Silicon
...*beyond teaching*

SLATE

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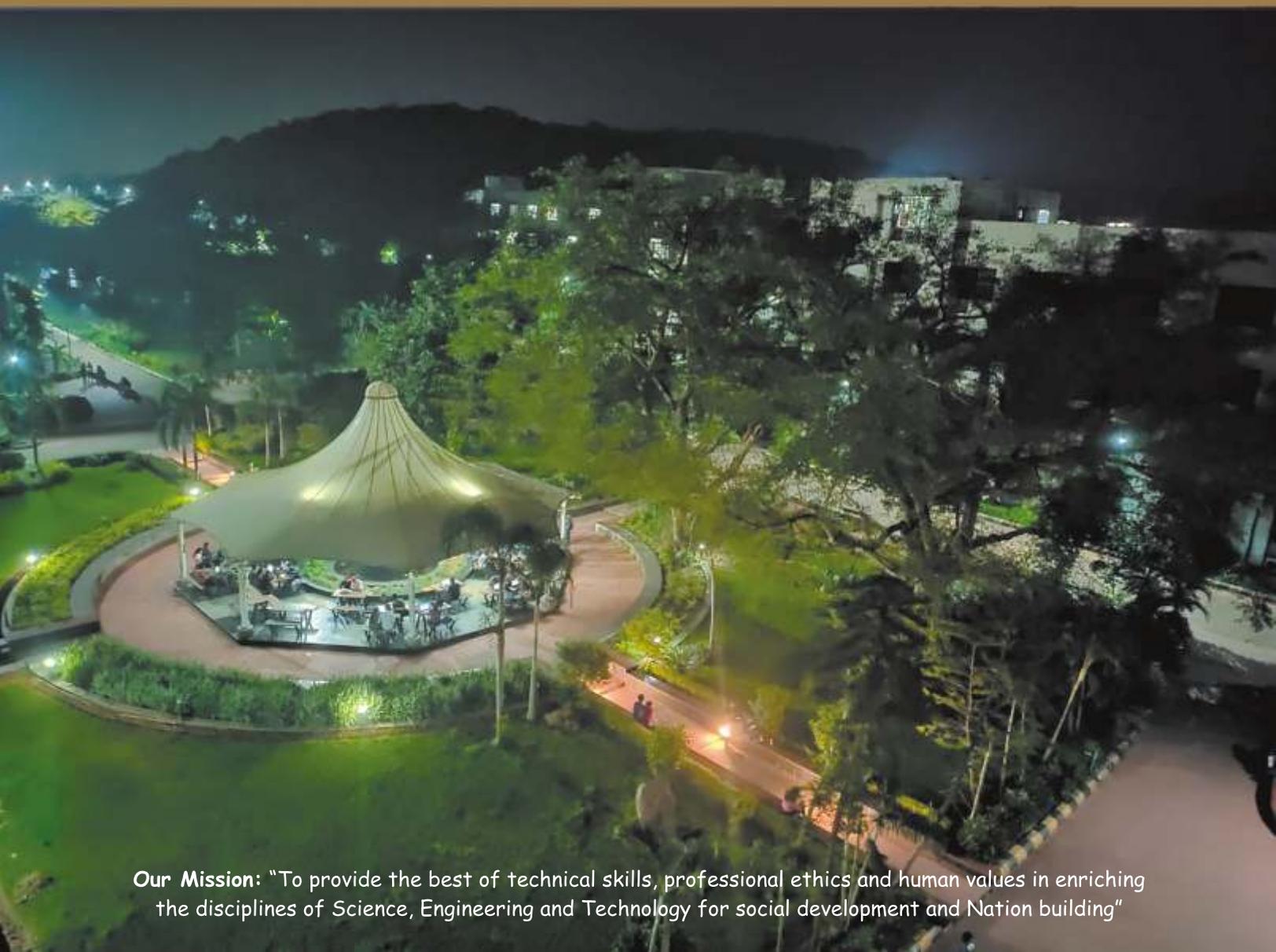
Our Mission: "To provide the best of technical skills, professional ethics and human values in enriching the disciplines of Science, Engineering and Technology for social development and Nation building"

Silicon Shines in Smart India Hackathon 2020

The grand finale of the Software Edition of Smart India Hackathon was conducted from 1st August to 3rd August 2020. Two selected teams 'Creative Beings' and 'Vektor' participated in the finale. The former team 'Creative Beings', was the winner in its problem statement (this year there is a single winner in every problem statement), "Smart Management of Food Storage and Waste Reduction." The nodal center was BML Munjal University, Gurugram, Haryana under the department of Scientific and Industrial Research. The team won a cash prize of INR 1 lakh.

The problem statement of team 'Vektor' was "Pothole challenge", the nodal center was Vel Tech, Rangarajan Dr. Sagunthala R&D Institute of Science and Technology, Chennai, conducted it under the Government of Goa.

From the Editor's Desk ...

Dear Readers:

We have entered a new academic year 2020-21, but with a difference. None of us had ever thought that we would have to stand at the threshold of a condition that could take such a toll on our lives. We had earlier watched such situations happen in science fiction movies where a virus would have an accidental release from somewhere and wreak massive havoc. But today we witness a dreaded fiction turn into reality. And thus, our recline is now towards the virtual world.

Academics at Silicon remain unaffected by the pandemic - thanks to our adaptability and innovativeness that brought into life the smart technologies which can overcome human limitations and build bridges over unsurpassed territories. However, what more is required is sensitivity and sensibility. With the right attitude hindrances can always be overcome, because our life is our privilege and our education, our prerogative.

Mental health and psychological well being is also a matter of prime concern. Keep yourselves engaged in productive work. The Institute has also been conducting online cultural events to keep the students engaged beyond teaching hours. So let us use this long stay-at-home period in a proper fashion to create cherished memories. We now have a really interesting story to share with our grandchildren. But let us not forget that we are simply not in the process of scripting a tale but we are testing our skills. Very often we waste our strengths in tasks we deem essential but are not productive. If you undertake such tasks you tend to lose focus and get engaged in a diversified energy release not knowing in what proportions of it to invest in which area. You become aimless and lack clarity of priorities only to land up in a state of confused cogitations of murky ideas that never see the daylight of concrete realities. Real life lore is written when we are in a complete control of ourselves, not allowing external agencies to disturb our inherent inner balance.

We use this particular issue of SLATE to share with our readers what our writers have to say of the present scenario. The columns and articles hold the primary perspective of sharing issues related to COVID-19. There also remains our special touch with the Special Feature articles and news from the Institute.

So wish you happy reading and a fruitful year ahead!

Ananya Roychoudhury
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The Torchbearer of Patiala Gharana - Pandit Ajay Chakraborty

Picture source: Internet

"The clearer you stay from the heart, the clearer your voice will be." – Ajay Chakraborty

Bengal is a land of world renowned intellectuals and artists; however when it comes to Khayal singing, this land of music still has a long way to go. Experts often say this can be due to the lack of local musicians venturing out of Bengal, the difficulty in understanding the dialects of the Hindi language and giving little or no importance to the Khayal gayaki. This was until the time when the torchbearer of Khayal singing from Patiala Gharana, Pandit Ajay Chakraborty was conferred with the third highest civilian award, Padma Bhushan.

This phenomenal legend in the Global Music World has proved his mettle by rendering any form and any style of this diverse Indian classical music without compromising with the purity, structure, picturisation and the essence of the music.

Pandit Ajay Chakraborty hails from a humble musical background and considers his father Pandit Ajit Kumar Chakraborty to be his first guru who introduced him to the world of music at a tender age of two. He recalls how he was born and brought up during the time when his family was struggling with poverty but his father stood as a solid rock for the entire family. Later he received unconditional love-driven music from his gurus who drenched him with the knowledge of music and he tried to grasp everything he could.

