School: .....Campus: .....

Academic Year: ..... Subject Name: ..... Subject Code: .....

Semester: ..... Program: ..... Branch: ..... Specialization: .....

Date: .....

Applied and Action Learning

(Learning by Doing and Discovery)

Name of the Experiment: Future Now – AI + Web3 Research Presentations

* Aim:

To explore and present the integration of Artificial Intelligence (AI) and Web3 technologies, highlighting how the convergence of these two emerging paradigms is shaping the future of decentralized, intelligent digital ecosystems.

* Objectives:

- To understand the fundamentals of AI and Web3 individually.
- To analyze how AI can enhance blockchain-based systems.
- To research existing AI + Web3 projects and their applications.
- To predict future trends and challenges in the AI-Web3 ecosystem.
- To present the findings in a structured, research-based format.

* Software used:

1. Web Browser (Google Chrome / Brave Browser)
→ Used to access blockchain tools, Web3 platforms, and AI research portals.

2. Remix IDE (Ethereum Smart Contract Development Environment)
→ Web-based IDE for experimenting with Solidity smart contracts and decentralized applications.

3. MetaMask Wallet
→ Browser extension wallet used to connect with Web3 decentralized networks and manage crypto identities.

4. AI Platforms / Research Tools
→ Google Colab, Hugging Face, or OpenAI playground used for AI model experimentation and data analysis.

5. Blockchain Explorer (Etherscan / Blockscout)
→ For visualizing blockchain transactions, contract deployments, and on-chain activity.

6. Presentation & Documentation Tools
→ Microsoft PowerPoint / Google Slides (for research presentations)
→ Microsoft Word (for report preparation)

**** As applicable according to the experiment.***
Two sheets per experiment (10-20) to be used.

* Testing Phase: Compilation of Code (error detection)

NO ERROR

* Implementation Phase: Final Output (no error)

1. **AI-driven DAO:**

- Use AI models to automate voting or resource allocation in decentralized autonomous organizations.

2. **Decentralized Data Marketplace:**

- Users can sell data directly to AI systems securely using blockchain.

3. **AI-powered NFT Valuation:**

- AI models predict and authenticate NFT market values.

4. **Predictive Smart Contracts:**

- Smart contracts that trigger automatically based on AI predictions (e.g., insurance, supply chain).

5. **AI Identity Verification:**

- Web3 digital identities enhanced by AI-based facial or behavioral recognition.

* Observation :

- The integration of AI and Web3 demonstrates strong potential for creating autonomous and trustless systems.
- AI models can process decentralized data efficiently, improving blockchain decision-making.
- Blockchain enhances AI transparency by providing immutable records of model outputs and transactions.
- The use of smart contracts allows automation of AI-based decision processes in decentralized environments.
- Data privacy and security challenges remain key concerns when combining AI with decentralized data systems.
- Observed growing adoption of AI-driven decentralized applications (AI DApps) and AI marketplaces.
- Cross-disciplinary integration requires high computational power and interoperability frameworks.
- Web3 identity systems can be enhanced with AI trust scoring and behavioral analytics.
- Future systems will likely adopt AI-assisted governance models (AI DAOs) for decision automation.
- The synergy between AI and Web3 signifies the beginning of a self-sustaining, intelligent digital ecosystem.

**** As applicable according to the experiment.***
Two sheets per experiment (10-20) to be used.

ASSESSMENT

Rubrics	Full Mark	Marks Obtained	Remarks
Concept	10		
Planning and Execution/Practical Simulation/ Programming	10		
Result and Interpretation	10		
Record of Applied and Action Learning	10		
Viva	10		
Total	**50**		

Signature of the Student :

Name :

Signature of the Faculty :

Regn. No. :

**** As applicable according to the experiment.***
Two sheets per experiment (10-20) to be used