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TECHZINE

Insight and Progress

2019
VOLUME — 5

Our Special Thanks To

Rev. Fr. Varkey Perekatt, S.J. (Rector)

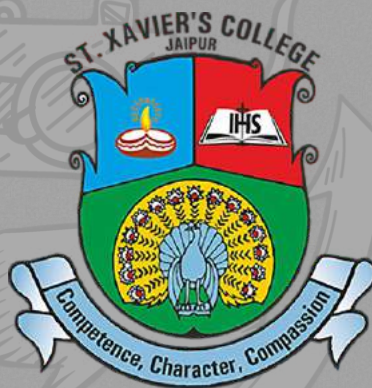
Dr. Sheila Rai (Principal)

Rev. Fr. Joshy Kuruvilla, S.J. (Vice-Principal)

Rev. Fr. S. Periyannayagam, S.J. (Administrator)

Rev. Fr. Sherry George, S.J. (Treasurer)

All HODs and all departments



X - TechZine

Insight and Progress

Computer Science Magazine
Session (2018-19)

Department of Computer Science

St. Xavier's College, Jaipur

(Approved under section 2(f) and 12(B) of UGC Act, 1956)

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Editorial

“Technology is best, when it brings people together”

~matt mullenweg

Dear Readers,

On behalf of the Members of the Editorial Team, I take this opportunity to present the bits and bytes of the Technical Domain of St. Xavier's College with this fifth Version of the X-TechZine Magazine of Department of Computer Science. We have come up with the Techno tour of the panels and clipboards of all the Events and Activities of the Department including various informatory articles by students and faculties of the department.

The Great Growling Engine of Change and Creativity is the Technology, while, fostering creativity and stimulating innovation is the primary need of an effective education system. The X-TechZine magazine is an impeccable amalgamation of both. It is not only a productive technical skill developing tool for the students, but, it also has facilitated harnessing of ingenious strength of the student fraternity, and inspired them to absorb the essence of their imaginations and innovating ideas. Each and every members of Tech-X Club 2018-19 contributed their best to bring out this Version. I would like to applaud the coordination and efforts of the Kasvi Khandelwal as the Editor of Student Corner, Kamal Chirag and Arpit Sethi as the lead of Design and Creativity Desk.

I exclusively thanks to my Department Head, Ms. Arpita Banerjee for giving me the opportunity to lead this TechZine 2018-19. I sincerely extend my gratitude to the Management, teaching and non-teaching staff, entire editorial team, Tech-X Club members and all my department members, who directly and indirectly became the supporting pillar of this Magazine.



Dr. Madhu Sharma

Editor
Assistant Professor
Department of Computer Science
St. Xavier's College, Jaipur

Editorial

. “Technology is so much fun but we can drown in our technology. The fog of information can drive out knowledge.”

The TECH-X Club seeks to build interest in future technology amongst students. The objective of the club is to bring forth students, excellence in the technology and new media industries and to raise awareness of technology and trends. It will help students to keep abreast with latest skills in IT, apart from regular IT syllabus, and will give them practical hands experience. The club will also help to encourage an awareness of the impact of technology on society and the environment.

To channel the growing interest in technology and innovations, Mr. Dharmveer Yadav(Former HOD, Computer Science), with support of faculty members and students of BCA department , took the first step in starting the Tech-X. This provides us the opportunity to express our ideas and imagination intelligently, creatively and innovatively.

We try to engage the college community by publishing their creative content annually and through continued and rapid reporting about college events and technical workshop. In the end “Once you can write an alphabet, you can write a book of 100 million pages. It's just a matter of believing it as possible, and taking the cross millimetre by millimetre.”

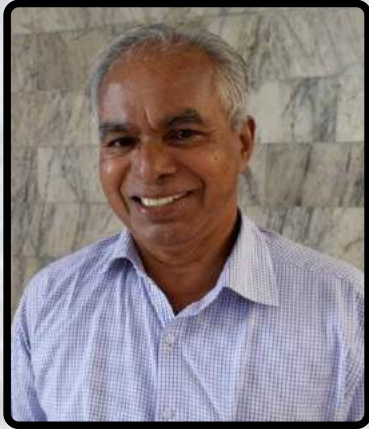
We hope this magazine keeps you immersed throughout.



Kasvi Khandelwal

President
Tech-X

MESSAGE



Fr. Varkey Perekatt, S.J

Manager and Rector
St. Xavier's College, Jaipur

I am delighted to know that the computer science department of St Xavier's college ,jaipur, is growing its roots deeper with every passing year and is creating new milestones in each new academic session.

Education enables learners to develop and balance intellectual, emotional and moral discernment that further equips an individual to face challenges, accept failures as stepping stones and perceive the right opportunity. The untiring efforts of the students along with teachers are very well reflected in this issue of the X-TechZine magazine.

I extend my heartiest congratulations to all the members of the editorial team and the students who have dedicated their efforts in showcasing their talent in such an aesthetic.



Dr. Sheila Rai

Principal
St. Xavier's College, Jaipur

It is rightly said that

“A dream becomes a goal when action is taken towards its achievement.”

In this era of cut throat competition, it is said of paramount importance to be equipped with appropriate knowledge, habits, attitudes and values leading to holistic development. It is a matter of deep appreciation that the young technocrats of St. Xavier's College, computer science department are ready with another issue of X-TechZine magazine.

In today's dynamic world, computer science plays a vital role and I am glad that students have showcased their talent in the form of this magazine. It depicts the vivid progress taking place in field of technology and keeps us abreast with the updated developments in digitalization. I wish the team success in all the future endeavors and bless them to pursue ahead with diligence, devotion and dedication.

MESSAGE

Since its inception, St. Xavier's college has carved a unique niche in the field of higher education in the pink city due to its unique blend of activities within and outside the classroom. Our endeavor has always been to strive for excellence and leave our footprints on the sands of time. And this issue of our technical magazine will help people to become acquainted with the technological development and the progress in the field of technology. I extend my heartiest congratulations to the editorial team on the admirable work done in bringing out the magazine.



