ABESIT
COLLEGE OF ENGINEERING

ABES Institute Of Technology Ghaziabad

DEPARTMENT OF INFORMATION TECHNOLOGY
CHRONICAL
ANNUAL TECHNICAL MAGAZINE

SESSION: 2023-24
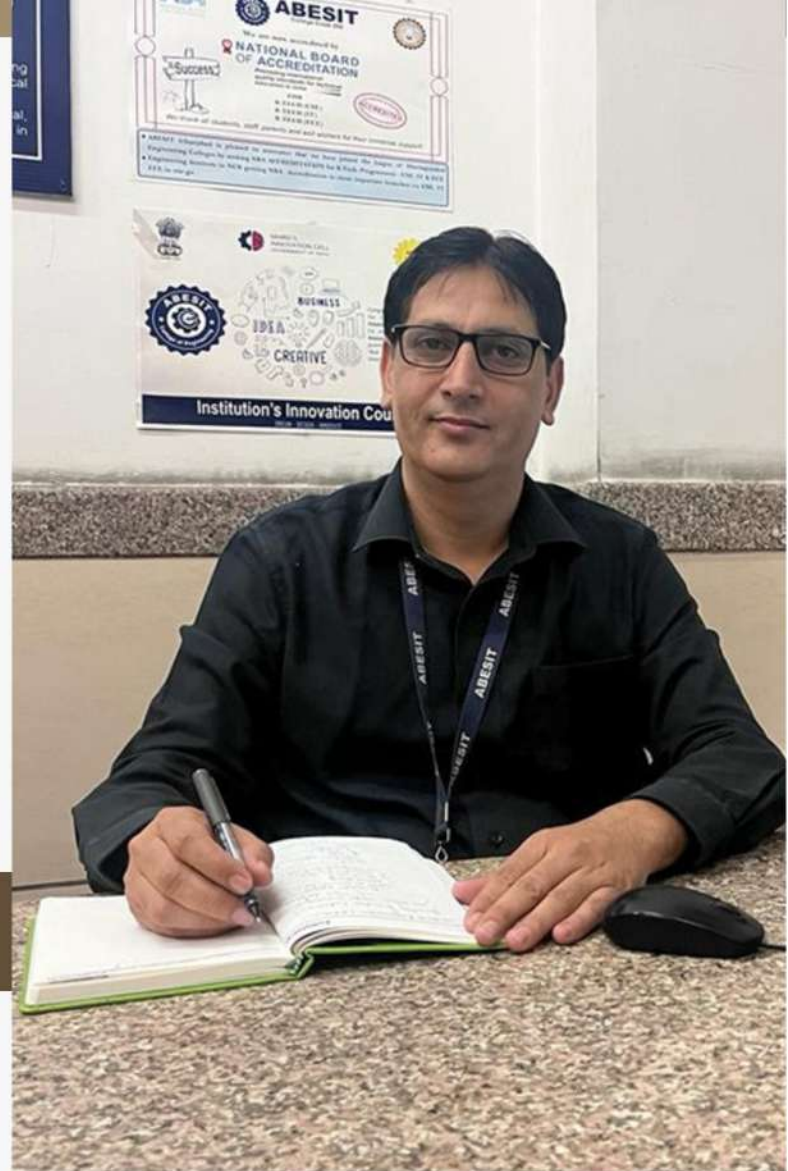
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CONTENTS

MESSAGE FROM HOD'S DESK

PROF. (DR.)SUMIT KUMAR
PROFESSOR AND HEAD OF DEPARTMENT, IT

I am delighted to congratulate the team behind our Department Magazine for the academic year 2023-24. This publication is an essential platform for students and faculty to share technical knowledge and innovative practices. A heartfelt thank you to our Faculty Coordinator, Prof. Shivani Sharma, for her tireless dedication in bringing this magazine to life. As we begin this new academic year, I encourage everyone to contribute their insights to make this edition engaging and informative. Here's to a successful year of growth and collaboration!

EDITORIAL BOARD

FACULTY CO-ORDINATOR

Ms. Shivani Sharma
Assistant Professor, IT

STUDENT CO-ORDINATORS

Vani Gupta   3rd Year, IT
Nikita Kumari   3rd Year, IT

VISION AND MISSION OF DEPARTMENT

ABOUT THE 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.

- Deliver quality education through innovative teaching and practical learning.
- Promote research and innovation to solve real-world problems.
- Engage with industry to bridge the gap between academia and practice.
- Develop leadership skills through strategic use of Information Technology.
- Encourage creativity via events and competitions for talent development.

