## Curriculum Vitae

(Last Updated: July, 21, 2024)

# Faris Hamdi Rizk

Department of Communications and Electronics Delta Higher Institute of Engineering and Technology Mansoura, 35111, Egypt

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## **Experience**

#### **Undergraduate Research Assistant**

Machine Learning and Metaheuristics Optimization Lab, Delta Higher Institute of Engineering and Technology Jan. 2024 - Present

### **Education**

**B.S. in Electronics and Communication Engineering**Delta Higher Institute of Engineering and Technology
Mansoura, 35111, Egypt.

Sep. 2021 - Jul. 2026

#### Research Interests

#### **Artificial Intelligence**

Machine learning, Deep Learning, Optimization

#### **Technical Skills**

- Machine Learning
- Scientific Writing
- Python & C
- LaTeX
- Data Analysis
- Signal Processing and Electronics

#### Personal skills

- Analytical Thinking
- Problem Solving
- Team Work
- Curiosity And Continuous Learning
- Adaptability And Flexibility
- Work Independence Ability
- Self-Motivated

## **Volunteering Experience**

#### **Graphic Design Head**

Google Developer Student Club (GDSC), Delta Higher Institute of Engineering and Technology. Sep. 2021 - Jul. 2026

### **Awards & Honors**

2nd Place, GDG DevFest Mansoura Hackathon,

Mansoura University, Egypt

2023

## Languages

- English (B2)
- Arabic (native)

## **Publications**

### **Conference Articles**

- [1] Faris H. Rizk, Mahmoud Elshabrawy, Basant Sameh, Ahmed Mohamed Zaki, Marwa M Eid, Sayed Kenawy. "Enhancing Student Performance Prediction with Greylag Goose Optimization Algorithm." Proceedings of the 4th International Telecommunications Conference (ITC-Egypt 2024), Cairo, Egypt. (Accepted for presentation)
- [2] Mark Emad Sobhi Abdelmalak, Nima Khodadadi, Ahmed Mohamed Zaki, Marwa M Eid, Faris H. Rizk, Abdelhameed Ibrahim, Abdelaziz Abdelhamid, Laith Abualigah, Sayed Kenawy. "Pothole Detection in Asphalt Roads: A Comprehensive Approach for Enhanced Road Maintenance and Safety with AlexNet Model." Proceedings of the 4th International Telecommunications Conference (ITC-Egypt 2024), Cairo, Egypt. (Accepted for presentation)
- [3] Faris H. Rizk, Mahmoud Elshabrawy, Basant Sameh, Ahmed Mohamed Zaki, Marwa M Eid, Sayed Kenawy. "Predictive Modeling of Portuguese Student Performance: Comparative Machine Learning Analysis." Proceedings of the 4th International Telecommunications Conference (ITC-Egypt 2024), Cairo, Egypt. (Accepted for presentation)
- [4] Abdelhameed Ibrahim, Christos Gatzoulis, Marwa M Eid, Faris H. Rizk, Laith Abualigah, Sayed Kenawy. "Regression Models for Predicting Gamified Educational Outcomes." Proceedings of the 4th International Telecommunications Conference (ITC-Egypt 2024), Cairo, Egypt. (Accepted for presentation)
- [5] Khaled Sherif, Faris H. Rizk, Ahmed Mohamed Zaki, Marwa M Eid, Nima Khodadadi, Abdelaziz Abdelhamid, Laith Abualigah, Sayed Kenawy. "Revolutionizing Oil Spill Detection: A Machine Learning Approach for Satellite Image Classification." Proceedings of the 4th International Telecommunications Conference (ITC-Egypt 2024), Cairo, Egypt. (Accepted for presentation)

### **JOURNAL ARTICLES**

- [1] Rizk, F. H., Arkhstan, S., Zaki, A. M., Kandel, M. A., & Towfek, S. K. (2023). Integrated CNN and Waterwheel Plant Algorithm for Enhanced Global Traffic Detection. Full-Length Article, Volume 6(Issue 2), 36–45.
- [2] Kandel, M. A., Rizk, F. H., Hongou, L., Zaki, A. M., Khan, H., & El-Kenawy, E.-S. M. (2023). Evaluating the Efficacy of Deep Learning Architectures in Predicting Traffic Patterns for Smart City Development. Full-Length Article, Volume 6(Issue 2), 26–35.

- [3] Rizk, F. H., Elshabrawy, M., Sameh, B., Mohamed, K., & Zaki, A. M. (2024). Optimizing Student Performance Prediction Using Binary Waterwheel Plant Algorithm for Feature Selection and Machine Learning. Full-Length Article, Volume 7(Issue 1), 19–37.
- [4] Rizk, F. H., Saleh, A., Elgaml, A., Elsakaan, A., & Zaki, A. M. (2024). Exploring Predictive Models for Students' Performance in Exams: A Comparative Analysis of Regression Algorithms. Full-Length Article, Volume 7(Issue 1), 38–52.
- [5] Towfek, S. K., Khodadadi, N., Abualigah, L., & Rizk, F. H. (2024). AI in Higher Education: Insights from Student Surveys and Predictive Analytics using PSO-Guided WOA and Linear Regression. Journal of Artificial Intelligence in Engineering Practice, 1(1), 1–17.
- [6] El-Kenawy, E.-S. M., Abdelhamid, A. A., Ibrahim, A., Eid, M. M., Rizk, F. H., & Zaki, A. M. (2023). Time Series Forecasting of Cryptocurrency Prices with Long Short-Term Memory Networks. Full-Length Article, Volume 2(Issue 2), 18–26.