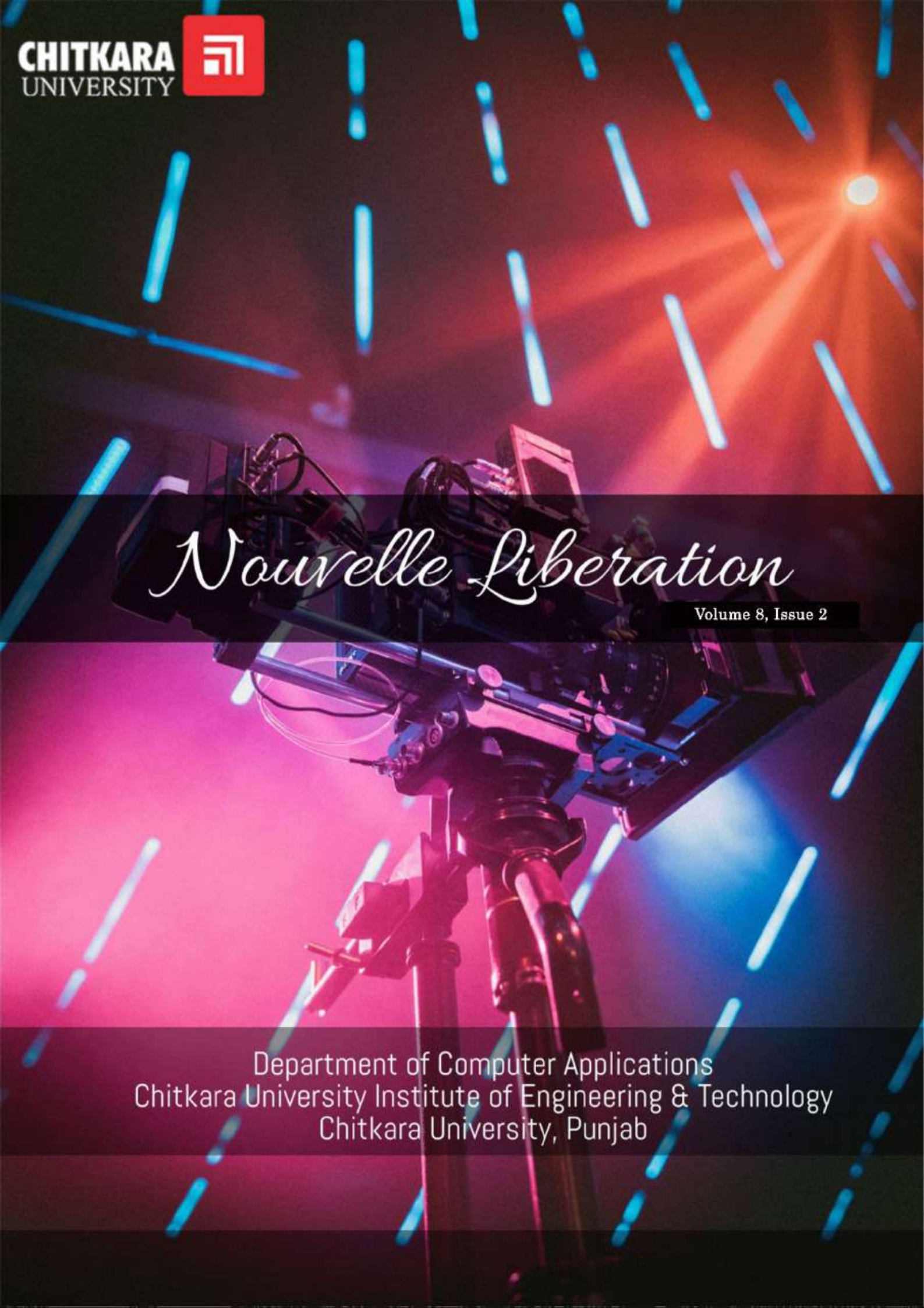


CHITKARA UNIVERSITY

Nouvelle Liberation

Volume 8, Issue 2

Department of Computer Applications
Chitkara University Institute of Engineering & Technology
Chitkara University, Punjab

Newsletter
June, 2022

This newsletter has been edited and published by Department of Computer Applications, Chitkara University, Punjab

Editorial Team:
Dr. Ruchi Mittal
Mr. Vikas Rattan
Ms. Puninder Kaur

Website:
https://www.chitkara.edu.in
www.ca.chitkara.edu.in

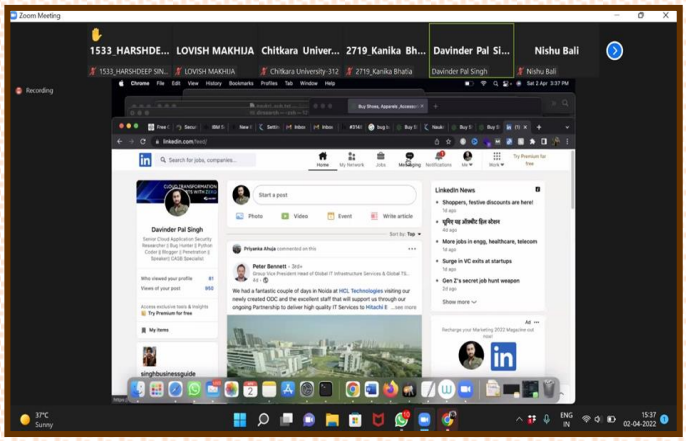
Email:
nouvelle@chitkara.edu.in

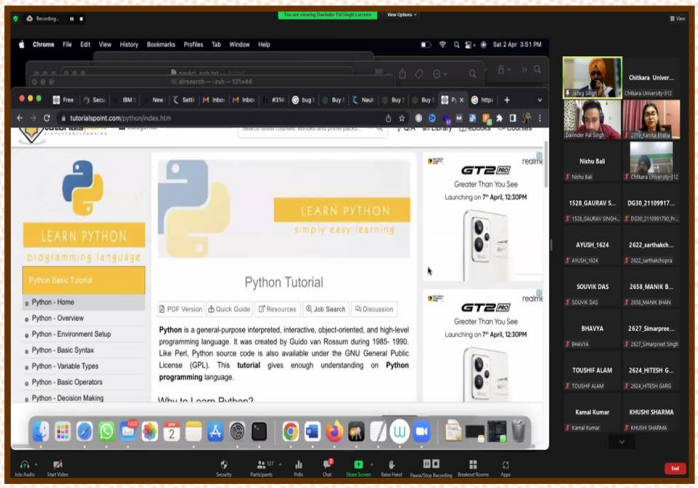
Contents

	Page No.
• Workshop on Cyber Security	1
• Expert Talk on Automation, Innovation and Future	2
• Poster Making Contest	3
• Expert Talk on Applications of Web Technology	4
• Expert Talk on Data Science: The New Fuel for Digital Economy	5
• Industrial Visit to Sourcemash Technologies	6
• Technical Quiz with Snakes and Ladder	7
• Expert Talk on Practical Aspects of Software Engineering in SDLC	8
• Expert Talk on Career Opportunities in IT	9
• Symposium on Recent Trends in Information Technology and Innovation	10
• Essay Writing Competition	11
• Two Days FDP on Web Application Development with React.Js	12
• Excuberanza 2022 -Tug of Words War –The Debate Challenge	13
• Excuberanza 2022- Expert Talk on Technology and Innovation in Cyber World	14
• Faculty Skill Enhancement Session on Outcome Based Education	15
• Explore Your Presentation Skills	16
• Brain Storming on Religiosity	17
• Spiritual Awakening with Yoga	18
• World Heritage Day Celebrations	19
• Expert Talk on Funding Opportunities for Developing Innovative Projects	20
• Celebration of National Technology Day	21
• Research, Publications and Patents	22-23
• Student Achievements	24