In an interview, Pandit Chakraborty said, "I used to observe masters such as Latafat Hussain Khan, Hirabai Boredkar, Nissar Hussain Khan and budding young geniuses like Rashid Khan performing Khayal singing. I was not considered but the musicians from the Hindi Belt were. I got hurt but at the same time I tried to analyse the reason."

Pandit Chakraborty considers such experiences to have increased the hunger for knowledge and have helped in sharpening his awareness.

He believes that India is a land of huge potential. He finds a budding talent in so many youngsters. If the parents encourage their child, every talent can be groomed and they can reach the highest level of their potential.

At the age of 68 years, Pandit Chakraborty says his performances have become secondary. He has a passion of grooming youngsters. He wants to pass on the teachings which he has acquired from his gurus to the next generation so that they can preserve and carry forward this rich culture.
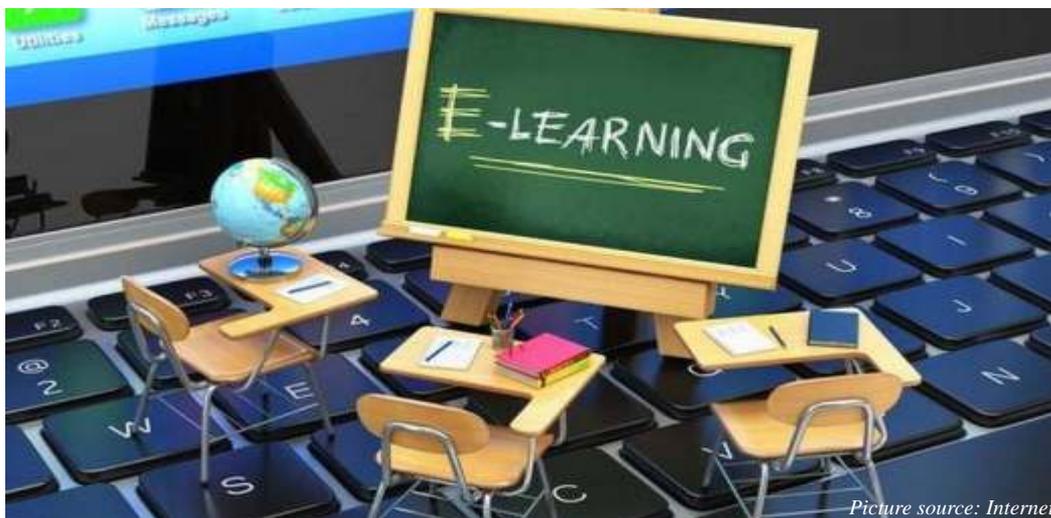
According to him, Indian music is known across the world for its intrinsic spiritualism. It demands Nishtha (dedication), Chintan (reflection), Parishram (hard work) and Aahuti (surrender).

It is very important to learn the alphabets of music and the position of notes. He says 'Sa' is not just an alphabet in music – it can be a sentence and sometimes a story which helps to portray the deep emotions of a raga.

Pandit Chakraborty considers the Padma Bhushan as a humble patra (carrier) of highest art. He considers his success to be a blessing of his parents and gurus.

Malovika Parira
CSE, 7th Sem.

Your attitude can take you forward or your attitude can take you down.
The choice is always yours – Catherine Pulsifer

Overhauling of Educational System and Learning Habits

Picture source: Internet

This pandemic made the educational intuitions and firms taste the essence of online education. Teachers, students and all administrative sectors are also getting aquatinted with this online platform. Teaching, assignment, exam and presentations are carried out through online platforms like Zoom, Microsoft Teams, Google Meet etc. Now-a-days a lot of online educational platform are getting tremendous hike in their revenue and in future we can expect a huge dominance of online education industry. This is a great opportunity for India to connect digitally and promote its "Digital India Campaign." Online education is a vital medium during this time of crisis through which all students can get the quality teaching from top class institutions of India like IITs and NITs. The demand for online courses are also boosting now-a-days. Students are preferring platforms like YouTube, Khan Academy, Coursera and Udemy to a great extent. Reduction in cost and a great increase in quality and content makes online education popular today. Taking a course online helps the student explore more and have a lot of options to choose from. Even online platforms support video conferencing facility for live face to face interactions between student and teacher and doubt clearing facilities. The one and only problem with these classes are practical, labs or hands-on training. But for that specially designed labs or skill centers could be set up.

Schools and colleges are also promoting this technology-enabled educational system by conducting online classes and are gradually getting well aquatinted with these.

Many companies like Byju's and Vedantu are also providing courses for class 1st to class 12th students which are fully synchronized with their board and school syllabus. In the near future, keeping situations like COVID in mind, we can expect students passing their high school and degree from online platforms and get certified. This will make education cheaper, more efficient and smarter which can give rise to the literacy rate of the country. This is not a new form of education. Rather, foreign companies such as Coursera and Udacity are already providing Nano degree and even Master's degree through online platform at a very affordable fee structure from various top institutions like Yale, Michigan, Stanford and leading companies like Google, Amazon and IBM.

COVID-19 is a great opportunity to transform the higher education system of India. Universities which have not upgraded themselves yet can utilize this opportunity to transform themselves by developing their training, course curriculum and management to make education easily accessible to all.

Literacy rate of India is 65% whereas most of the developed countries have greater than 90%; the major reason for this being cheap or free education. Then why not in India? We are already one of the emerging powers and developing countries. The Universities and Government have the power to change the future of the country, students being the weapon for it.

Dibyajyoti Prusty
CSE, 6th Sem.

Society's Health in Social Distancing: A Pandemic Irony!

Picture source: Internet

There is a saying, "Man is a social animal. He eats, lives, breathes, and survives together." But irony hits hard when, in the light of the recent events, an isolated man is ought to be the safest on earth.

From a state of rustling bustling restless race, the world came to a sudden standstill when a deadly virus became a threat worldwide. Mankind was forced indoors and a total lockdown was implemented as drastic measures to survive. Man clung on to his masks and practices of social distancing, as his last hope to combat the microbe.

As the pandemic progresses, we can observe that the world is in a desperate need of change. The health of our society is in shambles.

The basic foundation of any society, 'staying together during crises,' has been challenged. Each one individual is a potential suspect of carrying the perilous virus. As man hides his identity behind a mask and stands maintaining a 'six-feet' distance, he feels more and more weak and vulnerable; which in fact takes a toll on his physical and mental health.

Staying indoors for such a long time has been challenging for many. Taking a sudden break from our workaholic, busy schedules and sliding into a world of slow-motion has been the test of the hour.

Man being trapped indoors, with no intense outdoor activity, hampers his physical health. Glued to smart phones and laptops, binge-watching movies and series, over-sleeping, and having no physical workout, one's body clock and sleep cycle gets disrupted, affecting hormones, digestion, and immunity. This adversely affects their concentration level and performance in their professional fields. Moreover, with the extended lockdown being a constant worry for many, stress-eating is becoming a routine, resulting in unwanted weight gain of an individual. Thus, it is advised to all to indulge oneself in the practices of yoga, meditation, or customary workouts every day.

While a change in the physical health of a person is noticeable, during this lockdown, what concerns us more is the mental health of an individual. With a constant feeling of being under house arrest, one starts to fall into the clutches of stress, anxiety, and depression. Not being able to step outside, distracting oneself from their daily issues, becomes difficult. Over thinking being a favourite hobby of many, the mental health of a person is seen affected in recent times. Coming to the part on how to get this right, the answer seemingly lies in nature. Studies say, taking our minds off the virtual world, getting involved in nature has a calming effect on us. Taking a stroll through the garden or simply breathing some fresh air once a while will have a positive effect on us.

All the while, what matters the most, is to stay safe and stay indoors, and believe, someday, "Everything will be all right."

Isha Bharadwaj
CSE, 4th Sem.

