Holds a B. Sc. in Mechanical Power Engineering and has about 6 years hands-on experience in design and developing products for automation, cost efficient and product data management.

PERSONAL DATA

Nationality	:	Egyptian
Birth Date	:	10/05/1988
Gender	:	Male
Marital Status	:	Single
Residence	:	Currently KSA

EDUCATION

: B. Sc. in Mechanical Power Engineering, Mansoura University, 2010

LANGUAGES

Arabic	:	Native Language
English	:	Good

COMPUTER SKILLS

: Windows, MS Office (Word, Excel, Power Point), Internet

TRAINING COURSES AND CERTIFICATIONS

: CSWE (Certified Solid Works Expert), Dassault Systèmes – USA: The most challenging Certification, easily demonstrates the ability to utilize advanced functions and features to solve complex modelling challenges and ability to solve practically any modelling problem given.

- CSWP 3D CAD Certified Solid Works Professional.
- Solid Works – Advanced Surfacing Specialist.
- Solid Works – Advanced Sheet Metal Specialist.
- Solid Works – Advanced Weldments Specialist.
- Solid Works – Advanced Mold Specialist.
- Solid Works – Certified Expert.

: EPDM (Certified PDM Professional Administrator (CPPA) – Dassault Systèmes – USA: Maintain the organization data, capabilities in troubleshooting technical problems that can result due to a variety of reasons, including inadvertent typos in configuration.

: DriveWorks – CadCamCim – EGYPT: Configuring and automating the creation of custom manufacturing drawings, 3D models, Quotes & Sales Documentation with software from DriveWorks.

- ANSUL (Restaurant Fire Suppression System) ANSUL – USA, The R-102 Fire Suppression System: Protecting food service kitchens from fire. The R-102 Fire Suppression System incorporates a flexible design with an extremely effective ANSULEX Low pH Liquid Agent. This agent quickly knocks down flames and cools hot surfaces, while generating a tough vapor securing blanket that helps prevent re-flash.

- PIRANHA Dual Agent Restaurant Fire Suppression System: The PIRANHA Dual Agent Restaurant Fire Suppression System employs the best firefighting attributes of two extinguishing agents: the fast flame knockdown and securing power of wet chemical and the fast cool-down capability of water. The system provides protection for settings such as casual and fine dining, fast food chains, culinary schools, sports complexes and stadiums, and four- and five-star lodging facilities.

- ANSYS (Structural design and CFD analysis): Design modeller & Ansys meshing application & FLUENT CFD (computational fluid dynamics), Turbulence, Heat Transfer, UDF, Transient Flow Modelling and 2D, Free Vibration, Pre-Stressed Vibration, Steady State Thermal, Linear Buckling, Parameter Management Mechanical structural (Solid mechanics).

- Solid Works FEA Professional Static Simulation: In-depth coverage on the basics of Finite Element Analysis (FEA), covering the entire process from meshing to evaluation of results for parts and assemblies. It discusses linear stress analysis covering the entire analysis process from meshing to evaluation of results for parts and assemblies, gap/contact analysis, and best practices. Heat transfer analysis, frequency analysis, fatigue, stability analysis based on linear buckling concepts, 2D simulations (plane stress, strain and axisymmetric) and pressure vessel modulus.

- Solid Works Motion (Dynamic Balance Analysis): Use the Solid Works Motion simulation package to study the kinematics and dynamic behaviour of Solid Works assembly models.

- Solid Works Plastics: Predict how melted plastic flows during the injection molding process. Predicting how the plastic will flow enables you to predict manufacturing defects such as weld lines, air traps, short shots, and sink marks. Change the part or mold geometry, the processing conditions, or the plastic material itself to eliminate or minimize them.

- Motor Electromagnetic Analysis:
  - SPEED: Analytical software for sizing and analyzing electric machines and their drive.
  - FLUX: 2D finite element package for motor design and for a finer motor analysis (Geometric building facilities & Advanced electric circuit & Rotating kinematic coupling).

