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ANNUAL TECHNICAL MAGAZINE

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MESSAGE FROM HOD'S DESK

PROF. SUMIT KUMAR
PROFESSOR AND HEAD OF DEPARTMENT, IT

I am happy to congratulate the team that has taken the initiative for this Department Magazine for the academic year 2022-23.

This Magazine acts as a platform for students and faculty to share the latest Technical knowledge and cultivate right ways that will equip all of us to stay competent in our respective fields of study and research.

I congratulate and thank the Faculty coordinator Prof. Shivani Sharma for her untiring efforts to publish this Magazine.

I hope that everyone would continue to give their full efforts to keep the momentum.



EDITORIAL BOARD

FACULTY CO-ORDINATOR

Ms. Shivani Sharma
Assistant Professor, IT

STUDENT CO-ORDINATORS

<i>Sneha Gupta</i>	<i>2nd Year, CSE-DS</i>
<i>Aparna Jha</i>	<i>3rd Year, IT</i>
<i>Khushi Sharma</i>	<i>3rd Year, IT</i>

VISION AND MISSION OF DEPARTMENT

INTRODUCTION TO INFORMATION TECHNOLOGY DEPARTMENT

The Department offers Bachelor of Technology programme in Information Technology. The faculty and staff members of the Department are well qualified and efficient in guiding the students in every field of the Information Technology. The area of Information Technology aims at design, implementation and management of computer-based information systems. These automated information systems are capable of storing, transmitting, and retrieving of all types of complex data. The Department develops IT Graduates having good problem-solving capabilities, communication skills and habit to learn new technologies. Apart from prescribed university curriculum, focus is on practical and skill-based training to ensure that students grow according to changing market scenario.



To become a front runner in transforming the individuals into competent IT professionals, to meet the needs of evolving technology and serve humanity.

- To impart quality education with the innovative teaching-learning process to develop a culture of research and innovation.
- Collaborate and interact with industry professionals, academicians to provide suitable forums to exhibit the creative talent of students.
- Provide leadership and planning for effective and strategic use of Information Technology.



BIT BRAIN CLUB ACTIVITIES

PRESENTO

Wherever you put your potential,
you will always be appreciated

The Department organized the event "Presento". A good number of participation was achieved in the event which is highly appreciated. Prizes were distributed to the event's top performers and T-prizes were distributed by our H.O.D. Bipin Kumar Rai and our club mentor Shivani Sharma, Assistant Professor.

Winners: -

1st- Team Bit by Bit

Team Members: Aman Sengar and Divyansh Mittal.

2nd Position- Team Progeessix

Team Members: Sneha gupta and Sudhanshu yadav.

3rd Position- Team Survivor

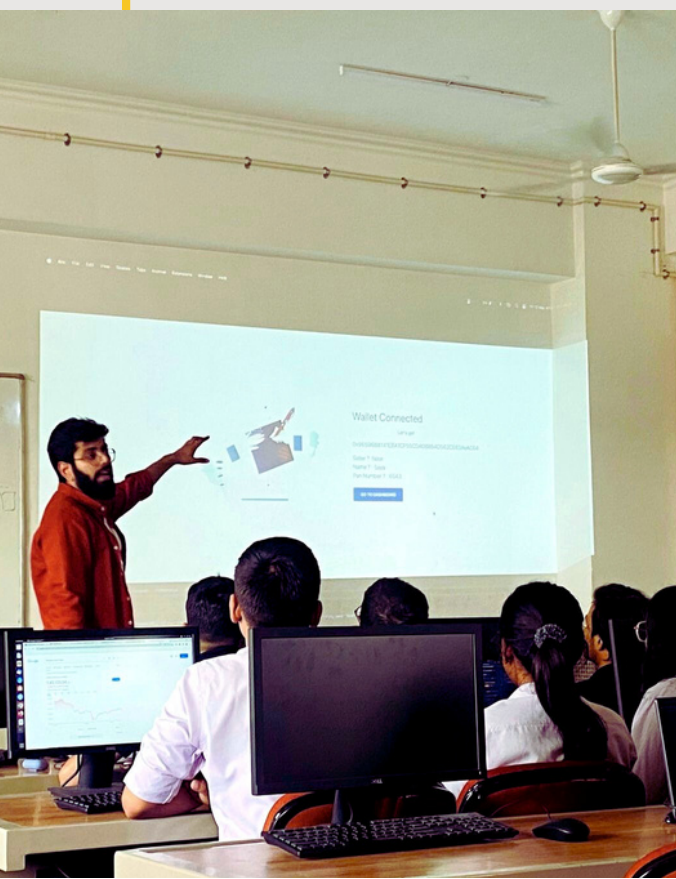
Team Members: Shreya Dixit and Yashika.