Learning to control and adjust your attitude to a positive one
reflects wisdom of the mind – Catherine Pulsifer

The Importance of a Hobby

Picture source: Internet

It is very important to stick to a proper schedule but when it turns out to be a "rinse and repeat" method, hobbies come to our rescue. It helps us to end the monotony in both an enjoyable and a meaningful way. Without a hobby life becomes boring and seems demanding which ends up in an unhealthy cycle. A hobby can be anything from collecting coins or stamps to capturing the beauty of nature.

Since childhood we are encouraged to do activities which are productive. And spending lot of time on low level activities, like watching TV or browsing social media holds back our personal success. The famous novelist Nicholas Sparks said "It can be coins or sports or politics or horses or music or faith, the saddest people I have ever met in life are the ones who don't care deeply about anything at all. Passion and satisfaction go hand in hand and without them any happiness is only temporary because there is nothing to make it last." Keeping a hobby helps us in our personal growth in an enjoyable manner. It encourages us to take a break with a purpose and provides positive and new challenges without any kind of negative stress. Also, it promotes "Eustress" which is a positive kind of stress that helps to stay excited and enthusiastic for the work to be done.

We all have learnt "An idle mind is a devil's workshop" and having a hobby helps us to utilize our leisure time in doing something productive rather than just sitting idle and creating bad habits. Hobbies also give us a more clear and better perspective of every task we do. It helps us to tackle a situation in a more creative way thereby helping us to improve in our career too. Some even take up their hobby as their profession or as a part time job. Having a hobby also helps a person after retirement.

"Becoming serious is a grievous fault in hobbyists. It is an axiom that no hobby should either seek or need rational justification. To wish to do it is reason enough." – Aldo Leopold

In today's fast-growing world where mental health has become a grave issue, hobbies play a key role. Spending time in doing what you love improves mental health and well-being. Research also shows that people with hobbies are less prone to mood swings, stress and depression. Not only this it also helps to control blood pressure and maintain proper cortisol level and body mass index. It helps to stay focused and encourages to go with the flow, which results in increased concentration and become more patient and confident. And having a hobby also helps a person to grow spiritually. Finally, words by author Steven Johnson justifies the very fact that hobbies are required to make any kind of situation better, "Legendary innovators like Franklin, Snow and Darwin all possess some common intellectual qualities - a certain quickness of mind, unbounded curiosity - but they also share one other defining attribute. They have a lot of hobbies."

Sushree Priyadarshini
AEI, 6th Sem.

"Hand Washing Reduces Mortality"- Ignaz Semmelweis

Picture source: Internet

Since childhood we are taught to wash our hands properly especially before "eating". The reason is that the germs on our hand will get into our mouth while eating and then into our stomach, thus, making us unwell. But the technique of hand washing was first introduced by the physician "Ignaz Semmelweis" some two centuries ago.

Back then as a house officer of an obstetric clinic, he observed that the deadly disease "puerperal or childbed" fever contributes to higher maternal mortality rate. He also observed that the doctors from the autopsy room directly enters the delivery theater which made him decipher this fact that the "cadaverous particle" which is transmitted via the hands of the doctors to the delivery theater is the cause of puerperal fever. In fact washing hands with plain soap and water didn't help much, rather they had a very unpleasant odour in their hands. It is when the "saviour of mothers" suggested the doctors to wash their hands with chlorinated lime solution before and after treating every patient, a drastic fall in the maternal mortality rate was observed.

Though the results were quite visible, this discovery was not accepted initially. The reason stated by scientists was that because such theories does not have scientific reason, this cannot be accepted. Even the doctors then, thought this to be a false claim and

didn't follow it until years later when scientists like Louis Pasteur confirmed the "germ theory" and stressed on hygienic conditions. Disease like common cold, influenza, diarrhea and even hepatitis A can be prevented by practicing proper hand washing technique.

Even now hygienic conditions are considered very important and is practiced everywhere. Not only before meals or before and after treating the patients, even before touching a baby, after visiting the toilet or after touching the dust-bin hands should be washed and proper hygienic condition should be maintained. It is a very normal and a simple practice but a very important one.

Currently when the whole world is fighting the pandemic, COVID-19 and the scientists and virologists are researching for the vaccine; one of the major steps to keep yourself safe from this deadly disease is by practicing proper hand washing technique. Washing hands every half an hour for twenty seconds has become as important as breathing. And thus, if you don't want to contribute to the death rate follow Semmelweis's claim "hand washing reduces mortality."

Publication Team

With a positive attitude it is possible to turn situations of failure into success – Dan Miller

When Sky's the limit, then 'DREAM BIG' is the only mantra to success

Picture source: Internet

Siliconites have been successful engineers. Some have also braved the unknown to venture on to roads less treaded on. They have gone beyond the conventional to explore and expand their capacities, and have tested their limits to get success. Here is one such exclusive story of an engineer-turned-entrepreneur from Silicon, with a vision to serve the best in the best possible ways.

The story of the founder of Biggies Burger 'n' More, Er. Biraja Prasad Rout, is one of its kind - an inspiration for those who dare to be different.

A Siliconite of batch 2005-09, Er. Biraja Prasad Rout, of Electrical and Electronics Engineering chose to follow his vision of reforming the fast-food culture in India and what followed was "the beginning of a QSR (Quick Service Restaurant) revolution in India and the inception of the brand called Biggies Burger 'n' More."

The Founder Director of the organisation, Mr. Rout, through his entrepreneurial venture looks forward to the "fulfilment of a great Indian dream of having an in-house brand of authentic burgers: the pioneer of Grilled Burgers." The organisation takes pride in their commitment to quality ingredients, signature recipes, and affordable prices: their tag-line 'Be Brave Be Biggies' speaks of the same.

They started off with a kiosk in Bangalore in 2011 and moved on to a multi-location venture in 2013, introducing franchise for their brand in 2016. And there came the big leap in 2018, opening 21 outlets across India. With a future plan to touch 100+ stores and making a global presence by 2022 there is no looking back for them.

A decade long journey of Mr. Rout as an entrepreneur has earned him not only fame but a wisdom of its kind, of which we get a glimpse when he shares his experience in his own words as: "Evolution, adaptation & optimism in the environment that we are, can make you a happier person and a happy person who is contributing something to society is successful."

His service as an employee at Infosys had gained him valuable experience that he is able to apply as an employer, *"Fortunately the projects that I worked on during my IT tenure were from diverse domains, which made me learn about how a process cycle works and made me increase my analytical understanding of things. In the span of my IT career I had switched multiple profiles & domains... But I was happy that I was learning things which I wanted to. Finally I took a strong call to quit IT & start focusing on my brain child."*

The 'Biggies' have a notable growth story, expanding into several cities of Odisha and many states of the country. With great optimism and the inspiration to dream big the organisation is all set to scale newer heights in the upcoming decades. The Silicon family wishes them all the best! And in this issue we share this success story to inspire our students' community to be brave enough to Dream Big and be different.

Being grateful puts you in a positive frame of mind.
Psychologists call it the 'upward spiral' – Deborah Norville

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Resilience: the Ability to Rebound

Picture source: Internet

Pain is inevitable but misery is optional. We cannot avoid pain but we can avoid joy.

– Tim Hansel

Life is never full of all good incidents and beautiful memories. Rather, it is the assortment of pain and grief with blissful and positive events. People become vulnerable and helpless when an adverse situation around goes from bad to worse, and it becomes really a tough job to maintain balance and stability in life. Here it's important to realise the significance of "Resilience", the ability to face the challenges with relative ease.

It is important because:

- It helps in developing coping mechanisms and strategies in overwhelming experiences of life.
- It improves in learning and academic domains.
- It enhances the bond among family, friends and community at large.
- It lessens the absenteeism from educational institutes or job front due to sickness as it improves physical health.