- Matlab level 1: Variable types options & elementary, Matrices & vectors operations, Mathematical functions & options, Input & output statements, Loops in MATLAB, Conditional statements in MATLAB, Using debugging tools, String operations, Functions & Symbolic Math and GUI.

- ISO 9001:2008 (Certificated Internal Auditor from Global Vision):
Standardized requirements for a quality management system, regardless of what the user organization does, its size, or whether it is in the private, or public sector by trying and testing framework for taking a systematic approach to managing the organization's processes so that they consistently turn out product that satisfies customers' expectations.

: Trainings at:

- Abu Sultan Power Plant (2009): Attended Sessions about the working cycle inside the plant & Introduced to different zones specially Control room.
- Talkha Combined Cycle Power Plant (2008): The 750MW power plant consists of 2 x 250 gas turbines powered by natural gas + 1 x 250 steam turbine powered by exhaust gas, attended Sessions about the working cycle inside the plant, the production, transmission & distribution of electric power. Introduced to different zones: boilers, turbines, transformers & the Control room.
- 1 month summer training at the workshops & labs (2006 & 2007).

CHRONOLOGICAL EXPERIENCE RECORD

Dates	**:**	From 2016 till now
Employer	**:**	Raqtan, Saudi Arabia
Job title	**:**	R&D Senior Engineer
Job Description	**:**	• Responsible for complete design development of Commercial Kitchen stainless s steel products for Gulf and International Markets as per the NSF standards. • Efficiently evaluating performance, improving quality, and boost product innovation with Solid Works Simulation to test the product designs before manufacture.

Dates	**:**	From 2014 till 2016
Employer	**:**	Rawabi Electric, Saudi Arabia
Job title	**:**	Mechanical Design Engineer
Job Description	**:**	Responsible for complete design of structural and sheetmetal products, indoor, outdoor panels, electrical junction box, power distribution panels, Switchgear Substations, LV & HV Panels, Switch racks, Distribution panels, cubicles as per NEMA, IEC standards, and customer standards "SAOC".

Dates	**:**	From 2011 till 2014
Employer	**:**	ZMC, 10th of RAMADAN, Egypt
Job title	**:**	R&D Engineer (Mechanical Design Engineer)
Job Description	**:**	• Mechanical design of hermetic compressor with Ansys – Fluent and Solid Works for Fluid- dynamics, Thermal, and dynamic analysis. • Economic analysis of identified solutions. Assembling and testing of new design prototype, tests set-up and test verifications to evaluate and support components design.

Dates	**:**	From 2011 till 2014 (part time)
Employer	**:**	AMQS Academy, Egypt
Job title	**:**	CAD/Solid Works Part-time Instructor
Job Description	**:**	Providing in-depth training, supporting several related applications including Simulation analysis (FEA, CFD, kinematics), and others that interested by both companies and trainees for working market.

Achievements:

- Configuring and automating Raqtan Products for custom manufacturing drawings, 3D models, Quotes & Sales Documentation with DriveWorks.
- Providing a full solution for centralizing the storage of all engineering data and related files and connecting with the enterprise ERP system "Microsoft Dynamics AX".
- Implementing ANSUL R-102 & ANSUL Piranha "Restaurant fire suppression system" on RAQTAN to be the first certified company in whole the Middle East.
- Creating Rawabi new Solid Works library (hardware, accessories, sheet metal and structure steel) as per NEMA and IEC standards.
- ZMC new valve group design for hermetic compressor AZ models.
- Dynamic analysis for moving mechanism in the compressor (Crank Shaft, Connecting Rod, Piston) and optimization study minimizing reaction forces on shaft bearing (crankcase) and mass with the most stress loading due to the motion.
- R&D lap construction, new machines setup, experiment's procedures preparation.

Technical Skills:

- Good user of 3D modelling software (Solid Works, CATIA, PTC Creo & AutoCAD).
- Good user of CFD (computational fluid dynamics) and solid mechanics analysis software.
- Good experience with data management systems "EPDM".
- Good experience with automation software "DriveWorks".
- Certificated ISO9001 - Internal Auditor.
- Ability to work with ERP system "Microsoft Dynamics AX".