WORKSHOP ON CYBER SECURITY
APRIL 2, 2022

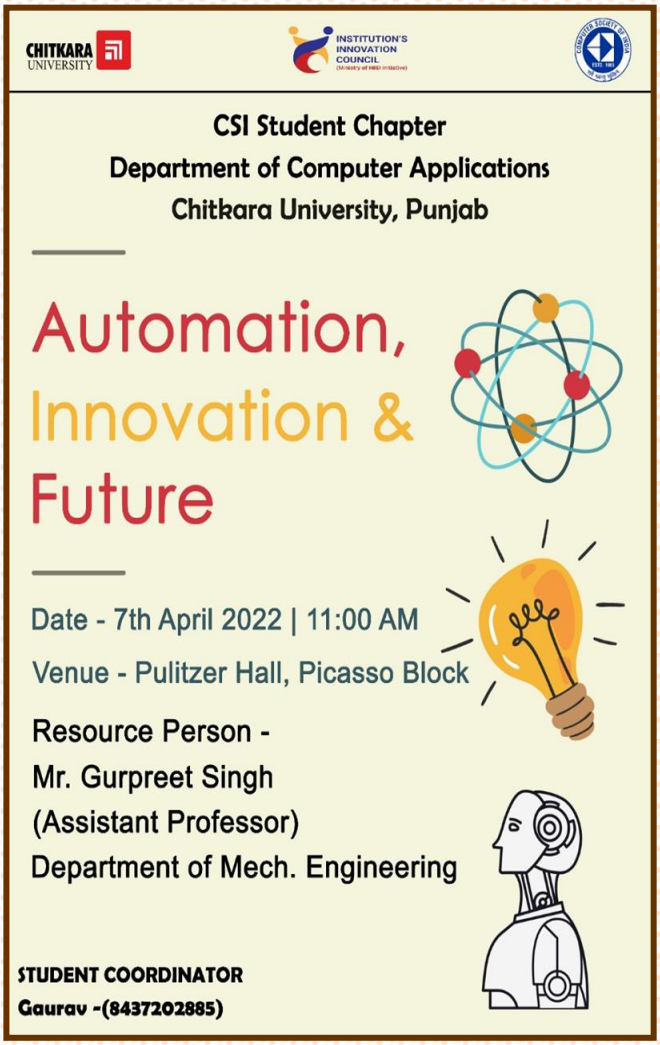
CSI Student Chapter under the aegis Department of Computer Applications organized a workshop on *Cyber Security*. The session was taken by Mr. Davinder Pal Singh (Information Security Engineer, ZscalerPvt. Ltd.), also an alumni of Chitkara University, Punjab from MCA 2018 batch. He spoke on the basics and many career paths in cyber security. He urged the students to practise these abilities and discussed how obtaining certificates from various online learning platforms aids in creating a strong résumé and also advised them to enrol in IBM security courses and certifications through Udemy. He went on to further explain the entire bug-hunting and bug-reporting process. He talked about session fixation and account takeover flaws, as well as HackerOne, a platform for bug bounties and vulnerability coordination that links companies with penetration testers and cyber security experts. DevSecOps, which stands for development, security, and operations, was also covered by him.





EXPERT TALK ON AUTOMATION, INNOVATION AND FUTURE
APRIL 7, 2022

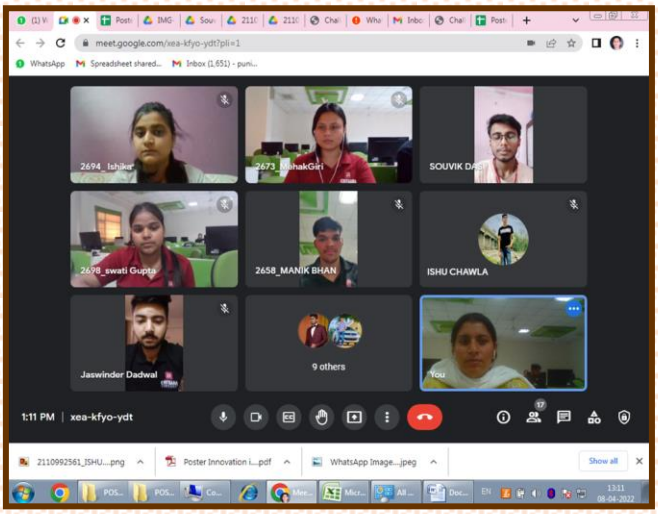
CSI Student Chapter under the aegis of Department of Computer Applications organized an expert talk on *Automation, Innovation and Future*. The session was taken by Mr. Gurpreet Singh (Assistant Professor, Department of Mechanical Engineering, Chitkara University, Punjab). He discussed about carriers in the field of automation and robotics. He explained that robotics is a branch of engineering that involves the conception, design, manufacturing and operation of robots and also about the robotics to create intelligent machines that can assist humans in a variety of ways. He also discussed about IOT and its scope in future. The discussion was highly educational.

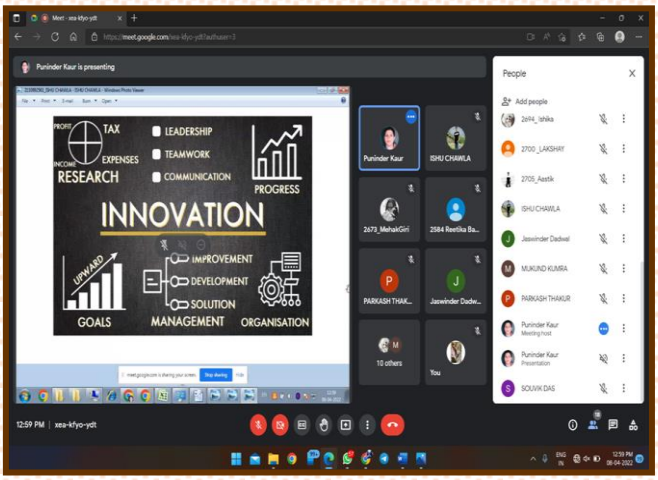


POSTER MAKING CONTEST
APRIL 8, 2022

CSI Student Chapter under the aegis Department of Computer applications organized *Poster Making Contest*. Ms. Puninder Kaur (Assistant Professor, Department of Computer Applications) gave the students instructions on how to create a poster that is both interesting and educational. She also discussed about the skills required for designing the posters. The event's theme was innovation in the IT sector. Students displayed their posters online and used them to showcase various modern trends and technologies. The top three winners were revealed to be the best posters.

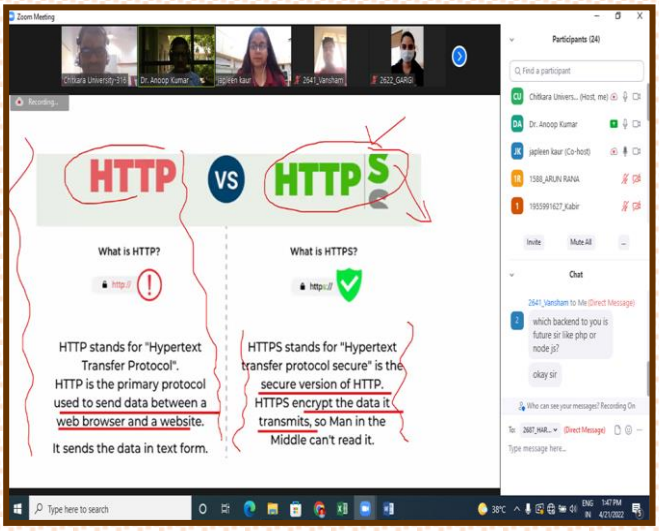
Name	Class (Sem)	Position
Ishika	BCA-4	1st
Reetika Bansal	BCA-4	2nd
Ishu Chawla	BCA-2	3rd

