understand life
And to know what I seek.

## STUDENTS' CORNER



As I saw steps exceeding
I felt I need to be more daring
To cross the steps in front of me
Which were long and had no ending.

I hope, I win this game of life
Which is mingled with hate and like
I hope, I cross this game
To a cheer all the fare of life.

Jashmin Mishra
CSE. 3rd Sem.

## Wish the Day Goes Back

Wish the life pedals back to the
warm lap of my mother,
To the age of my childhood where
I had nothing to bother;
Hoping the touch of her
soft palm on my forehead,
Be a panacea for the grief of my soul
when I am dead.
I wish the days go back!!!

Now when the life is full of bars,

I still wonder about the night
which had the dreams of moon & stars.

Those days were joyous with a child's fantasy
Now the doom of the approaches
with each passing day.
I wish the days go back!!!

When I have stepped into the hypocritic life of adulthood;
I mock at my childhood curiosity to peep into my adult mood.
The memories of my school life still showers its fragrance & essence,
Beeping in my heart & mind,
the sweet friendship's crust
Satarising on adult's life where innocence makes no sense
And the complication in relations to trust I earnestly wish the days go back!!!

When my life started floating
in my mother's womb

And now when my soul wants rest under
the death tomb
I am ready to dream again
of the stars falling on me

No matter then the stars were the partners
of my night's sleep,
And now I am going to shine as
one to be dreamt by aeons to come

But Alas!!! The Days Won't Go Back ...

Biswajit Tripathy

CSE 3rd Sem.



**Arpita Panda** *CSE*, *6th Sem* 



I feel so overwhelmed and honoured to share my profile with SLATE. Although I had written once or twice for SLATE earlier, back during my college days this time it is different.

My name is N.K Jagadish Mohapatra. I graduated as an Applied Electronics and Instrumentation Engineer from Silicon Institute of Technology in 2016. Currently I'm working as a SoC Design Engineer at Qualcomm and continuing my M.Tech. in VLSI design at IIT, Madras. I take care of core IP integration at SoC level, addition of control and status registers on the top level SoC, checking CDC and Lint goals. I expertise in Verilog-HDL/A/AMS, SV-Assertions, SV-Real modelling, Functional Coverage.

I would also thank Silicon for recently having me as a speaker for one of their Industrial talks in the

Applied Electronics and Instrumentation department. I believe my experiences and insights have helped my beloved juniors to clarify ambiguities with respect to GATE preparations and achieve their goal.

GATE had always been my priority. It was since my 3<sup>rd</sup> sem when I was sure enough to apply for GATE and pursue higher studies. I wasn't that studious but yes, I did take my career choices seriously and worked hard for them. I had very categorised extra curriculum activities. Even I played games for hours or sang but did pay attention for the rest of my schedule with the preparations. Self-evaluation and determination helped me crack GATE and make my way through all hurdles. In today's rat race, being associated with Art of Living was a cathartic. I also deliver talks in colleges, institutes and organizations for the Art of Living courses and projects for the development and upliftment of the society. The main focus here is to create an awareness among people and spreading the real KNOWLEDGE and the divine thought of 'one world family'. Undoubtedly, I miss Silicon the most because of my friends and teachers. Every time I enter into this campus, I get a total flashback of those blissful days. Their endless support and encouragement had always been a boost and it is because of them that I am here today, all firm and confident. The zest for life and leaving no stone unturned is what Silicon has gifted me with. Any opportunity to pass down virtues and guiding my dear junior Siliconites will always be availed by me.

## N. K. Jagadish Mohapatra

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## **Notification**

Submission of different feature articles for SLATE and Digital Digest can be made through soft copy and sent to the e-mail ID: publication@silicon.ac.in. Students' Corner, Stories, Poems, Short Essays, Compilation of Interesting Facts, Scanned Copies of Sketches or Paintings can be sent for SLATE. For Digital Digest articles on DD Features, Profile of a Scientist, Space Technology and Environment Awareness Concepts are invited.



## Cyber World and Health Issues

The undivided attention being given to cyber-space has already started showing its aftermath. Every other individual is in the grip of the monster who is gobbling up our physical, mental and time space. The impact manifests itself in the form of physiological and mental disorders equally. The physiological problem could be a direct health issue or a psychosomatic disorder. Here we outline some of the major physical ailments that are being reported because of this addiction.

Computer Vision Syndrome or Digital Eye Strain which leads to blurred/double vision, dry eyes & headaches due to prolonged usage of devices which normally are hand-held and held in close proximity to our eyes.

Postural problems occur due to static and long sitting hours resulting in pain in the joints, ache and stiffness in different body parts. Reportedly many of the users are facing mobility issues due to *Cervical Spondolysis*.