Fr. Joshy Kuruvilla, S.J.
Vice Principal
St. Xavier's College, Jaipur

Our goal is to change the world through Education. It may sound idealistic, but this is precisely our mission. I am glad that the department of computer science has come out with its 5th edition of X-TechZine that showcases the talent of young technocrats and the upheaving progress in the field of computer science.

I extend my heartiest wishes to the team for taking this wonderful initiative in bringing out TechZine. I wish that this magazine brings a new era of joy and enlightenment to the readers.



Fr. S. Periyannayagam, S.J.
Administrator
St. Xavier's College, Jaipur

MESSAGE



Fr. Sherry George, S.J.

Treasurer

St. Xavier's College, Jaipur

It is indeed a great pleasure to have a fifth edition of X-TechZine that showcases the budding talent and creativity in the field of information technology. This magazine provides a platform to students to come forth and show their creativity and build bridge for all to comprehend the management and excellence of this great institute. It will serve as a guiding lamp for the young ones to get a better understanding of IT-sector

The new era requires such kind of changes and innovations, which are helpful not only for the IT students but other people from different sectors. I would like to congratulate the students who worked really hard for the publication and I wish them immense success.



Ms. Arpita Banerjee

Head of Department

Department of Computer Science

St. Xavier's College, Jaipur

Dear Readers,
Greetings to You!!

I am glad know that our Bachelor of Computer Application Department students are once again successful in bringing their fifth issue of magazine "X-Techzine" for this academic year 2018-2019. The efforts taken to bring about innovative content is appreciable. The most important aspect I could derive from this stupendous effort is that it brings out the various technical and analytical skills of the budding students and teachers. I express my compliments to the Tech-X council, the editors and their dedicated committee for their valuable efforts in bringing out this issue. I wish them to experience victory in all of their future endeavors.

Happy Reading.

The need of the hour is to root BCA students strongly in a constructive work Ethel. I am extremely happy to know that our Department of Computer Science with Tech-X club is bringing out the Dept. Magazine X-TechZine for the year 2018-19. Each year, our team of editors, designers, photographers, and correspondents, in addition to generating creative content from the student populace, work extensively to report on events in and around dept. and college. The final publication reflects and encompasses the diversity inherent to the academic and extra-curricular spaces in Xaviers.

It was quite inspiring to watch and witness the potential of our BCA students unfolding at various stages and situations each day. I hope the informative and resourceful X-Techzinemagazine will enhance creative talents of the students of St. Xavier's College, Jaipur.



Ms. Vaishali Singh

Assistant Professor
Department of Computer Science
St. Xavier's College, Jaipur

The ability to learn is a gift. The ability to learn is a skill but the willingness to learn is a choice. It's a delight to be among such bright and zealous students. Holistic education is the hallmark of St. Xavier's College. Wisdom and ethics together create the 'A-factor' of Xavier's. I congratulate the students of the editorial board for the hard work that they have put in for bringing out the magazine.

This magazine provides a platform for students to come forth and show their creativity and build bridge for all to comprehend and excellence of this great institute. I feel greatly blessed with love and mercy of god who made to sail safely to the shore. I look forward to yet another year filled with learning and mutual growth.

I take this opportunity to congratulate all members for bringing out this volume of TechZine Magazine, as per the scheduled time.

I wish them all success



Mr. Dharamveer Yadav

Assistant Professor
Department of Computer Science
St. Xavier's College, Jaipur



Digital communication is more than just a fact of life. It is life, integral to the professional and personal existence of many students and teachers. Providing ample opportunities in technical education is one of the most fundamental obligations we owe to our students because in Xavier's, we are driven by the belief that every student deserves a high quality education.

Ms. Priyanka Mishra

Assistant Professor
Department of Computer Science

Do not take shortcuts in your life path to knowledge, wisdom and education, because your life is reflected in all aspects of character- the decision, we make, the friends we choose and the responsibilities we accept. Your work is to discover your world and then with all of your heart give yourself to it. What are you is god's gift to you. What you become is a gift to god. Bring out all the best you have and share it with others. I wish great success to students of St. Xavier's College, Jaipur.



Keren L. Daniel

Assistant Professor
Department of Computer Science
St. Xavier's College, Jaipur



There are several ways to present the canonical core of computer science. The department of computer science imparts technical education to students to make them globally competent in this challenging world. The students at St. Xavier's College, Jaipur are given every chance to explore their talents and encouraged to take initiatives. X-Techzine is a result of one such initiative.

Rajeev Nokhwal

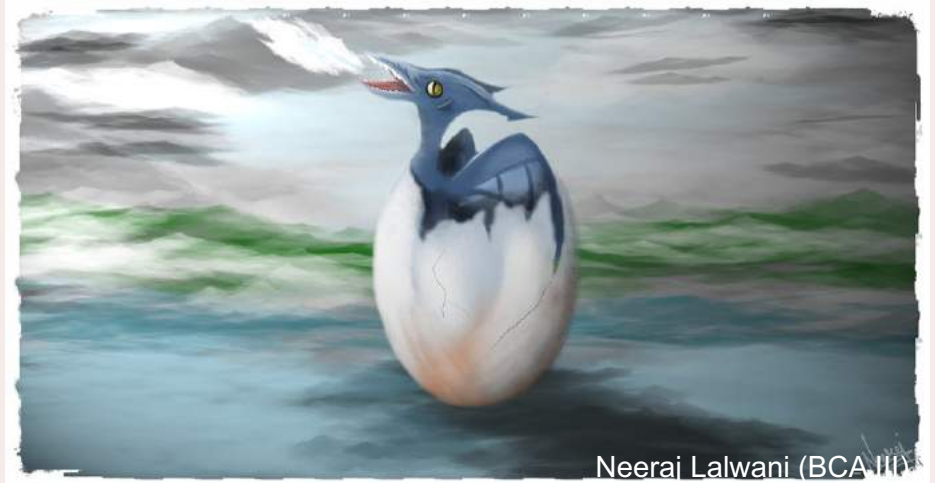
System Administrator
Department of Computer Science
St. Xavier's College, Jaipur



creative block



Preshit Goyal (BCAI)



