Master of Science in Information Technology & Artificial Intelligence (M.Sc. IT & AI)

Duration: 12 Months (2 Semesters)
Total Credits: 180 ECTS

Program Overview

The **Master of Science in Information Technology & Artificial Intelligence (M.Sc. IT & AI)** is an advanced program designed to equip students with cutting-edge expertise in Information Technology, with a specialized focus on Artificial Intelligence. This program balances **80% IT modules** with **20% AI-focused modules**, ensuring graduates are well-versed in contemporary IT infrastructures while mastering the latest AI advancements.

Graduates will emerge with skills in **software development, cybersecurity, data science, cloud computing, and artificial intelligence**, making them highly competitive in the global tech industry.

Program Structure

The curriculum consists of core modules and elective options, ensuring both foundational knowledge and specialized expertise.

Semester 1

Core IT Modules

1. **Advanced Software Engineering (IT601) - 20 Credits**
   Software design principles, Agile methodologies, DevOps, and software testing techniques.
2. **Cloud Computing & Virtualization (IT602) - 20 Credits**
   Cloud infrastructure, AWS/Azure, containerization (Docker/Kubernetes), and cloud security.
3. **Cybersecurity & Ethical Hacking (IT603) - 20 Credits**
   Cybersecurity frameworks, penetration testing, cryptography, and network security protocols.
4. **Big Data & Database Systems (IT604) - 20 Credits**
   Database architecture, SQL/NoSQL databases, Hadoop, and data warehousing.

AI-Focused Modules

5. **Fundamentals of Artificial Intelligence (AI601) - 20 Credits**
   Introduction to AI, machine learning concepts, AI ethics, and practical AI applications.

Semester 2

Core IT Modules

6. **Enterprise IT & Business Analytics (IT605) - 20 Credits**
   Enterprise software, IT governance, ERP systems, and business intelligence tools.
7. **Software Project Management & Agile Leadership (IT606) - 20 Credits**
   Project management frameworks, Agile/Scrum, stakeholder management, and IT governance.
8. **Blockchain & FinTech Innovations (IT607) - 20 Credits**
   Blockchain technology, smart contracts, DeFi, and FinTech applications.

AI-Focused Modules

9. **Machine Learning & Deep Learning (AI602) - 20 Credits**
   Supervised/unsupervised learning, neural networks, deep learning applications, TensorFlow/PyTorch.

Capstone Project & Research

10. **M.Sc. IT & AI Final Research Project (ITAI699) - 40 Credits**
    Independent research and development of an innovative IT or AI-based solution under faculty supervision.

Key Learning Outcomes

By the end of this program, students will:

- Master advanced **software engineering** and **cybersecurity** practices.
- Develop expertise in **cloud computing, blockchain, and FinTech applications**.
- Apply AI concepts to real-world problems using **machine learning and deep learning techniques**.
- Lead and manage **IT projects and agile development teams**.
- Conduct independent research and innovation in IT and AI.

Career Prospects

Graduates of the **M.Sc. IT & AI** program can pursue careers as:

- **Software Engineers / IT Consultants**
- **Cybersecurity Analysts**
- **Cloud Architects / DevOps Engineers**
- **AI & Machine Learning Engineers**
- **Blockchain Developers / FinTech Experts**
- **Data Scientists / Business Intelligence Analysts**
- **University Lecturers & Researchers**

Admission Requirements

- Bachelor's degree in IT, Computer Science, Engineering, or a related field.
- Strong programming skills (Python, Java, C++, or similar languages).
- English language proficiency (IELTS 6.0+ or equivalent for non-native speakers).
- A strong passion for technology and AI innovations.

Why Choose This Program?

✔**Industry-Relevant Curriculum:** Covers the latest in IT and AI technology.

✔**Affordable Fees:** Special scholarships for African students.

✔**Hands-on Learning:** Practical labs, real-world projects, and research-focused study.

✔**Expert Faculty:** Learn from top researchers and industry professionals.

✔**Global Career Opportunities:** High demand for IT & AI professionals worldwide.

✔**International Collaboration:** This program is linked to **top universities and research institutions in Germany**, offering students opportunities for academic exchange, research collaboration, and career placement in European tech industries.

✔**Cutting-Edge Facilities:** Access to modern laboratories, AI research centers, and cloud computing environments.

✔**Strong Industry Connections:** Partnerships with multinational companies and tech startups, ensuring job readiness upon graduation.

International Fees Per Semester of 6 Months

- Tuition Fee: €1000.00
- Application Fee (Non-Refundable): €50.00
- Additional Costs:

Zambia & Africa Based Educators Special Scholarship (Scholarship Deadline, 28th February 2025)

- Tuition Fee: €140.00
- Application Fee(Non-Refundable): €10.00

APPLY TODAY!

Join the next generation of IT & AI innovators! Secure your place today and shape the future of technology.

For more details, visit our website or contact our admissions team.