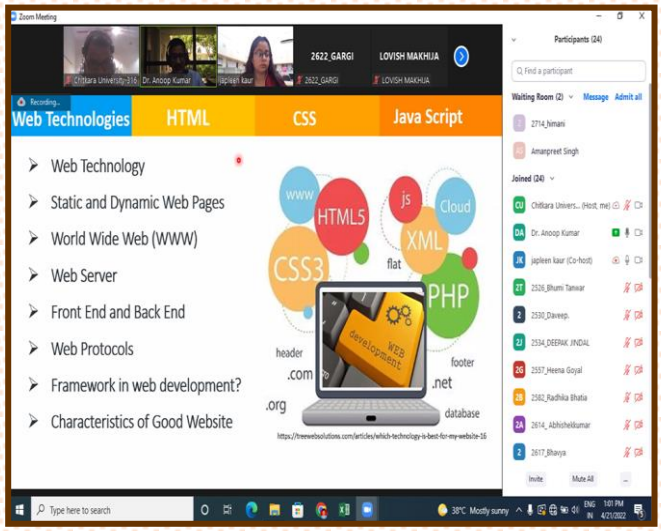




EXPERT TALK ON APPLICATIONS OF WEB TECHNOLOGY
APRIL 21, 2022

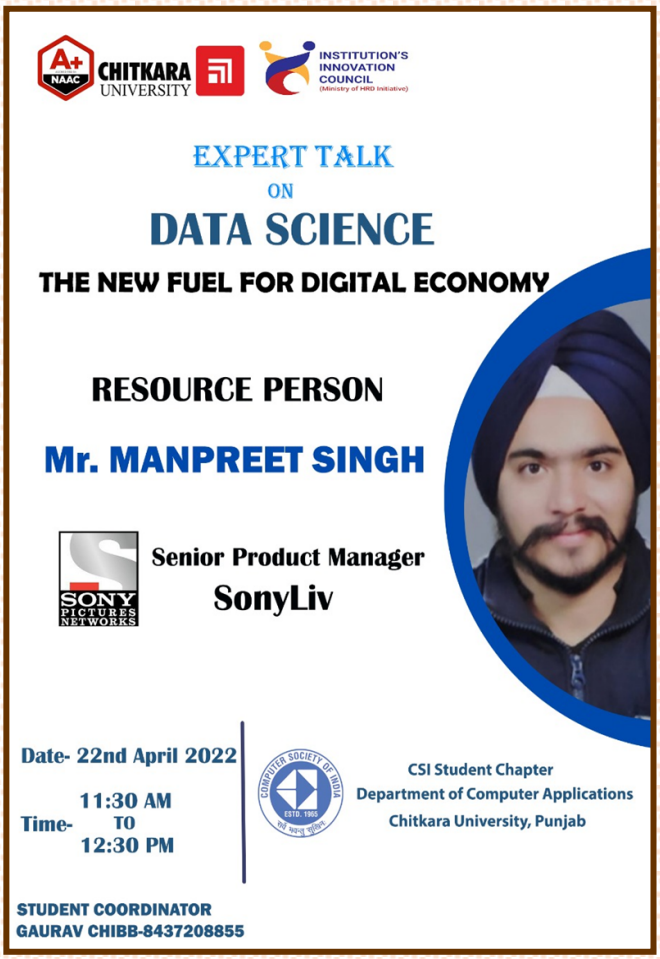
CSI Student Chapter under the aegis of Department of Computer Applications organized an expert talk on *Applications of Web Technology*. The session was taken by Dr. Anoop Kumar (Assistant Professor, Department of Computer Science, Banasthali University, Rajasthan). He discussed about the introduction to web technology, static and dynamic web sites, and characteristics of good website, web server, front end, back end and HTTP. He also discussed that how to publish a website and transfer the local data to remote locations. The session was very informative and the students had hands-on approach to design the website.

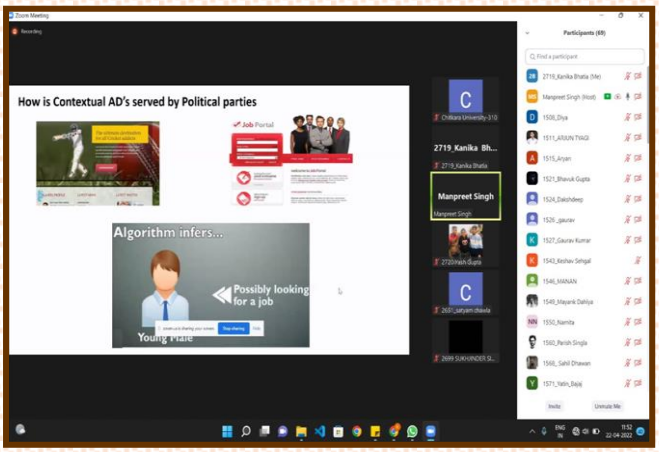


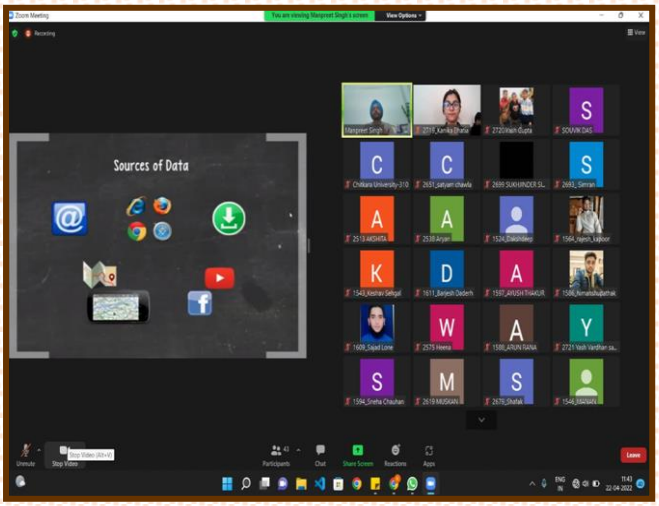


EXPERT TALK ON DATA SCIENCE: THE NEW FUEL FOR DIGITAL ECONOMY APRIL 22, 2022

CSI Student Chapter under the aegis of Department of Computer Applications organized an expert talk on *Data Science: The New Fuel for Digital Economy*. The resource person for the session was Mr. Manpreet Singh (Senior Product Manager, Sony Pictures Network) and the session was coordinated by Dr. Ruchi Mittal (Professor, Department of Computer Applications). The students heard from Mr. Manpreet Singh as he discussed the ideas of data science, its uses, and its advantages for business. Mr. Manpreet Singh, an expert in the field, outlined the causes of data science's rising acceptance in practically all industrial sectors. He also went over the ideas with some use-cases to make the students comfortable in understanding and also taken many queries to help them with their confusion. Overall, the session was quite informative and interactive.







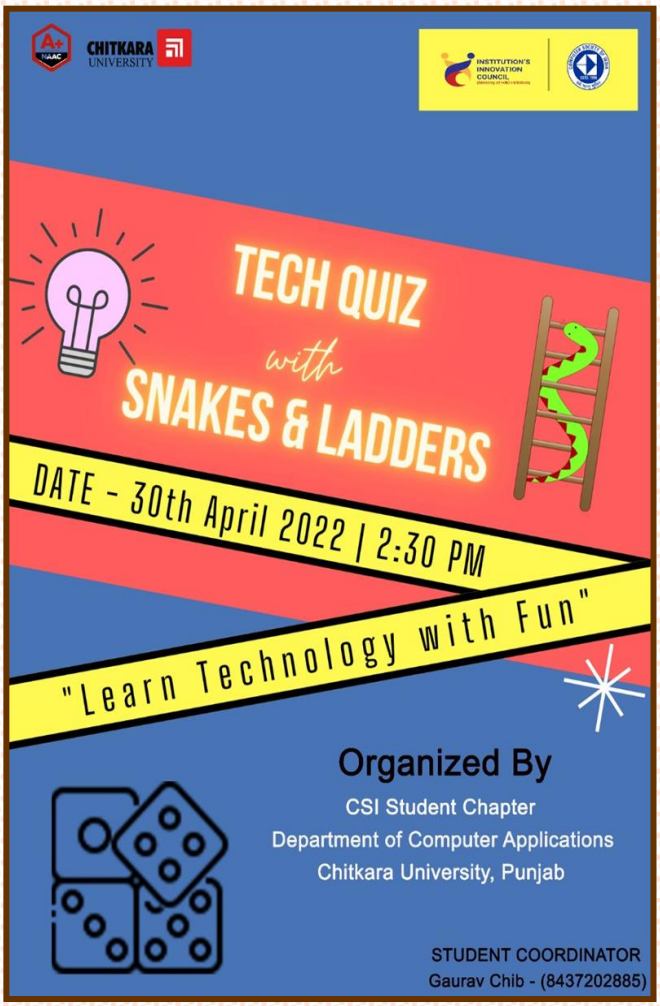
INDUSTRIAL VISIT TO SOURCEMASH TECHNOLOGIES

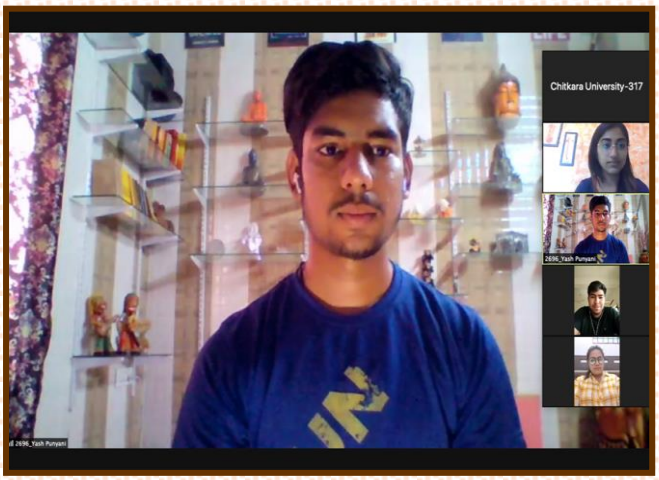
APRIL 22, 2022

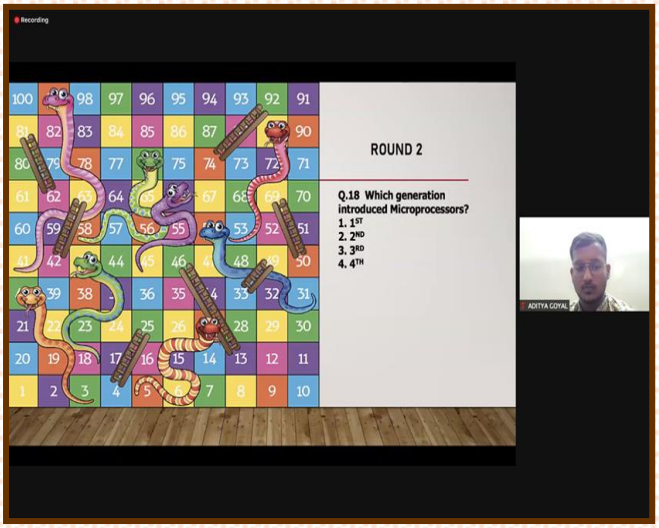
CSI Student Chapter under the aegis of Department of Computer Applications organized an industrial visit to SourceMash Technologies, Mohali for BCA students. Ms. Gunjan (Managing Director, SourceMash Technologies) and Ms. Deepika (HR Manager) welcomed the students and staff members. The project manager of SourceMash Technologies, Mr. Gaurav, made a presentation to the students about Android and company policy. He spoke about the most recent applications and showed how they are created. Additionally, he gave the students advice on how to sharpen their talents and find rewarding employment possibilities in the IT sector. He responded to all inquiries on the present business climate and favoured technical languages. The students had a wonderful opportunity to learn about the working environment and culture of the IT sector.