Neeraj Lalwani (BCA II)



Neeraj Lalwani (BCA III)

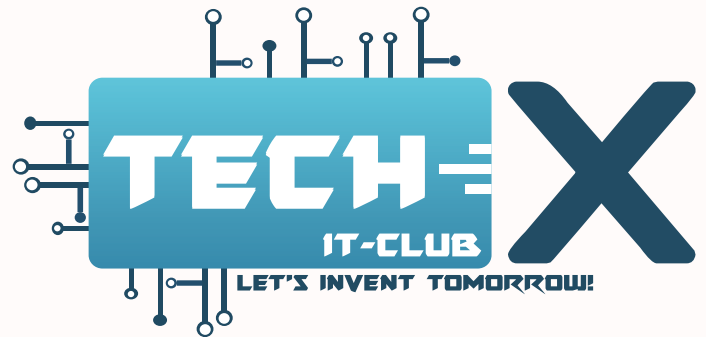


Neeraj Lalwani (BCA III)

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TECH-X



DEPARTMENT OF COMPUTER SCIENCE ST. XAVIER'S COLLEGE, JAIPUR

The motive of the Tech-X IT club of the department is to provide a platform to the students to work on various IT issues around the world through different activities. The club takes up the responsibility and supports the conduction of seminars, workshops, events and training programs throughout the year. Every Year, core committee members are selected from BCA Final Year students and are being designated gracefully and formally through the investiture ceremony.

Tech X Club Committee 2018-2019



Kasvi khandelwal (President)



Poonam Yadav (Vice President)

Rohan Mittal (Vice President)




Riya Gurbani (Secretary)

Kamal Chirag (Joint Secretary)



Raghav Chaturvedi (Joint Secretary)



Vipul Jagwayan (Joint Secretary)

Mohit Sharma (Class representative & Technical Head)

Shree Krishna Soni (Class representative & Technical Head)





Investiture Ceremony Tech-X It Club



In this session, the Investiture Ceremony of Tech-X IT Club was held on 14th November, 2018. The event was graced by Fr. Varkey Perekatt S.J., Rector, St. Xavier's College, Dr. Sheila Rai, Principal, Fr. Joshy Kuruvilla, Vice Principal, Ms. Arpita Banerjee, Head, Computer Science Department and all the faculty members of the Department.

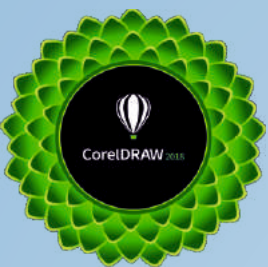
For the session 2018-19, Kasvi Khandelwal of BCA final was appointed as the President, Rohan Mittal and Poonam Yadav, both were appointed as the Vice President, Riya Gurbani as the Secretary, Raghav Singh Chaturvedi, Vipul Jagwayan and Kamal Chhirag were appointed as Jt. Secretary of the IT Club.

ORIENTATION DAY

To make an ease in the transition from high school to higher educational system for newly admitted students, an orientation program was organized by the department on 20th July, 2018. The program was aimed to familiarize the students with the University rules and regulations, examination information, college values, vision, mission, standards, facilities, student services and responsibilities. The program started with the formal welcome of the students, then a presentation based on the detailed program structure and evaluation criteria was given.

Faculty member of the Department were introduced to the students. The students were also briefed about how to approach IT job market. They were informed about various workshops and training programs conducted in the department and how these workshops and training sessions can help them in fetching jobs in IT sector. An interactive session with the department Alumni Prakram Rajawat, presently working with Times Group was also conducted. The department head, Ms. Arpita Banerjee extended a warm welcome to the new entrants and informed about the basic norms to be followed in the classes and laboratories. She also made students aware about the various career opportunities in the field of Computer Science and Technology.

Few interesting games and activities like IT Quiz, were also conducted by the members of Tech-X club and other senior students to sweep up off their hesitation and involves themselves as part of the group. Senior students displayed their contribution in various department level and college level fests and various activities. They also informed them about various exchange programmes, Inter-College fests, conferences and social development activities conducted by the department in the past. The new comers were also introduced about the clubs and upcoming events of department and college. This event was expected to imbibe wisdom of dedication and responsibility of the students for their sustainable growth.



CorelDraw & Photoshop Workshop



A one month workshop on CorelDraw and Photoshop was conducted by the Department in joint collaboration with the Arena Animation, a reputed Jaipur based Graphic Designing and Animation Organization. The Workshop was coordinated by Dr. Dharmveer Yadav and Dr. Madhu Sharma with the valuable support of the Department Head, Ms. Arpita Banerjee and all other faculty members of the Computer Science department. The Workshop began on 7th September, 2018 with students' participation from various disciplines of St. Xavier's College, Jaipur as well as the students from other colleges. Participants learnt various skills relevant to the CorelDraw and Photoshop Graphics Application Software and were able to design business cards, brochures, letter heads, envelopes and logos and perform various operations on images. The creative desk was gracefully winded up on 31st October, 2018, and graced by the presence of Rev. Fr. S. Pereanayagam, S.J, Administrator, St. Xavier's College, Jaipur, Ms. Rolika Singh, Director, Arena Animations, Ms. Kasvi Jain, Multimedia expert, Arena Animations, Jaipur and the faculty members of the department. On the day, the participants' showcased and projected their digital creative hues. Rev. Fr. S. Pereanayagam, S.J, appreciated the young talents and motivated them to apply the learned skills in the practical world of designing and creativity. Ms. Rolika Singh and Ms. Kasvi Jain, also conveyed their best wishes to the participants. An insightful feedback was also given by the participants. The workshop was successfully completed with the certification of all the participants.



