

Periyar University

M.Sc. Creative Media Technologies

(2 YEARS)

Program Outcomes (POs):

- PO1: Technical Proficiency Graduates should demonstrate a deep understanding of creative media technologies, including programming languages, software tools, hardware systems, multimedia production, and emerging technologies relevant to the field.
- **PO2**: **Creative Problem Solving** Graduates should be able to analyze complex challenges in creative media industries and apply innovative solutions, combining technological expertise, creative thinking, and programming skills.
- **PO3: Critical Thinking and Problem-Solving -** Graduates should be able to apply critical thinking skills to analyze and solve problems related to creative media production, including design, production, and post-production challenges.
- **PO4**: **Collaborative Skills** Graduates should be capable of working effectively in interdisciplinary teams, understanding the dynamics of creative projects, and contributing constructively to achieve common goals, including collaborative programming projects.
- PO5: Ethical and Professional Conduct Graduates should uphold ethical standards and demonstrate a strong sense of
 responsibility in their professional practices, respecting intellectual property rights, ethical use of data, and adhering to
 industry norms related to programming.
- **PO6**: **Research and Analysis** Graduates should possess research skills to investigate and evaluate trends, theories, and best practices in creative media technologies and programming, fostering continuous learning and adaptability.

Program Specific Outcomes (PSOs):

- **PSO1: Interactive Media Development** Graduates should be proficient in designing and developing interactive media content, such as multimedia applications, user interfaces, and immersive experiences, utilizing programming languages and frameworks.
- **PSO2: Digital Content Creation** Graduates should have the ability to create high-quality digital content, including graphics, animations, audio, and video, using industry-standard software, creative tools, and programming techniques.
- **PSO3: Storytelling and Narrative Design** Graduates should be skilled in crafting compelling narratives and storylines for various media formats, understanding how to engage programming elements to enhance user experiences.
- **PSO4: Media Technology Integration** Graduates should be able to integrate diverse media technologies seamlessly, enabling the efficient production and delivery of multimedia content across multiple platforms.
- **PSO5: Emerging Media Trends** Graduates should be aware of the latest trends and innovations in creative media technologies, including virtual reality, augmented reality, artificial intelligence, and other cutting-edge technologies.
- **PSO6: Project Management** Graduates should possess project management skills to plan, execute, and deliver creative media projects successfully, including those involving programming components, meeting deadlines and

| Module Name | Blockchain Technologies | Module Type | Elective VIII: Practical |
|-------------|-----------------------------------|-------------|--------------------------|
| Semester | IV | Credits | 2 |
| Degree | M.Sc. Creative Media Technologies | | |

Course Objectives:

- Understand blockchain fundamentals, including decentralization and cryptography.
- Explore blockchain architecture and consensus mechanisms.
- Develop and deploy smart contracts on platforms like Ethereum.
- Learn blockchain security and best practices.
- Analyze real-world blockchain applications and future potential.

Course Outcomes:

On the successful completion of the course, students will be able to:

| СО | CO Statement | Programme | |
|--------|--|---------------------|--|
| Number | | Outcomes | |
| CO1 | Demonstrate a solid understanding of blockchain technology and its principles, | PO1, PO3 | |
| | including decentralization and cryptographic techniques | | |
| CO2 | Evaluate different blockchain architectures and consensus mechanisms, and choose | PO1, PO3, PO4 | |
| | appropriate solutions for specific use cases | | |
| CO3 | Design and develop smart contracts using platforms like Ethereum, and deploy them | PO1, PO2, PO3, PO5 | |
| | on a blockchain network | | |
| CO4 | Implement security measures to safeguard blockchain data and transactions, and apply | PO1, PO5, PO4, PO6 | |
| | best practices for secure blockchain development | | |
| CO5 | Analyze real-world applications of blockchain technology in various industries and | PO1, PO3, PO4, PO5, | |
| | predict future trends and potential disruptions in the digital economy | PO6 | |

Mapping with Programme Outcomes:

| CO/PSO | PSO 1 | PSO 2 | PSO 3 | PSO 4 | PSO 5 | PSO 6 |
|---|-------|-------|-------|-------|-------|-------|
| CO1 | 2 | 1 | 2 | 3 | 3 | 3 |
| CO2 | 3 | 2 | 2 | 2 | 3 | 3 |
| CO3 | 2 | 2 | 2 | 3 | 3 | 3 |
| CO4 | 2 | 2 | 2 | 2 | 2 | 3 |
| CO5 | 2 | 2 | 2 | 3 | 3 | 2 |
| Weightage of course contributed to each PSO | 11 | 9 | 10 | 13 | 14 | 14 |

^{*}S-Strong-3 M-Medium-2 L-Low-1

Lab Exercises:

- 1. Demonstrate the process of Bitcoin Mining
- 2. Create a Merkle tree
- 3. Create a Crypto-currency Wallet
- 4. Demonstrate the process of Ethereum Blockchain
- 5. Demonstrate various algorithms used in Blockchain Technology.
- 6. Explore encryption, digital signatures, and blockchain security.
- 7. Develop and deploy a smart contract on Ethereum or Binance Smart Chain.
- 8. Evaluate and enhance blockchain project security.
- 9. Create and manage tokens representing assets.