TECHNICAL QUIZ WITH SNAKES AND LADDER
APRIL 30, 2022

CSI Student Chapter under the aegis Department of Computer Applications organized a technical quiz on the theme of snakes & ladder game on April 30, 2022. The quiz included a wide range of technical subjects, including full stack web development, the C programming language, and contemporary information technology trends. The event's goal was to give the students updated knowledge and abilities. Students from the BCA program took part in the event and had fun. Four teams were formed from the participants. The snakes and ladders game was used to grade the different teams and keep track of their results. The students were able to recollect a variety of programming principles as a result of the event's high level of education.



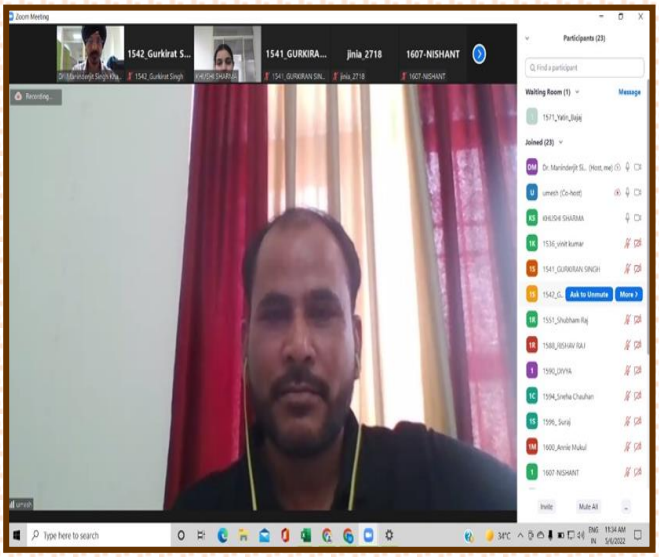


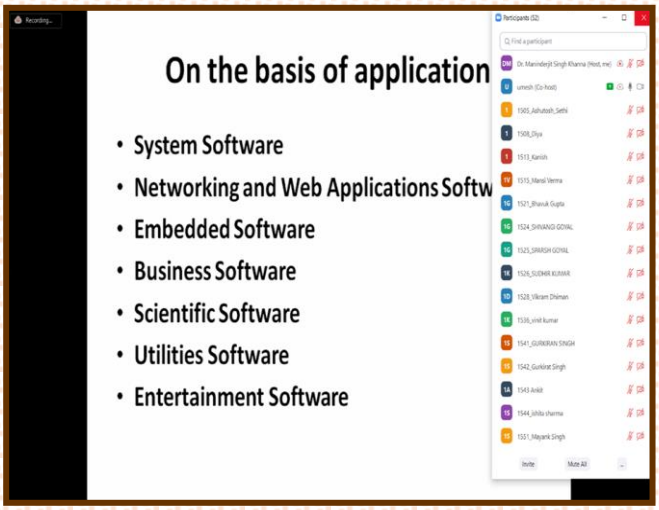


EXPERT TALKON PRACTICAL ASPECT OF SOFTWARE ENGINEERING IN SDLC

MAY 6, 2022

CSI Student Chapter under the aegis of Department of Computer Applications organized an expert talk on *Practical Aspect of Software Engineering in SDLC*. The session was taken by Mr. Umesh Kumar (Assistant Proessor, Govt. Woman Engg. College, Ajmer, Rajasthan). The students received in-depth knowledge from Mr. Umesh regarding software engineering's practical applications. He talked about different cost estimation approaches like the COCOMO model and the LOC model for calculating project costs. The waterfall model, spiral model, and V model of the software development life cycle were also covered by him. The session was quite helpful and informative, and the resource person answered all of the students' questions.

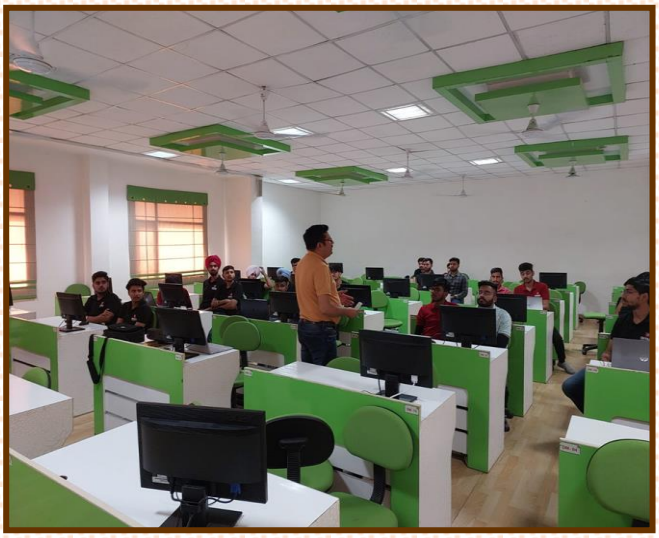


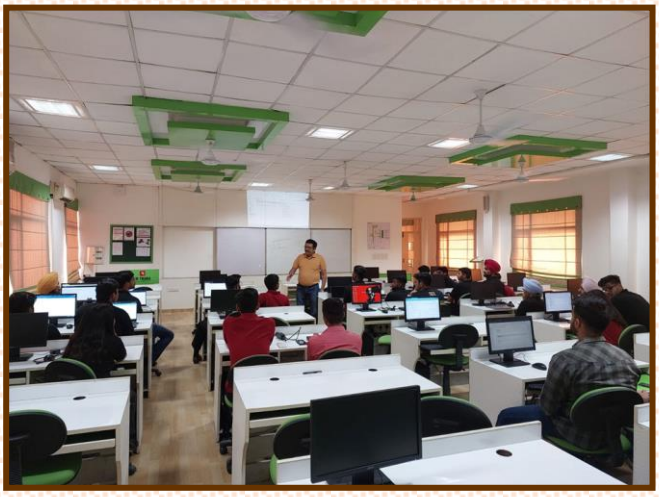


EXPERT TALK ON CAREER OPPORTUNITIES IN IT

MAY 13, 2022

CSI Student Chapter under the aegis Department of Computer Applications organized an event on *Career Opportunities in IT*. The resource person of this talk was Mr. Vikas Rattan (Associate Professor, Department of Computer Applications, Chitkara University, Punjab). Mr. Rattan underlined that students need to be aware of the employment alternatives open to them after completing their education. He educated the students on how to land a job at top MNCs. He advised that taking the appropriate steps will guarantee a student's career success.