DIGITAL POSTER MAKING COMPETITION

An Intra-college digital Poster-making competition was organized by the Department on 14th November, 2018. Students from different disciplines participated with great enthusiasm to showcase their talent and creativity on the themes – “Digital India and Zest’19. The Competition was coordinated by Dr. Dharmveer Yadav and Dr. Madhu Sharma and supported by Department Head, Ms. Arpita Banerjee.

Winners and participants of the competition were certified by Rector Rev. Fr. Varkey Perekatt, Principal, Dr. Shelia Rai Vice Principal & Rev. Fr. Joshy Kuruvilla S.J. Kunal Mathur (BCA III) won the first prize and Astha (BCA I) won the second prize in this competition.



Soft Skills Training

A Soft Skills training program was conducted by the department on 26th November, 2018. The program was coordinated by Ms. Keren Loius and Dr. Priyanka Mishra. Mr. Ashish Parnani, Certified Master Trainer & Facilitator, MiddleEarthHR, was the featured speaker. Dr. Sheila Rai ,the principal welcomed Mr. Ashish with a floral greeting and Fr. Joshy Kuruvilla, Vice-principal also participated by placing himself one amongst the students. The UG and PG both students of the department participated in the training session of soft skills which lasted for 3hrs. The trainer inspired the students to get soft skills training in a regular basis which is the key chord to be struck when it comes to grab the opportunity in the world of success. The emphasis on a good communication was explained with activity that made the students more understandable. He said that communication is to be done not just to say something but to ensure that the receiver understand the subject in the same manner as the presenter. The body language and the mode of conduct in front of an interviewer or in any work place was explained very well. His session was very educative and interactive with included activity that made the students participatory. The session was lively with his personal experiences being shared. After the session there was a query round in which students had their question answered. The Program ended with a vote of thanks and a token of appreciation was given by Fr. Periyamayagam, Administrator, St.Xavier's College.





BHAMASHAH TECHNOHUB

A visit to Bhamashah Techno Hub, for students was organized by the department. Twenty eight students from the department accompanied with the faculty coordinator Ms. Keren Louis visited the techno hub on 14th December, 2018. The state government has developed this techno Hub at Jhalana, Jaipur. This hub is known as the Asia's biggest and an advanced Incubation Centre, to support the rising entrepreneurs, provide connectivity with the investors, easier funding and mentorship. Firstly, a PPT presentation was shown to the students about the purpose, making and the facilities provided to startups and the relevant criteria and about the government schemes and support for startups.

The students then visited the area where people plan and work for their startups. The place was well equipped and provides perfect work environment with all needed aids and facilities. The hub also had tinkering lab where the humanoid robot danced on bollywood tunes and performed yoga postures also. On the 7th and 8th floor, there was a digital museum which had all generation of phones in working condition. An insightful demonstration of various machines like 3D printer, many technological games like virtual rollercoaster, virtual paragliding, photo booth and the magical planetarium were also provided there by the employees of the hub. It was really an overwhelming experience for all the students.



INTERNATIONAL CONFERENCE

The department organized and conducted a Technical Session “Advances in Information Technology and Creating Future” on 19th December, 2018, in a two day multidisciplinary international conference organized by the department of English. The session was conducted on the second day of the conference. The Resource persons of the session were Dr. Meenakshi Tripathi from MNIT, Jaipur and Mr. Vipin Jain from MetaCube Company, Jaipur. The session began with the floral welcome of the resource persons by the department faculties. A brief introduction of the session was presented to begin the discussions and research addressing. Dr. Meenakshi Tripathi talked about Reflection, security issues and threats in Android. Mr. Vipin Jain discussed about the technological revolutions occurred in the last hundred years and focused on the current needs for the development of companies. The conference session was attended by researchers, academicians, industrialists and students from different organizations of the city, as well as from other states and countries. Technical papers on various topics relevant to the recent innovative trends in Information Technology were presented by the researchers. Organizing Committee member and the department faculty, Dr. Dharmveer Yadav, extended his heartfelt gratitude to all the resource persons, participating researchers, students and supporting committees for making the successful attempt of holding this session.

E SUMMIT

The Entrepreneurship Summit (E-Summit) was the event conducted by the department through Entrepreneurship Cell of the College in collaboration with IIT Roorkee, a session to discuss attractions of E-Summit 2019 to be held at IIT Roorkee on 2-3 February, 2019. The event was coordinated by Ms. Arpita Banerjee and Dr. Priyanka Mishra along with Mr. Salim Khan, Head B.B.A. department. The purpose of the program was to foster and sustain the entrepreneurial spirit among students and youth. The theme of the summit incorporated the vision of bringing in the entrepreneurial mind set in the posterity of students. The event involved students, faculties and e-cell representatives of both colleges to discuss and make them aware of the opportunities available to venture out in the world of entrepreneurship. This e-summit proved to be the home of extensive networking, inspiring stories and a breeding ground for future entrepreneurs. The competitions thought to include and discussed in E-summit were: Conclaves, Idea storm, leadership series and Workshops.

MARMELOS HOUSE



TRIP

Just the word 'picnic' brings a cheer and smile to the face of students, whether simply going to a park or a historical monument or any other place. The atmosphere is one of excitement, fun and frolic. We went to Marmelos House (The Rajwada Palace) on 25th January, we reached the destination by bus. As soon as the destination is reached, a group is formed and proper instructions are given so that there is no confusion on any account and no child gets lost. We all were served with such a delicious breakfast and welcome drinks. After breakfast we had cricket match of seniors and Juniors it was great fun playing with our seniors and teachers.