Though resilience comes to some individuals inherently, others can learn being resilient to manage the different challenging life experiences. But as a skill it can be learned and developed over a period of time to make one ready and equipped for future. Implementing this skill needs the following strategies:

- **Find a sense of purpose**

  Never allow yourself to be a victim of any crisis. Instead try to find a purpose in that testing phase which will keep pushing you to participate in some activities. The help of family, friends and involvement of community may be accessed to make this possible.

- **Believe in your abilities**

  The strong belief in one's ability to deal with stress can create wonders in lives. Confidence is the building block of resilience.

- **Reframe your thoughts**

  Generally people take negative life events as pervasive and permanent. In this situation thoughts need to be reframed in a realistic manner to get rid of negative thoughts in constructive and optimistic ways.

- **Be kind to yourself**

  In many instances people demean themselves by thinking negatively about their own actions. This is the internal reflection about self and it is the starting point of being a victim of an adverse situation. We should attempt to identify the nature of 'self-talk' and check negative thoughts and alter them with positive self-talk. Acknowledging even smallest of our achievements always give another chance to get up.

- **Stay connected**

  In any difficult situation, one must connect with the near and dear ones who are trustworthy. By connecting with them one can share and lessen one's frustration, anger and anguish and pain. The feeling of being heard, understood and supported strengthens the resilience.

Lastly do seek the help of mental health professionals without any hesitation to develop resilience.

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If you have a positive attitude, you are more productive because you constantly motivate yourself – Caterina Stein

Soumya Ranjan Behera of 8th sem. CSE is passionate about technology and has good knowledge on Data Science, App Development (JAVA), Web Development, DevOps (Azure). He has done various internships and is currently an intern at Spikewell Company. He was interviewed by Ms. Sushri Priyadarshini of 6th semester, AEI for this quarter.

Sushri : You are currently working on a lot of software development programmes. What was the driving force that made you work in these fields?

Soumya : First thing is I am in love with technology. I am always very keen to know about the bleeding edge technologies which are impacting our society. After knowing this world of technologies when I get a chance to work on these, I will always give my 100% and enjoy every moment of my work. May be that love for technology motivates me to work on these fields.

Sushri : Currently you are working as an intern in Spikewell. What were your preparations for the same?

Soumya : I am quite good in programming and have developed sound problem solving skills along with it which is very necessary for cracking any programming/technical round. Apart from that I had spent a lot of time in tailoring my profile for better impact in the interview rounds. Overall your passion for technology and good knowledge of your strengths and weaknesses will help a lot in getting your desired goals.

Sushri : You have done lot of other internships. Any particular reason behind doing this one?

Soumya : Internships help a lot in getting some vital work experience before landing into any full-time roles. Also, internships create a good weightage in your profile which helps a lot during the recruitment process.

Sushri : How you manage your time between academics and work?

Soumya : My college cooperated a lot in handling the academic pressures during my internship tenure. Also, to achieve something you have to sacrifice something as well. So some bad grades are included in my sacrifices.

Sushri : What suggestions would you like to give to your juniors regarding internships?

Soumya : Internships help a lot in strengthening your skill sets which are useful in the industry and also help you to ease the transition process from academy to industry. To get good internship opportunities students should develop some core skill sets used in the tech industries and learn things beyond academic syllabus.

Sushri : What are your plans after graduation?

Soumya : To get a well-paying job in Data Science domain, to keep learning new things regularly, and to get opportunity to work in other countries too. Manage both roles at a time.

A strong positive attitude will create more miracles than any wonder drug – Patricia Neal

Ms. Sagarika Nath, IPS, DCP Traffic, Commissionerate Police had been invited to Silicon on the occasion of Women's Day 2020 when she had been interviewed by the Publication Team.

Over the past few decades women have been world leaders and proven to be role models for many. They have reinvented and redefined the dimensions of their contribution, not only to meet the household demands but also to the society at large. #An Equal World is a Better World, has been the tag-line for this year's International Women's Day. Equal rights, responsibilities, opportunities, conducive work places, have been among the few most prioritized essentials for women empowerment. And on this occasion, Silicon had invited DCP, Sagarika Nath to share her insightful understanding of gender equality and career path ways for women.

Ms. Sagarika Nath, a woman in her twenties, is looked up to with awe and reverence. When women choose to lead, with leadership comes innovation and skilled craftsmanship. Ms. Nath is not only known as an efficient official but is popularly famous for her ingenious ways of problem solving.

To reach your destination is not only a self-duty but a responsibility shared by all your co-travellers. Thus, our travel diaries are more often crammed up with traffic challenges than with globe-trotting experiences. And, how often have we thought of the possibility of teleporting ourselves trying to avoid the traffic roadblocks?! DCP Sagarika Nath has taken up on her shoulders the responsibility of introducing smart traffic control solutions. Her innovative measures have been implemented with all diligence by her department and have made monumental changes in the ways that had been in practice for years.

Sharing her experiences, she says: "Engineering is more about direct Technical Solutions to everything: a mode of straightway usage of math and statistics into the job atmosphere; but civil services and precisely police service is more about administration, people to people linkages. It's about you leading the whole force and your force depending on you, following your on-ground instructions... when we were posted in Naxal affected districts as assault commanders, I led three such Naxals operations on ground. I was the only

Power sees no gender, and Success has no sex; it knocks on the doors of those who dare to receive it.

female in the entire team deputed in a jungle for three days at a stretch and bullets could fly from any point. And at that point you have to take decision right on the spot and your team must have faith on you. So, there is huge transition between board room and table top actions to on ground actions which have direct impact on people's lives and that is exactly why I chose civil services as a profession. If I could only make five people smile through my action then it's the real success of my job."

Her profession as she says, "has 3 major parts: Awareness, Enforcement and Engineering." She takes interest in athletics, martial arts, dancing, painting and likes travelling. A good student, an avid reader, a daring police officer as she is, we all, look forward to her success and look up to her as a role model for the young generation, especially the women.

"Programming with C" under TechnoZeal

Under the shadow of the COVID-19 pandemic lockdown, the school connect program "TechnoZeal" activities are planned in the online mode. The first such activity was done by organizing a FREE online summer course in "Programming with C" from 11th to 17th June 2020. This program was intended for class 11th and 12th students. 730 students from 13 states across India, registered for the course. The course was well organized with regular online live sessions by subject experts followed by online tutorial sessions to clarify the doubts of the participating students. To evaluate the effectiveness of the teaching learning process, daily assignments were evaluated by the tutors submitted by the students. There were 4 online quizzes conducted during the course. Based on the performance in quizzes, assignments and attendance 133 students got qualified to receive course certificate. Three students were selected as best performer of the course. They were rewarded with a free gift voucher worth Rs 2,500/- of E-BOX license for foundational courses with one-year validity, which will be reimbursed by the course convenor. Dr. Ramaprasad Panda convened the program while Prof Samaleswari Prasad Nayak coordinated the course. Faculties and technical staff members of Computer Science and Engineering department mentored the participants as resource persons.

Beparwah Smiles

The Silicon Counselling Cell in association with Voices O' Counselling organized some Online Tele-Counselling Sessions from 14th April 2020. The main aim of the programme is to counsel (one-to-one as well as group counselling) the people's mental health and the life transition issues that arise due to the current pandemic situation. The first programme was titled *Beparwah Smiles*. There were 72 participants in the programme and it was highly appreciated.

National Webinar on Role of Psychologists and Caregivers

A National Webinar was organized by the Silicon Counselling Cell in association with Voices o' Counselling and New Life International on 10th May 2020. The topic was Psychosocial Recuperation in Substance Use Disorders: Role of Psychologists and Caregivers. 28 participants joined the programme.

World Environment Day

On occasion of celebration of the World Environment Day on 5th June 2020, a plantation drive was organized by the Silicon Green Club (SGC) at Silicon Institute of Technology, Bhubaneswar premises. Silicon students, staff and faculty members participated in this program which comprised primarily of planting several saplings, to make it successful.

