

FACULTY OF COMPUTATIONAL SCIENCE

NEWSLETTER



Computational Review

**FACULTY OF COMPUTATIONAL
SCIENCE**



NEWSLETTER HIGHLIGHTS

From Dean Desk

From HOD Desk

From the Editorial Team

Workshops & Seminars

Short Term Courses

Industrial Visits and Activities

Students Achievements

Articles

Sports Corner

NCC Corner

Placement Corner



FROM THE DEAN DESK

Dear Readers,

It is a matter of great pride and satisfaction to bring out the newsletter which is released by the Faculty of Computational Science . A tremendous effort has been made to showcase student's achievements and talents in all the academic and non- academic areas. The efforts behind this Newsletter and its continuous sequel in every year are very much worth to appreciate.

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*An investment in
knowledge pays the
best interest.*

I am confident that this issue of newsletter will have a positive impact on all the students and people who are interested in computational science. A newsletter is like a mirror which reflects the clear picture of all sorts of activities undertaken by the Department and develops the creative writing skills among students such as in form of article and poetry. This enhances the reading practice of students. I want to appreciate the editorial team for bringing out the present issue of newsletter.

I also want to congratulate to everyone for their bit of service for the university and do expect the same in time to come.

Wish you a Good Luck!



Dr. Vikrant Sharma
Dean, FCS

FROM THE HOD DESK

It is my great pleasure to share with you the next edition of FCS newsletter. This attempt is to highlight the key events that have been organized by Faculty of Computational Science(FCS) over the last semester; It is incredibly worthy because it highlights the diverse range of academic, co-curricular, and academic activities that have taken place here. The newsletter is the best platform which broadens students perspectives and encourages students skills and innovations to be recognized. I want to congratulate all the students and faculty members for their wonderful support for the successful publication of the departmental newsletter.



Dr. Hitesh Marwaha
HOD, FCS

FROM THE EDITORIAL TEAM

Welcome to the inaugural issue of the FCS Newsletter.

The newsletter will capture the myriad activities that took place in Academic semester July 2021 to December 2021. A thought that has been enduring in mind when it becomes real; is truly an interesting and exciting experience.

This newsletter was one such cherished work that had its roots in the persuasion. It would be a snapshot of the various activities and advancements for all associated with FCS.

We appreciate your support and feedback. We would like to thank Dr. Vikrant Sharma (Dean, FCS) and Dr. Hitesh Marwaha (HOD, FCS) for the continuous motivation, input and time to time feedback for the final draft of Department Newsletter.

We hope you will enjoy reading this issue.

Thank you!



Ms. Reena Agnihotri
Assistant Professor &
Chief Editor

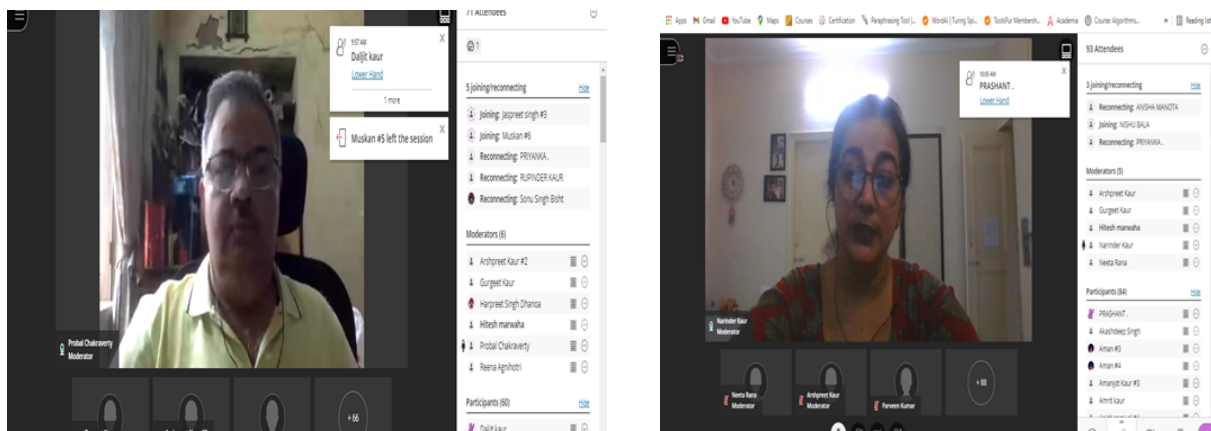


Ms. Gurjeet Kaur
Assistant Professor &
Editor cum Designer

Workshop and Seminars

INDUCTION PROGRAM

The induction program for the newly admitted first-year students for the academic year 2021-2022 was conducted. It was conducted in online mode through the Blackboard platform. In this program various events, talks from eminent personalities were organized throughout this program. Its objective was to demystify the expectation of the students from the Intermediate level and to provide an adequate foundation in their subjects which is limited to moderate level so that students do not face any problems when the regular classes commence



EXPERT TALK ON AWS ECOSYSTEM

The guest lecture on 'AWS Ecosystem' was organized by FCS. It was well delivered by Mr. Raahat Varma (B.Tech. Student, AWS certified). The objectives of this workshop are to give an exposure to students about Cloud Computing environment role of AWS and learn the Concept of Cloud Infrastructure Model.



