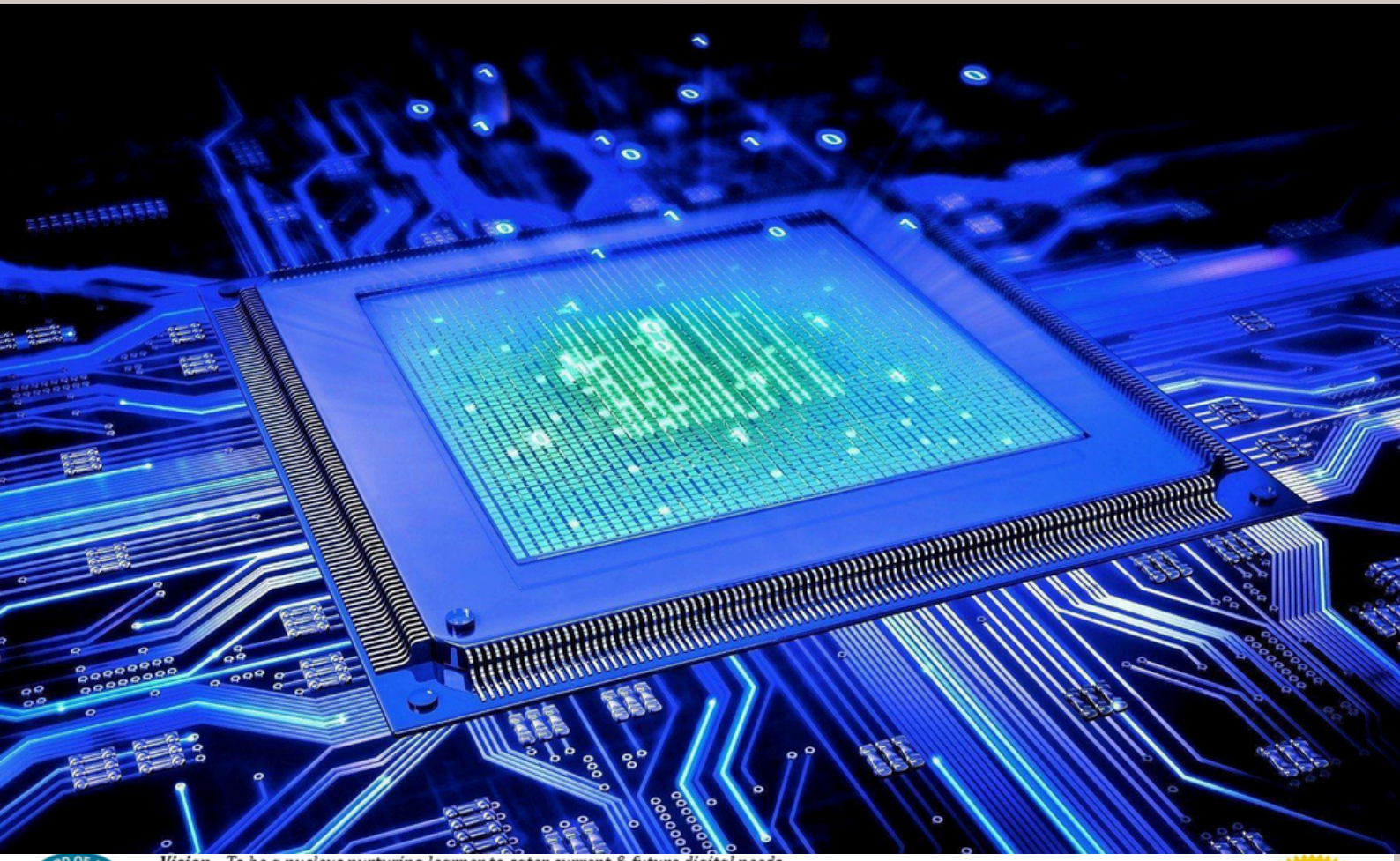
JSPM's
Bhivarabai Sawant Institute of Technology & Research, Wagholi, Pune
(Approved by AICTE, Delhi & Govt. of Maharashtra, affiliated to Savitribai Phule Pune University)
Department of Information Technology

