



STUDENTS INDUSTRIAL WORK EXPERIENCE SCHEME
SIWES



**ROLASOFT PROFESSIONAL COMPUTER & IT
COURSES VERSION 2.0 LATEST**

SIWES Diploma in Artificial Intelligence

*Become a job-ready Artificial Intelligence in
3-6 months!*

Benefits of Studying with RolaSoft

✓ 1. Industry-Relevant Curriculum

Stay ahead with a syllabus designed by industry experts, focused on real-world Artificial Intelligence.

✓ 2. Hands-On Training

Learn by doing — build real-time projects, full-scale Artificial Intelligence

✓ 3. Experienced Instructors

Gain insights from certified professionals and senior certified ethical hacker with years of teaching and industry experience.

✓ 4. Placement Assistance

Access job support services including resume building, mock interviews, and direct placement opportunities with partner companies.

✓ 5. Flexible Learning Modes

Choose between: **Online**, **Offline (at our center)**, or **Hybrid Classes**

Benefits of Studying with RolaSoft

✓ 6. Mini & Major Projects

Work on individual and group projects to strengthen your portfolio and impress future employers.

✓ 7. Certification Upon Completion

Earn a **Diploma Certificate** from **RolaSoft Technologies**, recognized by IT recruiters and employers.

✓ 8. Small Batch Size

Personalized attention and better interaction in small groups for an enhanced learning experience.

✓ 9. Affordable Fees & Installment Plans

Top-tier training at a reasonable cost, with flexible payment options.

✓ 10. Career-Oriented Skills You'll Gain at RolaSoft Technologies

RolaSoft ensures you're job-ready with the right tech stack and practical knowledge.

SIWES Overview

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SIWES (Student Industrial Work Experience Scheme) is a structured industrial training program designed for students in Nigerian tertiary institutions studying science, engineering, technology, and other professional courses. It is coordinated by the **Industrial Training Fund (ITF)** and serves as a bridge between academic knowledge and practical industry experience.

Typically conducted for a duration of **3–6 months**, SIWES places students in real work environments related to their field of study. During this period, they apply classroom theory to practical tasks and gain firsthand understanding of workplace expectations and professional practices.

Advantages of SIWES to Students

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Hands-On Experience: Provides real-world exposure and practical knowledge in the student's field.

Bridging the Skills Gap: Helps students connect academic theories with industry practices.

Career Readiness: Prepares students for post-graduate employment by developing technical and soft skills.

Professional Networking: Offers opportunities to build relationships with industry professionals.

Improved Employability: Enhances resumes/CVs with relevant work experience that employers value.

Understanding of Workplace Culture: Teaches students workplace ethics, teamwork, and communication.

Opportunity for Future Placement: Sometimes leads to job offers or future internships with the same organization.

SIWES Artificial Intelligence Course Details



Duration

Three-Six (3-6) Months



Schedule

Weekdays / Weekends



Learning Modes

Online, Offline (at our center), or Hybrid Classes



Start Date

New batches start every month — enroll now!



Eligibility

No prior experience required

SIWES Artificial Intelligence – Program Details

Program Overview

The **AI (Artificial Intelligence)** course introduces students to the concepts, algorithms, and applications of AI. The course covers topics from machine learning, neural networks, natural language processing (NLP), computer vision, and AI ethics.

Students will also explore hands-on projects using popular AI frameworks and libraries such as **TensorFlow, Keras, and PyTorch**.

SIWES Artificial Intelligence - Target Audience & Prerequisites

Target Audience:

- ✓ Computer Science, Data Science, and Engineering students interested in pursuing AI and machine learning careers, especially for SIWES or internships students.

Prerequisites:

- ✓ Basic understanding of programming (preferably in Python), mathematics (linear algebra, probability), and basic data structures and algorithms.

SIWES Artificial Intelligence Course Curriculum

Module 1: Introduction to Artificial Intelligence

- ✓ What is AI?
- ✓ Types of AI: Narrow AI vs. General AI
- ✓ AI applications in real life (healthcare, robotics, finance, etc.)
- ✓ Overview of AI fields: machine learning, deep learning, NLP, computer vision

SIWES Artificial Intelligence Course Curriculum

Module 2: Mathematics for AI

- ✓ Linear Algebra: vectors, matrices, and operations
- ✓ Calculus for optimization
- ✓ Probability and statistics for data analysis
- ✓ Gradient descent and optimization techniques

SIWES Artificial Intelligence Course Curriculum

Module 3: Programming for AI

- ✓ Python programming for AI: libraries like NumPy, pandas, and Matplotlib
- ✓ Data handling and manipulation with Python
- ✓ Introduction to AI frameworks: TensorFlow, Keras, PyTorch
- ✓ Building AI models with Python

