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THE NATIONAL COLLEGE
BASAVANGUDI, BANGALORE-560004
[AUTONOMOUS]
DEPARTMENT OF ECONOMICS

DIGITAL CURRENCY: NAVIGATING THE FUTURE OF MONEY

Duration: 30 Hours

Course code: ECO-DC

Course Description:

The Digital Currency course provides students with a comprehensive understanding of digital currencies, including cryptocurrencies, central bank digital currencies (CBDCs), and digital payment systems. Through theoretical lectures, case studies, and practical exercises, students will explore the evolution of money, the underlying technology of digital currencies, the impact of digital currencies on the global economy, and the regulatory landscape. Emphasis will be placed on understanding the benefits, challenges, and future potential of digital currencies.

Course Objectives:

1. Understand the concept and history of digital currencies.
2. Gain knowledge of various types of digital currencies, including cryptocurrencies and CBDCs.
3. Explore the underlying technology of digital currencies, such as blockchain and distributed ledger technology.
4. Learn about digital payment systems and their role in facilitating transactions.
5. Examine the impact of digital currencies on traditional financial systems and monetary policy.
6. Understand the regulatory environment and legal considerations surrounding digital currencies.
7. Analyse case studies and real-world examples of digital currency adoption and implementation.

Module 1:

7 Hours

Introduction to Digital Currencies

- Definition and history of digital currencies
- Evolution of money and the role of digital currencies
- Overview of cryptocurrencies, CBDCs, and digital payment systems

Block chain Technology

- Fundamentals of block chain and distributed ledger technology (DLT)
- Decentralization and consensus mechanisms
- Smart contracts and decentralized applications (DApps)
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Module 2.

7 Hours

Cryptocurrencies

- Introduction to cryptocurrencies (e.g., Bitcoin, Ethereum)
- Mining, transactions, and wallets
- Cryptocurrency exchanges and trading platforms

Central Bank Digital Currencies (CBDCs)

- Definition and objectives of CBDCs



<ul style="list-style-type: none"> • Types of CBDCs and implementation models • Potential benefits and challenges of CBDCs 	
Module 3.	8 Hours
<p>Digital Payment Systems</p> <ul style="list-style-type: none"> • Overview of digital payment methods (e.g., mobile payments, e-wallets) • Payment processing networks and protocols • Security and fraud prevention in digital payments <p>Impact of Digital Currencies on the Economy</p> <ul style="list-style-type: none"> • Role of digital currencies in financial inclusion • Implications for monetary policy and central banking • Economic and social implications of digital currency adoption 	
Module 4:	8 Hours
<p>Regulatory Environment</p> <ul style="list-style-type: none"> • Regulatory frameworks for digital currencies • Compliance requirements and anti-money laundering (AML) regulations • Taxation and reporting obligations for digital currency transactions <p>Case Studies and Real-World Examples</p> <ul style="list-style-type: none"> • Analysis of successful digital currency projects and implementations • Examination of challenges and failures in digital currency adoption <p>Lessons learned and best practices for digital currency initiatives</p>	
<p>Recommended Textbooks:</p> <ul style="list-style-type: none"> • "The Age of Cryptocurrency: How Bitcoin and Digital Money Are Challenging the Global Economic Order" by Paul Vigna and Michael J. Casey • "Blockchain Basics: A Non-Technical Introduction in 25 Steps" by Daniel Drescher • "The Future Is Faster Than You Think: How Converging Technologies Are Transforming Business, Industries, and Our Lives" by Peter H. Diamandis and Steven Kotler 	