After so much of excitement one definitely gets hungry and why not? Eating together is equally full of fun and so all the students gather to enjoy their lunch. All teachers and students enjoyed their delicious food. After lunch it is time to dance, definitely picnics can't end without dancing, every single one was dancing on their own enjoying music doing whatever they wanted to do, dancing was the best part of the picnic. We all clicked lots and lots of pictures and videos with our teachers, friends.

How time flies? Before we know, the instruction to assemble for departure are given and then begins the appeals from all students to extend the time a little longer, but, a firm 'No' dampens our spirit. Nevertheless, leave we must, and though a little sad but happy and satisfied, we start forming lines like good, well behaved children.

All picnics are interesting outings, a good source of enjoyment and learning experience. We also come close to our teachers and can see their other side too i.e. their fun loving nature. In short, students not only learn in their classrooms but beyond it, through picnics which encourage a feeling of oneness, togetherness, belongingness and a spirit of friendship.

~BCAI Students



Marmelos House
(The Rajwada Palace)

Student Research Project

E-Guest Book: E-guest book was designed and developed by the team of BCA students from the Department of Computer Science under the supervision of Ms. Vaishali Singh, faculty, Department of Computer Science and member of research cell of St. Xavier's College, Jaipur, to maintain records of the guests who visited in various college events. Its main aim is to obtain their feedback and experiences, in a user friendly manner. The project was tested during the Interdisciplinary International Conference on Contemplating the Past, Capturing the Present, Creating the Future (An Inter-disciplinary approach to Life) 7-8 December 2018 held in our college. The team provided links of the e-guest book and obtained their views and feedback. The concept of E-book review was a new concept and was appreciated by the visitors. While the project was live the team came up with some ideas which made the project more impressive. Kamal Chhirang (BCA III), Kasvi Khandelwal (BCA III), Mohit Sharma (BCA III), Dharvi Bansal (BCA I), Mohit Sharma (BCA I), Shivendra Singh (BCA I), Shourya Agarwal (BCA I) were the active team members.

A Study of awareness about ITA -2000 for Indian Youth: This project is based on a study of awareness about Information Technology Act 2000 for Indian Youth. The Information Technology Act 2000 popularly known as ITA-2000 is an Act of the Indian Parliament. It was announced on 17th October 2000. It is the primary law in India concerning with cybercrimes and e-business. In this project, the team focused to spread its awareness among Youth. Few awareness campaigns were conducted and then primary data from the age group of 16 to 25 years of age group was collected through a structured questionnaire using Google Forms. It has been inferred that the lack of awareness about this act among Indian youth could be responsible for more Cyber Crime. The study was done by the team of BCA students from the Department of Computer Science under the supervision of Ms. Vaishali Singh, faculty, Department of Computer Science and member of research cell of St. Xavier's College, Jaipur. Aditya Sharma (BCA 3), Shree Krishna Soni (BCA 3), Riya Gurbani (BCA 3), Harshit Jalan (BCA 1) were the active members of the project.

Awareness level of Health care & Private Multi-specialty Hospitals in Jaipur: The department students also participated in research project titled "Awareness level of Health care & Private Multi-specialty Hospitals in Jaipur" under the supervision of Ms. Vaishali Singh, member of Xavier's Research Projects committee (XRPC) in collaboration with Bureau of Rajasthan Market Research Company. In the month of November the collaborative research project was completed with the contribution of students and teachers. Aditya Sharma (BCA 3), Mohit Sharma (BCA III), Dharvi Bansal (BCA I) and Mohit Sharma (BCA I) were the key student members.

In addition, students also participated in various conferences and presented research papers. Few of the department students have written research papers for the department Journal on topics like Networks Threats in Cloud Computing (by Kasvi BCA III), Misuse of Cloud Infrastructure (by Poonam BCA III), Luring Attack in Cloud Computing (by Rohan Mittal BCA III), under the supervision of Ms. Vaishali Singh, faculty, Computer Science department.

Student Exchange Programme



Meghalaya Tour

To facilitate cross cultural learning experience, provide great exposure and broaden students' minds academically as well as culturally, a student exchange program was organised from 19th to 27th November, 2018, in collaboration with the St. Loyola College, Williamnagar. Two M.Sc. IT students Ashish Saji and Kevin participated in this program. During this trip, the students visited various cross cultural places and naturally flourished stations like Mawlynnong Village, Cherapunjee, Umnagot River, Balancing Rock, Mawsmai Caves and Root Bridge, Simsang River, Monumental Park, Suspension Bridge and had a glimpse of Williamnagar market, Don-Bosco Museum, which focuses on local indigenous people and culture, with tools, clothing and artefacts of Garo, Khasi and Jaintia hills. It was a memorable experience for all the students.

Nepal Tour

Located in the core of the city is the pride of Kathmandu St. Xavier's College, Maitighar- An institution known for its discipline and excellent academics. It is very well known for its courses in Arts, Social Work, Computer Science and Business Studies. Our Exchange Program to Kathmandu officially started from Inaugural Ceremony which was held on 27th November 2018. Total 9 students including one from BCA final year, accompanied with Faculty Coordinator Ms. Vaishali Singh, Department of Computer Science were felicitated with sashes. Our trip to Kathmandu concluded by closing ceremony on 30th December where our students presented a power point presentation on their experience at Kathmandu and showed a jest of our culture through dance and music performances. This Exchange program was enlightening experience for both colleges. This student exchange program impact has left us with many new things to learn in every aspect of life.

Student Participation in Other Activities

The department students with the AICUF cell, college coordinator Ms. Keren Louis, faculty department of computer science worked on numerous social serving activities like 'education for all' awareness programs, cleanliness drives, health and hygiene awareness camps etc.

The department students participated in "The screening of the feature film "Gandhi," in the college auditorium organized on 1 st October 2018 by the Xavier's research cell, with the aim to orient the youth towards Gandhiji's thoughts, methods, teachings and ideals and his contribution to the national struggle for freedom. A lively discussion that ensued prepared the ground for the Special Project on "Gandhiji and Youth "taken up by the students.