SYMPOSIUM ON RECENT TRENDS IN INFORMATION TECHNOLOGY AND INNOVATION

MAY 11, 2022

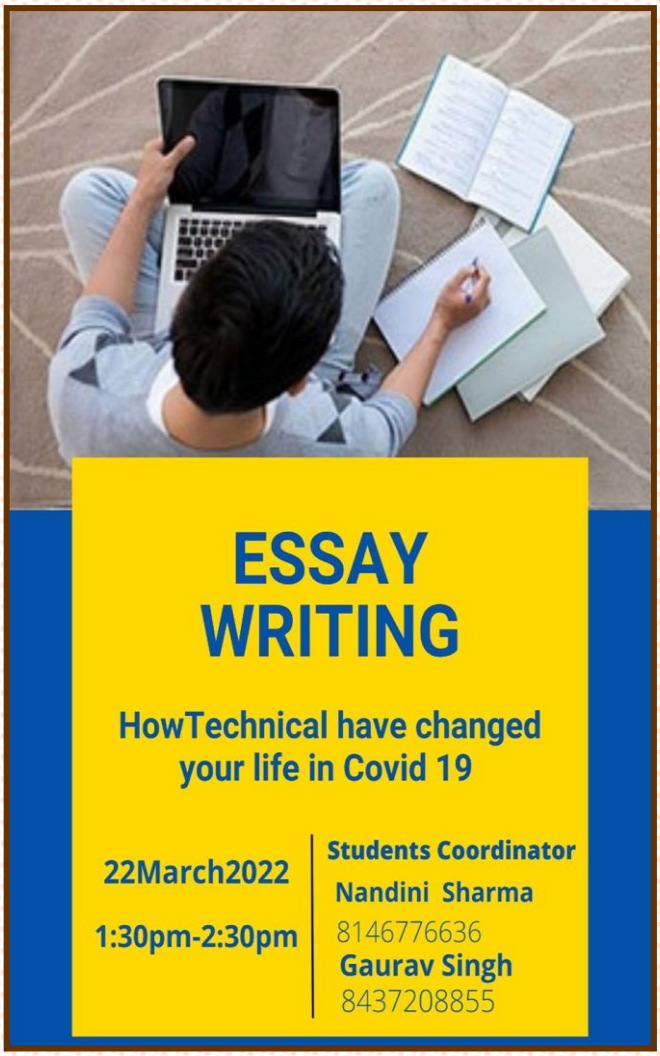
Department of Computer Applications organized a Symposium on *Recent Trends in Information Technology and Technical Innovation* on May 11, 2022 under *Research Innovation Skill Enhancement Events* (RISE). The event provided a platform for young inquisitive minds to put forth their innovative ideas and also to hone their research acumen. Symposium started with the expert talk which was taken by Mr. Manish Chopra(Senior Project Manager, Zep Build Technologies) and Mr. Vikram Verma (Business Unit Head, Talentelgia Technologies Pvt. Ltd.). The experts gave the participants an insight about their technical experiences in IT industry and provide useful information about recent trends in information technology. Participants were able to reach across diverse discipline to apply methods; theories and knowledge base from multiple fields. Posters were evaluated by the experts. Two best paper awards were announced and the winners of the event were:

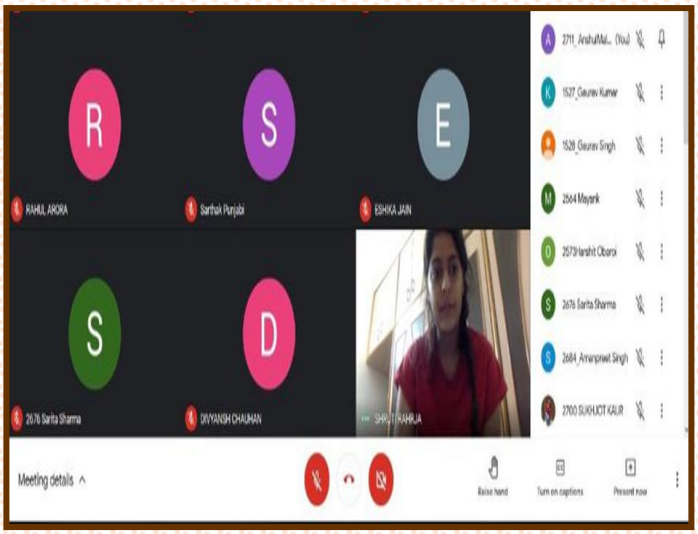
- First best paper award- Ms. Jasmeen Kaur Chahal (Assistant Professor, Department of Computer Applications, Chitkara University, Punjab).
- Second best paper award -Mr. Jaswinder Singh (Assistant Professor, Department of Computer Applications, Chitkara University, Punjab).

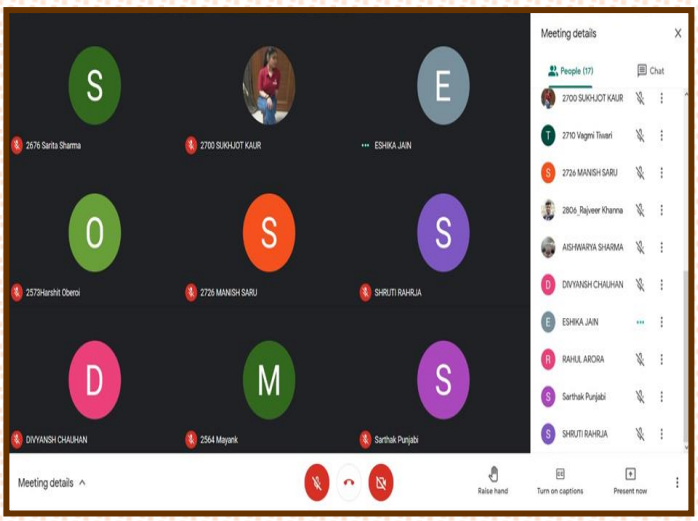
ESSAY WRITING COMPETITION
MARCH 22, 2022

"If future generations are to remember us more with gratitude than sorrow, we must achieve more than just the miracles of technology"

The COVID-19 pandemic forced people to adopt internet and internet-based services to communicate, interact, and perform their official duties from home. With the help of technology, we started participating in virtual meetings and work from home became a new culture. With this theme in mind, Matrix club under the aegis of Department of Computer Applications organized an *Essay Writing Competition* on the theme: *How Technology has changed our lives in COVID-19* on March 22, 2022 wherein students of the department showcased their skills by writing essays on the topics related to current situation during COVID-19 and impact on our lives. The main goal of holding such an event was to foster in the students writing and thinking abilities.





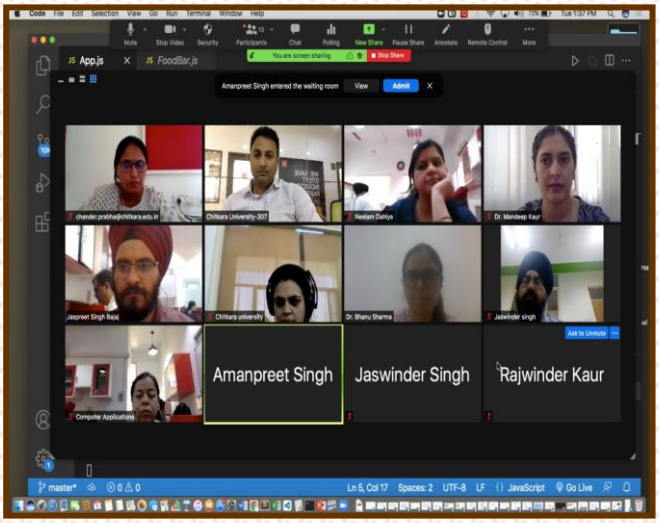


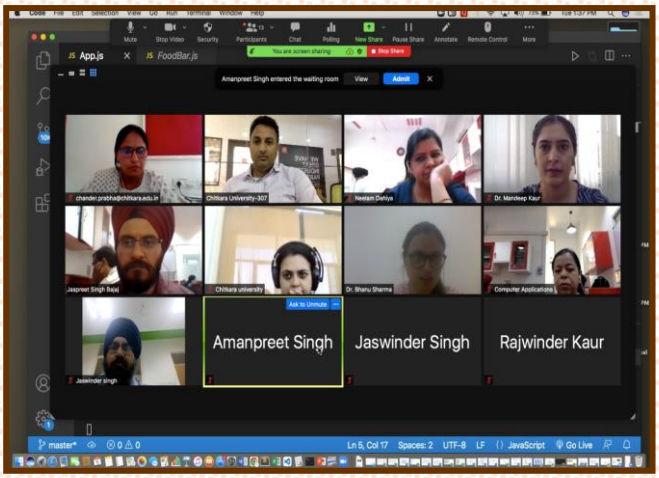
TWO DAYSFDP ON WEB APPLICATION DEVELOPMENT WITH REACT.JS

APRIL 4-5, 2022

"None of us, including me, ever do great things. But we can all do small things, with great love, and together we can do something wonderful." – Mother Teresa

Dr. Rajesh Kaushal (Associate Professor, Department of Computer Applications, Chitkara University, Punjab) organized a faculty development workshop to enable the faculty member to create large web applications that can change data without reloading the page. The objective of this workshop was to make web applications faster using reusable components without compromising on performance and scalability. The audience experienced the power of React.js through hands-on sessions as it has a performative, structured, and productive library with numerous advantages. With features such as virtual DOM, reusable components, one-way data binding, Hooks, and JSX, the library provides a robust environment. The session was very useful and informative.



