STUDENTS INDUSTRIAL WORK EXPERIENCE SCHEME

SIWES

ROLASOFT PROFESSIONAL COMPUTER & IT COURSES VERSION 2.0 LATEST

SIWES Diploma in Data Science with Python

Become a job-ready Data Science 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 Data Science with Python.

✅ **2. Hands-On Training**

Learn by doing — build real-time projects, full-scale Data Science with Python.

✅ **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

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 Data Science with Python 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 Data Science with Python – Program Details

Program Overview

Data Science with Python is designed to equip students with essential skills for analyzing and interpreting complex data. Using Python—a powerful and widely-used programming language in the data science community—students learn to work with data using libraries like Pandas, NumPy, Matplotlib, and Scikit-learn.

The course balances theoretical knowledge with hands-on practice through real-world projects, making students job-ready for roles in analytics, AI, and more.

SIWES Data Science with Python - Target Audience & Prerequisites

Target Audience:

✅ Students and professionals in IT, Computer Science, Engineering, Statistics, or related fields, especially for SIWES or internships students.

Prerequisites:

✅ Basic programming knowledge (preferably Python) and foundational statistics.

SIWES Data Science with Python Course Curriculum

Module 1: Introduction to Data Science

- ✅ What is data science?
- ✅ Data science process and lifecycle
- ✅ Real-world applications and use cases
- ✅ Setting up Python and Jupyter Notebook

SIWES Data Science with Python Course Curriculum

Module 2: Python for Data Analysis

- ✅ Python basics: data types, loops, functions, modules
- ✅ Working with files and libraries
- ✅ Python packages for data science (Pandas, NumPy, Matplotlib)

SIWES Data Science with Python Course Curriculum

Module 3: Data Wrangling with Pandas

- ✅ DataFrames and Series in Pandas
- ✅ Importing/exporting data (CSV, Excel, JSON)
- ✅ Data cleaning: handling nulls, duplicates, and outliers
- ✅ Data transformation and aggregation

SIWES Data Science with Python Course Curriculum

Module 4: Data Visualization

- ✅ Introduction to data visualization
- ✅ Using Matplotlib and Seaborn
- ✅ Creating charts: line, bar, scatter, histogram, heatmaps
- ✅ Visual storytelling and dashboards (intro to Plotly)

SIWES Data Science with Python Course Curriculum

Module 5: Exploratory Data Analysis (EDA)

- ✅ Descriptive statistics
- ✅ Detecting patterns and anomalies
- ✅ Correlation analysis
- ✅ Feature selection techniques

SIWES Data Science with Python Course Curriculum

Module 6: Statistics and Probability

- ✅ Central tendency and dispersion
- ✅ Probability distributions (normal, binomial, etc.)
- ✅ Sampling techniques
- ✅ Hypothesis testing and confidence intervals

SIWES Data Science with Python Course Curriculum

Module 7: Introduction to Machine Learning

- ✅ Supervised vs. unsupervised learning
- ✅ Scikit-learn fundamentals
- ✅ Building ML models: Linear Regression, Decision Trees, KNN
- ✅ Model evaluation metrics (accuracy, precision, recall, F1-score)

SIWES Data Science with Python Course Curriculum

Module 8: Advanced Machine Learning Techniques

- ✅ Cross-validation and hyperparameter tuning
- ✅ Logistic Regression, Random Forest, SVM
- ✅ Clustering techniques (K-means)
- ✅ Introduction to ensemble models

SIWES Data Science with Python Course Curriculum

Module 9: Working with Real Datasets

- ✅ Projects using public datasets (e.g., Kaggle, UCI)
- ✅ Time-series data basics
- ✅ Text analytics (NLP intro)
- ✅ Case studies: marketing, finance, healthcare

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

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

✅ End-to-end data science project, Model development, testing, and deployment (intro)

SIWES Data Science with Python - Certification Obtain

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

SIWES Diploma in Data Science with Python

SIWES Data Science with Python - Roles After Completion

Graduates of this course can pursue the following roles:

- ✅ **Data Scientist:** Build models, analyze data, provide insights, and drive data-driven decisions
- ✅ **Data Analyst:** Interpret data trends and patterns using visualizations and statistical techniques
- ✅ **Machine Learning Engineer:** Implement and optimize predictive models and algorithms
- ✅ **Business Analyst:** Bridge data insights with business needs for strategic planning
- ✅ **AI/ML Analyst:** Apply Python-based models to real-world problems involving AI and automation
- ✅ **Data Engineer (Entry-Level):** Assist in preparing and processing large-scale datasets
- ✅ **Research Analyst:** Use data to support academic or market research projects

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 Data Science with Python Journey!

Shape your future with SIWES Data Science with Python