ANJUMAN COLLEGE OF ENGINEERING & TECHNOLOGY

FROM HOD'S DESK

Prof. Sanjay R. Ganar,
Head & Associate professor, ETC

I am very excited to present you our department newsletter for the year 2022-2023. Department of Electronics & Telecommunications publishes a newsletter every year with the aim to provide coverage related to departmental activities in the form of student activities, faculty activities, and achievements. In addition, it also features the academic performance of students, interaction with the outside world, industrial visits, placement, and internship details. The newsletter keeps students and faculty members within the community to be up to date with departmental activities. I am happy to share that Department has upgraded the labs with new i5 desk top computers and new lab equipments. I request everyone associated with the department, to always feel free to give suggestions and ideas for the betterment of the department and hence the college. Wishing the students the very best for a successful academic year 22-23.

CONTENTS

Vision

To become excellent in Electronics & Telecommunication Engineering with moral & social ethics and to be globally competent.

Mission

- To create conducive academic culture for learning and identifying career goals in th field of Electronics & Telecommunication Engineering.
- To impart research oriented technical education in Electronics & Telecommunication Engineering.
- To impart necessary skills and promote professional practice to enhance placement and entrepreneurship in Electronics and Telecommunication contributing to the socio-economic growth.
- To inculcate core values and ethics.

Message from EDITOR


Syed Akbar Ali
Staff Editor

"I am very pleased to present the newsletter of our department 's newsletter .An opportunity for the staff and students to showcase their talent related to events, activities and academic achievements from the department. You can see the contribution from students as well as faculties. I hope everyone will find this newsletter exciting, interesting as well as encourage many more students to use it as a platform to express their creativity.

I am thankful to our principal Prof. Dr. S.M. Ali and head of department Prof. Sanjay Ganar for believing in me and giving me this opportunity."

UNIVERSITY Rank Holders

UR : 1
Mohd Sameer Ansari
Sem. VII
SGPA : 7.43
20th University Rank
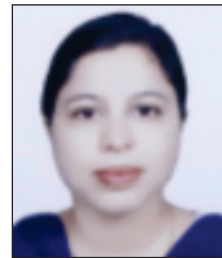
UR : 2
Samreen Kausar
Sem. VII
SGPA : 6.75
University Rank

UR : 1
Prabh Deep Kaur
Sem. V
SGPA : 6.37
University Rank

UR : 1
Sultan Ali
Sem. III
SGPA : 6.57
19th University Rank

Placement 2022-23

Sr. No	Name of Students Placed and Contact Details	Name of the Employer with Contact Details	Pay Package at Appointment (L/A)
1	Trupti Sahare	TCS, MIHAN, Nagpur 022 6778 9106	3.36
2	Syed A Ahmed	Dhoot Transmission, Aurangabad, 02431251477	1.44
3	Ahtesham Saiyad	Dhoot Transmission, Aurangabad, 02431251477	1.44
4	Deepti A Manwatkar	Dhoot Transmission, Aurangabad, 02431251477	1.44
5	Arman Ali	Dhoot Transmission, Aurangabad, 02431251477	1.44
6	Syed A Husain	Dhoot Transmission, Aurangabad, 02431251477	1.44
7	Adarsh Rai	SGS Tech Services, Indore, 8370025222	2.63
8	Syed Adeel Ahmad	SGS Tech Services, Indore, 8370025222	2.63
9	Fiza Rafique Sheikh	My Captain, Bengalure,	5
10	Sameer Sheikh	ABCO Computers, Nagpur	2.4
11	Saniya Sheikh	ABCO Computers, Nagpur	2.4
12	Nagma Khan	ABCO Computers, Nagpur	2.4
13	M Sameer Ansari	ABCO Computers, Nagpur	2.4
14	Arman Ali	ABCO Computers, Nagpur	2.4
15	Ashfaque Ansari	ABCO Computers, Nagpur	2.4
16	Sejal Indurkar	ABCO Computers, Nagpur	2.4
17	Sana Tanzila	Acmegrade, Bengaluru, 8884432119	4
18	Sana Tanzila	Pentagon Space, Bangalore, 8951899299	3-6 LPA