INFOTECH

VOLUME 8 ISSUE 2



Vision *- To be a nucleus nurturing learner to cater current & future digital needs.*

Mission *- M1: To groom learners for addressing technical challenges by utilizing knowledge and skill sets.*
M2: To inculcate professional values to develop effective and efficient organization through best practices

PEO1: *Graduate shall have the ability to exhibit excellence in professional career by demonstrating a positive representation of their brand.*

PEO2: *Graduate shall have the ability to learn latest trends coping present and future needs.*

PEO3: *Graduate shall have sense of social responsibility by balancing the emotional quotient and strengthening the personal traits*

VISION AND MISSION

VISION OF THE INSTITUTE

"To satisfy the aspirations of the youth force, who wants to lead the nation towards prosperity through techno-economic development."

MISSION OF THE INSTITUTE

"To provide, nurture and maintain an environment of high academic excellence, research and entrepreneurship for all aspiring students, which will prepare them to face global challenges maintaining high ethical and moral standards."

VISION AND MISSION

VISION OF THE DEPARTMENT

"To satisfy the aspirations of the youth force, who wants to lead the nation towards prosperity through techno-economic development."

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PEOs and PSOs

PEOs

PEO1: Graduate shall have the ability to exhibit excellence in professional career by demonstrating a positive representation of their brand.

PEO2: Graduate shall have the ability to learn latest trends coping present and future needs.

PEO3: Graduate shall have sense of social responsibility by balancing the emotional quotient and strengthening the personal traits.

PSOs

PSO1: Apply appropriate technologies and employ suitable methodologies by managing the information technology resources of an individual or organisation for betterment.

PSO2: Anticipate the ever-changing trends in information technology and assess the likely utility of new technologies

PSO3: Develop IT systems that would resolve issues related to socio-economic development and build the nation through digitisation.

Prof. Rekha Kotwal
Chief Editor

Mr.Prathamesh Garsule
Student Coordinator

Mr.Sanjog Adhav
Student Coordinator

WEB3 & SMART CONTRACTS

Revitalizing the Essence of Newspapers in the Digital Era

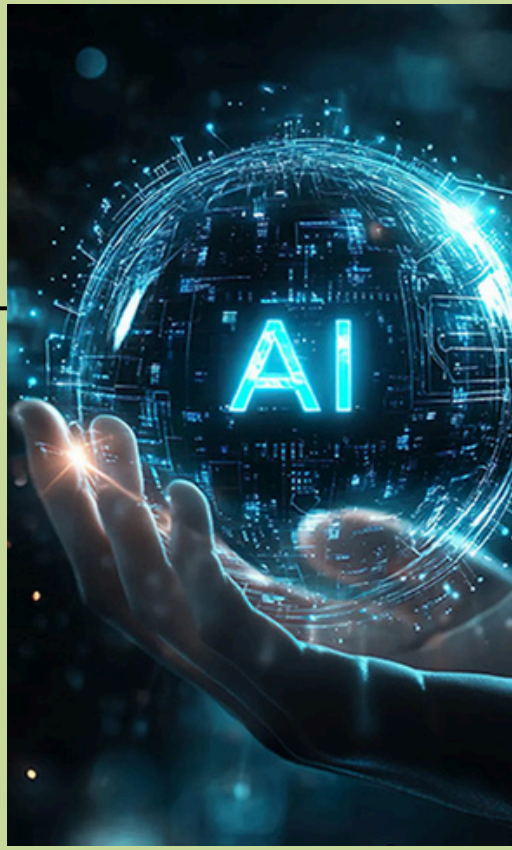
Web3 represents the next evolution of the internet, shifting towards decentralization, user ownership, and blockchain-based applications. These self-executing contracts enhance transparency and efficiency, paving the way for a decentralized digital economy beyond cryptocurrencies.