Congratulation to the winners!!



BLOCKCHAIN TECHNOLOGY

Exclusive workshop on dApp



A workshop was organized to provide hands-on experience in creating and deploying smart contracts, building the front-end of the application, and connecting it to the blockchain. The speakers shared their valuable insights and experiences in the field, providing tips and tricks on how to develop a robust and reliable dApp.

The workshop was conducted by Kumar Satyarth, a skilled smart contract developer at Timeswap Labs, and Heemank Verma, a talented full-stack developer also from Timeswap Labs.

The event was held exclusively for 3rd-year students of the Department of Information Technology, and nearly 50 students attend the workshop. The atmosphere was buzzing with excitement as the speaker took the students through a comprehensive journey on how to build a complete dApp using blockchain technology.

IT TECHNICAL CLUB ACTIVITIES

MIND MELD

Online assessment and Group Discussion

IT Technical Club organized the event "Mind Meld" for all branches of 2nd year and 3rd year on 11th November 2022. Many students participated in the event and got new experiences.

The event gave learning and experience to the participants about Online Assessment and Group Discussion which are essential procedure to crack most of the interviews. The student got to analyze both their tech & Communication skills in the same event.

The event ended with 4 winners-

1. Sneha Gupta(CS DS 2nd year)
2. Prateek Sinha(CS DS 2nd year)
3. Divyansh Dubey(CSE 3rd year)
& Vaibhav Singh(CS DS 2nd year)

Congratulations all the winners!!

CODE BYTE

Coding competition

The IT Technical Club successfully organised the mega event " Code Byte " for all the branches of 2nd, 3rd and 4th year on 16th May 2023.

The spectacular event was conducted in a way that the students were able to self judge their potential and showcase their technical skills and get their hands on a good brainstorming session.

The Event was concluded with the 3 winners who were applauded and gifted with cash prizes by the faculty coordinator Dr. Bipin Kumar Rai, Dean Academics

The winners are: -

1. Gaurav Singh- CSE 3rd Year
2. Aman Gupta- CSE 3rd Year
3. Sneha Gupta- CSE DS 2nd Year

Congratulations all the winners!





WORKSHOPS

DATA STRUCTURE

The department organized an expert talk on 07-October-2022 for second year students on 'Data Structure'.

The session was conducted under guidance of Dr. Bipin Kumar Rai, HOD(IT) and was hosted by Ms. Mosina Ashraf ,Coding Blocks.

The Resource Person Focused on How to start the coding journey and the best time to do so, also discussed about platforms from where students should practice questions to get placed.

Workshops help students to develop a new skill set for their better future. By learning about new topics and meeting leaders in their field student feels encouraged and motivated.

BLOCKCHAIN

Information Technology department organized an expert talk on "Unleash The Dev Power" for 3rd Year IT & CSE (Data Science) Students on October 10,2022.

Speaker- Kumar Satyarth (Smart Contract Developer at Timeswap) shared knowledge about how to make a project , technological stacks , Internships, Hackathons and Blockchain Technology.