The department students participated in Poster Making activity in the college on 2 nd October 2018, where teachers and students came together with great enthusiasm to don up their creative caps and bring forth the Gandhian symbols of Khadi, Charkha, truth and non-violence through colour and caption.

On 18th January 2019 Research Project Presentation Session was organized by the Research Cell on Theme "Inspiring Innovative Intelligence". The BCA students summarized their work and a PPT Presentation was made by students in presence of renowned academicians. Project presentation from BCA Discipline covered the project topic E-Guest Book and A Study of awareness about ITA -2000 for Indian Youth.

As the part of curriculum and to give students a taste of practical exposure, the department conducted one day activity on 'Social Cyber Awareness" under the guidance of department faculty Ms. Vaishali Singh. The event covered approx. 30-40 presentation ranging the topics from Medical Problems related to Excessive use of IT, Social Media Literacy, Fake News, Cyber Law, Cyber Crime etc.

STUDENT PLACEMENT

A career in the field of computer science has been proven to be a worthwhile direction for any young enthusiast who has zeal to work with the technology. With the wide ranging career paths, the possibilities and opportunities are becoming endless and are increasing everyday with every next step. With this advantage of the field, the department students get the chance to appear in ample of placement drives. Many students have been placed in the final year of their course, as per their skills in reputed companies with a decent package. With the support of the College placement Coordinator- Mr. Salim Khan & Department placement Coordinator Ms. Keren L. Daniel.

Placement Details on the Students who got placed

<u>S.no</u>	<u>Name of the student</u>	<u>Company</u>
1	Aaron Bethel Raj	Infosys
2	Aditya Sharma	Infosys
3	Dhruv Nowal	Infosys
4	Rhytham Somani	Infosys
5	Chitransh Mathur	Infosys
6	Sakshi Sharma	Infosys
7	Yasho Vikram Singh	Wipro
8	Niraj Sharma	Tata Consultancy
9	Rahul Khandelwal	Capgemini



Aloha

A farewell with theme 'Youniverse: Experience your Memoir!' was organized on 26 February, 2019 at St. Xavier's College, Jaipur. The final year students received various awards for their excellence in academics, technical, sports, cultural etc. Few Informal titles were also given by the juniors to add-on a fun streak to their college memories. All clubs also devoted their presentations to their out-going seniors. Fr. Rector and Principal of the College conveyed their best wishes to the students for their brighter future.

Awards of Excellence 2018-19

Pride of Department :- Mohit Sharma

Award of Excellence in Music :- Aaron Bethal Raj & Rohan Vateani

Award of Excellence in IT & Web Skills :- Rohan Mittal, Mayank Batra & Shree Krishna Soni

Award of Excellence in Leadership & Organisational Skills :- Mohit Sharma

Award of Excellence in Meritorious Academics(Computer Science) :- Anirudh Jhalani



E-WASTE AND ITS MANAGEMENT

In current scenario, with an accelerating usage of electronic items by the mankind, e-waste is also growing voluminously with the same pace. Electronic waste or E-waste includes the discarded electrical or electronic devices or its components or any consumer and business electronic equipment that is near or at the end of its useful life can be included in the category of e-waste. Few of the examples of electronic waste are: Equipment like Television sets, computer monitors, CPU, printers, scanners, keyboards, mouse, cables, circuit boards, pen-drive, lamps, clocks, calculators, mobile phones, phone chargers, cameras, radios, VCRs, DVD players, CD players, headphones etc., Laboratory equipment like microscopes, ammeters, voltmeters, calorimeters etc., Kitchen equipment like sandwich maker, toasters, mixer and grinder machines, food processors, coffee makers, microwave ovens etc.

Electronic scrap components contain potentially harmful chemical elements like lead, cadmium, beryllium etc. Recycling and disposal of e-waste may involve significant risk to health of communities. The informal processing of e-waste can lead to adverse human health effects and environmental pollution, which now, has created a serious challenge to our society.

According to an International association, approximately 50 million tons of e-scrap was generated globally in 2018, with half of it was personal devices such as computers, screens, smartphones, tablets and televisions, and remainder being larger household appliances. It has been revealed that about 20 percent of global e-waste is recycled each year, and rest of the e-scrap is either placed in the landfill, burned or illegally traded, which results in the loss of valuable raw materials, and raises the health, environmental and societal issues. Thus, safe and careful methods are required to be adopted to avoid hazardous exposure of such waste to the mankind. Also, there is a colossal need to create awareness among the public about the e-waste management and its human and nature friendly disposal methods.

The Ministry of Electronics and Information Technology (MeitY), government of India, has also initiated a five year project "Awareness Programme on Environmental Hazards of Electronic waste" in the year, 2015, under the 'Digital India' initiative, meant to focus on reuse and recycling of e-waste to conserve natural resources and maintain the balance of the ecological world.

It is requested to every responsible citizen, not to throw any kind of electrical/electronic/computing devices or its spare parts, instead follow the below mentioned ways, for an environment friendly and safe disposal of e-Waste:

- Handover to a Certified E-Waste Recycler
- Donate or sell off the outdated gadgets
- Give back to the items to the same companies
- Visit local Institutions who offer e-waste dropping facility

"Trash is not the Right Place; understand your E-waste, dispose or forward it for reuse or recycling, in favor of you and your own environment"

- Dr. Madhu sharma
(Asstt. Prof. , Dept of CS)

