Executive Short Course

Fundamentals of Blockchain Technology

Unlocking the Future: *Exploring the Revolutionary World of Blockchain*

Course Overview

This course explores the revolutionary world of blockchain, its applications across diverse industries, and its potential to reshape traditional paradigms. Participants will delve into the core concepts, mechanics, functions, and real-world use cases of blockchain technology. By the end of the course, participants will gain a profound insight into the transformative power of blockchain and its implications for various industries.

Course Objectives

By the end of this course, participants will have achieved the following objectives:

- A comprehensive understanding of blockchain technology, its mechanics, and its applications
- Insights into how blockchain can revolutionize industries, enhance security, and increase efficiency
- Profound knowledge of blockchain's role in governance, privacy, and security
- Exploration of real-world use cases and future trends enabled by blockchain
- Networking opportunities with experts and peers interested in blockchain technology

Course Contents

Course Topic	Specific Objectives
Introduction to Blockchain	• Exploring blockchain characteristics and components. • Describing the roles and users in a blockchain community. • Investigating use cases for general blockchain solutions.
Blockchain Mechanics	• Elaborating on the concept of Zero-Knowledge Proofs (ZKPs) and Merkle trees in blockchain technologies. • Discuss how blockchain employs transparency and immutability.

Course Topic	Specific Objectives
Blockchain Functions	• Explaining what smart contracts are and their operational principles. • Contrasting blockchain security with standard security measures. • Analyzing the flow of a transaction in the blockchain. • Discussing the consensus mechanisms used in blockchain.
Blockchains and Governance, Privacy, and Security	• Discuss various types of governance models and their applications in public and private blockchains. • Examining examples of Decentralized Autonomous Organizations (DAOs). • Exploring security threats and defense mechanisms in the blockchain ecosystem. • Analyzing smart contract vulnerability and conducting security audits.
Blockchain Problem Solving, Future Trends & Real World Use Cases	• Explaining how blockchain aims to achieve autonomy through smart contracts. • Exploring blockchain use cases in business enterprises, the public sector, and social impact projects. • Investigating emerging technologies enabled by blockchain and their potential to enhance the human experience

- **Hosted by Nelson Mandela African Institution of Science and Technology (NM-AIST) in collaboration with Kibosoko Group Limited**
- **Duration: From 23rd to 27th October 2023**
- **Location: NM-AIST main campus, Tengeru, Arusha.**
- **Fee: TZS 1,250,000 per participant, covering comprehensive training, breakfast, lunch, tea breaks, valuable training materials, and a curated bag with essential training accessories.**
- **Target Group: Municipalities, organizations, directors, managers, ICT experts, human resources officers, accountants, auditors, policymakers, regulators, service & solution providers, academia, and anyone seeking to grasp the profound implications of blockchain technology.**
- **Certification: Participants will be awarded a Certificate upon completing the training.**

Register now! Contact:

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