A successful session of the expert talk ends up by giving prize to the most interactive student.



WORKSHOPS

COMPETITIVE PROGRAMMING

Information Technology department organized a session talk on 23rd Sept. 2022 for 2nd year students on "Competitive Programming and Design Thinking skills" to provide a roadmap on technical and project making skills along with strong academics.

The session was conducted under guidance of Dr. Bipin Kumar Rai, HoD(IT) and was hosted by Aparna Jha (IT 3rd) , Aryash (IT 3rd) , Sajal (IT 3rd) and Kanan Sharma (CSDS 3rd).

Students had great time learning about different fields in software development and asked their queries regarding hackathons and programming.

They learned how to start their quest in competitive programming. They also learnt the usage and importance of Github, and how to balance their academics with developments.

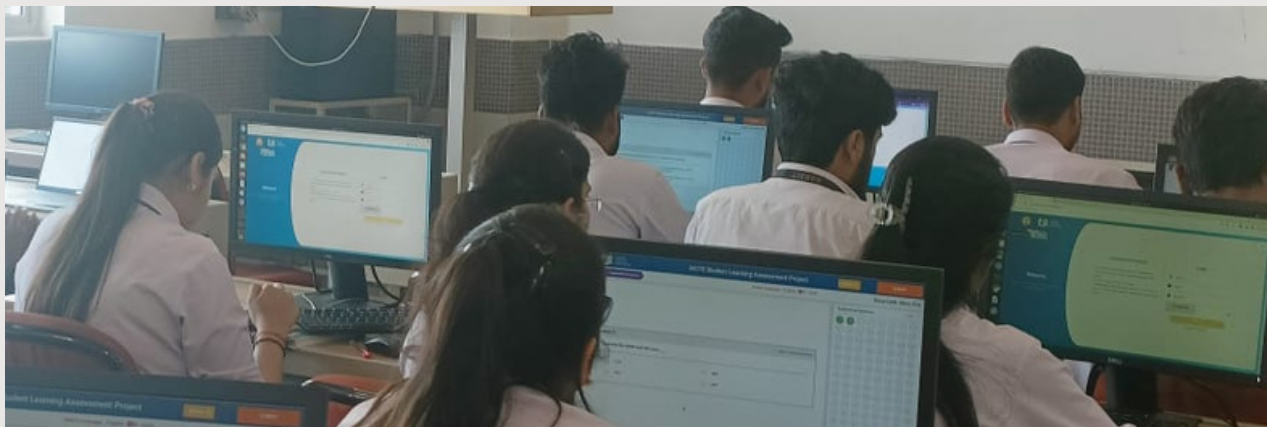
PARAKH AICTE

The department organized an incredible event at the PARAKH AICTE platform for 3rd year students, under the expert guidance of nodal officer "Dr. Kaushal Kishor" and student coordinators: Sajal Garg and Alok Pandey.

The event included an assessment test that saw participation from around 48 students, all eager to test their skills and knowledge.

Students successfully completed the assessment and received a certificate of appreciation from AICTE, recognizing their dedication and hard work.

We congratulate all the winners and participants.





WORKSHOPS

VISUALISATION AND EXPLORATION FOR DATA ANALYSIS

An Expert-Talk on "Information Visualisation and Exploration for Data Analysis" was held for third-year students on May 1st, 2023 by the Department of Computer Science and Engineering (Data Science) and Information Technology. Ms. Manu oversaw the expert talk under the direction of the Head of Department, Prof. Sumit Kumar.

Dr. Tanu Solanki, a renowned expert from Capgemini, provided insightful explanations of the fundamental principles of Data Analysis and Visualization. She shared her knowledge and experience with us and gave us useful information and actionable advice that we can use to enhance our own skills in the same domain.

The session was interactive, and the students learned about the basic tool's usage and purpose.