DeFi (Decentralized Finance) is disrupting traditional banking by enabling peer-to-peer financial services without intermediaries, using smart contracts for automated transactions. These self-executing contracts enhance transparency and efficiency, paving the way for a decentralized digital economy beyond cryptocurrencies.

Hemal G Bhoge
(T.E-I.T)

• AI IN CYBERSECURITY •

AI is revolutionizing Security Operations Centers (SOC) by automating threat detection, incident response, and risk analysis. Machine learning models analyze vast amounts of security data in real time, identifying anomalies and preventing cyberattacks before they occur. AI-driven SOC automation enhances efficiency, reduces response time, and strengthens cybersecurity defenses against evolving threats.



AI in cybersecurity refers to the use of artificial intelligence and machine learning to enhance the detection, prevention, and response to cyber threats. It automates tasks, analyzes data for patterns, and adapts to new threats, improving overall cybersecurity capabilities.

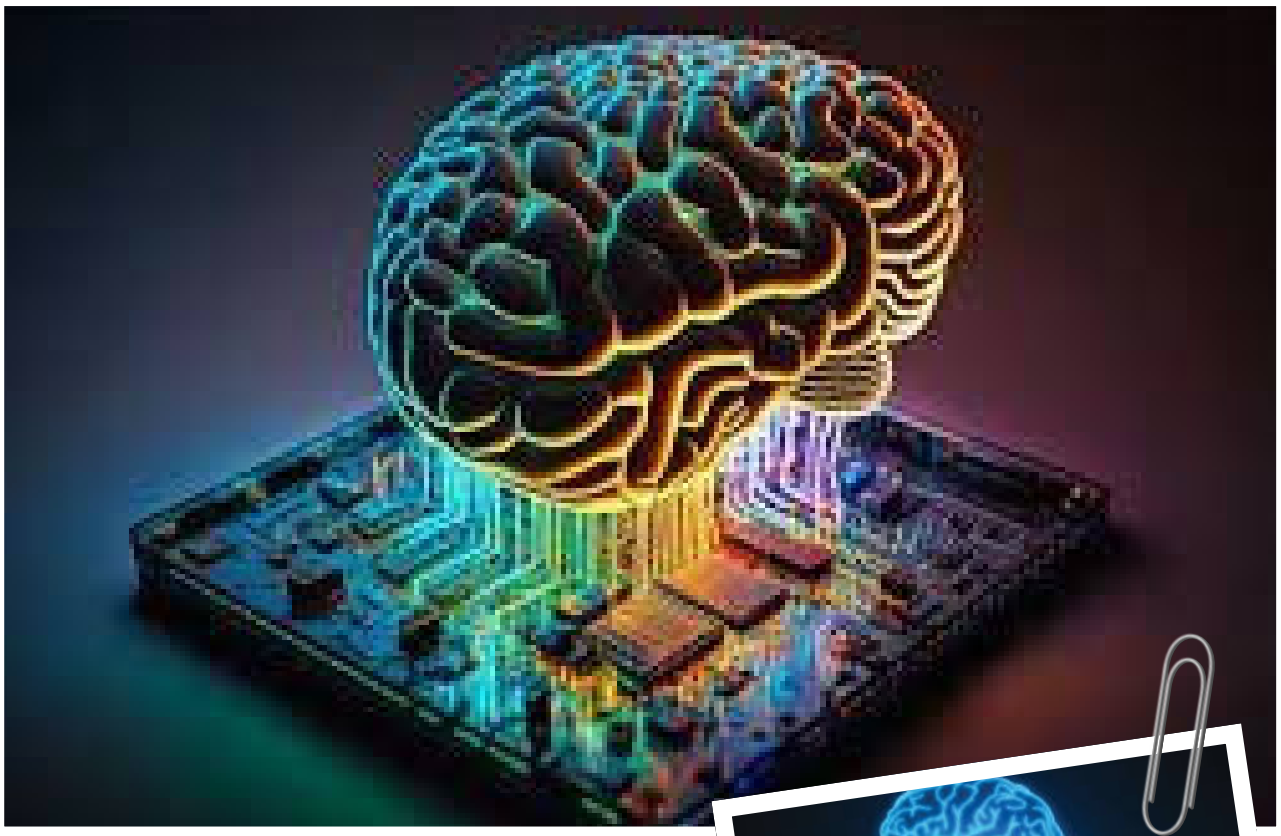
Mangesh U Lad
(T.E-I.T)