Celebration of International Yoga Day

The Institute organized a Yoga session on 22nd June 2020 to observe the International Day of Yoga which is generally conducted on 21st June 2020. Due to the shutdown, it was observed on the next day this time. It started with a talk about importance of Yoga in

Life followed by the Yoga postures demonstrated by our yoga teacher Mr. Prasanta Kumar Mallik and Mr. Tarini Charana Mishra, Assistant Professor, CSE. Many yoga postures were practiced by the attendees like *Pawan Muktasan, Kati Chakrasan, Tadasana, Bhujangasana, Uthana Padasana, Surya Namaskar, Vrikshasana, Yog Mudra*, *Meditation* etc. The session ended with *Savasana* followed by refreshment. The Health Club of the Institute coordinated the program.

Nivritti

An International Online Conference was hosted by the Silicon Counselling Cell in association with Voices O' Counselling and We 4 You on 12th June 2020. The topic was Humanity Beyond Boundaries for an Inclusive and Just World. 92 participants joined in the event.

Summer Internship 2020

The Industry Interface Cell, in co-ordination with other departments, conducted the Summer Internships – 2020 for 16 courses with 856 students from the 1st, 2nd, and 3rd year during the period 25th May to 20th June 2020. These courses were offered by experienced Industry professionals and in-house faculty with exposure in the industry as the key Resource Persons. Active involvement of Program Mentors and Course Coodinators in each of the courses was an added advantage for the smooth running of the programs. Various Summer Internship Courses conducted are:

Summer Internship 2020			
Sl No.	Course Name	Registration*	Course Coordinator
1	Python for Beginners	195	Syllogestek Pvt Ltd (300)
2	MEAN Stack Programming	54	
3	Cyber Security	16	
4	Competitive Coding	16	
5	Entrepreneurship & Digital Marketing	19	
6	Responsive Web Page Development with Project (HTML, CSS & JS Technology)	91	EBOX (135)
7	Application Development through JAVA with Project	22	
8	Complex Problem Solving and Algorithmic Thinking with Project	22	
9	Object Oriented Programming Using C++	54	In-house Faculties with Industry experts (421)
10	Foundation of VLSI Design	42	
11	Digital Systems Design and FPGA Implementation (A Verilog Approach)	23	
12	Machine learning and its application using MATLAB	90	
13	Interfacing and Communication Technologies for IOT System Design	66	
14	Application Development through IoT	58	
15	IOT based appliance monitoring using Raspberry Pi	52	
16	Electronics Circuit Design and Real-time Applications	36	
	* No of Registrations included students and in-House/external Faculty	**856**	

Keep a positive outlook even when faced with life challenges – Catherine Pulsifer

HackWithInfy

HackWithInfy individual web proctored Round 2 contest was conducted for the 53 shortlisted students on 31st May 2020. Round 2 was also conducted on 10th June in Odisha and West Bengal only for those students affected due to Amphan Cyclone. We have eleven shortlisted from Round 2 one Grand Finalist, and ten for Pre-Placement Interviw (PPI) Calls.

InfyTQ Training Session

Special InfyTQ training session was conducted by Amphisoft Technologies for the sixteen shortlisted students from InfyTQ Final round held on 7th March 2020.

Recruitment Drive by Synopsis India Pvt Ltd

Synopsis India Pvt Ltd, a company known for the world's most advanced technologies in chip design, verification, IP integration and software security and quality testing, conducted a recruitment drive at Silicon during 3rd to 8th April 2020. From the shortlisted 2020 graduating students who went through the selection process, Synopsis finally selected two students from ECE branch with a 13 LPA package Anubha Snehal and Subhra Sutapa Mohapatra. The Advanced VLSI Lab of Silicon played a major role in preparing these students.

Internship programme by Spikewell India Pvt Ltd

Spikewell India Pvt Ltd, a fully owned subsidiary of Spikewell LLC, USA, selected twelve students from the 2021 graduating batch for their Internship Program. The on-line tests were conducted on 21st and 22nd March 2020 while the Interviews on 18th and 19th April 2020.

Training programme by Amphisoft Technologies

Thirty-five students went through a Python training conducted by Amphisoft Technologies. The training program started on 4th May 2020.

Wipro Talent Next classes

In-house Wipro Talent Next classes started for around 300 students from both the CS and Non-CS stream in the online mode. Students from 2021 graduating batch joined the classes which were taken by two Wipro Certified in-house faculty.

Course on DBMS

Thirty-two students from the 2021 graduating batch went through a DBMS course started during June 2020 and conducted by Amphisoft Technologies.

Training and Placement Meets

Virtual training and placement meets were held during June by companies like Mindtree and SAP Labs India on 8th and 11th June 2020.

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 Essay, 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.

Condolence

All staff members and students of Silicon Institute of Technology convey their deepest condolences on the sad demise of Mr. Ratnakar Nayak, Establishment department, and pray for his soul to rest in peace. May God provide strength to his family during these difficult times.

Responsibility helps you gain a positive attitude - an attitude full of acceptance, enthusiasm and good energy – Ian Tuhovsky,

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Friendship

Not a bond by blood
But with absolute love.
Not a result of fox's conspiracy
But with a kid's innocence.
Not a season's downpour,
But with years of matching pencils, clips and boxes.
Not with plans of betrayal,
But with plans of being together at Disneyland.
Not emptying the lunch boxes alone
But with share, exchange and much more.
Not just to carry secrets,
But to make dreams converge with destiny.
Not just the count of years
But with memories to cherish all our lives.
With all these
Never ever say that
"All we made was a beautiful sand castle at the beach"
The castle of our dreams.
The castle of our friendship.
Is Built with unbreakable stones.
It's surrounded with greens.
Is away from breakers of sea.
And it will stand imperishable
For years to come my friend
For years to come.

Alisha Das
EEE, 2nd Sem.

Nature Vs Humanity

Humanity is a simple and commonly used word with a variety of definitions. It might happen to seem as if just as all humans are different so differs their version of humanity. Among such differences, also, exist some strong principles regarding the definition of humanity which binds all humans together as one.

As decades changed after decades so has the definition and application of the word humanity. However, one thing has remained and that is, people have always defined this term centering themselves and in cases have preferred to extend it to only humans.

But are the flora and fauna around us any less deserving of this so-called 'Humanity'? Why is it even termed as 'Humanity'? Is it simply because it was named by humans or was it made to be applied upon humans and humans only? Are only humans deserving of humanity? The answer is a big NO. Humanity should be rather seen as an invisible bond that binds everyone and everything across borders and across species.

One of the biggest problems with humans is that they tend to try and take control of everything without realising that something that can be controlled doesn't necessarily mean it should be controlled. It would be better if they realise that they are not all-powerful and can be subdued as a whole. The current situation is an example to be remembered. It didn't take any nuclear winter or world war for that. Even the most advanced nations were brought to their knees by a virus.

The virtue of humanity when infected by parasites of greed can trigger even bigger calamities. Can the great human race reverse the natural degradation that has taken place in the past few decades if they wanted to?

But taking cue from the present situation, it seems as if nature wants to heal herself without any human interference. Well, one thing is clear from the natural improvements that have happened during this corona-pandemic, that nature never really required us to do anything special for her. She just required us to STOP our destructive activities. And that's exactly what has happened now. We should not forget the fact that it is us who need nature to survive and not the reverse. Nature thrived millions of years ago even before the first human came into existence. It had been there before the evolution of humans; it still is and it will remain even if it requires humans to cease existing.

Despite the world coming to a standstill amidst the corona pandemic, this particular year has been quite eventful in making people realise where they stand in comparison to nature and how fragile human life is. People might consider this to be a rather harsh year but it should be looked upon as a pending lesson to mankind that has been served well. It's high time people realised their ignorance and understood that there's a limit to everything including what's within their reach and also within Mother Nature's tolerance.