EXPERT TALK ON “EMERGING TRENDS IN COMPUTATIONAL SCIENCES”

The motive of the Expert Talk is to make students aware about the emerging trends in IT industry. The guest speaker was Dr. Harjot Kaur, Associate Professor, GNDU Regional Campus, Gurdaspur. She covers the detail of various technologies such as Artificial Intelligence, Natural Language Processing Internet of Things, Big Data, Blockchain, Computer Vision, Quantum Computing, Edge Computing, Cyber Security, Bioinformatics, Robotics, Virtual Reality, Augmented Reality, Drones, and Digital Twins etc. She has also explained the various job opportunities available in these fields. This was an informative session; students learnt a lot. The students also showed their involvement by clarifying their doubts from the Expert.



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*Security is not a product,
but a Process.*

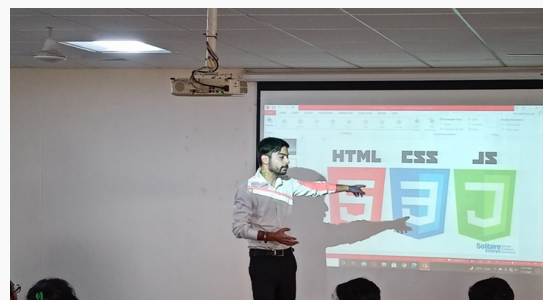
EXPERT TALK ON “SECURITY AND SURVIVAL IN HYPER -CONNECTED WORLD”

The expert, Dr. Maninder Singh, Professor and Head, Thapar Institute of Engineering and Technology, Patiala, covers in detail various technologies such as future of Privacy and Cybersecurity, Network Connectivity, Internet of Things, Cyber Security, Automatic Cars, Drones, Different Challenges in Hyper Connected World and also explained it by taking the examples. He has also explained the various job opportunities available in these fields. This was an informative session; students learnt a lot. The students also showed their involvement by clarifying their doubts from the expert.



WORKSHOP ON REACT JS

The motive of the workshop was to enable the students to build real-world projects in a work-like environment and compile a professional project portfolio to showcase new skills. The resource person was Shivam Thakur Software Engineer Solitaire Infosys Mohali. Hands on training was these to make the students familiar with this enticing technology.



Short Term Courses

THREE DAYS SHORT TERM COURSE ON EFFECTIVE WRITING SKILLS USING LATEX

The objective of the short term course was to enhance the skill of using high quality type-setting system, LaTeX. This was an informative session; students learnt about Theory and Requirements of LaTeX, change Font Size, Mathematical expressions, Latex delimiters, Matrices, Tables, Figures, Bibliography and online LaTeX Editor. The students also showed their involvement by clarifying their doubts from the Expert.



ONE WEEK SHORT TERM COURSE ON PROBLEM SOLVING USING C

The objective of the workshop was to provide basic knowledge of C language. Students were able to develop logics which will help them to create programs, applications in C. Moreover by learning the basic programming constructs they can easily switch over to any other language in future. The workshop also made them ready for placement activities in final year. It was delivered by Mr. Amanpal Singh (AP, FCS).



“

Programming is thinking, not typing

Industrial Visits for FCS Students

The aim of the visits was to provide an exposure to students about practical working environment. It was a good opportunity for students to gain full awareness of industrial practices.

'GNA Gears'

The motive of this visit was to make students aware about the manufacturing process of the GNA Gears. The students were overwhelmed with the infrastructure and were guided thoroughly about the framing process by the in house engineers of the industry. The students also showed their involvement by actively participating in the learning process of gears manufacture.



'Impinge Solutions, Mohali'

Impinge Solutions is a global IT solution company providing full-cycle services in areas of custom web design, web development, mobile app development, SEO, hosting & support. Combining solid business domain experience, technical expertise, profound knowledge of latest industry trends and quality-driven delivery model it offers progressive end-to-end solutions



'Solitaire Infosys, Mohali'

Solitaire Infosys Pvt. Ltd. is an acclaimed IT service provider contributing its part in the development of many businesses around the globe. Solitaire Infosys helps enterprises, whether established or startups, to build and grow customer-centric digital products for mobile and web.