POST-QUANTUM CRYPTOGRAPHY

As quantum computers advance, traditional encryption methods face potential threats from their immense computational power. Post-quantum cryptography focuses on developing quantum-resistant algorithms to secure sensitive data. Meanwhile, quantum security leverages principles like quantum key distribution (QKD) to enable ultra-secure communications, ensuring cybersecurity remains resilient in the quantum era.

Post-quantum cryptography (PQC) is a set of algorithms that are designed to withstand attacks by quantum computers. It's also known as quantum-proof, quantum-safe, or quantum-resistant cryptography.

Pranit More
(T.E-I.T)



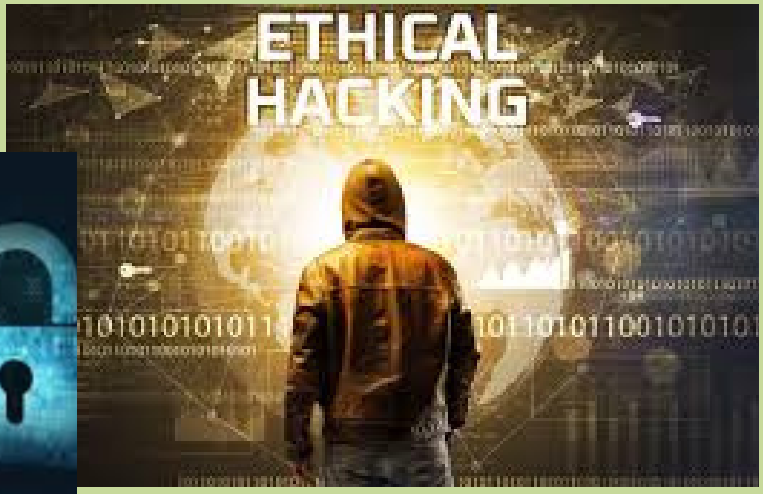
Neuromorphic Computing

Neuromorphic computing is an advanced AI approach that seeks to replicate the way the human brain processes information. Unlike traditional computers, which use binary logic and von Neumann architecture, neuromorphic chips use artificial neurons and synapses to enable real-time learning, pattern recognition, and energy-efficient AI processing. This technology allows for ultra-fast decision-making with significantly lower power consumption, making it ideal for applications such as autonomous robots, edge AI, and brain-machine interfaces. The potential of neuromorphic computing extends across various domains, including healthcare, security, and industrial automation

Anuj Chavan
(T.E-I.T)

Ethical Hacking

With cyber threats becoming more sophisticated, ethical hacking plays a crucial role in identifying vulnerabilities before malicious actors exploit them. Bug bounty programs incentivize security researchers worldwide to discover and report security flaws in software and systems. This crowdsourced approach to cybersecurity enhances digital defenses and fosters collaboration in the fight against cybercrime.



Varun Babar
(T.E–I.T)

GENERATIVE AI

AI is no longer just a tool for automation—it is now a creative force. Generative AI models like ChatGPT and DALL·E generate human-like text, images, and even music, transforming industries such as content creation, design, and customer service. Meanwhile, Explainable AI (XAI) ensures transparency by making AI-generated decisions understandable, helping to build trust in AI-powered applications.

Swapnil Ware
(T.E-I.T)