Carpal Tunnel Syndrome/CTS is often considered as an occupational hazard and it is a musculoskeletal disorder wherein the patients feel numbness, tingling, or burning sensations in the fingers and sometimes loss of grip and manual dexterity. But the correlation is still a topic of research.

The sedentary behavior are associated with internet usage, dietary changes, excessive and comfort snacking, lack of sleep or reduced sleep which time contribute to *irregular weight pattern* in adolescents and youth.

The glow of the device, the proximity to the screen and an uncanny urge not to switch off the device leads to *disturbed sleep patterns* which in turn result in Insomnia, Sleep Apnea & Nightmares.

*Increase in heart rate, blood pressure, decreased immune responses* are a result of addiction. An interesting revelation is people experience the same symptoms due to termination of or withdrawal of internet usage.

It has been reported through research that Internet addicts are more likely to fall for *substance abuse*. The reason may be exposure through advertisements or the emotional turmoil they go through.

*Fatigue* is a parasite slowly engulfing our state of well-being leading to emotional as well as physical fatigue. This in turn impairs our productivity, efficiency and most importantly our cognitive capabilities.

The cumulative impact is far more lethal. People with this addiction have an impaired immune system may be because of the fluctuating cortisol levels and hence are more susceptible to illness. But the human body is designed to be resilient. Awareness, certain precautionary measures and the zeal to take back the control of your life into your own hands will definitely go a long way.

**Dr. Sushree Samita Rout** *CSE, Faculty* 

## Amazon Web Service (AWS) at Silicon

With an ever-increasing demand for cloud services, Amazon Web Service (AWS) Educate provides an academic gateway for the next generation of IT and cloud professionals. AWS Educate is a global initiative to provide students and educators with the resources needed to accelerate cloud-related learning.

Over 1,500 Institutions and Hundreds of Thousands of Students worldwide have joined the AWS Educate initiative program.

Silicon Institute of Technology is the first engineering college in ODISHA to be part of this program.

The Institute benefits from this initiative as AWS provide educators and students with resources for cloud-related learning. Those at member institutions receive twice as many AWS credits, demos and special on-campus programs.

Professors, teaching assistants, and educators receive access to AWS technology, open source content for

their courses, training resources, and a community of cloud evangelists.

It encourages students as they receive credits for hands-on experience with AWS technology, training, content, career pathways and the AWS Educate Job Board.

Moreover, AWS Educate allows students to search and apply for thousands of cloud jobs and internship opportunities from Amazon and other companies around the world.

It gives members the opportunity to take the skills they've learned in their Cloud Career Pathways directly into the workforce. Employers can post their career opportunities to the Job Board and access a pool of hundreds of thousands of students interested in a cloud career.

Gopal Krushna Sahu CSE, Faculty

### Solution to the Problem of last two issues:

The problem of the earlier issue was this: A clock has three hands, an hour hand, a minute hand and a second hand. The dial is also marked to measure seconds. Suppose the hour hand is exactly on a second mark and the second hand is exactly 18 second marks ahead of the hour hand. What time is it?

**Solution:** If the hour hand is exactly on a second mark then the second hand will always be on the 12. So if the second hand is exactly 18 second marks ahead of the hour hand then the hour hand must be at the 42<sup>nd</sup> second mark, i.e. two second mark after 8, and the second hand on 12. The hour hand covers one second mark in 12 minutes. So the time is 8:24.

The problem of the last issue was this: You have containers that can hold 1500 ml, 1000 ml and 600 ml liquid respectively. It starts with the 1500 ml container full with water. And other two containers empty. Through transferring water among the containers you have to drink exactly 200 ml of water and leave 800 ml water in the 1000 ml container and 500 ml water in the 600 ml container. How can you do this with minimum number of transfers of liquid among the containers?

**Solution**: Consider the starting state as (15, 0, 0). You have to reach (0, 800, 500) through different states and getting 200 ml water in between in one of the containers to drink. This can be done in 15 moves, starting with (15, 0, 0), (9, 0, 6), (9, 6, 0), (3, 6, 6), (3, 10, 2), (at this stage drink 200 ml from the smallest container), (3, 10, 0), (3, 4, 6), (7, 0, 6), (7, 6, 0), (1, 6, 6), (1, 10, 2), (11, 0, 2), (11, 2, 0), (5, 2, 6), (5, 8, 0), (0, 8, 5).

The Story of Infinity: Like the stories about p and e, the story of infinity ( $\infty$ ) is very interesting; rather I can say it is much more interesting and mysterious. Let us look at the need of infinity. Do we have something which is infinite? The total life period of our universe is estimated to be less than 20,000,000,000 years. The total number of atoms in the universe is  $3\times10^{74}$ . Using telescopes the universe is explored to a finite distance only. So where do we need this infinity?