Activities

EXCURSION TO NAINA DEVI AND ANANDPUR SAHIB FOR FCS STUDENTS

The purpose of the visit to accustom the students to start praying and seek blessings of the Almighty and acquaint them the significance of these holy places. The students thoroughly enjoyed the trip.



MOCK INTERVIEWS

The motive of the mock interviews was to provide students with an opportunity to test out their interview skills before actually sitting in a placement interview. The questions were asked from technical as well as HR perspective. The mock test interviews gave students a deep insight over their weaknesses and way of improving them.



Motivational Movie 'Hichki'

The teacher is the embodiment of all our constitutional goals, policies, and values in the classroom. Teaching is a complex, humanistic process that is at its core dependent on human relationships. The motive of this motivational movie session was to develop respect among their teachers and to learn convert weakness into strength. The students were also showed their involvement by immersing into the theme of the movie.



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**Take risks in your life,
If you win, you can lead! If you
lose, you can guide!**

Swami Vivekanand

”

Students Achievements

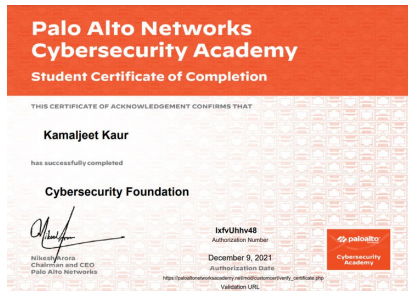
AWS CERTIFICATION

A total of 70 students of FCS department have completed their AWS Academy Cloud Foundations course during August - December, 2021. It consists of total 10 modules. During the course, learners seek an overall understanding of cloud computing concepts;

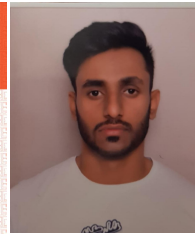
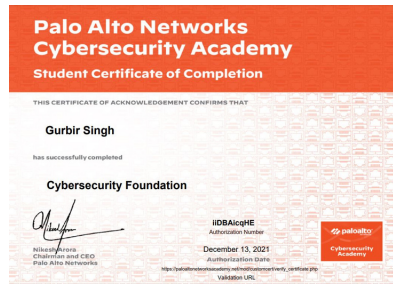


AWS core services, security, architecture, pricing and support. GNA University has joined hands with AWS, this is acting as a bridge to boost confidence in students and also improve their profiles.

PALO ALTO NETWORKS CYBERSECURITY ACADEMY



Kamaljeet Kaur
B.Sc.(IT) 5th Semester



Gurbir Singh
DCS 1st Semester

OPEN MIC- PUNJABI POETRY



Jawinder BCA-1st Semester won special price



MERITORIOUS STUDENTS OF FCS

B.SC. IT (SEMESTER- 2)



NAME: LAKHVIR KAUR
POSITION: FIRST



NAME: KHUSHI
POSITION: SECOND



NAME: AJIT KUMAR SHUK
POSITION: THIRD

BCA (SEMESTER- 2)



NAME: ISHA
POSITION: FIRST



NAME: SOURAV JHA
POSITION: SEOCND



NAME: AMANDEEP KAUR
POSITION: THIRD

B.SC. IT (SEMESTER- 4)



NAME: PALVINDER KAUR
POSITION: FIRST



NAME: ANUMEET KUMAR
POSITION: SECOND

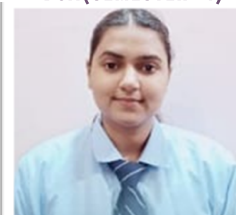


NAME: ISHA DEVI
POSITION: THIRD

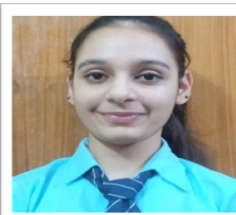
BCA(SEMESTER- 4)



NAME: KOMAL THAKUR
POSITION: FIRST



NAME: BHUPINDER KAUR
POSITION: SECOND



NAME: BALJEET KAUR
POSITION: THIRD

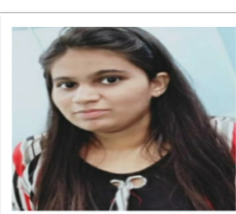
MCA (SEMESTER- 2)



NAME: JASMEET KAUR
POSITION: FIRST



NAME: SANDEEP KAUR
POSITION: SECOND



NAME: SHRUTI
POSITION: THIRD



"Being ignorant is not so much a shame, as being unwilling to learn."