BIG DATA ANALYTICS & DECISION

The term “big data” or “large data” refers to data sets that are voluminous and complex. This term has evolved to showcase the characteristics, which includes integrating different types of analyses and data. The term the 'Internet of Things', was developed in 1999, and it was considered that the internet depends on human which have limited attention, time and accuracy for the information. So, in order to rectify the human flaws, there was a requirement to provide the power to the computers through their own means of collecting information, so they can gain the senses vision, hear and smell for themselves and hence, the 'Internet of Things' becomes the provider of a computer linked programs sets and sensors that do not possess the limitations that is been possessed by people. The 'Internet of Signs' actually indicates the internet generated data, gained from the various from sources, which includes the 'Internet of Things' devices, social media information and various other internet sources and (e.g. blog), provide 'signs', which includes the 'sentiment' toward some particular issues. The information 'generated signs which is linked with the internet, provides an 'Internet of Signs'. These 'Internet of Signs' generated from the information gain from Internet proves quit helpful in providing solid information about situations and event. 'Big Data' is a term which defines the continues increasing amounts of the digital information, and the various efforts to make the available information capable of being analysed. Further, the use of that data as a medium to enhance and improve the production, facilitate and generates innovation and enhanced decision making. There are large numbers of definitions that have been offered for 'Big Data'. According to the Gartner 'Big Data' is defined as high Volume, Variety and Velocity information that demands such a form of information processing which is cost-effective, innovative for enhanced insight and decision making'.

WHAT IS INTERNET OF THINGS

The 'Internet of Things' can be define as “ sensors and actuators inserted in physical objects – from pacemakers to roadways. They are joined with each other through wireless and wired networks, using the same (IP) Internet Protocol which is used to connect to the Internet’. As, on internet different types of 'things' are connected to internet so they can be connected with each other also and all those things that are connected to internet can be sensors, database, other devices and software.

SEMIOTICS AND GENERATION OF THE 'INTERNET OF SIGNS' THROUGH 'INTERNET OF THING' AND 'BIG DATA'

Semiotics is a science which basically examines the role of signs as a portion of social life'. Further. It says that with semiotics we started thinking of 'our social as well as cultural life as a series of sign systems. Multiple types of signs is capture by the semiotics (e.g. 'symptom signs'). For example, it can be used to do the investigation of the 'symptoms' of events and behaviour. It is noted as part of semiotics, the history of the event can be reconstructed. Symptom as a sign of prior cause might be investigated. 'Signs' of potential causes of behaviours and events is provided by 'Symptoms' and the, changes that occurs in those 'symptoms' may also occur in the form of 'signs'.

- Dr. Priyanka Mishra
(Asstt. Prof., Dept of CS)

VISUAL TREAT



~Neeraj Lalwani~



~Dhruv Nowal~



~Dhruv Nowal~



~Neeraj Lalwani~

~Dhruv Nowal~



~Neeraj Lalwani~



bitcoin

The phenomenon of Bitcoin has recently gained considerable attention. There is no certified definition for Bitcoin and they are often called as cryptocurrency. One can describe cryptocurrency as digital units that are created and transferred between the users through the use of cryptography.

Bitcoin is the first, still largest and one of the most well-known cryptocurrency. Bitcoin was created at the beginning of 2009 by group hiding behind the pseudonym of Satoshi Nakamoto. Technically, the concept was based on earlier innovations that were already known to computer scientists and cryptographers. Once Bitcoin had been introduced, new cryptocurrencies were created according to similar principles, like Ethereum and Litecoin. Over the past year, the number of cryptocurrencies has increased rapidly and now the amount is more than 1300.

Use of Bitcoin is still on small-scale

One may own Bitcoins for two main reasons: to use them as a means of payment or to use as an investment. In the latter case, one buys Bitcoins mainly to hold them in the hope that the price will rise someday. It is difficult to form an opinion of the exact extent to which Bitcoins are actually used as a means of payment. However, it is probably on very small-scale. For example, only three of the five hundred largest online stores in the world accept Bitcoin as a payment method. According to a report there is a rough estimate that is around 40 Swedish companies currently accepting Bitcoins as a means of payment.

Overview

The number of Bitcoin transactions in the world per day including purchases as an investment has increased in recent years, although this varies substantially from day to day. During 2018, the number of Bitcoin transactions in the world was on average around 250,000+ per day, which can be compared with an average of around 60,000 transactions in 2015. This is still very little compared with the total number of transactions made globally using more established forms of payment, such as cash and cards. According to a report in Sweden alone for instance, almost one million transactions are made through Swish and almost nine million card transactions are made per day. Other cryptocurrencies, which are less common than Bitcoin, are probably used much more rarely as a means of payment.

-Aditya Sharma (BCAIII)

Medical Technology

A thirteen year old Rishab Jain has been named as America's Top Young Scientist in 2018. He helped doctors for improving pancreatic cancer treatment by creating an algorithm that uses machine learning to locate and track the pancreas in real-time during MRI-guided radiotherapy. Since the pancreas is often seen by other organs, and other bodily processes can cause it to move around the abdominal area. So doctors sometimes deploy radiation treatment that ensures it hit the pancreas with an "error circle", but that may kill some healthy cells as collateral damage.

In jain's algorithm radiotherapy treatment where radiation is applied to kill tumor cells, his tool tracks the pancreas in the scan itself. When the radiation hits, it hits the pancreas and help treat the tumor much more effectively.

He got a prize worth \$25000 for his idea in the Young Scientist Challenge's. He got passionate to do so when his family friend died because of cancer, also got to learn about the low survival rate. Jain was learning about artificial intelligence, so he decided to combine the two areas into trying to solve a real world problem using AI.

- Riya Gurbani (BCA III)





BRAIN FINGERPRINTING



Brain Fingerprinting is a computer-based technology designed to determine hidden information in individual's brain. It measures by electrical brain wave responses to words, phrases or pictures presented on computer screen. It was invented by Dr. Lawrence A. Farwell. This technique identifies the criminals quickly. It reduces evasion of justice. It reduces the expenditure of money and other resources in law enforcement. It has record of 100% accuracy. It also plays an important role in different applications like detection of diseases like Alzheimer etc. It was based on the theory that throughout any action, the brain analyse, executes and record that action.