DEPARTMENT ACTIVITIES

WORKSHOP ON "EMPOWERING DATA ANALYSIS AND VISUALIZATION"

Department of Information Technology and CSE (Data Science) organized a workshop on "Empowering Data Analysis and Visualization" on 05/12/2023. Students from 3rd year IT and 3rd year CSE-(Data Science) attended the workshop. The speaker of the session was Mr. Rahul Bandhan, CEO- Alpha Delving.

Ghaziabad, Uttar Pradesh, India
CAMPUS, ABES INSTITUTE OF TECHNOLOGY, Chipiyana Buzurg, Uttar Pradesh 201009, India
Lat 28.633843°
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05/12/23 10:48 AM GMT +05:30

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.

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The Resource person focused on various Data visualization tools and how they can be used to analyse complex datasets. The expert gave hands-on experience on Tableau focussing on functionality access to Tableau Prep Builder, Tableau Desktop, and Tableau Server or Tableau Cloud.

IT TECHNICAL CLUB ACTIVITIES

DECODE THE PIXELS

IT Technical Club organized another successful event, 'Decode the Pixels'. The event was attended by 2nd year and 3rd year students.

The technical competition brought together brilliant minds from diverse aspiring enthusiasts.

Here's a glimpse into the captivating proceedings and outstanding accomplishments.

Potential skills learnt during the event:

1. Time management
2. Critical Thinking
3. Confidence Building
4. Communication Skills
5. Professionalism

IT TECHNICAL CLUB ACTIVITIES

CYPHER HUNT

IT Technical Club organized another successful event, 'Cypher Hunt'. The event was attended by 2nd year and 3rd year students.

The technical competition brought together brilliant minds from diverse aspiring enthusiasts to Uncover secrets, decode clues, and seize hidden treasures.

Here's a glimpse into the captivating proceedings and outstanding accomplishments.

Potential skills learnt during the event:

1. Problem-Solving and Critical Thinking.
2. Teamwork and Collaboration.
3. Technical Skills and Cybersecurity Awareness.
4. Time Management and Prioritization.
5. Adaptability and Resilience.

IT TECHNICAL CLUB ACTIVITIES

SPEAKER SESSION ON WEB DEVELOPMENT

The IT Technical Club at ABESIT hosted an Offline Speaker Session on May 8th, 2024, with Drishti ma'am, an Associate Software Engineer, guiding 2nd-year students through hands-on web development. The event offered practical insights, interactive learning, and side events with swags, making it a valuable experience for all.

Potential skills learnt during the event:

1. Problem-Solving and Critical Thinking.
2. Teamwork and Collaboration.
3. Technical Skills and Cybersecurity Awareness.
4. Time Management and Prioritization.
5. Adaptability and Resilience.

BIT BRAIN CLUB ACTIVITIES

The BitBrain Club of Data Science Department successfully organized an event "CodeCrash Quest" on 6 Nov,2023 . The event witnessed participation of around 43 students from 2nd and 3rd year.

The event comprised of two rounds, first round was MCQ round and second one was error finding round, where students capitalized on the opportunity to put their online assessment skills to the test.

Heartiest congratulations to all participants for displaying remarkable enthusiasm and dedication towards leveraging technology to empower our society and shape a better tomorrow.

CODECRASH QUEST

FACULTY ACHIEVEMENTS

FACULTY RESEARCH PAPER PUBLICATION SESSION (2023-2024)

Faculty Name	Publication Details	Date
Mr. Sumit Kumar	Finite State GUI Testing with Test Case Prioritization Using Z-BES and GK-GRU. Applied Sciences.2023;13(19):10569.https://doi.org/10.3390/app131910569.(SCIE INDEXED)	2023
	An Effective GDP-LSTM and SDQL-Based Finite State Testing of GUI. Appl. Sci. 2024, 14(2), 549; https://doi.org/10.3390/app14020549.(SCIE INDEXED)	2023
	GUI Testing Using Random Event-Based Test Cases. 12th IEEE International Conference on System Modelling & Advancement on Research Trends (SMART-2023) held on December 22-23, 2023,	CCSIT TMU MORADABAD, UP, INDIA.(IEEE Xplore). DOI: 10.1109/SMART59791.2023.10428625.	2023
Ms. Shivani Sharma	Proposed Model for Detection of Pneumonia Using Deep Learning. In: Kumar, A., Mozar, S. (eds) Proceedings of the 6th International Conference on Communications and Cyber Physical Engineering . ICCCE 2024. Lecture Notes in Electrical Engineering, vol 1096. Springer, Singapore. https://doi.org/10.1007/978-981-99-7137-4_56	2024