Articles

THEY ARE “SPYING” YOU!

Bharpur Singh (BCA-3rd Semester)

I would like to start this article with a story which I read in the book ‘The Power of Habit’ by Charles Duhigg.

The retail company Target hired an analyst Andrew Pole to know their customers more and send them coupons for their next shopping. For this Andrew collected customers data from stores, analyzed it and came up with pattern of customers buying habits, which shows who’s pregnant, what is the baby’s sex and amazing enough at least for me what is the due date. During this time, an angry father went to target store and yelled at manager complaining about the coupons, his daughter received in her mail saying “Target knows before it shows.”

He told the manager “My daughter is still in high school and you are sending her the coupons for baby stuff. Are you encouraging her to get pregnant?”

That manager had no idea why his daughter received those offers and he apologized to the father. Few days later manager called that father to check on him. This time surprisingly father apologized and told the manager that his daughter is pregnant and due date is in August.

Though it feels offensive when people find out their information is being used for business, retail business can be benefited from it in all terms.

Nowadays, big data companies know everything about people online they are monitoring every activity people do online.

For example:-suppose two people are communicating using smartphones and they are talking about buying new shoes, After that when they open their social media handles they see the advertisements for shoes. How is this possible? Because the apps you installed on your device collect your data and sell it to companies to do business.

Pegasus

The government also uses high-end software to spy on anyone they want.

There is a software named Pegasus that is developed by the Israeli software company. It can be installed in any device (Iso or Android) without the knowledge of the owner and take full control of the device to steal contacts, videos, images, everything also it is capable to record audio as well as operating the camera without the owner's consent.

Conclusion: - Ones posted on the Internet cannot be deleted. So, make every move cautiously while using online services.



SOCIAL MEDIA: A CURSE OR BOON

"ANYTHING TAKEN IN EXCESS IS POISON FOR HUMAN BEINGS"

Vansh (BCA-3rd Semester)

Social media gives you the freedom to express your view points on various things happening in the world. but as said earlier excess of anything is harmful. Nowadays our youth is sticking deep inside this vicious web of social media that it becomes difficult for them to come out of that web. people just steep down their self-esteem and also feel jealous because of the fake lifestyle of the people on the social media. i have experienced that people just cross the limits for having name and fame on the social media. most of the students waste their precious time just by scrolling down on the Instagram and Facebook pages or account of anyone and at last they find nothing.

It is well said that excess of anything is harmful .same is the case with the social media. today we live in world where technology has deepened its roots inside our youth. our present generation is tech based generation. technology has changed everything. it has made our lifestyle easier and more comfortable than earlier old were the times when media was not evolved much. most of the people were unaware of things happening inside the rest part of the world.

But with evolution of technology media has now changed from that traditional media to digital media commonly known as social media. social media is a term that is most common among our present youth. but what exactly is social media? Social media is a part of digital media that allows you to share your views, pictures, thoughts and news with your near and dear ones. Major social media platforms are Facebook, Instagram, twitter, snapchat and many more.