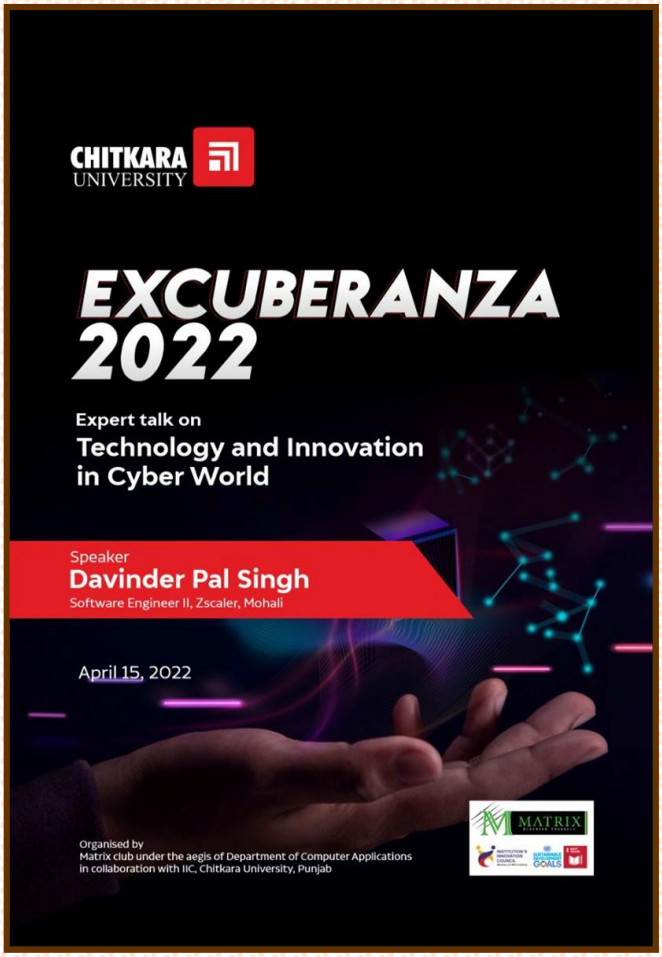


EXCUBERANZA 2022-TUG OF WORDS WAR – THE DEBATE CHALLENGE APRIL 15, 2022

Matrix Club under the aegis of Department of Computer Applications in collaboration with IIC (Chitkara University) organized a debate competition on Tug of Words War-The Debate Challenge during its annual event Excuberanza-2022 on April 15, 2022. Improving democratic governance, strengthening democratic institutions, and the impact of the Russia-Ukraine War were the subjects of discussion. Participants were divided into teams and all the teams were to appear for the preliminary round to qualify for the final round. Students from different schools and departments of the university participated in the event. The participants enjoyed the event thoroughly and they have also been given the participation certificates.

EXCUBERANZA 2022- EXPERT TALK ON TECHNOLOGY AND INNOVATION IN CYBER WORLD APRIL 15, 2022

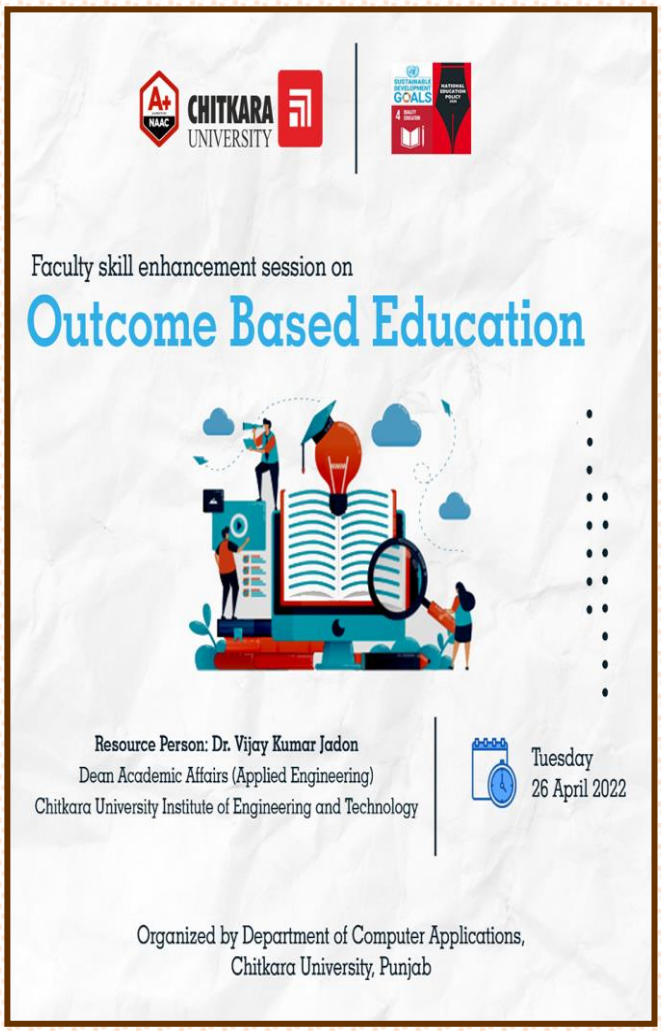
Matrix Club under the aegis of Department of Computer Applications in collaboration with IIC (Chitkara University) organized an expert talk on *Technology and Innovation in Cyber World* during its annual event Excuberanza 2022 on April 15, 2022 wherein expert for the session was Mr. Davinder Pal Singh (Software Engineer at Zscalar Pvt Ltd, Mohali), also an alumni of Chitkara University (MCA program). He is an IT security analyst who has a talent and passion for matching security architecture, plans, controls, processes, and policies with operational objectives. He focused on how businesses take preventative actions to boost cyber security during his discussion. He informed the students about the strategies and planning needed to seize the placement prospects.



FACULTY SKILL ENHANCEMENT SESSION ON OUTCOME BASED EDUCATION

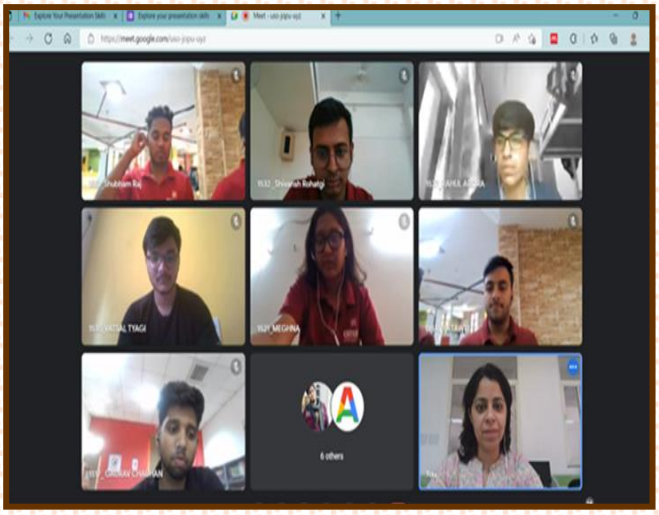
APRIL 26, 2022

Department of Computer Applications, Chitkara University, Punjab organized a faculty skill enhancement session on *Outcome Based Education* on April 26, 2022. An outcome-based approach is a disciplined way of thinking and taking action that service planners and communities can use to design and monitor strategies to improve the lives of their children, families and communities and as the basis for commissioning and improving the performance of projects, programmes and services. To bring better clarity to the concept of OBE, Dr. Vijay Kumar Jadon (Dean Academic Affairs, Applied Engineering) delivered an expert talk to train the faculty members of the department by highlighting the three core competences of OBE.



EXPLORE YOUR PRESENTATION SKILLS
APRIL 29, 2022

Matrix club under the aegis of Department of Computer Applications, Chitkara University, Punjab organized a powerpoint presentation competition on April 29, 2022 for the students of B.Tech.IT-4th semester. The theme of the competition was *The Electoral process in India*. Students presented their ideas through Google meet and the time limit for the presentation was 10 minutes. The presentations were evaluated on the basis of content, animation in the presentation, confidence and communication skills of the students. Sixty students participated in the event and the winner of the event was Mr. Rahul Arora from B.Tech.IT-4th sem.

