DOTS ICT INSTITUTE OF TECHNOLOGY ABEOKUTA, OGUN STATE, NIGERIA.

(National Board for Technical Education (NBTE) accredited)

FEDERAL GOVERNMENT APPROVED and LISTED ON NATIONAL BROCHURE OF THE JOINT ADMISSIONS & MATRICULATION BOARD (JAMB)
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OPPORTUNITY FOR IT/SIWES TRAINING AT DOTS ICT INSTITUTE OF TECHNOLOGY

Dear Parent or Guardian,
I hope this letter finds you in good health and high spirits. We would like to introduce an exciting opportunity for your child to undergo a 3-month or 6-month IT/SIWES (Students Industrial Work Experience Scheme) program at Dots ICT Institute of Technology. We believe that this experience will be highly beneficial for their educational and professional growth.

Schedule: Mondays–Wednesdays, 9:00 AM – 2:00 PM (with breaks)

What We Will Teach Them:

6-Month Curriculum: Data Analysis & AI/ML

📅 Months 1–2: Data Foundations & Excel/Python

Week 1: Intro to Data & Tech

- What is data? How it's used
- Real-life applications (social media, games, finance)
- Types of data (categorical, numerical, structured)
- Intro to digital tools & setup

Week 2: Excel Basics for Data

- Data entry, formatting, filtering
- Basic functions: SUM, AVERAGE, IF
- Simple graphs & visualizations (bar, pie, line)

Week 3: Data Cleaning in Excel

- Removing duplicates, fixing errors
- Conditional formatting
- Sorting by date, value, text

Week 4: Python Programming – Part 1

- Setting up Jupyter or Google Colab
- Syntax, variables, loops, conditionals
- Hands-on mini games and practice

Week 5: Python for Data – Part 2

- Lists, dictionaries, functions
- Working with CSV files
- Reading/writing data using `pandas`

Week 6: Data Cleaning & Exploration in Python

- Handling missing data
- Data types, conversions, filtering
- Summary statistics

🗓️ Months 3–4: Intermediate Data Analysis & Visualization

Week 7: Statistics for Data Analysis

- Mean, median, mode, standard deviation
- Visualizing distributions (histogram, boxplot)
- Spotting outliers

Week 8: Grouping & Aggregation

- Using `groupby` and pivot tables
- Filtering by multiple conditions
- Hands-on: Sales data or movie dataset

Week 9: Python Data Visualization

- `matplotlib` & `seaborn`
- Scatter plots, line charts, heatmaps
- Design best practices

Week 10: Exploratory Data Analysis (EDA)

- Ask & answer questions with data
- Correlation matrix & trend analysis
- Practice with real-world dataset (Kaggle/open data)

Week 11: Intro to Probability

- Basic probability concepts
- Simulating dice, card games in Python
- Understanding randomness and distributions

Week 12: Capstone Project (Data Analysis)

- Choose topic + dataset (e.g. weather, sports, business)
- Clean, analyze, visualize
- Begin drafting report and presentation

🗓️ Months 5–6: Artificial Intelligence & Machine Learning

Week 13: Introduction to AI/ML

- AI vs ML vs Deep Learning
- Applications in daily life
- Ethical considerations

Week 14: Supervised Learning – Regression

- Concept of prediction models
- Linear regression (predicting numbers)
- Hands-on with housing or scores data

Week 15: Supervised Learning – Classification

- Classifying with logistic regression, decision trees
- Model accuracy and confusion matrix
- Hands-on: Email spam classifier or music genre prediction

Week 16: Unsupervised Learning – Clustering

- K-means clustering explained
- Grouping similar data (movies, customers, animals)
- Practice: Explore product segments

Week 17: Model Evaluation & Overfitting

- Train/test split, validation
- Avoiding overfitting
- Hyperparameter tuning basics

Week 18: Optional Deep Dive – Neural Networks

- Intro to neural nets & TensorFlow Playground
- Layers, nodes, weights
- Image recognition example (MNIST digits)

Week 19: Creative AI Tools

- Teachable Machine, ChatGPT, Canva AI
- AI in art, writing, video
- Hands-on project (AI poem, song, art)

Week 20: Real-World AI & Case Studies

- AI in medicine, climate, transportation
- Analyze how companies use AI (Netflix, YouTube, Uber)
- Start final project brainstorming

🗓️ Final Weeks: Capstone Projects & Graduation

Week 21: Project Planning

- Students choose: Data Analysis or AI/ML
- Define goals, questions, datasets, tools
- Timeline setup

Week 22: Development & Mentorship

- Build model or dashboard
- Weekly progress check-ins
- Peer collaboration & support

Week 23: Final Touches

- Add charts, improve visuals, polish insights
- Build presentation slides
- Practice pitching

Week 24: Showcase & Graduation

- Final presentations (team or solo)
- Peer feedback + reflections

What They Stand to Gain:

Upon successful completion of the IT/SIWES program, your child will enjoy several advantages:

1. **Certificate:** A certificate will be issued to them after sitting for the examination, which will serve as evidence of their newly acquired skills.
2. **Membership/Networking Opportunity:** They will have the chance to build valuable connections in the IT industry through networking opportunities, which could be beneficial for their future career.

Program Fees:

- **For the 3-month program, the fee is 60,000 Naira.**
- **For the 6-month program, the fee is 90,000 Naira.**

We believe that this IT/SIWES program will be a valuable addition to your child's education, providing them with practical skills and networking opportunities. If you have any questions or need further information, please do not hesitate to contact us.

Thank you for considering this opportunity for your child's educational and professional development.

Sincerely,

Mrs Ruth Akinbami
HR
07014098550/09037701800