It uses a signal which is known as MERMER. A sequence of words, phrases, or pictures is presented on a screen to the subject, wearing a special headband designed for detecting the brain wave responses. And when the brain recognizes something then there is some changes in the neuron's activity, due to which there is changes in brainwaves signals. On this basis, scientists determine that a particular information is present in the subject mind or not. The entire system is under computer control, including presentation of stimuli, recording of electrical brain activity, a mathematical data analysis algorithm that compares the responses of stimuli and produces a determination of "information absent".

A suspect is tested by looking at 3 kinds of information represented by different colored lines. The red line shows the information the suspect is expected to know. The green line shows the information not known to suspect. The blue line shows the information of the crime the only suspect would know. Overall, it is a revolutionary new scientific technology for solving crimes, identifying perpetrator and fulfils need for government and law enforcement agencies.

- Garima Modi (BCA II)

IMPORTANCE OF COMPUTER LANGUAGES

Computers are basically machines that have to be told what to do. Unfortunately, computers don't understand human language—they have their own languages. The term computer language includes a wide variety of languages used to communicate with computers in a systematic manner. There are high level languages, assembly languages, machine languages, and fourth generation languages. High level languages such as BASIC, COBOL, and FORTRAN are also known as programming languages. Java, JavaScript, C, C++, PHP, Python, Swift, SQL, Ruby are the different types of computer languages which are basically in use of day to day life, for creating certain software or any programs.

Programming is important for speeding up the input and output processes in a machine. Programming is important to automate, collect, manage, calculate, and analyze processing of data and information accurately. It defines the relationship, semantics and grammar which allow the programmers to effectively communicate with the machines that they program. Computer programmers have a full understanding of the how and why of computer systems, including system limitations and can set realistic expectations and work around those limitations to fully maximize the use of the equipment and its accessories.

Computer programming principles implemented today will likely influence how technologies such as voice-recognition, artificial intelligence and other sophisticated technologies will change in the future and how they will be applied to our day-to-day lives. For example, the trend toward automating Internet searches and purchases to be more localized is ongoing. While the hardware platforms developed will play a major role, computer technology will likely be at the center of it all and programming future systems will be an important aspect.

“A language that doesn't affect the way you think about programming is not worth knowing.”

- Harsh Pokharna (BCA I)

TOP 5 SMARTPHONES OF 2018

By: Dhruv Nowal (BCA III)

2018 brought a lot of tweaks, instead of the ground-breaking innovations we can have come to expect from last few years in the extremely crowded and busy world of smartphones, we saw the notch becoming a common sight among all price groups, more headphone jacks disappeared, dual camera became a norm, the word "AI" was slapped in front of functions we have been using for years. As the lines among different flagships blurred, the year felt like a silence before the inevitable storm that this year would bring. So, before we dive headfirst into



1 SAMSUNG NOTE 9

Samsung Galaxy Note 9 is the most powerful android device and the best business device you can buy right now, and one of the best Samsung devices of all time. It improves on the Note 8 on almost all fronts, hence making it a worthy successor.

The device has a huge 6.4-inch display and best hardware Samsung had to offer, coupled with amazing camera and let's not forget the all the innovative S-Pen trickery which makes this phone stand out in the crowd. Arguably, This is the



2 SAMSUNG GALAXY s9+



If Samsung Galaxy Note 9 is too formal for you and you want something little more casual but do not want to compromise the power, the Samsung Galaxy S9+ is the perfect phone for you. It has one of the most beautiful and crisp, 6.2-inch QHD AMOLED display, and an in-house EXONYS 8895 SOC which makes this phone future proof. The amazing trusted camera on device makes it an irresistible smartphone.

GOOGLE PIXEL 3 XL 3



I am personally not a huge fan of notches, so when I saw the Google Pixel 3 XL for the first time, I was very disappointed with the huge ugly notch. But once I looked past the design choices, I found Google Pixel 3 XL to be an outstanding device. The stock android, timely updates, state-of-the-art hardware, right use of AI and machine learning, and a fabulous camera that comes with a magical "Night Sight" mode, this smartphone is one of the best 2018 had to offer.

4 HUAWEI MATE 20 PRO



Huawei Mate 20 is one of the most criminally underrated phones of all time. In the midst of big Samsung and Apple launches it was overlooked, but it doesn't change the fact it is an amazing piece of technology. The Mate 20 pro includes the first Android 7nm processor chipset with the Kirin 980 (Apple's A12 Bionic also uses the 7nm processor), two Neutral Processing Units, a fourth-generation image signal processor, and a LTE Cat.21 modem, making it the one of the most innovative phone of 2018. The triple rear cameras offer an unmatched photography experience

oneplus 6t 5



OnePlus faced quite the competition this year from phones like Asus and Honor, in the market of affordable flagships. But still, OnePlus 6T crawled it's way into this list, because of it's price-specifications ratio, the phones offer an amazing combination of hardware at

It is not quite the "Flagship Killer", but that doesn't take away the fact that it offers flagship specs for half the price. The phone has one of the best notch, Stock Android like OxygenOS, Snapdragon 845, Lovely AMOLED display, good battery with patented quick charging capabilities. The only area it lacks is in Camera department.



Polaroids





P O L A R O I D S



Alumni



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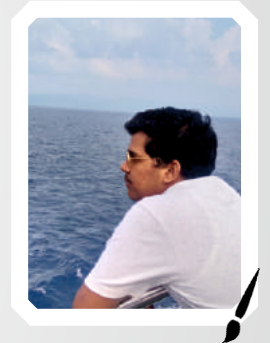
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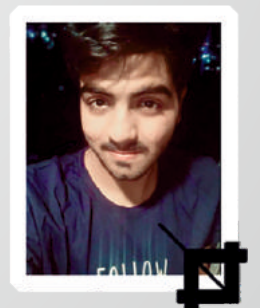


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