Sukanta Pal
CSE, 1st year

The pessimist sees the difficulty in every opportunity;
the optimist sees the opportunity in every difficulty – Winston Churchill

Satisfaction – A Never Ending Desire!

Satisfaction is basically of two types, temporary satisfaction and permanent satisfaction. Temporary satisfaction can be achieved by human beings. For example, if you have decided to do a certain work and you complete it on time you feel satisfied. But permanent satisfaction is a non-achievable goal for living beings. Have you ever felt that your mind, heart and body cannot be satisfied at the same time?

We are all in a wrong direction if we are in search of permanent satisfaction. We should know the difference between being happy and being satisfied. According to Economic times only 20% people are "satisfied" with their jobs and it is completely fine if someone doesn't get satisfied in certain work.

Satisfaction has no limits. It depends upon human perception. You cannot compare your level of satisfaction with that of others. If you do that you'll be considered as the biggest fool. It's better to proceed forward in life rather than waiting for satisfaction. Some people say the sages who are in Himalayas are satisfied but if we take a close look many people choose this because they don't achieve things that they thought of and some go there in order to achieve peace and salvation. Hence, we can conclude that satisfaction is a never-ending desire.

Pratik Mohanty
ECE, 4th Sem.

Rituparnna Prusty
ECE, 4th Sem

Let the World Make some Noise

It's okay at times, to feel a bit low,
To fumble, stutter, or go out of the flow.
People may question every step you take,
And may even stop you move forward and go.
But it's okay, to not fit in sometimes,
So, don't stress out, just breathe and let it go.

It's okay to look a bit different than the rest,
To be flawed, broken, or feel out of quest
"I don't care" has become so prevalent,
That people have actually stopped giving their best.
But it's okay to care my dear,
Slow down, you may lose things in haste.

It's okay for tears to roll down your face,
It's okay to not always be the first in race
"Depression" has become a common term now
That people have forgotten to handle the pace.
Relax, it's not the pressure
But these heavy words that make you fall out of place.

It's okay to fear, to lose, and try again
Just don't forget to stop, learn and gain
In the world of make belief,
Don't let your opinions go in vain.
Learn to not give up and to stand firm
Against all the form of heat, cold or rain.

You got a mind, so it's okay to overthink
It's okay to fall out of a topic in one blink,
People may give you tags of being an "egoist"
Don't ignore it, face them, and give a wink.
Don't let others' views heave upon you
Form your set of ideas, and let it sink.

It's okay to fall, and mess things around
Take time, and fix the broken ground,
Let the world make some noise
Create your notes and let them hear your sound.
Gather knowledge despite of bad luck
Because it's time to be the version that you have found.

Arpita Mohanty
CSE, 1st Year

Dr. Biswajeet Baral is presently heading the Department of Electronics & Communication Engineering. Lately he has completed his Ph. D. on Advanced Nanoscale Devices. Over the year he has been in charge of different responsibilities in Silicon, the most popular one being the FIC of Student Council. Ms. Sushree Priyadarshini of 7th sem AEI interviewed Prof. Baral for SLATE.

Sushree : Congratulations Sir for completing your PhD on Performance Investigation of Advanced Nanoscale Devices. Please tell us something about the subject and what made you interested to do your Ph. D. in this field?

Prof. Baral : Thank you Sushree. No doubt this Nanotechnology area has a wide scope of research. As Nanotechnology and VLSI both are inter-related, so each individual can contribute/explore a lot in this field. Now what motivated me to choose this field? It's purely personal interest. I was teaching that subject so I had some idea about the areas where I can contribute and luckily I met Dr. Angsuman Sarkar (my Guru) who really showed me the right path to work. You know, in Ph. D. the most important problem is the identification of right problem, and there you need a guide who helps you in this regard.

Sushree : What were the journals you referred for the same?

Prof. Baral : Initially I was reading certain journal papers (mainly from publishers like IEEE, Elsevier, Springer, Wiley, Taylor & Francis, IET) which my guide suggested. This helped me know the existing work on my related domain. The gap in their research has helped me formulate my problem statement.

Sushree : You were the FIC of Silicon Student's Council for quite a long time. Please share your experience about the same.

Prof. Baral : I was with SSC for 12 years, and I miss it a lot. Today what I am, I got that scope from SSC. Like a Class representative, I always feel that I am a member of SSC which helps me to fit myself in the student community. Working each year with 56 leaders of different mind set is always a challenge but truly, I never felt any pressure because of SSC members. These people are real leaders. Our students are no doubt different from others in all respect.

Sushree : Sir, right now you are the HOD of the ECE department. How do you feel after taking up this responsibility?

Prof. Baral : It's completely a different type of responsibility. You know each responsibility has its own charm and challenges. You can't compare. I was enjoying my work as FIC, SSC and trying to do the same as HOD. Being Head of the department you have more time-bound responsibility. Hearty thanks to Silicon Administration who always extend unconditional support. I have only started the journey as a HOD and I know I have miles to go.

Sushree : What suggestions would you like to give to the students especially in this COVID situation?

Prof. Baral : Take care of yourself and your family. Try to follow the general government guidelines of COVID-19. Don't waste your time. No doubt things will be tougher ahead in all respect so try to use the best of your valuable time.

Sushree : Sir it was a pleasure interviewing you.

Prof. Baral : Thank you very much…

Optimism is the faith that leads to achievement.
Nothing can be done without hope and confidence – Helen Keller

Life has been inconceivably different since lockdown of the country to stop the spread of corona virus. In the mean time our students had to return home as there was a hiatus in the regular academic activities. Learning and exams shortly resumed in the online mode, bringing in new experience and tussling with apprehensions. Spending time with family was the dividend that everyone got along with spending time with themselves. Our students seized the opportunity to pen down their lockdown experience for this quarter.

Amidst a Probable Apocalypse

My life was on track, I had planned so much for the upcoming weeks, preparing to execute my plans. Little did I know that our lives were going to encounter such a big plot twist. When China was badly suffering from the Corona Virus, the alarm bell had already rung, but none of us ever imagined the situation in which all of us are trapped today.

Surfing social media, I came across a huge number of people expressing their sorrow over not being able to go out; on the other side, I saw the desperation of migrants not getting proper shelter, food and basic amenities of life. This made me realise the irony we all live in. We watch T.V., mourn over migrants not being able to afford basic things for survival, yet keep complaining about our status, instead of being grateful. So, accepting the current situation we are in, I thought of making peace with it, instead of feeling bad all day long.

In the rat race when everything just came to a halt, I decided to keep going. There is one quote which has always motivated me, "finding opportunity in every setback", this is what I have always tried to implement on the face of adversity. During this lockdown when we had a lot of free time, I utilised it in pursuing my hobbies and my field of interest, along with our online classes. Reading volumes of books, sketching pieces I had never tried, taking on internships and different courses tobrush up my technical skills. Out of all, learning new languages and creating webpages has been my favourite part. This period of lockdown gave me a chance to introspect deeper into myself and explore the horizons I wasn't much aware of. It helped me get clearer about my future goals, like a much-needed pause, to gather all the energy and bounce even higher. It has added to my critical thinking ability and enhanced my creative instincts.

When I sit and wonder about the severity of the condition of our world, it strikes my mind, although we have seen a major fall down in our economy and there have been so many people dying every day, I feel there have been a lot of positive impacts too. The best part has been people resorting to old times with Epic T.V. series like, Ramayana and Mahabharat, which imbibes in us the morals that seemed to be long forgotten and playing games like Ludo, Carrom, along with family, instead of pecking our eyes into the gadgets throughout the day. Nature has also been healing like never before. The air and water quality which had degraded due to exhausts of vehicles and let outs of industries has healed drastically during the lockdown. The wildlife which deteriorated due to human interference, has flourished in our absence. The lockdown has helped in creating harmony between the human society and nature.

