

# Abdel-Rahman Hussien Abdel-Wahab

Mechanical Design Engineer.

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Location: Riyadh, Saudi Arabia

Nationality: Egyptian

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## Professional Summary

Mechanical Design Engineer with solid experience in WWTPs (up to 60,000 m<sup>3</sup>/day) and RO plant installation in Egypt. Currently based in Saudi Arabia, working on a 1 billion SAR water transmission infrastructure project. Skilled in mechanical design, P&IDs, equipment sizing, and vendor coordination. Strong knowledge of rotating equipment specially pumps, and technical office work, focusing on pumping stations and pipelines.

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## Work Experience:

- **SAWAED SDN JV Company**
    - o Location: Riyadh, Saudi Arabia
    - o Duration: (10/2024 – Present)
    - o Role: Water Utilities Mechanical Technical Office Engineer
    - o **Technical Responsibilities:**
      - Review project specs, prepare RFQs for mechanical equipment, and review vendor proposals.
      - Coordinate with consultant and client (WTCO & SWCC) to approve workshop drawings & material application for implementation.
      - Evaluate vendor offers and prepare material applications for client (WTCO) approvals.
      - Conduct site visits to prepare As-Built documentation for pumping stations, pipelines, valves, vent, and drain station
      - Revise General layout drawings, system flow diagrams & P&IDs.
  - **INTECH Hassan Allam Holding**
    - o Location: Cairo, Egypt
    - o Duration: (1 Year) (11/2023 – 10/2024)
    - o Role: Sewage Treatment Plants Mechanical Design Engineer
    - o **Technical Responsibilities:**
      - Review project specifications, ensuring compliance with the approved scope.
      - Perform hydraulic, process, and mechanical calculations, sizing pipes, and equipment.
      - Prepare RFQs for equipment and materials & review vendor proposals.
      - Prepare equipment, piping layouts, process flow diagrams, civil guide, and P&IDs.
  - **NANO WATER TECHNOLOGY**
    - o Location: Cairo, Egypt
    - o Duration: (5 Month) (07/2023 – 11/2023)
    - o Role: Desalination Plants Mechanical Installation and Commissioning Engineer
    - o **Technical Responsibilities:**
      - Led a team of 7 in installing mechanical and electrical components in a 1000 m<sup>3</sup>/day **SWRO** plant.
      - Managed warehousing operations.
      - Prepare materials requirements and BOQ.
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## Education:

- **Bachelor's degree in mechanical power Engineering – Cairo University (Class of 2023)**  
Accumulative Grade: 78% (B+)
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## Certificates:

- **Rotating Equipment (Machinery) Diploma**
  - o Instructor: Engineering Tracks
  - o Duration: (3 Month) (03/2025 – 06/2024)
    - Turbo & PD. Pumps
    - Turbo & PD. Compressors
    - Mechanical Seal
    - Gas & Steam Turbines
- **Diploma in Water Desalination RO Plants System Design**
  - o Instructor: Engineer Ahmed Khairy
  - o Duration: (1 Month) (06/2024 – 07/2024)
    - Pre-treatment systems and methods of RO plants.
    - Pumps, PV, and membrane sizing.
    - RO plant process design, P&IDs, and PFDs.

- **Udemy Courses:**
  - o Piping Fabrication with Isometrics (4 hrs.) (12/2024)
  - o Skills for Health, Safety, and Environment Essentials – HSE Level 1 (3 hrs.) (12/2024)
  - o Professional Email Writing (6 hrs.) (11/2024)
  - o PG Diploma in Piping Design Engineering (15 hrs.) (07/2024)
- **Control & Automation Diploma**
  - o Instructor: HA Consulting Group
  - o Duration: (3 Month) (08/2022 – 11/2022)

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## Projects:

- **HALI DAM : SHOAIBA Water Transmission System and Pumping Stations.**  
Contractor: SAWAED SDN JV Company (Oct. 2024: Present)  
Client: WTCO  
Consultant: Khatib & Alami  
Project Budget: 1 Billion SAR  
Scope of work:
  - Upgrading & Refurbishment of existing lifeline (Hali : Shoaiba)
  - Construction of 2 main pumping stations (Hali & Lith)
  - Construction of Tap off & Tie in Stations
- **ABEES ASPR WWTP System Design (25,000 - 62,500 m<sup>3</sup>/day).**  
INTECH – Hassan Allam Holding Company (April 2024: Oct. 2024)
- **MARSA MATROUH EA WWTP System Design (30,000 - 60,000 m<sup>3</sup>/day).**  
INTECH – Hassan Allam Holding Company (Feb. 2024: Oct. 2024)
- **Led Installation and Commissioning of Reef Oasis Marsa Alam Hotel 1000 m<sup>3</sup>/day SWRO Desalination Plant.**  
Nano Water Technology Company (Jul. 2023: Sep. 2023)
- **Led the Installation and Commissioning of JIMMA Marsa Alam Hotel 1500 m<sup>3</sup>/day SWRO Desalination Plant.**  
Nano Water Technology Company (Sep. 2023: Nov. 2023)
- **Led a team of 6 in a graduation project on work-life integration Ways to integrate PV – RO Desalination Plant.** Grade: A+ (June 2022: June 2023)  
Faculty of Engineering Cairo University

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## Language and Skills:

- Excellent command of both written and spoken English.
- Advanced reporting & communication skills.
- Software Design Tools:
  - Mechanical AutoCAD
  - Projection Software (Wave, Hydronics, and Toray)
  - SolidWorks
- Computer Skills:
  - Microsoft office

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All References are available upon request.