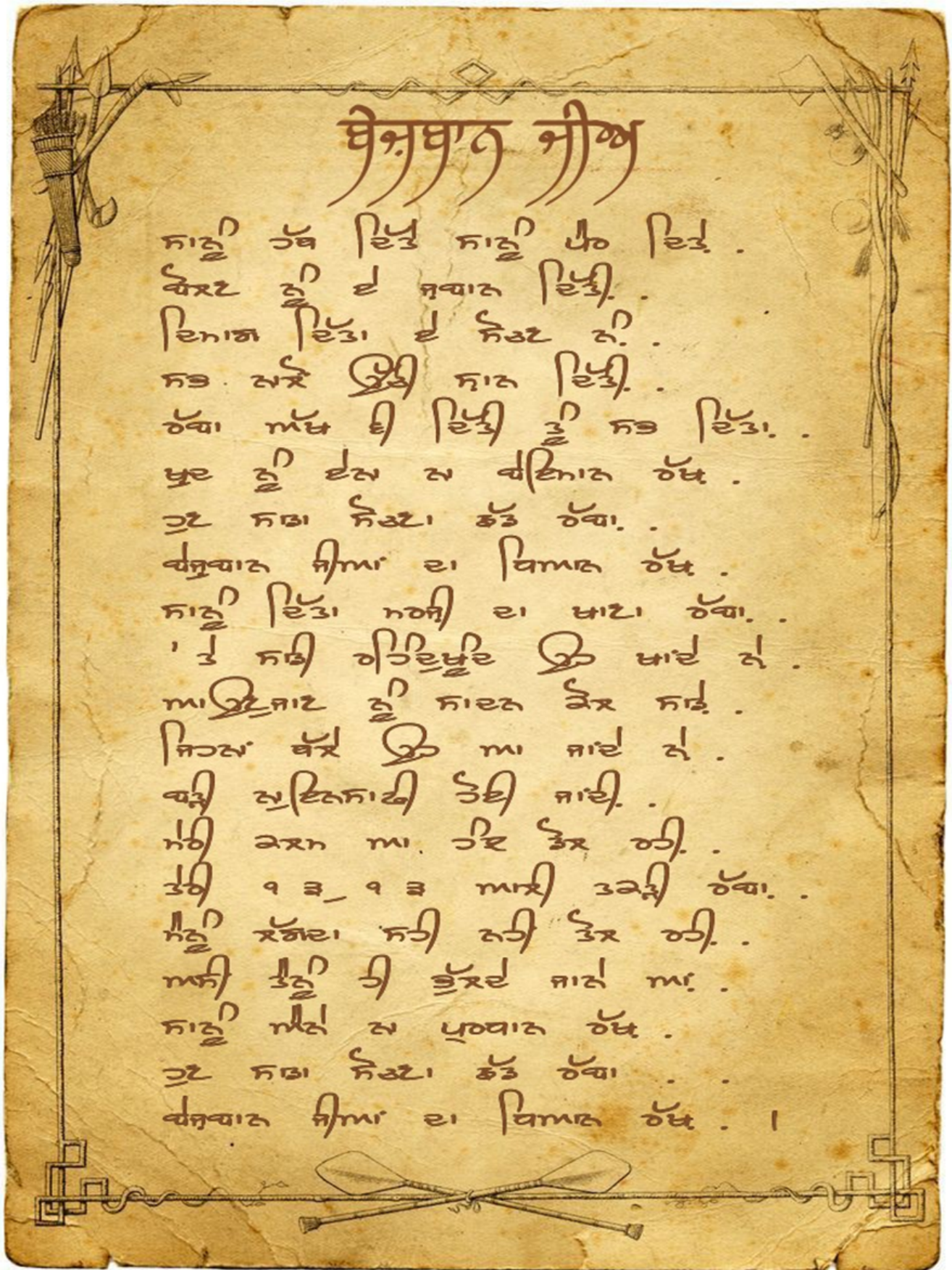
I have observed that people instead of learning something from social media platforms like YouTube they just get off from their track and are easily distracted by another comedy or funny videos and waste their precious time on these type of nonsense videos.

So youth should get aware of this trap of social media and should use the social media in a way that benefits them and that increases their knowledge instead of using it in false manner. so at last I want to conclude that whether social media is a curse or a boon it depends upon you that how you use it whether you use it in effective way or in destructive way.

LOCKDOWN

Sourav Jha (BCA 3rd Semester)

Lockdown is an action which deals with the prohibition of the movement of people of a country. In India, the historical lockdown was implemented for the first time from 25th March to 14th April 2020. It was extended up to 3 May and again up to 30 June. It was the government's initiative for lowering down the global pandemic Corona virus. The first case of Corona virus was recorded on the 30th of January 2020, in Kerala. When the total number of positive cases of COVID-19 raised up to 500, then on 22nd March PM addressed the nation and asked to be at home for 14 hours. Then on 25th March, he announced a complete lockdown. This 14 hours people's curfew was called "Janta Curfew". That further changed into lockdown and it was implemented to fight a battle against the deadly virus. Quarantine: A state of isolation with a complete prohibition on the arrival of people or even animals in a certain place due to some disease. During the lockdown, most of us were quarantined at our homes.



Babanpreet kaur (B.Sc.(IT)-3rd Semester)

HOW COMPUTERS CHANGED OUR LIVES?

Sameer Sheikh (BCA-1st Semester)

A Computer is an electronic device, which accept the data from users, processes it and output the results in the form of reports. The original objective of computer was to make fast calculations, but the modern computers can perform fast calculations and can store large volume of data. It can also perform various sets of operations known as modern computer programs. These programs enable computers to perform a variety of tasks. Computers has become very important nowadays because it is very much accurate, fast and accomplish many tasks easily. Otherwise to complete those tasks manually much more time and energy is required. Computers have made our lives easier and it is becoming more easy day by day because nowadays we can do everything on a computer. The various activities that we can do on a computer and which made our lives easier and fast are:- Shopping online, Solving any complicated problem by software, such as investment and finance. It is also a good source of entertainment. Computers also provide various types of games and people could enjoy and relax from everyday. Therefore, people's life become more simple and convenient.