Today it has been nearly five months that I haven't stepped out of my house; I haven't met the people I used to meet every day. The regular pattern of life has been badly disrupted. But when we look back to the times gone by, what we will learn is, life has to go on despite of obstacles. I believe, it is the transition phase that we all watched in movies and read in books, the phase change for "The Digital World", and as history tells, the survival of the fittest, is the key. We have always learnt in our school days, a quote which is very famous, "change is the only constant". So, in the present time, where almost everyone is clueless about the complete end of this global pandemic, and the number of affected people is increasing exponentially, all we can do is prepare for adapting to these changing times. Adapting, being careful, and keeping ourselves aware would help us tackle this challenge.

Arpita Mohanty
CSE, 2nd year

Life During Lockdown

The ongoing pandemic has taken the world by storm, disrupting the lives of millions. But for me, the pandemic, and the lockdown which followed, was a welcome change. I don't want to sound selfish here for my heart goes out to all of them who have and are suffering the dire consequences of this severe health crisis, I just want to share my side of the story.

The lockdown meant I, like thousands of other students, got a much-needed break from my hectic daily schedule and finally had time to introspect. But I didn't realize it until I wasted a good two months of this period enjoying my life to the fullest or at least I thought so. Although I now regret wasting those precious moments, I am glad it wasn't too late to do the right thing and now it seems like I am finally getting somewhere with it.

Thanks to the lockdown I finally got rid of my numerous bad habits and to build on it I have started exercising daily. I have already completed an online course, owing to our college's guidelines, and am halfway through a second one chasing my passion for coding.

With all the positive changes in me and the precious time I got to spend with my family, it makes me think that this pandemic has been a necessary evil for the human race, which has forgotten to rest and introspect in its quest to reach the pinnacle of success.

Anshuman Mahapatra
ECE, 5th Sem.

Could we Certainly Walk Freely on the Streets before this Lockdown?

Could we certainly walk freely on the streets before this lockdown? Yeah, let's not talk about coming back home on time, or about the dress we would actually wear if there were no societal obligations or that thought of yours "If I was a boy, I could....."

Most of the essence of freedom lies in your head, yet a whole lot of it subsists in the eye of society, the salvation of which is urgency.

All our social media is flooded with posts about either when will this lockdown end or when the lockdown ends and there's a to-do list of theirs. I barely discern people speaking about the end of Corona virus. I mean this is no joke at all, people are seriously suffering and there's no way out until the vaccine for it is available.

We can't just defy the truth of how migrant workers died in their way back home and the obstacles they came across. Daily wage earners are dying, not this COVID – 19 but hunger is taking their lives. Our home is keeping us safe, be it from COVID – 19 or the cyclones like Amphan that rendered many homeless. Nevertheless, here we are ranting about the lockdown.

Some incidents are enough to wreck your heart apart like the recent one of the firecrackers being busted in an elephant's mouth. Then there is news of rapes and domestic violence, even in this lockdown, there's so much harm being caused. But this is not the kind of freedom we seek for or is it?

Amongst all this, I see people helping people and that is worth appreciating. That is what freedom means to them, they are too jailed behind the bars of this lockdown yet they've found their way out that is to reach out to the people in distress. I swear to God I've never felt so helpless before. By this, I don't mean not being able to roam freely on streets but the helplessness of not being able to help someone.

The serving of Langer during this lockdown to feed people who can't afford to feed themselves and those people who are feeding the people, from providing food grains to serving proper food. I'm not a part of it and that is what ignites the pain within. Yet truly I get some happiness when I see people helping each other in this crisis.

If there are a lot of clouds in the dark night sky it doesn't stop us from looking at the moon, right? Seeing the good in everything around is fine though the reality is a bit too harsh and it can't just stay unnoticed.

R. Avinash Prasad
ECE, 3rd Sem.

An Opportunity to Meet MYSELF

On the morning of March 13th 2020, in environmental science class, when my classmates got into a spirited debate, discussing the college getting closed, I remarked, that if CM Naveen Patnaik declares holiday then I will keep a celebratory fast, eating only fruits, for a week. Oblivious to the World Health situation, I continued my journey to back home with lots of excitement and joy. The seriousness of the matter was becoming somewhat imminent because of the train journey though.

Yet, irrespective of everything, I was brimming with happiness and was on seventh heaven for being home. Nothing felt more luxurious and comfortable than the charm of my age-old room and presence of my parents and my sister. Heedless of the looming global pandemic, caused due to the corona virus, I tried my best to enjoy this "vacation ".

Meanwhile, the entire nation was in a lockdown mode, every institute, mall, office was shut down.

Commitment, belief and positive attitude are all important
if you're going to be a success – Donald Johanson

People were coping with this new 'normalcy' in their way. Trying new dishes, developing age-old hobbies, learning new skills, working out at home, were in the new trends. And all these debates of never-ending lockdown, and every other "this is the new age" debate, stressed me out. Well, when in stress, I stress-eat, after all, how can one expect a fussy eater who has just returned home from hostel to eat healthily? I preferred to quench of my appetite and sincerely serve my taste buds than to follow a healthy diet. Not sure if anything else but hostel life teaches one the Michelin star value of homemade food.

Yet, life wasn't monotonous, it was amazing! Every day I had the luxury to sleep at home, at dawn. Yes, right at dawn! At night like any given nocturnal creature, I would stay awake watching movies, doing coding, scrolling through my Instagram feed. At 5 am I would open my window and watch the serene fields, feel the cool breeze and hear birds chirping. Then, I would go to sleep. Later in the day, I would get into a vigorous playful tussle with my sister; and in the afternoon, sharp at 4:45 pm, we would feed pigeons. The pigeons tended to never show up when we were around but slowly and steadily, they would come in flocks of 5,10,20,30 and then they would reach a constant of 47.

Keeping in mind 'necessity is the mother of invention', I learned and made Mozzarella cheese and egg mayonnaise. Having a keen love for writing I took up a content writing internship. I did D.I.Y of a lot of my old clothes. I joined various websites to practice my competitive coding skills. Irrespective of these facts, the pandemic wasn't any time to rejoice, but our desperate ways to cope with stress.

Every day I would check the Worldometer, the world death rate, due to corona virus had a U shape increase from March to April then slowly a fall. The poor and the marginalized were the hardest hit by the COVID-19 pandemic But still, those death rates didn't astonish me, as a statistics, that stated, every year at least a 90,00,000 people die of hunger, not from any virus or disease, all while a 1/3rd of global food produced, is wasted each year. And now, I am in the quest of finding solutions to this matter, handing over corona virus to the elite scientist of the world. Desperate to spread awareness, I will stumble upon a practical solution soon, and hopefully, that will be my part of stress management during a global pandemic.

Alisha Das
EEE, 3rd Sem.

Quarantine and Mental Health

The fragility of the human mind is excruciatingly complex and at times simply unfathomable. Granted, it is the most powerful organic structure in existence, yet no one around us actually seems to understand the importance of a healthy mind. It is quite astonishing to see that people pay less or zero attention when it comes to mental health. The times are gloomy and filled with despair as it is, and amidst this chaos of quarantine and the ongoing global pandemic, it becomes quite easy for our minds to fall sick and that is why we need to take extra care.

The rates of depression were already pretty high before the pandemic and this feeling of impending doom and complete isolation has just added fuel to this already terrible situation. In this long period of lockdown, all of us at some point or another are bound to feel gloomy. But there are several ways in which you can keep yourself motivated and happy during these dark times. The most effective solution is to discover a new hobby. As you learn a new skill and keep yourself busy, the possibility of an idle mind decreases and that results in healthier, happier and a more skilled mind. Diet plays a very important role in mental health as well. Balanced diet and a timely schedule can prove very useful in these times of stress. Keeping a proper schedule can be very difficult when you have no office, school or college to go to for months, trust me I know. So take it as a challenge and include some new and exciting things to do every day in your routine.

