Andrew Ayman Fikry Fouad

Demonstrator at Shoubra faculty of engineering-Benha university

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SUMMARY

Andrew is a curious teaching assistant with a solid technical background in mechanical engineering, who looks forward to joining a challenging successful organization, seeking new challenges which effectively utilize professional experience and in return offering the commitment to perform quality work.

EDUCATION

Bachelor of Mechanical power engineering

Shubhra faculty of engineering

09/2018 - 07/2023

GPA **3.67** / 4.0

- **Ranked 4th in my class.**

- **Graduation project: - Enhancement of the performance of a centrifugal pump (Excellent grade)**
- **worked as project team leader.**
- **The Project included an experimental and numerical study of various slot configurations' effects on the performance of the centrifugal Pump.**
- **Our group accomplished a 4% improvement in the pump's efficiency.**

PROFESSIONAL EXPERIENCE

Trainee

North Cairo power plant

09/2020 - 10/2020 Cairo, Egypt

Gained valuable knowledge about combined power plants, the major components used like: - turbines, valves, pumps, boiler's auxiliaries, and the overhauling of these components.

Demonstrator

Shoubra faculty of engineering-Benha university

10/2023 - present Cairo, Egypt

Helping undergraduate students in the field of mechanical engineering by assisting them in courses such as:- Engineering Thermodynamics, Fluid Mechanics, Heat transfer, Gas Dynamics, conventional powerplants, Renewable energy, theory of measurements and instrumentation, Engineering Computational Methods, Turbomachinery, Theory of combustion and Computational Fluid dynamics (CFD).

Technical SKILLS

Ansys Fluent	**AutoCAD**	**MATLAB**	**BIM**
Microsoft office	**SolidWorks**	**HAP**	
Elite Fire	**HVAC**	**CFD**	
Minitab	**Revit-MEP**	**Navisworks**	

LANGUAGES

Arabic
Native

English
Proficient

German
Intermediate

COURSES

Soft skills learning track (12 hours)

LinkedIn learning platform
Got introduced to the essential soft skills that are needed for career development.

Automotive course (160 hours)

Salesian Institute Don Bosco
The course focused mainly on internal combustion engines, the construction of Gasoline engines, Lubrication system, Cooling system, Suspension system and Starting system.

Introduction to Hydraulics (20 hours)

HANDASI platform
Learned the basics of hydraulic circuits and some real-world circuits.

Solar energy (10 hours)

EDX platform
The course contained an explanation of the working principle of semiconductors, solar cell operation, manufacturing of Crystalline Silicon and the significant applications of both grid-connected and stand-alone PV systems.

Fundamentals of fluid power (19 hours)

Coursera platform
Continued learning about fluid power from another perspective and knew more about hydraulic circuit's fault diagnosis.

HVAC system design (25 hours)

HANDASI platform
Mastered the fundamentals of HVAC systems and the cooling load calculations that may decrease the power consumption by 25%.

Project Management Foundations (4 hours)

LinkedIn Learning platform
Got familiar with Project definition, the basic types of project management like Waterflow & Agile project management, how to build project scope & project schedule and what are the milestones the project manager should track during the project lifecycle.

Non-Technical SKILLS

Leadership **Teaching** **Hard worker**

Critical thinking **Problem solving**

Fast learner **Project Management**

Teamwork skills **Self-motivated**

Ansys fluent (part B- modeling) (10 hours)

Udemy platform

Got introduced to CFD and gained knowledge about Computational methods for turbulent flows: (DNS-LES-RANS), RANS Based Turbulence Models and the use of each model, Thermal flow and solving criteria.

Firefighting system design (15 hours)

HANDASI platform

The course explained the firefighting process, the types of hazards, main kinds of firefighting systems, I also mastered the Elite fire software to do the hydraulic calculations regarding the project to optimize the head and flow rate of firefighting pumps.