FACULTY ACHIEVEMENTS

FACULTY RESEARCH
PAPER PUBLICATION
SESSION (2023-2024)

Faculty Name	Publication Details	Date
Ms. Shivani Sharma	Churn Prediction Model Using EDA. In: Kumar, A., Mozar, S. (eds) Proceedings of the 6th International Conference on Communications and Cyber Physical Engineering . ICCCE 2024. Lecture Notes in Electrical Engineering, vol 1096. Springer, Singapore. https://doi.org/10.1007/978-981-99-7137-4_59	2024
	Clean Sustainable Society Using CNN Proceedings of 4th International Conference on Recent Trends in Machine Learning, IoT, Smart Cities and Applications https://doi.org/10.1007/978-981-99-9442-7_39	2024
	Image Analysis for Human Trafficking Prediction. In: Kumar, A., Mozar, S. (eds) Proceedings of the 6th International Conference on Communications and Cyber Physical Engineering . ICCCE 2024. Lecture Notes in Electrical Engineering, vol 1096. Springer, Singapore. https://doi.org/10.1007/978-981-99-7137-4_84	2024
	Sign language detection using computer vision International Conference on Artificial Intelligence, Blockchain, Computing and Security (ICABCS2023),Gr.Noida,UP,India.https://doi.org/10.1201/9781003393580-117	2023

FACULTY ACHIEVEMENTS

FACULTY RESEARCH PAPER PUBLICATION SESSION (2023-2024)

Faculty Name	Publication Details	Date
Ms. Shivani Sharma	Crime Visualization and Forecasting Using Machine Learning. In: Kumar, A., Gunjan, V.K., Hu, YC., Senatore, S. (eds) Proceedings of the 4th International Conference on Data Science, Machine Learning and Applications. ICDSMLA 2022. Lecture Notes in Electrical Engineering, vol 1038.Springer,Singapore.https://doi.org/10.1007/978-981-99-2058-7_28	2023
Ms. Reshu Tyagi	Optimizing Water Management and Conservation Through IoT 2024 2nd International Conference on Disruptive Technologies (ICDT) DOI: 10.1109/ICDT61202.2024.10489231	2024
Dr. Kaushal Kishor	Image Processing Applications in Agriculture With the Help of AI. In M. Khan, R. Khan, P. Praveen, A. Verma, & M. Panda (Eds.), Infrastructure Possibilities and Human-Centered Approaches With Industry 5.0 (pp. 162-181). IGI Global. https://doi.org/10.4018/979-8-3693-0782-3.ch010	2024
	Cloud Computing-Based Smart Agriculture. In A. Sharma, N. Chanderwal, & R. Khan (Eds.), Convergence of Cloud Computing, AI, and Agricultural Science (pp. 120-136). IGI Global. https://doi.org/10.4018/979-8-3693-0200-2.ch006	2023

FACULTY ACHIEVEMENTS

FACULTY RESEARCH PAPER PUBLICATION SESSION (2023-2024)

Faculty Name	Publication Details	Date
Dr. Kaushal Kishor	3D Application Development Using Unity Real Time Platform. In: Swaroop, A., Kansal, V., Fortino, G., Hassanien, A.E. (eds) Proceedings of Fourth Doctoral Symposium on Computational Intelligence . DoSCI 2023. Lecture Notes in Networks and Systems, vol 726. Springer, Singapore. https://doi.org/10.1007/978-981-99-3716-5_54	2023
	Real-Time Traffic Signs and Lane Line Detection. In: Swaroop, A., Kansal, V., Fortino, G., Hassanien, A.E. (eds) Proceedings of Fourth Doctoral Symposium on Computational Intelligence . DoSCI 2023. Lecture Notes in Networks and Systems, vol 726. Springer, Singapore. https://doi.org/10.1007/978-981-99-3716-5_71	2023
Mr. Vijendra Rai	Malaria and Pneumonia Disease Prediction Using Deep Learning 2024 2nd International Conference on Disruptive Technologies (ICDT) DOI: 10.1109/ICDT61202.2024.10489408	2024
	Optimizing Big Data Algorithms on Cloud for Automated Disease Diagnosis in Healthcare System 2024 2nd International Conference on Disruptive Technologies (ICDT) DOI: 10.1109/ICDT61202.2024.10489385	2024