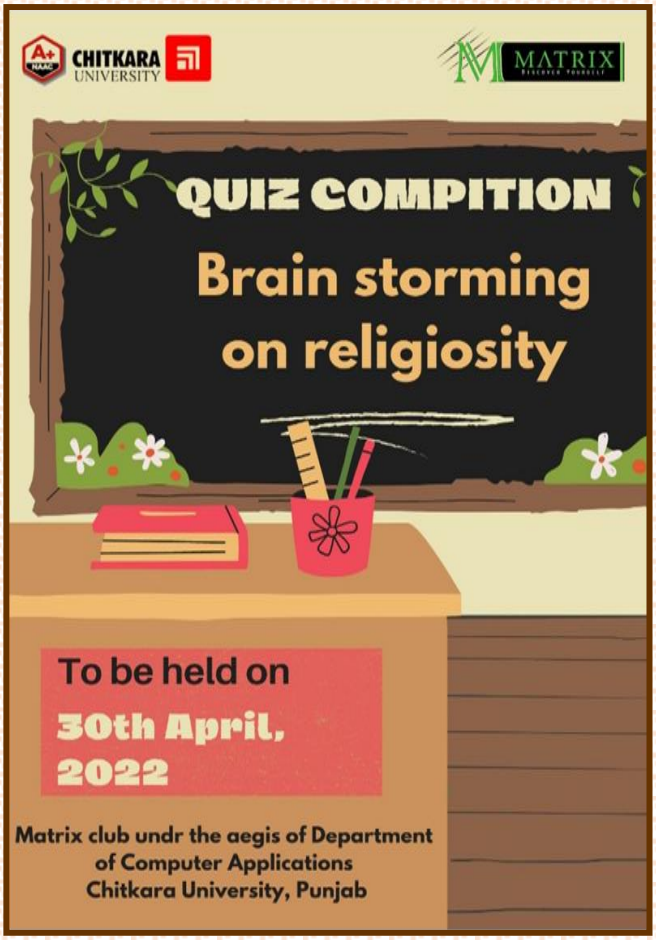


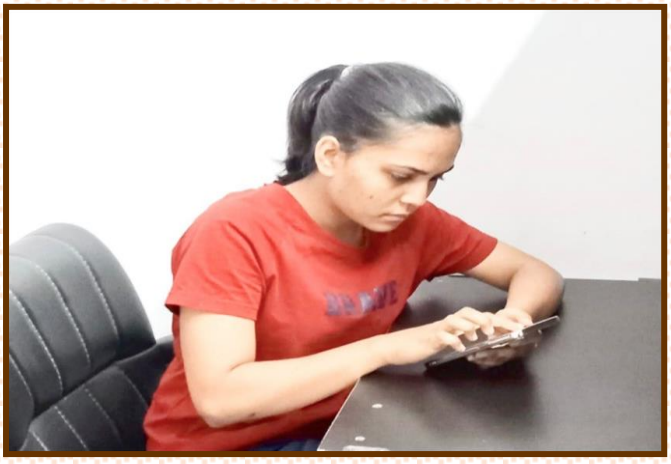
BRAIN STORMING ON RELIGIOSITY
APRIL 30, 2022

"Spirituality is not running away from battle field of life. Spirituality is blossoming every dimension of life with love, responsibility, creativity and compassion"

The importance of spirituality in students' lives can greatly aid in the growth of their positive traits. Spiritual development can enable students to adapt to the stress and strains of our quickly evolving modern world with a greater sense of equanimity while also helping to produce a new generation that is more compassionate, globally aware, and committed to social justice. With this idea in mind, Matrix club under the aegis of Department of Computer Applications organized a quiz competition on *Brainstorming on Religiosity* virtually on April 30, 2022 wherein students were given insights into how religion and spirituality brings people together in times of conflict and peace. Students from all batches enthusiastically participated in the event.

Name	Class (Sem)	Position
Jaspinder Kaur	B.Tech.IT-4	1st
Vishal Chauhan	B.Tech.IT-4	2nd





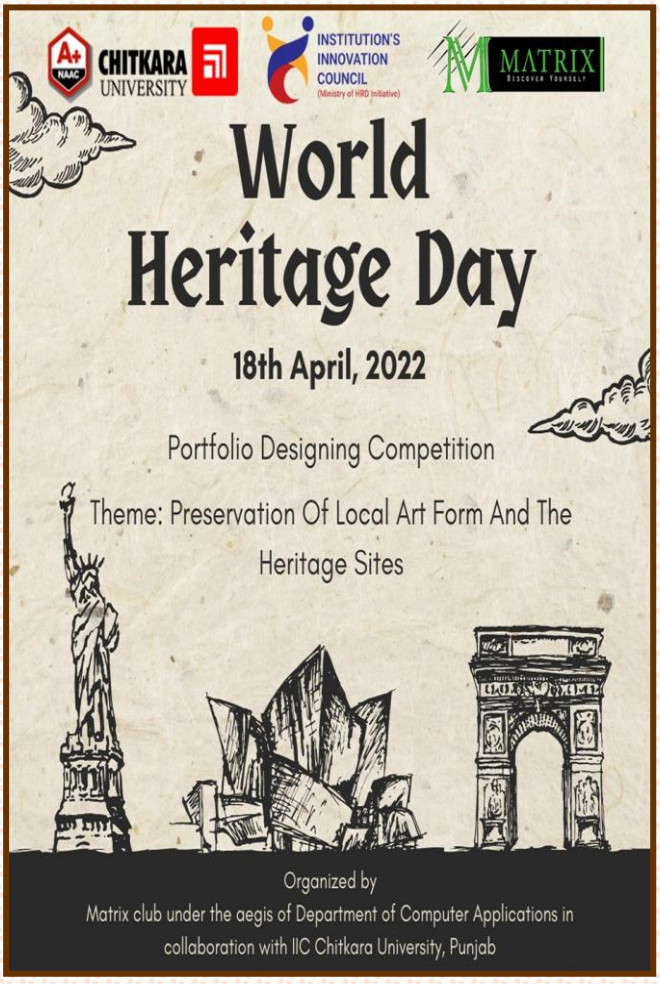
SPIRITUAL AWAKENING WITH YOGA
APRIL 16, 2022

"Yoga is the journey of the self, through the self, to the self."

Yoga is an invaluable gift, a holistic approach to health and well-being. It is not about exercise but to discover the sense of oneness with yourself, the world and nature. By changing our lifestyle and creating consciousness, it can help in well-being of a person. With this notion in mind, Matrix club under the aegis of Department of Computer Applications organized a poster competition on the topic spiritual awakening with Yoga on April 16, 2022. The objective of the event was to inculcate awareness among students regarding benefits of practicing yoga for good physical and mental health. A number of students from the department participated actively and expressed their opinions through wonderfully crafted posters that featured their artistic flair created with vibrant crayons. All the participants were given certificates for their efforts.

WORLD HERITAGE DAY CELEBRATIONS
APRIL 18, 2022

Matrix club under the aegis of Department of Computer Applications, Chitkara University, Punjab organized portfolio designing competition on the occasion of World Heritage Day on April 18, 2022 for BCA students. The theme of the competition was *Preservation of local Art form and the Heritage Sites*. World Heritage Sites are designated by UNESCO for having cultural, historical, scientific significance. The locations are thought to possess cultural and natural heritage that is exceptionally valuable to humanity on a global scale. There are currently forty such sites in India. These are divided into 32 cultural, 7 natural, and 1 mixed (meets both natural and cultural criteria) sites. By examining the Taj Mahal, Ajanta and Allora Caves, The Temples of Pattadakal, and other important landmarks, students have demonstrated their care for these culturally significant locations and the indigenous art form.



EXPERT TALK ON FUNDING OPPORTUNITIES FOR DEVELOPING INNOVATIVE PROJECTS

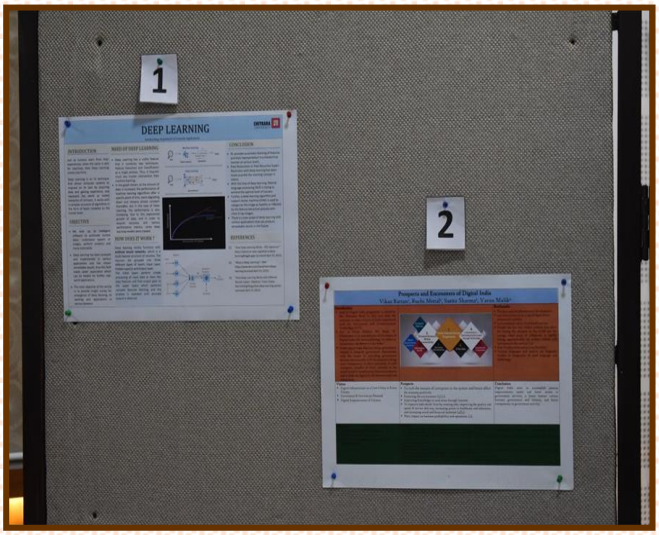
APRIL 27, 2022

"An entrepreneur without funding is a musician without an instrument."

With this thought in mind, Matrix club under the aegis of Department of Computer Applications in collaboration with IIC (Chitkara University) organized an expert talk on *Funding Opportunities for Developing Innovative Projects* on April 27, 2022 wherein expert of the session was Mr. Sagar Juneja (Coordinator, NewGenIEDC, Chitkara University, Punjab). He highlighted a number of projects which received funding from Chitkara University NewGenIEDC centre and other upcoming projects. He inspired the children to come up with a concept, secure funds from the school, and begin turning that idea into a project. Many departmental students actively engaged in the session and learned about all the most recent funding opportunities available on campus.