Neuromorphic Computing
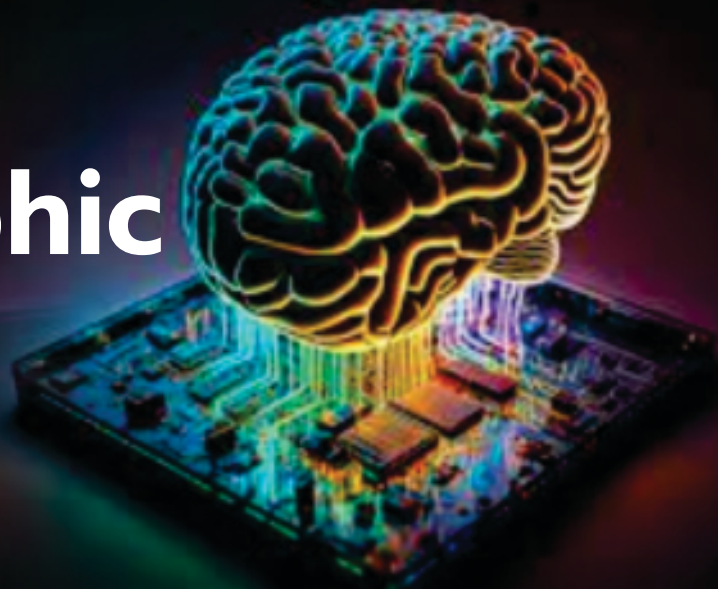
Neuromorphic computing represents a cutting-edge and innovative computing paradigm inspired by the structure and functionality of the human brain. This technology aims to mimic the architecture of the human brain in both algorithms and hardware, enabling computer systems to perform tasks such as general analysis, dialogue, and responsiveness in a manner reminiscent of human cognition.

The driving force behind neuromorphic computing is the need for advancements beyond current computing paradigms, as existing systems fall short of directly emulating the complexity of the human brain. Neuromorphic systems draw inspiration from the intricate structure and processes of neurons and synapses, seeking to replicate these biological mechanisms to enable computers to operate with enhanced capabilities and efficiency.

One key aspect of neuromorphic computing is its focus on real-time processing. This characteristic allows computing systems to adapt and process evolving information over time, delivering real-time insights similar to human cognitive abilities. Systems incorporating neural dynamics models aim to represent synaptic growth and dynamic events, providing a more holistic and adaptive approach to information processing.

An essential feature of neuromorphic computing is its commitment to supporting positive interactions with the environment. This means that computing systems equipped with neuromorphic capabilities can efficiently process information that changes over time, resulting in the presentation of real-time, human-like information. These systems strive to model neuronal dynamics that can represent synaptic growth and respond dynamically to events, contributing to a more adaptive and flexible approach to information processing.

Neuromorphic computing also offers a significant advantage in terms of energy efficiency. Notable examples include neuromorphic chips, a major component of this technology. These chips are capable of emulating biological processes and, compared to traditional computing, consume less energy, leading to substantial energy savings. This aligns with the broader trend in computing towards sustainability and reduced environmental impact.

Another pivotal benefit of neuromorphic computing is its potential to enhance human-computer relationships. By incorporating elements inspired by the human brain, computing systems can better understand and respond to human input, fostering a more natural and intuitive interaction. This has profound implications for user experience, interface design, and the overall integration of technology into daily life.

In addition to these advantages, neuromorphic computing holds promise in addressing challenges related to cognitive computing and artificial intelligence. The technology's ability to emulate neural processes offers a novel approach to tackling complex problems, learning from data, and improving decision-making capabilities.

Despite these promising aspects, challenges remain in the development and implementation of neuromorphic computing. Achieving a comprehensive understanding and accurate replication of the human brain's intricate functions poses ongoing research challenges. Striking a balance between the biological accuracy of the model and practical computational efficiency remains a critical concern.

In conclusion, neuromorphic computing stands at the forefront of technological innovation, aiming to revolutionize computing paradigms by emulating the brain's architecture. With its emphasis on real-time processing, energy efficiency, and improved human-computer interaction, this technology holds immense potential to reshape the landscape of computing, offering solutions to complex problems and contributing to the advancement of artificial intelligence. While challenges persist, ongoing research in neuromorphic computing promises a future where computers operate with unprecedented efficiency and mimicry of human cognitive processes.

by : **Aditi Tarachand**

Blockchain For Social Impact

Blockchain technology, originally developed for cryptocurrency transactions, has expanded its potential to bring about positive social impact across various sectors. The decentralized and transparent nature of blockchain makes it a powerful tool for addressing societal challenges and fostering social innovation. The application of blockchain for social impact spans a wide range of areas, from financial inclusion and supply chain transparency to healthcare, education, and humanitarian aid.