There are both merits and demerits in a system. If there are merits, there must be demerits too. There are many disadvantages of computers. Nowadays online cyber crime is taking place in every situation. Some people do Cyber crime for their profit by hacking and stealing the data from the other users. In this Computer age, the employment opportunities have been reduced because a computer is a multi-task device. It can also lead to health problems because sitting for a long time on a computer is not good for health. To overcome these problems, we should take breaks where we can move around, stretch and exercise. A person who spends too much time on computer can face a problem like carpal tunnel syndrome as a computer requires a lot of repetitive movement. To delay or prevent these problems all we can do is to take a break and exercise for sometime.

Therefore, Computers are now a fact of life. It has changed our lives in a positive as well as negative ways. Computers have also created a very effective information system for the management of an organization. This makes it a much needed tool for every business, banking, government, entertainment, daily life, industry, education, and administration.

ARTIFICIAL INTELLIGENCE

Rishav Bhalla (BCA-3rd Semester)

Today in this Modern Era where Technology touches the peak where People are becoming Digital and advanced. There is a form of Technology that is very common and is growing at a faster rate which is called Artificial Intelligence . Artificial Intelligence in simple words is the ability of Computers or Machine to think, learn and behave like Human Beings. Artificial Intelligence nowadays is very common among people. AI has made our lifestyle easier and comfortable. Today in our Day to Day life AI has significant role from Mobile Phone to big Industries. AI leads to the development of Industries and marketing sector.

AI machines like Robots are there which work on their own without any need of instruction to them. With the development of AI large machines can be operated without Person's involvement. AI has also enhanced security systems. Burglar alarms are there which work on AI and detect any unfair means through sensors with the help of Control Panels. The Future Generations would be AI based generation where Robots, Machines would learn. Maybe in Future Advanced development in Artificial Intelligence can also surpass Human Intelligence.

FOCUS

Shruti (MCA 3rd Semester)

Focus can only occur when we have said yes to one option and no to all other options. In other words, elimination is a prerequisite for focus. As Tim Ferriss says, “What you don’t do determines what you can do.” Of course, focus doesn’t require a permanent no, but it does require a present no. You always have the option to do something else later, but in the present moment focus requires that you only do one thing. Focus is the key to productivity because saying no to every other option unlocks your ability to accomplish the one thing that is left.

Now for the important question: What can we do to focus on the things that matter and ignore the things that don’t? Before we talk about how to get started, let’s pause for just a second.

If you’re enjoying this article on focus, then you’ll probably find my other writing on performance and human behavior useful. Each week, I share self-improvement tips based on proven scientific research through my free email newsletter.

What I mean is that most healthy humans have a brain that is capable of focusing if we get the distractions out of the way. Have you ever had a task that you absolutely had to get done? What happened? You got it done because the deadline made the decision for you. Maybe you procrastinated beforehand, but once things became urgent and you were forced to make a decision, you took action. your attention is focused on it, you concentrate on it and think about it, discuss it, or deal with it, rather than dealing with other topics.

WHY LOCKDOWN IS BEST STRATEGY FOR INDIA TO FIGHT COVID -19

Gagan Kumar (BCA-3rd Semester)

The novel coronavirus has wreaked havoc across the world, affecting the global economy, killing over 3.2 million people and infecting millions. It is unlikely that a vaccine will be found soon, and we will have to adapt ourselves to living with the virus.

From hospital beds and ventilators to doctors and diagnostics, there is no doubt that India is completely unprepared if coronavirus cases keep rising. India has only 7 beds per 10,000 people, whereas China has 42, according to WHO. India has only 8.571 doctors per 10,000 patients as compared to Italy that has 40, China that has 19.798, the US that has 26 and the UK that has 28 doctors, according to WHO.

India spends only 3.5% of its GDP on health; China, 5%, Italy, 9%, the UK and US, 9.7% and 17.2%, respectively. On the other hand, in India the out-of-pocket expenditure on health is an appalling 65%, whereas it’s only 11% in the US, 15% in the UK, 23% in Italy and 35% in China.

Fortunately, data indicates that developing nations have an edge over the developed ones. The only requirement is to live with the virus while developing the required infrastructure. India needs to fight a race against the gestation time—fourteen days—of the virus. It can be done with the implementation of a model developed with the help of artificial intelligence and utilising the geopolitical advantages that India has.