Though whatever we see, whatever we imagine and whatever we count are finite but the concept of infinity is there in the human knowledge for a long time, since the time of Zeno of Elea in Greek or may be before that. For some purpose infinity is not a number, but it is greater than any number. But for some purpose infinity is considered as a part of the number system. In some non-Euclidean geometry infinity is provided with coordinates. In projective geometry both -∞ and +∞ are considered as same.

The concept and behavior of infinity is well explained by Georg Cantor (1845 - 1918). We can discuss on

infinity by considering the sizes of different sets. How many counting numbers we have? We understand that this is infinite. Then how many integers we have (including both positive and negative integers)? This is also infinite. Are these two infinites the same? Of course, yes. This is one interesting property of infinite sets. The infinite sets are equivalent to some of their parts, in other words, there can be a bijection (one-to-one correspondence) between an infinite set and a proper subset of it.

Now if we consider the set of points on a line segment, or consider the number of real numbers between 0 and 1 then the answer is again infinite. But this infinite and the infinite number of integers are not the same. The first infinite, the size of the set of integers, is denoted by  $\aleph_0$  and the second infinite, the size of the set of real numbers (equivalent to the set of real numbers between 0 and 1) is denoted by  $\aleph_1$ ; and  $\aleph_1$  is larger than  $\aleph_0$  But it does not stop here. These numbers are called transfinite numbers and they follow a different type of arithmetic.

In many practical applications some numbers are represented by some other numbers as an approximation. The most popular one is 22/7 for  $\pi$ . In many practical applications the infinity, interestingly, is represented by some finite number, but not as an approximation (a finite number cannot be an approximation of infinite). We have the impulse function, which, in strict sense, is not a function. When any value shoots up and becomes much higher than the usual value we call it an impulse. This impulse value is considered to be infinite, by definition, but in practice, say in domestic power line any voltage close to 300 volts is called an impulse. That means 300 volts is representing infinity here.

Any good book on Mathematical Analysis provides good information on infinity and infinite sets. But those are for serious students of Mathematics. For a general concept on infinity I recommend the book "One Two Three ... Infinity" by George Gamow.

**Problem of this issue:** You and two other people have numbers written on your foreheads. You are told that the three numbers are primes and that they form the sides of a triangle with prime perimeter. You see 5 and 7 on the other two people, both of whom state that they cannot deduce the number on their own foreheads. What number is written on your forehead? Solve this problem under two different conditions, first if the numbers written on the foreheads are different and the second if some of them can be equal, like isosceles triangles or equilateral triangles (can it be equilateral?).

**Dr. Saroj Kanta Misra** drsaroj@silicon.ac.in



## Draw and Write to Visualize a Clean India



The main aim of environmental education at the grass root level is to succeed in making individuals and communities understand the complex nature of the natural and the built environments. Further, to acquire the knowledge, values, attitudes, and practical skills to participate in a responsible and effective way in anticipating and solving social problems, and in the management of the quality of the environment.

**Awareness:** To help the social groups and individuals to acquire knowledge of pollution and environmental degradation.

Effective early environmental education in schools could promote better environmental awareness and environmental values particularly among the young generations which could finally result in people's good action towards a sustainable environment. Environmental Cleanliness is an environmental

management process. This ensures an environment that is sustainable and functioning through a systematic science based process. Environmental cleanliness is one of the national level education policies whose goals can be met through various activities at different levels. To invoke these fundamentals of environmental education, Silicon Green Club has been taking a small step through local school visits in the past. This year, SGC had organised painting and essay writing competitions at the Ghatikia School, Bhubaneswar on 4th September, 2018. SGC members from 2nd, 3rd and 4th year and office bearers were involved in the event. The topic for painting competition was "Swatch Bharat". Painting accessories like pen, pencils, crayons, erasers were distributed among students by our team members. The topic for essay competition was "Bharat Desh". Around 60 students participated in the event zealously. The kids who participated visualized the concept about cleanliness and their Nation as well. After the competition, the top three articles from each category (painting & essay competition) were selected and subsequently the prizes and chocolates were distributed by the teachers in presence of SGC team. SGC with its moto towards preservation of environment has contributed to the cause through this event.

Content Contribution: Deepak Kumar ECE, 4th Sem.

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## **Obituary**

We express our deep condolences for the sad and untimely demise of our students of 6th semester CSE Amit Mohanty, Abinash Pradhan and Subha Soumya Senapati on 20<sup>th</sup> January 2019. We pray to have their souls rest in peace and give courage to their family members to bear the pain of the heavy loss.



**Amit Mohanty** 



Abinash Pradhan



Subha Soumya Senapati

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