FEATURE ENGINEERING AND VISUALIZATION TECHNIQUES

The Department of Information Technology organized an Expert Talk on "Feature Engineering and Visualization Techniques" on 10/05/2023. Students from 3rd year IT and CSE-DS attended the expert talk. The speaker for the session was Mr. Anshu Tiwari, Senior Project Manager at Blue Yonder.

The Expert talk discussed the workflow for data science which included both feature engineering and visualisation. The resource person gave hands-on experience on how feature engineering helps to improve the efficiency and interpretability of machine learning models.

The importance of feature engineering and visualisation techniques in data science was also discussed.

The session was interactive and the speaker's actionable advice will help the students to enhance their own skills and expertise.



FACULTY ACHIEVEMENTS

FACULTY RESEARCH PAPER PUBLISHED

SESSION:2022-23

Faculty Name	S, No.	Publication Details	Date
Dr. Bipin Kumar Rai	1	Simulation of the Lightweight Blockchain Technique Based on Privacy and Security for Healthcare Data for the Cloud System, International Journal of E-Health and Medical Communications (IJEHMC), DOI: 10.4018/IJEHMC.309436, ISSN: 1947-315X EISSN: 1947-3168, ESCI,Scopus	1 November, 2022
	2	Patient-centric multichain healthcare record, International Journal of Reliable and Quality E-Healthcare (IJRQEH), http://doi.org/10.4018/IJRQEH.318090, 2160-9551, Scopus	8 November, 2022

FACULTY ACHIEVEMENTS

FACULTY RESEARCH PAPER PUBLISHED

SESSION:2022-23

Faculty Name	S, No.	Publication Details	Date
Mr. Sumit Kumar	1	Voice-Based E-mail System for Visually Challenged People, International Conference on Recent Developments in Electronics and Communication Systems(RDECS- 2022), doi:10.3233/ATDE221248, ISSN 2352-7528Vol:32Page No.133 - 138, Scopus	22-23 July, 2022
	2	Finite State Machine for Testing the GUI using Genetic Algorithm based on Weightage given to different classes, International Conference on Recent Developments in Electronics and Communication Systems(RDECS-2022), DOI:10.3233/ATDE221333, ISSN2352-7528Vol:32,Page No.689- 697, Scopus	22-23 July, 2022

FACULTY ACHIEVEMENTS

FACULTY RESEARCH PAPER PUBLISHED

SESSION:2022-23

Faculty Name	S, No.	Publication Details	Date
Dr. Kaushal Kishor	1	Study and Development of Efficient Air Quality Prediction System Embedded with Machine Learning and IoT, In Deepak Gupta et al. (Eds), Proceeding International Conference on Innovative Computing and Communications. Lect. Notes in Networks, Syst., Vol. 471, Springer, Singapore, https://doi.org/10.1007/978-981-19-2535-1 24, 978-981-19-2535-1, Scopus	September 2022

FACULTY ACHIEVEMENTS

FACULTY RESEARCH PAPER PUBLISHED

SESSION:2022-23

Faculty Name	S, No.	Publication Details	Date
Dr. Bipin Kumar Rai	1	Blockchain-Based Traceability of Counterfeited Drugs, International Journal of Reliable and Quality E-Healthcare (IJRQEH), http://doi.org/10.4018/DOI:10.4018/IJRQEH.318129 , 2160-9552, Scopus	10th February 2023
	2	DDPIS: Diabetes Disease Prediction by Improvising SVM, International Journal of Reliable and Quality E-Healthcare (IJRQEH), http://doi.org/10.4018/IJRQEH.318090 , 2160-9551, Scopus	16th February 2023