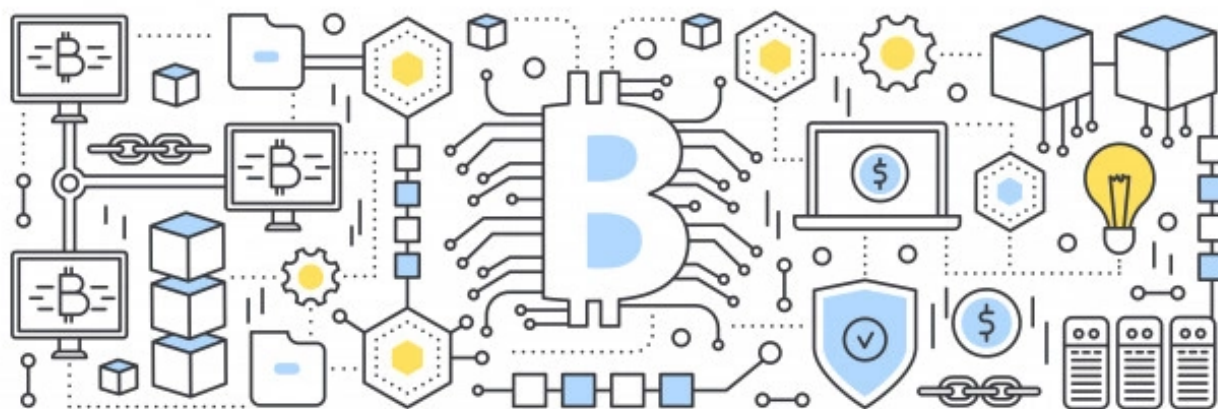
BLOCKCHAIN

Ms. Reena Agnihotri (Assistant Professor, FCS)

Today in this Modern world where Technology is all around and Upgradations and Advancement in technology are being made. There is Technology or key word called Blockchain which is becoming very common among people and has its hype all around there. Advanced innovations in technology has lead to the development of Blockchain technology. Blockchain in layman language is a decentralized system that keeps the record of every transaction made between the two users in a hidden or encrypted form that it makes difficult or impossible for the third person to track the record of transaction. Crypto Currencies like bitcoin, ripple, Ethereum, cardanol and dogecoin and many more work on the Blockchain technology.

Young investors are very interested in this technology as every transaction in this is in encrypted form. So no outsider can see the record of transaction being made.

Like in banks there is a centralized system means banks keep the record of every transaction being made by the people and it sometimes create privacy concerns among people. As people sometimes don't want anyone to see their bank balance. So Blockchain technology is best for them. People are now shifting from traditional banking systems to this new demanding decentralized technology known as Blockchain. Some are saying that Blockchain is the future whereas some are thinking that as there is no regulatory body among this technology. So it can cause some serious trouble. As different people have different perspectives. For some it's boon and for some it's curse. Again it varies from person to person. But if more enhancement could be made to this technology then i think it would be the future and it can also surpass the banking system completely.



“

*Blockchain is going to change
everything more than
the Internet has.*

PATIENCE POWER HOUSE

Ms. Neetu Vaid (Assistant Professor, FLA)

You are winner every time, can be winning always, the moment you show up your patience. And a very dear friend of my mine often repeats an anecdote that ends on a note “yes, you are right.” This makes me laugh as he offered an eternal advice to save my time and energy while falling prey to an argument. But saying this also needs patience and prompt wit. Patience is the power weapon of the strengthened hearts. Weak go rash, chicken-hearted squeak louder than normal beings and grop in the dark world of violence and wildness. Some go beyond and take up rusty arrows of revengefulness with roughness and rudeness. But a wise man has wisely said” It is better to be tough than rough” I personally back him up.

Patience has taught people much wiser lessons that words have failed to do. Practiced at right time, Patience can be precious. It can save you from various verbal as well as non-verbal ruinous moments.

I would like to uncover an episode that could moisten many eyes without hurting hearts. A mother is the one who loves her child most unconditionally. What can be sadder for a mother when she happens to witness the ever-unaccredited plight of her daughter who is apple of her aging eyes?

She can only bear but cannot react. Never has she complained to her son-in-law about the same. Rather she keeps on flooding her daughter’s mind with the duties and services which the latter needs to perform smilingly, shedding all those temporary frowns and again clinging to her family care rightfully.

Her daughter eulogizes her by comparing her to Mother Earth. But simple lady laughs and teaches her daughter back, “Bearing can be tough, but not impossible. To break something (relation) is very easy but to bear this point that you will not let that something break, gives you inner strength and to master that strength to make it your crowning virtue you need to exercise patience.” Salutes to that mother who is patient to the peaks! She preaches her daughter the ruling power of patience and simultaneously the best and most universal guidelines to never break the chain of her close ties in life.

Her daughter chooses the path shown by her mother. Though broken inside in the want of love and care, she never steps out of that private periphery of rippling relations. And this is how patience was patented in that house on the souls of some specifically.