Yes life seems tough right now. But answer me this, has life ever been easy!? We will fight through this and we will come out stronger than ever before!!!

Swaraj Baral
CSE, 5th sem.

Making the Most of My Time

It is correctly said "act accordingly" and this lockdown is making us have a taste of it. The lockdown has made many effects on everyone and so on to me.

I believe lockdown gave the most important thing that we always wanted, i.e. "time". Time has the capability to change everything and it is getting proved now. Previously I was too busy with my daily schedule but now due to this lockdown I got that opportunity to change myself. I started following a healthy routine to stay fit and healthy. I started spending time with my family and friends and these are the best moments I can

Don't be pushed around by the fears in your mind.
Be led by the dreams in your heart – Roy T. Bennett

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ever have. I know it's quite natural to have mental stress in these days and it is completely fine to have stress without doing anything or out of boredom but I believe rather than thinking about things that cause stress, I should focus on things that can upgrade me. Moreover, I completed my online summer internship which was quite productive for me. In this period, everyone is working digitally and it's quite interesting to work too for new users.

If we notice properly we are getting the lifestyle that we once wished for and it is better to enjoy now rather than regretting about things.

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Pratik Mohanty
ECE, 5th Sem.

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Lockdown Gardening

During the initial days of the lockdown, I rediscovered my gardening skills. I was able to add some greens to my living space and create a mini herb garden. Indoor plants also have a significant role in improving the air quality by removing harmful chemicals like benzene, formaldehyde, xylene, toluene and many more. Studies have proven that indoor plants improve concentration and productivity (by up to 15%), reduce stress levels, and boost our mood. My outdoor herb garden consisted of Thai basil, mint, carom seed (ajwain), coriander and curry leaves. I was also growing chillies and lime. Some of the indoor plants that I had started growing were syngonium, zz plant, aglonemas, snake plant and pothos.

A few gardening tips:

- All edibles and most flowing plants need to be placed in locations receiving a minimum of 5 hours of sunlight.
- Over watering is a major problem for plants grown in containers, leading to root rot condition. Water only when the soil feels dry to touch.
- Keep indoor plants away from direct sunlight.
- Easiest herb to grow is mint which can be easily propagated in water.
- For beginners, the easiest plant to grow is pothos (money plant). One can simply keep a few cuttings in water and place it on their desk.

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Dr. Pamela Chaudhury
Dept. of CSE

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The only place where your dreams become impossible is in your own thinking
– Robert H Shuller

Greetings to All,

My time at Silicon was an amazing experience filled with scope to learn more, constant encouragement to be curious and to excel not only in professional career, but refining my personality as well. The pedagogy and Library facilities were excellent. The ambience was a catalyst to dream higher, to work harder each day towards our goal, to create beautiful friendships and cherish those moments for a life time. We learnt even if things didn't work the way we had expected them to, there was always a better plan in store for us and sincere labour never goes in vain. I would like to suggest my fellow Siliconites to take advantage of each opportunity they get here and make each day count. Life is an amazing journey without any destination. Never treat it like a race. There will be no Winning or Failure, but we should feel content and peaceful in whichever path we choose. I am sure you all must have big plans regarding your career, life and the journey towards them may seem hectic. Take small steps, advance each day and talk to your teachers, parents and try to learn from their experience. This will help you to make better choices in your life. All the very best for your future endeavour.

Samarpita Tripathy
B. Tech., 2012 Batch
Telecom Engineer (Next Generation Network, CDOT Core, BSNL, 2017- Present)
samarpita.tripathy@gmail.com

Greetings to All,

I am currently employed as a PLM Consultant with TECHNIA (Addnode India), where I also oversee the Social Media Branding for the Indian team.

When I first joined Infosys, I was clueless about my passion, my ambitions, and my skills. I was a girl who could not refuse work, persevered aimlessly, and could not organize her efforts. But the industry toughens you up. So, do not panic if you feel the same about yourself today. You will meet mentors along the way, some will guide you, some will try to break you, but a few will help you shatter that glass ceiling, and you will realize your potential. And once you do, do not limit yourself to the boundaries of your education. Improve your skills, learn, read, and strive to always move beyond your comfort zone.

Dipinty Ghoshal
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The greatest discovery of all time is that a person can change his future by merely changing his attitude – Oprah Winfrey

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Salami – Meat or Attack??

Picture source: Internet

Salami, pronounced as (suh-lah-mee) is a type of treated and cured sausage consisting of fermented & air-dried meat. The meat is typically pork but it can be chicken, goat & other meat as well. But what is the relevance of meat in the Cyber space?

Well, a very popular financial cyber/computer attack is named as Salami attack, which derives its name from the way odd pieces of meat are bought together to form a big and considerable chunk with higher value. A typical Salami attack involves siphoning very small, negligible, insignificant amount of money from one place (account) to another place (account), which the attacker has access to. The attacker fraudulently rounds off service charges and other charges which normally result in fractions. After that the extra component i.e. the round off value minus the actual value, is transferred to another account. Let's say a service charge amounts to Rs.90.10 and the attacker rounds it off to Rs.91, then there is very less probability that the account holder would detect it. But a series of many such actions over a larger period of time would result in a considerable amount.A loose financial system would not be able to detect this. But in most of the cases the perpetrators are internal to the organization. This particular form is also called Penny Shaving where each victim incurs a very insignificant loss but the attacker gets a sizable amount.

There are certain variants of the attack. It can be used to gather and aggregate small amount of information from various sources and create a larger picture of a critical aspect of an organization. Information collected and scavenged from sources like web site, trash, media reports, advertisements, promotions could be used to create a consolidated database with lots of business value. There are other instances where payroll software was modified to increase the withholding amounts by few cents per day for hundreds of employees. The excess amount was credited to the attacker's withholding account which resulted in large refunds after filing for IT returns. A car rental agency overestimated the gas tank capacity compelling customers to pay for missing gasoline which was really not missing. Since the inflated amounts ranged from $2 to $15, the customers didn't bother to fight it out. Tampered computer chips in gasoline pumps/ filling stations often cheat customers by pumping less amount of fuel.China is known for its Salami slicing tactics which is called Cabbage strategy in military parlance.It expands its territorial jurisdiction by first claiming stake on a territory and keeps on repeating that in all platforms and on all possible occasions.

The essence of the mechanism everywhere is resistance to detection, ignorant customers and remaining oblivious because of the scale of loss. Many computer programs involving computations are subject to small round-off and truncation errors. In most cases programmers consider this as natural, unavoidable and insignificant. Because of improper/ inadequate auditing, large and complex source code, the error creeps to the final product.

The only way to detect this error is to perform rigorous box testing and auditing of the product. Diligent supervision of one's own assets and careful scrutiny of financial systems is required to counter the effects or the attack.

Dr. Sushree Samita Rout
Associate Professor, CSE Dept.

It's most important that you surround yourself with positivity always, and have it in your mind at all times – Tyler Perry

Silicon
...beyond teaching

Plantation Drive by Silicon Green Club on World Environment Day

Every year the World Environment Day is celebrated on the 5th of June to spread awareness, to encourage people to take action and to protect the environment. In 1974 the first World Environment Day was held. Since then, the World Environment Day has been celebrated as an annual event on every 5th of June to raise the importance of a healthy and green environment in our lives and to solve issues of the environment by implementing some positive environmental actions by the government, private organizations and individuals. It is one of the principal vehicles through which the United Nations (UN) stimulates worldwide awareness of the environment and enhances political attention and action. The World Environment Day promotes ways to improve the earth's environment.

On the eve of the World Environment Day, a plantation drive was organized by the Silicon Green Club (SGC) at Silicon Institute of Technology, Bhubaneswar premises. A simple plantation drive addresses many environmental issues like deforestation, soil erosion and increased carbon footprint. Silicon students, staff and faculty members participated in this program which comprised primarily of planting several saplings, to make it successful.

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