FACULTY ACHIEVEMENTS

FACULTY RESEARCH PAPER PUBLICATION SESSION (2023-2024)

Faculty Name	Publication Details	Date
Mr. Vijendra Rai	Mitigating the Distributed Denial of Service Attacks in Mobile Networks Using Machine Learning Models," 2023 3rd International Conference on Technological Advancements in Computational Sciences (ICTACS), Tashkent, Uzbekistan, 2023, pp. 738-745, doi: 10.1109/ICTACS59847.2023.10390360	2024

FDP ATTENDED BY FACULTY

SESSION (2023-2024)

Name	Topic	Date	Venue	Mode
Dr. Kaushal Kishor	AI for Building speech and vision Application Using python	21 to 25 Aug 2023 (1 Week)	Galgotias college of Engineering Technology	Online
Dr. Sumit Kumar	Generative AI Essentials: A Deep Dive into Theory and Practice	22 to 27 July 2024 (1 Week)	VNR VIGNANA JYOTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY	Online
Ms. Shivani Sharma	Generative AI Essentials: A Deep Dive into Theory and Practice	22 to 27 July 2024 (1 Week)	VNR VIGNANA JYOTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY	Online
Mr. Nagendra Nath Dubey	FDP on "Wireless Networks"	12 to16 Feb 2024 (5 Days)	ABES Institute of Technology, Ghaziabad	Online
Ms. Deepti Singh	Generative AI Essentials: A Deep Dive into Theory and Practice	22 to 27 July 2024 (1 Week)	VNR VIGNANA JYOTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY	Online

FDP ATTENDED BY FACULTY

SESSION (2023-2024)

Name	Topic	Date	Venue	Mode
Mr. Vijendra Rai	Wireless Networks	12 to 16 February 2024 (1 Week)	ABES Institute of Technology, Ghaziabad Uttar Pradesh	Online
	Recent Trends in Research in Management, IT, Communication in Cutting Edge Technology	18 to 24 June 2024 (1 Week)	IIMT COLLEGE OF MANAGEMENT GREATER NOIDA	Online
Ms. Reshu Tyagi	Recent Trends of Big Data and Artificial Intelligence in Computer Science and Agriculture Engineering	5 to 12 February 2024 (1 Week)	Sir Chottu Ram Institute of Engineering and Technology Merrut	Online
	Wireless Networks	12 to 16 February 2024 (1 Week)	ABES Institute of Technology, Ghaziabad Uttar Pradesh	Online
	Recent Trends in Research in Management, IT, Communication in Cutting Edge Technology	18 to 24 June 2024 (1 Week)	IIMT COLLEGE OF MANAGEMENT Greater Noida	Online

STUDENTS ACHIEVEMENTS

SMART INDIA HACKATHON 2023

Team No.	Team Name	PS CATEGORY	Student From Department	Year of Study	Branch	Result
1	ARES	Software	Harsh Pal	3rd	CSE-DS	Winner with 1 lac Prize
2	DIGITAL_DRUIDS	Software	Nikita Kumari	2nd	IT	Winner with 1 lac Prize
3	Lakshya	Software	Kumar Kartikeya	2nd	CSE-DS	Finalist
			Smrita Shukla	2nd	IT	
4	Solution@Makers	Software	Kanishka Singhal	2nd	CSE-DS	Finalist

PLACEMENT

Congratulations and Wishing All the success

S. No.	Name Of Student	Company Name
1	ADARSH PANDEY	Grant Thornton Bharat LLP
2	ADITYA TIWARI	KodNest technologies Pvt. Ltd.
3	AKSHIT GOEL	Infoedge Ltd.
4	ALOK PANDEY	QSpiders
5	ALOK VERMA	Sorties Technologies Pvt.Ltd.
6	AMBRISH SRIVASTAV	Magnum Digital Solutions
7	APARNA JHA	Global Garner
8	ARYASH	Navyug Infosolutions Pvt. Ltd.
9	AVIRAL SHARMA	Capline Services
10	AYUSH KUMAR	Xcelore