SIWES Artificial Intelligence Course Curriculum

Module 4: Machine Learning Basics

- ✓ Supervised vs unsupervised learning
- ✓ Regression and classification algorithms (Linear Regression, Decision Trees, etc.)
- ✓ K-means clustering, KNN, and SVMs
- ✓ Model evaluation (cross-validation, precision, recall, F1-score)

SIWES Artificial Intelligence Course Curriculum

Module 5: Neural Networks and Deep Learning

- ✓ Introduction to neural networks
- ✓ Activation functions (Sigmoid, ReLU, Tanh)
- ✓ Feedforward neural networks (FNN) and backpropagation
- ✓ Deep learning techniques: Convolutional Neural Networks (CNNs), Recurrent Neural Networks (RNNs)

SIWES Artificial Intelligence Course Curriculum

Module 6: Natural Language Processing (NLP)

- ✓ Text processing and tokenization
- ✓ Sentiment analysis and text classification
- ✓ Named Entity Recognition (NER)
- ✓ Word embeddings and transformers (Word2Vec, BERT, GPT)

SIWES Artificial Intelligence Course Curriculum

Module 7: Computer Vision

- ✓ Image classification and object detection
- ✓ Convolutional Neural Networks (CNN) in computer vision
- ✓ Feature extraction and image segmentation
- ✓ Advanced vision techniques: Face recognition, image style transfer

SIWES Artificial Intelligence Course Curriculum

Module 8: Reinforcement Learning

- ✓ Introduction to reinforcement learning (RL)
- ✓ Markov Decision Processes (MDP) and Q-learning
- ✓ Policy-based methods and value iteration
- ✓ Applications of RL in gaming, robotics, and autonomous systems

SIWES Artificial Intelligence Course Curriculum

Module 9: AI Ethics and Future of AI

- ✓ Ethical issues in AI development (bias, fairness, transparency)
- ✓ The impact of AI on jobs and society
- ✓ AI regulation and responsible AI development
- ✓ The future of AI: general AI and beyond

SIWES Final Capstone Project (End of 3-6 Months)

Students will complete an **industry-level project**:

- ✓ Build an end-to-end AI project (e.g., chatbot, image classifier, recommendation system). AI model deployment and performance monitoring

SIWES Artificial Intelligence - Certification Obtain

After completion of the program, the student will be awarded with a certificate:

SIWES Diploma in Artificial Intelligence

SIWES Artificial Intelligence - Roles After Completion

Graduates of this course can pursue the following roles:

- ✓ **AI/Machine Learning Engineer:** Designs and develops machine learning models and algorithms for various applications.
- ✓ **Data Scientist:** Analyzes and interprets complex data to make data-driven decisions using AI and machine learning.
- ✓ **AI Researcher:** Conducts research to advance the field of artificial intelligence, developing new algorithms.
- ✓ **Deep Learning Engineer:** Focuses on building and optimizing neural networks and deep learning models.
- ✓ **NLP Engineer:** Works on projects involving natural language processing, including speech recognition, text analysis, and chatbots.
- ✓ **Computer Vision Engineer:** Develops computer vision applications such as image recognition, video analysis, and autonomous vehicles.
- ✓ **AI Software Developer:** Builds software solutions incorporating AI algorithms, such as virtual assistants, recommendation systems, etc.
- ✓ **Data Analyst (AI-focused):** Specializes in using AI techniques to analyze large data sets and provide actionable insights.

Rolasoft Technologies Services

Rolasoft Technologies – Services Offered

✓ **SOFTWARE DEVELOPMENT COMPANY**

(MOBILE APPLICATION, WEB APPLICATION, DESKTOP APPLICATION, CUSTOMIZED APPLICATION, E-COMMERCE WEBSITE)

✓ **PROFESSIONAL COMPUTER AND IT EDUCATION**

(TOP-UP PROGRAMS, DIPLOMA PROGRAMS, CERTIFICATE PROGRAMS, TECH @ SCHOOL, CORPORATE PROGRAMS, SIWES PROGRAMS, CUSTOMIZED PROGRAMS)

✓ **DIGITAL ADVERTISING AND BUSINESS BRANDING**

(SOCIAL MEDIA MARKETING, EMAIL MARKETING, CONTENT MARKETING, WEBSITE SEO, BRANDED CLOTHING, STICKERS AND TAG, CUSTOM BRANDING, AND MANY MORE)

✓ **INTERNATIONAL UNIVERSITY ADMISSION PROCESSING**

(AMERICA, UK, CANADA, EUROPE, AFRICA, AND MANY MORE)

Contact & Registration

 Phone: +234 8032867212, +234 8082171242

 Email: info@rolasofttech.com

 Website: www.rolasofttech.com

 Address: 2, Martins Street Off Ojuelegba Road, Yaba, Lagos State.

 **Enroll Today & Start Your Artificial Intelligence Journey!**

Shape your future with SIWES Artificial Intelligence