

AMR MANSOUR RASHAD

Road Construction Engineer | PhD Candidate – Highway & Airport Engineering | Data Analyst

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Road construction engineer at the Egyptian Ministry of Transport with 2+ years of progressive experience supervising national highway and road projects. PhD candidate in Highway and Airport Engineering with 2 peer-reviewed publications in slope stability and soil nailing. Former assistant lecturer and demonstrator at Nahda University for 6 years, with hands-on teaching experience across 10+ civil engineering courses. Currently developing advanced data analytics capabilities (Excel, SQL, Power BI, Python) to drive data-informed decision-making in infrastructure and research.

KEY SKILLS

Technical: Highway & Road Engineering | Slope Stability | Soil Nailing | Pavement Materials | BOQ. Preparation | Contract Documentation | Tender Evaluation | Geotechnical & Numerical Analysis.

Data & Digital: Advanced Excel | SQL | Power BI | Python | SPSS | Data Mining | KPI Dashboards.

Software: AutoCAD | Civil 3D | InfraWorks | Plaxis 2D | GeoStudio | MATLAB | Etabs | SAP2000 | Primavera | Microsoft Office.

Soft Skills: Project Management | Planning | Leadership | Teamwork | Crisis Management | Presentation.

PROFESSIONAL EXPERIENCE

Road Construction Engineer

Ministry of Transport – General Authority for Roads and Bridges | Oct 2023 – Present | Cairo, Egypt

- Managed the execution of national road projects covering over 50 kilometers of highways, achieving 100% compliance with MoT specifications.
- Approved BOQs and quantity take-offs for projects with a combined value exceeding EGP 500,000,000.
- Evaluated over 10 tenders, contributing to a 15% faster contractor selection and contract award process.
- Reduced on-site technical non-conformances by 20% through the implementation of systematic QC inspections.
- Prepared technical specifications and progress reports that improved project documentation efficiency by 30%.

Intern – Data Analytics Track (Digital Egypt Pioneers Initiative – DEPI)

Ministry of Communications and Information Technology (MCIT) | Nov 2025 – Present | Cairo, Egypt

- Developed 3 interactive Power BI dashboards that increased the visibility of KPIs for transportation and infrastructure datasets by 40%.
- Analyzed datasets containing over 1,000 records related to pavement performance, improving data accessibility for research by 50%.

AI Ambassador Intern

National Telecommunication Institute (NTI) | Apr 2025 – May 2025 | Cairo, Egypt

- Contributed to an AI program applying digital transformation strategies to 5 sustainable engineering development goals.

Engineering Trainee – Internship Program

Egyptian Military Academy | Mar 2024 – Aug 2024 | Cairo, Egypt

- Completed a 6-month training program for newly appointed engineers, scoring in the top 10% of participants.
- Gained hands-on knowledge in project management, improving technical reporting accuracy by 25%.

Assistant Lecturer – Civil Engineering

Nahda University (NUB) | Sep 2022 – Oct 2023 | Bani Suwayf, Egypt

- Conducted 500 laboratory and practical sessions, increasing student engagement by 35% across 10 subjects.
- Trained 500 undergraduate students on Civil 3D, Excel, and Primavera, achieving a 90% student satisfaction rate.
- Assisted in teaching 10 civil engineering courses, maintaining a 100% attendance and material delivery record.
- Supervised 30 students during a 1-month summer training program at the National Research Center.

Head of Scheduling Committee & Teaching Assistant – Civil Engineering

Nahda University (NUB) | Oct 2018 – Sep 2022 | Bani Suwayf, Egypt

- Provided academic guidance and supervision to 400 students per year over a 4-year period.
- Optimized academic timetables for over 50 civil engineering courses, reducing scheduling conflicts by 40%.

Field Trainer (Intern)

Orascom Construction PLC | Jun–Jul 2016 | Egypt

- Completed a 2-month internship in site supervision, ensuring 100% adherence to QC and safety protocols on large-scale construction projects.

EDUCATION

PhD, Highway and Airport Engineering – Aswan University | Dec 2022 – Present

MSc, Highway and Airport Engineering – Minia University | Nov 2019 – Sep 2022

- Thesis: Applicability of Optimized Numerical Models of Slope Stability of Road Embankments Adjacent to Water Channels under Traffic Load.

Pre-Master, Civil Engineering – Minia University | Sep 2018 – Sep 2019

Bachelor of Engineering, Civil Engineering – Nahda University (NUB) | Sep 2013 – Jul 2018

- Ranked 1st in class with a GPA of 3.95 out of 4.00 (93.67%).
 - Graduation Project: Design of Nahda Freeway – Achieved a final grade of 98% (A+).
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PUBLICATIONS

- Rashad, A.M. et al. "Effect of Soil Nailing on the Slope Stability of Road Embankments under Traffic Load Using the Optimized LEM." Journal of Advanced Engineering Trends, Vol. 42, No. 2, 2023.
 - Rashad, A.M. et al. "Optimized Numerical Models of Slope Stability of Roads Embankment Using Limit Equilibrium Method." 2nd International Conference on Civil Engineering, pp. 318–329, 2021.
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KEY ACHIEVEMENTS

- Founded "Be Best Engineering" blog, which generated 190,000 page views.
 - Published 2 peer-reviewed research papers in international journals and conferences.
 - Scored 573 on the English Proficiency Exam (EPE), equivalent to TOEFL (Jul 2021).
 - Participated in 2 international academic exchange programs (Malaysia – UniMAP 2015, Jordan – Al-Zaytoonah 2016).
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CERTIFICATIONS & AWARDS

- Training Course No. (1) – General Authority for Roads, Bridges / Ministry of Transport
 - Conducting Laboratory Tests for Materials and Asphalt Laboratories
 - AI Ambassadors Program – National Telecommunication Institute (NTI)
 - Fundamentals of Digital Transformation Certificate – Minia University (Apr 2021)
 - Statistical Analysis Using SPSS – Minia University (Nov 2020)
 - Excellent Student Award (2nd Place, University-wide) – Nahda University, Jul 2017
 - Excellent Demonstrator Award – Faculty of Engineering, Nahda University, Sep 2019
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LANGUAGES & MEMBERSHIPS

- **Arabic:** Native / Bilingual
- **English:** Professional Working Proficiency