FACULTY ACHIEVEMENTS

FACULTY RESEARCH PAPER PUBLISHED

SESSION:2022-23

Faculty Name	S, No.	Publication Details	Date
Dr. Kaushal Kishor	1	Impact of Cloud Computing on Entrepreneurship, Cost, and Security, Cloud-based Intelligent Informative Engineering for Society 5.0” pp. 171-191. Chapman and Hall/CRC., 2023, eBook ISBN: 9781003213895 Edition-First, Pub. Location- New York, https://doi.org/10.1201/9781003213895-10, 9781003213895, Scopus	Feb, 2023
	2	Cloud Computing in Blockchain, Cloud-based Intelligent Informative Engineering for Society 5.0” pp. 79-105. Chapman and Hall/CRC., 2023, eBook ISBN: 9781003213895 Edition-First, Pub. Location- New York, https://doi.org/10.1201/9781003213895-5, 9781003213895, Scopus	Feb 2023

FACULTY ACHIEVEMENTS

FACULTY RESEARCH PAPER PUBLISHED

SESSION:2022-23

Faculty Name	S, No.	Publication Details	Date
Dr. Kaushal Kishor	3	Wireless Networks Based in the Cloud That Support 5G, Cloud- based Intelligent Informative Engineering for Society 5.0” pp. 23- 40. Chapman and Hall/CRC., 2023, eBook ISBN: 9781003213895 Edition-First, Pub. Location- New York, https://doi.org/10.1201/9781003213895-2, 9781003213895, Scopus	Feb, 2023
	4	Cloud-based Intelligent Informative Engineering for Society 5.0, Chapman and Hall/CRC Edition- First, Pub. Location- New York,https://doi.org/10.1201/9781003213895, 9781003213895, CRC PRESS	01/02/2023

FACULTY ACHIEVEMENTS

FACULTY RESEARCH PAPER PUBLISHED

SESSION:2022-23

Faculty Name	S, No.	Publication Details	Date
Dr. Kaushal Kishor	5	Develop Model for Recognition of Handwritten Equation Using Machine Learning, Kishor, K., Tyagi, R., Bhati, R., Rai, B.K. (2023). Develop Model for Recognition of Handwritten Equation Using Machine Learning. In: Mahapatra, R.P., Peddoju, S.K., Roy, S., Parwekar, P. (eds) Proceedings of International Conference on Recent Trends in Computing. Lecture Notes in Networks and Systems, vol 600. Springer, Singapore, https://doi.org/10.1007/978-981-19-8825-7_23, 978-981-19-8825-7, Scopus	01/03/2023

FACULTY ACHIEVEMENTS

FACULTY RESEARCH PAPER PUBLISHED

SESSION:2022-23

Faculty Name	S, No.	Publication Details	Date
Mr. Sumit Kumar	1	Finite State Testing of Graphical User Interface using Genetic Algorithm, International Journal on Recent and Innovation Trends in Computing and Communication (IJRITCC), ISSN: 2321-8169, Scopus	07/02/2023
Ms. Shivani Sharma	1	DDPIS: Diabetes Disease Prediction by Improvising SVM, International Journal of Reliable and Quality E-Healthcare (IJRQEH), http://doi.org/10.4018/IJRQEH.318090, 2160-9551, Scopus	16th February 2023

FDP Attended by Faculty Members

FACULTY DEVELOPMENT PROGRAM

SESSION:2022-23

Mr. Sumit Kumar	1	5 Days	Creativity, Innovation & Design Thinking	29th May - 2nd June 2023	MIT, Moradabad(Online)
	2	3 Days	National Education Policy	14th -16th April 2022	ABESIT, Ghaziabad, U.P(Online)

Mr. Nagnendra Nath Dubey	1	5 Days	STC on Open Source Technology	24-28 April 2023	NITTTR, Chandigarh(Online)
	2	5 Days	FDP on "Emergence of Reversible and Quantum Logic Circuits"	22th- 26 Nov 2021	ABES Institute of Technology, Ghaziabad(Online)

FDP Attended by Faculty Members

FACULTY DEVELOPMENT PROGRAM

SESSION:2022-23

Ms. Manu	1	1 week	Open Source technologies	24th-28th April, 2023	NITTTR Chandigarh(Online)
	2	1 week	Cyber Crime & Forensic tools	08-12th May, 2023	NITTTR Chandigarh(Online)