Financial Inclusion: Blockchain facilitates financial inclusion by providing decentralized financial services to individuals without access to traditional banking systems. Through blockchain-based platforms, individuals can have secure and transparent access to financial services, including digital wallets, remittances, and microfinance. This empowers unbanked populations to participate in the global economy and build financial resilience.

Supply Chain Transparency : Blockchain's ability to create immutable and transparent ledgers is instrumental in enhancing supply chain transparency. By recording every transaction and movement of goods on a blockchain, stakeholders can trace the origin and journey of products. This is particularly valuable in ensuring the authenticity of products, preventing fraud, and promoting ethical sourcing practices, thereby benefiting both consumers and producers.

Identity Management : Blockchain offers a secure and decentralized solution for identity management, especially in regions where individuals lack official identification documents. By creating a verifiable and tamper-proof digital identity on the blockchain, individuals can gain access to essential services such as healthcare, education, and financial services, even without traditional forms of identification.

Humanitarian Aid and Philanthropy : Blockchain is being leveraged in humanitarian efforts and philanthropy to ensure transparent and efficient distribution of aid. Smart contracts on blockchain platforms can automate and streamline aid distribution, reducing administrative overhead and minimizing the risk of fraud. This transparency helps donors track their contributions and ensures that aid reaches the intended recipients in a timely manner.

Healthcare Data Management : Blockchain's security features make it suitable for managing healthcare data. Patients can have greater control over their medical records, granting access to healthcare providers on a need-to-know basis. This not only improves data security and privacy but also facilitates interoperability among different healthcare systems, leading to more coordinated and efficient healthcare services.

Education Credentials Verification : Blockchain is revolutionizing the way academic credentials are verified. By storing educational records on a blockchain, individuals can have secure and easily verifiable access to their academic achievements. This is particularly beneficial for employment and educational institutions, streamlining the credential verification process and reducing the likelihood of fraudulent claims.

Environmental Conservation : In the realm of environmental conservation, blockchain is used to create transparent and traceable systems for monitoring and validating sustainable practices. This includes tracking the supply chain of environmentally sensitive products, carbon offset verification, and promoting eco-friendly initiatives through decentralized networks.

Democratic Governance : Blockchain's decentralized and tamper-resistant nature makes it a potential tool for enhancing democratic processes. Some projects explore the use of blockchain in ensuring the integrity of voting systems, reducing electoral fraud, and increasing transparency in government processes. However, challenges such as scalability and regulatory considerations need to be addressed for widespread adoption.

Challenges and Considerations : Despite its potential, the application of blockchain for social impact comes with challenges. Issues such as scalability, energy consumption (in the case of proof-of-work blockchains), regulatory uncertainties, and the need for widespread adoption pose hurdles to realizing its full potential. Additionally, ensuring that blockchain solutions are designed with a focus on inclusivity, privacy, and the specific needs of the communities they aim to serve is crucial.

In conclusion, blockchain technology holds immense promise for generating positive social impact across various domains. From financial inclusion and supply chain transparency to healthcare, education, and humanitarian aid, blockchain's decentralized and transparent nature offers innovative solutions to longstanding societal challenges. As the technology continues to evolve, addressing challenges and fostering collaboration between technological innovators, policymakers, and communities will be essential to maximize its benefits for social good.

by : **Mohammed Huzaifa**

Departmental Activities

Survey at Mangalwari bazar (7th oct'22)

Seminar on B.E Optimistic for Higher Studies (14th sep'22)

PTM (19TH Oct'23)

Art of Paper Writing(5TH Nov'23)

Induction Program First Yr(23rd Nov'23)

Panchvati Vrud ashram (12th Dec'22)

Training Program On Paython Big.(23rd Jan'23 to 15th Feb'23)

GD,WAT&PI (6th Feb'23)

Departmental Activities

Seminar On wireless Comm(6th March 23)

Introduction to AI&ML (1st April'23)

Unlock for potential

NITTTR (5th June 23 TO 9th June 23)

Alumni Interaction (12th May 23)

"Electronics and Telecommunications Engineering that focuses on designing and developing electronic technology products. Electrical engineers work in many sectors, including healthcare, media and communications and software technology."

ACET

ANJUMAN COLLEGE OF ENGINEERING & TECHNOLOGY

Department of Electronics & Telecommunication