

# **Emerging Technologies**

## **Internet of Things & AI Cloud Professional Program**

### **Curriculum**

#### **Program Outline :**

##### **Module 1: Fundamentals of IoT and AI Cloud**

###### **1. Introduction to IoT and AI Cloud**

- Core principles, tools, and industry applications.

###### **2. IoT Device Management**

- Working with Arduino, Raspberry Pi, sensors, and actuators.

###### **3. Data Communication Protocols**

- Managing data transmission in IoT systems.

###### **4. Introduction to Cloud Computing**

- Utilizing cloud platforms for IoT.

##### **Module 2: Advanced Tools and Techniques**

###### **5. Advanced AI Techniques**

- Implementing machine learning, computer vision, and NLP.

###### **6. Cloud Platforms**

- Working with AWS, Azure, and other cloud platforms.

###### **7. Data Storage and Management**

- Storing and managing IoT data efficiently.

###### **8. IoT Security**

- Securing IoT systems and data.

### **Module 3: Practical Applications**

#### **9. IoT Project Development**

- Developing and implementing IoT projects.

#### **10. AI Applications in IoT**

- Enhancing IoT solutions with AI.

#### **11. Data Analysis and Visualization**

- Analyzing IoT data and visualizing results.

#### **12. Business Intelligence Applications**

- Using IoT data for decision making.

### **Module 4: Capstone Project**

#### **13. Integration of Learned Skills**

- Apply tools and techniques to real-world IoT and AI problems.

#### **14. Advanced IoT Systems**

- Developing complex IoT systems.

#### **15. Cloud Data Management**

- Utilizing cloud platforms for scalable IoT solutions.

#### **16. AI for IoT**

- Implementing AI solutions in IoT.

### **Elective Modules**

#### **17. Data Ethics and Privacy**

- Ethical considerations, privacy laws, compliance strategies.

#### **18. Predictive Analytics with Data Management**

- Building and validating predictive models.

#### **19. AI for Data Management**

- Implementing AI solutions in data management.

#### **20. Advanced Data Warehousing Techniques**

- Optimizing data warehousing solutions.

#### **21. Data-Driven Decision Making**

- Using data to inform and drive business strategies.

#### **22. Cloud Data Management Solutions**

- Deploying data management systems on cloud platforms.

#### **23. IoT Project Management**

- Leading IoT projects, ensuring successful delivery.

#### **24. Big Data Security**

- Securing data in big data environments.

#### **25. IoT for Smart Cities**

- Developing IoT solutions for smart city applications.

#### **Websites:**

- <https://chools.in/>
- <https://ramaqchools.com/>
- <https://www.choolsgroup.com/>