Mr. Rishabh Kamal	1	1 Week	Open Source Technologies	24th april-28th april	NITTTR, Chandigarh(Online)
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Mr. Satyendra Vyas	1	5 Days	STC on Open Source Technology	24-28 April 2023	
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PLACEMENT

Congratulations and Wishing All the success

S. No.	Name Of Student	Company Name
1	Aastha Mittal	Justwines
2	Aditi Garg	Qpider
3	Aditya Sharma	Knocial
4	Anjuli Yadav	ERA Smith
5	Ashutosh Kumar	UPGrad/Knocial
6	Badal Yadav	QSpider
7	Dipanshu Narayan	Bharua Solution/TCS
8	Dev Malhotra	Iopex Technologies/Knocial
9	Dhananjay Singh	Iopex Tech/Just Wines/Cavisson System
10	Girisha Narula	OneXtel/TCS/Coforge

PLACEMENT

Congratulations and Wishing All the success

S. No.	Name Of Student	Company Name
11	Kartik Tyagi	Knocial
12	Kaustubh Ranjan	Knocial
13	Keshav Sharma	The silicon partners
14	Khushi Dubey	Bharuwa Solution/Pie.infocomm/Tech Mahindra/TCS
15	Kundan Kumar Sharma	Qspider
16	Manak Rawal	NETProphets
17	Mohit Kumar	Cavisson System
18	Mukul Kumar Sahu	Traviyo
19	Nikhil Kardam	Knocial
20	Nitin Sharma	Knocial

PLACEMENT

Congratulations and Wishing All the success

S. No.	Name Of Student	Company Name
21	Pranav Vashistha	MAQ Software
22	Rishab Garg	Agicent Technologies
23	Sanskar Gupta	NETPropherts/Cavisson System/Knocial
24	Shreyansh Srivastava	Cavisson System
25	Shristi Gupta	Tech Mahindra/Knocial
26	Shristi Vishwari	Traviyo/Learning Shala
27	Taniya Goel	Palle Technologies/Axis Bank
28	Vaishnavi Tyagi	TCS
29	Viraaj Akulwar	Iopex Technologies

PLACEMENT

Congratulations and Wishing All the success

S. No.	Name Of Student	Company Name
30	Anjali Jha	lopex technologies
31	Ankit Shukla	UPGrad
32	Deepanshu Malik	Cloud Analogy
33	Radhika Piplani	NET Prophets
34	Rohan Jain	Wind Mollar
35	Sushant	PIE.Infocomm
36	Tanisha	lopex Technologies
37	Vedant Dubey	NET Prophets

ARTICLE

The Rise of Edge Computing: Transforming the Future of Technology

By-Sneha Gupta

2nd year(CSE-DS)

In the fast-paced world of technology, a transformative shift known as edge computing is taking center stage. This paradigm revolutionizes the way data is processed and analyzed by bringing it closer to the source, eliminating the latency associated with traditional cloud computing.

Edge computing is all about decentralization, enabling real-time data processing for immediate decision-making. At its core, it represents a fundamental departure from centralized cloud models. The growth of edge computing is intrinsically linked to the proliferation of the Internet of Things (IoT), where enormous volumes of data are generated at the network's edge. Edge computing is instrumental for IoT applications, such as autonomous vehicles, which rely on rapid data analysis at the source.

Another compelling facet of edge computing is its ability to ensure data privacy and security by processing information locally, reducing the risk associated with transmitting sensitive data to centralized servers. However, it does present infrastructure challenges, requiring investment in hardware and network capabilities.

As edge computing continues to evolve and integrates with 5G technology, it is poised to open up new possibilities and applications, transforming the technological landscape. This paradigm shift will redefine how we interact with our digital world and introduce innovative ways of processing and utilizing data, marking an exciting step forward in the world of technology.