CELEBRATION OF NATIONAL TECHNOLOGY DAY
MAY 11, 2022

Matrix Club under the aegis of Department of Computer Applications in collaboration with IIC (Chitkara University) celebrated National Technology Day on May 11, 2022 wherein *Technical Poster Presentation Competition* was held on the basis of research articles submitted by the students. IoT, software engineering, cloud computing, digital India, network and information security, and deep learning were among the subjects covered in the presentations. Students participated enthusiastically, sharing their thoughts through technical paper and poster presentations, and were awarded certificates for their participation.



RESEARCH, PUBLICATIONS AND PATENTS

Singh, J., & Gill, R. (2022). Multimodal Emotion Recognition System Using Machine Learning and Psychological Signals: A Review. Soft Computing: Theories and Applications, 657-666.

Singh, S., & Singh, J. (2022). A Survey on Master Data Management Techniques for Business Perspective. In Cyber Intelligence and Information Retrieval (pp. 609-617). Springer, Singapore.

Singh, S., Singh, J., & Arora, J. (2022). FAMDM: An Approach to Handle Semantic Master Data Using Fog-based Architecture. In Advances in Data Computing, Communication and Security (pp. 371-378). Springer, Singapore.

Tyagi, N., Singh, J., & Singh, S. (2022). Sensor Based Wearable Devices for Road Navigation. ECS Transactions, 107(1), 8863.

Hamid, M. A., & Singh, J. (2022). EEG Signal Processing for Detection of Colour Vision Deficiencies. ECS Transactions, 107(1), 10053.

Thakur, D., Singh, J., Faruki, P., & Gera, T. (2022, May). Android malware classification using feature fusion and AdaBoost learning. In AIP Conference Proceedings (Vol. 2357, No. 1, p. 100013).

Gill, R., & Singh, J. (2022, May). A discrete wavelet transform based feature extraction for EEG based emotion recognition system. In AIP Conference Proceedings (Vol. 2357, No. 1, p. 100024).

Gill, R., & Singh, J. (2022). A Proposed LSTM-Based Neuromarketing Model for Consumer Emotional State Evaluation Using EEG. Advanced Analytics and Deep Learning Models, 181-206.

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Modi, N., & Singh, J. (2022). Understanding Online Consumer Behavior at E-commerce Portals Using Eye-Gaze Tracking. International Journal of Human–Computer Interaction, 1-22.

Modi, N., & Singh, J. (2022). Role of Eye Tracking in Human Computer Interaction. ECS Transactions, 107(1), 8211.

Sharma, S., Mittal, R., & Goyal, N. (2022). An Assessment of Machine Learning and Deep Learning Techniques with Applications. ECS Transactions, 107(1), 8979.

Dahiya, N., Gupta, S., & Singh, S. (2022). A Review Paper on Machine Learning Applications, Advantages, and Techniques. ECS Transactions, 107(1), 6137.

Dahiya, N., Gupta, S., & Garg, M. (2022, May). Diabetes screening using machine learning algorithms in AIP Conference Proceedings (Vol. 2357, No. 1, p. 100019). AIP Publishing LLC.

Kaur, P., Chaudhary, D., Molla, K. Z., & Singh, J. (2022, May). Demystifying corona virus disease (COVID-19) using graph data science. In AIP Conference Proceedings, Vol. 2357, No. 1, p. 040026.

Chahal, J. K., Gandhi, V., & Kaushal, P. (2022). A Taxonomy of DDoSDefense Mechanism in Software Defined Networking (SDN). In Robotics and AI for Cybersecurity and Critical Infrastructure in Smart Cities (pp. 111-122). Springer, Cham.

PATENTS

Ms. Neelam Dahiya, Dr. Sheifali gupta, Dr.Sartajvir singh, Ms. Puninder kaur, Ms. Nishu bali and Dr.Deepika Chaudhary filed a patent titled multi-purpose water gun on April 28, 2022 vide application number 363389-001.
Dr. Deepika Chaudhary, Dr. Jaiteg Singh, Ms. Nishu Bali, granted a patent titled Oil lamp on March 31, 2022.
Ms. Rajwinder Kaur, Dr. Jasminder Kaur Sandhu, Mr. Jaswinder Singh, Mr. Gurpreet Singh, Mr. Ravinder Singh filed a patent titled System and method to monitor and control electrolyte level in battery vide application number 202211024802.
Ms. Nishu bali, Dr. Deepika Chaudhary, Dr. Jaiteg Singh, Dr. Sachin Ahuja, Ms. Ujjwal singh filed patent titled Inhaler with led enabled dosage monitoring vide application number 361846-001.
Mr. Manjit Singh, Mr. Gagandeep Singh, Mr. Kamal Kumar, Mr. Jaswinder Singh, Mr. Julfikar, Mr. Atul Dutta filed a patent tilled patent titled "Smart multi-utility duster & cleaner" vide application number 356246-001.
Mr. Amanpreet singh, Dr. Jaiteg Singh, Dr. Deepika Chaudhary, Ms. Vandana, Mr. Jaswinder Singh, Ms.Nishu Bali, Dr. Preetinder Singh Brar filed a patent tilled keyboard with sliding mouse pad vide application number 356402-001.
Dr. Deepika Chaudhary, Ms. Nishu Bali, Dr. Jaiteg Singh, Ms. Neelam Dahiya, Mr. Prateek Srivastva filed a patent titled cloth drying stand for infants & toddler vide application number 363390-001.
Ms. Taruna Sharma, Mr. Amanpreet Singh, Dr. Geeta Rani, Dr. Akhilerndra Kumar Khare, Mr. Jasmeet Singh Kalsi filed a patent with titled Laptop Bag with Duster Marker and Specs Holder vide application number 364068-001.
Dr. Rajesh Kumar Kaushal, Dr. Naveen Kumar, Ms. Jyoti Sharma, Dr. Suresh Limkar, Dr. B. Balamurugan filed patent with titled Key Chain Cum Portable Storage For Electronic Accessories (set) vide application number 362869-001.
Ms. Nandini Garg, Ms. Suriti Goel, Ms. Rajni Bansal filed a patent titled Automatic height adjusting wooden door mechanism during swelling and shrinkage vide application number 362013-001.

STUDENT ACHIEVEMENTS

Name	Class (sem)	Event	Organiser	Date	Positions
Diksha Khanduja	BCA-4	Chitkara Got Talent	Chitkara Culture and Social Service (C2S2), Chitkara University, Punjab.	April 27, 2022	First position in CGT group competition.
Rubab Kaur	BCA-2	1st India Skate Roller Games	Roller Skating Federation of India	April 21-30, 2022	Silver medal
Madhav Panchal and Jasleen Bari	BCA-2	Chitkara Got Talent	Office of Student Affair (OSA), Chitkara University, Punjab.	April 27, 2022	Third prize under Tamasha (theatre) category
Ishika	BCA-4	Poster Making Competition	Computer Society of India (CSI), Department Of Computer Application.	April 8, 2022	First position
Tisha Chaudhary	B.Tech.IT-4	National Integration Camp at J.N.T.U.H College of Engineering Sultanpur, District Tellangana (Hyderabad)	National Service Scheme (NSS), Chitkara University, Punjab.	May 14-20, 2022	Attended the camp successfully
Riya Aggarwal and Mudit Jain	B.tech(IT) – 4 & BCA-4	National Integration Camp at Mar Baselious Christian College of Engineering Pallikunnu Kuttikkanam Idukki District Kerala.	National Service Scheme (NSS), Chitkara University	May 15-21, 2022	Attended the camp successfully
Raghav Bali	BCA-4	Startup Bookvala	Startup India by Chitkara Innovation Incubator Foundation	May 2022	5 Lac Seed fund

A Brain Teaser

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Solution of Last Issue

8	7	5	9	2	1	3	4	6
3	6	1	7	5	4	8	9	2
2	4	9	8	6	3	7	1	5
5	8	4	6	9	7	1	2	3
7	1	3	2	4	8	6	5	9
9	2	6	1	3	5	4	8	7
6	9	7	4	1	2	5	3	8
1	5	8	3	7	9	2	6	4
4	3	2	5	8	6	9	7	1

Editorial Section

We present the current issue of our newsletter and we hope to get due feedback from our readers which can help us in improving our next issues.

"Happy Reading"

CHITKARA UNIVERSITY, PUNJAB
Chandigarh-Patiala National Highway (NH-64), Punjab-140401
Phone No: +91 1762 507084/86
Website: www.chitkara.edu.in