PLACEMENT

Congratulations and Wishing All the success

S. No.	Name Of Student	Company Name
11	AYUSH MISHRA	Success Pact Consulting Pvt. Ltd.
12	DEEPAK KUMAR RAI	Exaltica
13	DEEPIKA PANDEY	Aryson Technologies
14	DEVESH TRIPATHI	Sorties Technologies Pvt.Ltd.
15	DISHA BHARDWAJ	Innobit Systems
16	DIVYA CHOUDHARY	Stemrobo Technologies
17	HARSHIT CHILWAL	CRIS
18	HARSHITA RAGHAV	Aryson Technologies
19	JAYANTO BISWAS	R M Group of Eductaion
20	KHUSHI SHARMA	WTI Cabs Rinex Technologies , Amazon

PLACEMENT

Congratulations and Wishing All the success

S. No.	Name Of Student	Company Name
21	MANISH KUMAR SHARMA	Silaris Informations Pvt.Ltd.
22	MANYA CHOUDHARY	CSS Founder
23	NAMAN SHARMA	Creative Clay
24	SAGAR TYAGI	Red Stone Consulting
25	PRASHANT SRIVASTVA	InternsElite
26	PRIYASH	Gamix Labs
27	RAJEEV KUMAR	Red Stone Consulting
28	NEHA	Jindal,NICS Technology India,Rinex Technologies,Stemrobo Technologies,Sorties Technologies Pvt. Ltd.
29	SAJAL GARG	Motherson Technology Services Limited KodNest Technologies Pvt. Ltd.
30	SAKSHI PAL	Jindal IT Webhut

PLACEMENT

Congratulations and Wishing All the success

S. No.	Name Of Student	Company Name
31	SHEKHAR SINGH	UXDLAB Software Pvt. Ltd.
32	SHREYAL SRIVASTAVA	Amazon PTC(INDIA) Pvt. Ltd.
33	SHUBHAM SINGH	DfreeNovelish
34	SIDDHARTH DHIMAN	Rinex Technologies
35	TUSHAR NIGAM	WebMoril Group ,Hitech Inkjet Pvt. Ltd.,Stemrobo Technologies
36	VIKAS YADAV	Sorties Technologies Pvt. Ltd.

ARTICLE

Neuromorphic Computing: Enhancing AI Through Brain-Like Processing

By-Vani Gupta
3rd year(IT)

Neuromorphic computing is rapidly emerging as a transformative technology, mimicking the architecture and functionality of the human brain to enhance artificial intelligence (AI) performance. Traditional computing relies on linear processing, while neuromorphic systems employ a parallel, event-driven approach. This enables them to process information more efficiently, resembling the brain's neural networks.

One of the key advantages of neuromorphic computing is its ability to handle complex, real-time data with minimal power consumption. By leveraging spikes in neural activity, these systems can perform tasks like pattern recognition and sensory processing much faster than conventional methods. This efficiency makes neuromorphic chips ideal for applications in robotics, autonomous vehicles, and Internet of Things (IoT) devices.

Furthermore, as AI continues to evolve, the need for more adaptive and flexible systems grows. Neuromorphic computing offers a solution, allowing machines to learn from experiences and adapt to new situations similarly to human learning. Researchers and tech companies are investing heavily in this field, exploring innovative architectures and materials that can further enhance performance.

As we stand on the cusp of a new era in computing, neuromorphic technology promises to unlock unprecedented capabilities in AI, paving the way for smarter, more responsive systems that could revolutionize various industries.

ARTICLE

Bioelectronics: Bridging the Gap Between Biology and Technology

By-Nikita Kumari

3rd year(IT)

Bioelectronics is an interdisciplinary field that merges biology with electronic engineering, offering groundbreaking advancements in healthcare, diagnostics, and therapeutics. This innovative domain focuses on developing devices that can interface directly with biological systems, enabling real-time monitoring and intervention at the cellular and molecular levels. One of the most significant applications of bioelectronics is in the realm of medical devices. For instance, bioelectronic sensors can track physiological parameters such as glucose levels, heart rate, and neural activity, providing crucial data for managing chronic conditions like diabetes and cardiovascular diseases. These sensors can facilitate early detection of health issues, leading to timely interventions and improved patient outcomes.

Additionally, bioelectronic devices hold promise for drug delivery systems, where electronic signals control the release of therapeutic agents, allowing for precise and personalized treatment regimens. This technology can enhance the efficacy of medications while minimizing side effects.

Moreover, research in bioelectronics is paving the way for advanced neural interfaces, potentially offering solutions for neurodegenerative diseases and spinal cord injuries. By bridging the gap between biology and technology, bioelectronics is not only revolutionizing medical practices but also enhancing our understanding of complex biological processes, fostering a future where technology and biology coexist harmoniously.