“

Patience is power.

Patience is not an absence of action;

rather it is "timing"

it waits on the right time to act,

for the right principles

and in the right way.

TRUST IN TRANSACTIONS

Ms. Niti Moudgil (Assistant Professor)

Today as a civilization when we start companies or any transactions, we start with an automatic assumption that the counterparty cannot be trusted. Trust is very core to Business. Trust is the fundamental part of commerce and that's the actual gap in our society. Another gap which is very challenging to fulfil is the benefits of Middlemen. Middlemen are the entities that are responsible for keeping a copy of our daily transactions and earning money from us. So, every time we perform a transaction from one person to another, from one place to another using e-commerce, these intermediaries are earning profits. Every time a transaction takes place, money transfers between banks, Insurance companies, financial institutions and other regulatory bodies. These third-party intermediaries are making profits with our daily performed transactions that too without having our trust. This e-commerce on the Internet is exclusively dependent on third parties' services..

Actually, the payment and cost uncertainties can be avoided in just a simple manner i.e., the person can use the medium of exchanging physical currency with the intended person. The prevailing mechanism cannot be done in the case of electronically transfer of funds from one person to another person. The transactions taking place on internet via e-commerce has a lot of flaws regarding trust. Trust, in the terms of making money from an unaware person who hardly know the broker system and secondly, in the terms of sharing his own personal information openly over the network. There is a new word in the market which promises to have potential to change our lives, having a trust-based mechanism upon which the whole world can rely, and this invention is called Blockchain. Blockchain is early like in the internet in 1990's and it can be as big as not like just a use case of internet like e-commerce, email and social networking sites. It is a fundamental and parallel technology to the internet that have the potential to change our lives in the next 20 years, like the same way the internet has changed.

“

Leadership requires five ingredients

'brains, energy, determination, trust, and ethics'.

The key challenges today are in terms of the last two

'trust and ethics'.

Sports Corner

Taranpreet Kaur, a B.Sc-IT undergraduate student in the Faculty of Computational Science at GNA University, won a gold medal at the 14th INDO-NEPAL Karate Championship. The tournament was held between Indian and Nepalese players in Batala . She stood first among other contenders which heightened the pride of the nation. Over 400 players from various regions of the country took part in this championship.

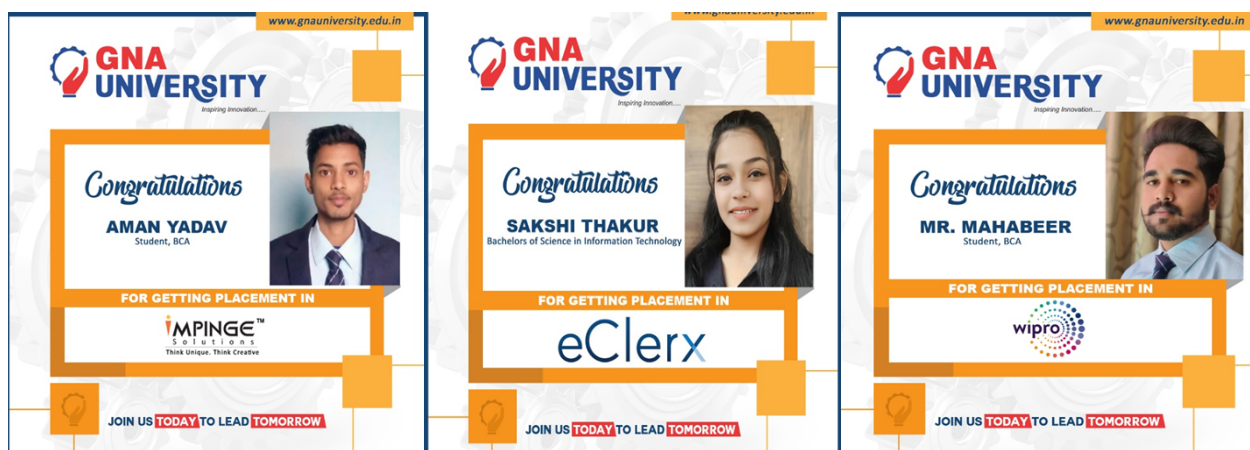


Badminton Team of FCS Department

NCC Corner



Placement Corner



STUDENTS PLACED IN 'THE KNOWLEDGE ACADEMY'

Twenty students from final year of MCA, BCA and B.Sc.(IT) were placed in 'The Knowledge Academy', Dubai under the following designations such as Content Writer, web developer, digital marketing assistant , quality control and networking assistants.

