



SALAHELDIN BADRELDIN

MECHANICAL DESIGN ENGINEER

MORE THAN TEN YEARS OF EXPERIENCE IN THE MECHANICAL DESIGN AND MANUFACTURING INDUSTRY. I AM PROFICIENTLY INVOLVED IN COMPONENTS DESIGN, SIMULATION, PRODUCTION, AND TESTING.

CONTACT

+249123433400
salahmajeed88@gmail.com
Salaheldin Badreldin

PERSONAL INFORMATION

Birthdate
16/08/1988
Residence
Khartoum, Sudan
Nationality
Sudanese
Religion
Islam

SKILLS

Soft Skills

Team work ●●●●●
Hard working ●●●●●
Leadership ●●●●●
Problem-Solving ●●●●●

Technical Skills

CAD Drawing ●●●●●
Design for Manufacturing ●●●●●
CNC ●●●●●
Machining ●●●●●

Language

Arabic (Mother tongue) ●●●●●
English (very good level) ●●●●●

EDUCATION

2014 - 2016

Master of Science in Material Engineering (Metallurgical)

Sudan Academy of Science, Khartoum, Sudan

The study of Material Engineering (Metallurgical) for my Master's included courses as well as a thesis. The course's subject provides knowledge of material science about structure, processes, tests, and applications, particularly in the metals field. The thesis is titled (Investigation of The Influence of Austempering Parameters on Mechanical Properties Austempered Ductile Iron). I graduated with an **EXCELLENT grade (83%)**.

2005 - 2010

Bachelor of Science in Mechanical Engineering University of Khartoum, Khartoum, Sudan

During five years of my study in mechanical engineering at the bachelor level, I learned courses in fundamentals of engineering, core subjects, focus subjects in mechanical applications as well as a final year project titled (Restartability of Crude Oil in Pipeline). I graduated with a grade of **second upper division-1** (6.71 out of 10).

2002 - 2005

Secondary School Certificate

Alshiekh Mustafa Alameen Secondary School, Khartoum, Sudan

I have got a **90.6%** in the Secondary School Certificate Examination.

EXPERIENCE

**Giad Industrial
Group, Sudan
2015 - Present**

Materials Inspector

Tasks and responsibilities:-

- Managing budgets and a team of junior engineers and technicians.
- Participating in technical reviews of requirements, and writing scientific articles, designs, and codes.
- Inspecting the materials, products, and work in progress for conformance to specifications, and adjusts process or assembly equipment to meet standards.
- Testing and measuring finished products, components, or assemblies for functioning, operation, accuracy, or assembly to verify adherence to functional specifications.

**Giad Industrial
Group, Sudan
2011 - 2015**

Mechanical Design Engineer

Tasks and responsibilities:-

- Carrying out the preliminary design of mechanical components for several applications of ammunitions.
- Developing the detailed design for parts, components, and assemblies to meet the requirements of the customers. Select a suitable material for every part.
- Creating CAD models by NX Software, including part and assembly drawings, and Bill of Materials (BOMs) to support manufacturing, testing, and assembly.
- Performing the simulation by Ansys software to determine the validity of the design and the selection of different materials.
- Following up the manufacturing processes for parts.
- Preparing the technical drawings for parts and assemblies for an approved model of a warhead.
- Developing manufacturing processes by designing molds, jigs, and fixtures.

**University of
Khartoum
2010 - 2011**

Faculty of Engineering, Department of Mechanical Engineering, Khartoum, Sudan

- I worked as an assistant teacher (Tutor) for the subjects (Thermal Power Engineering 1, Fluid Mechanics 1),
- In addition to demonstrating to 5th level students, the experiment (study of cavitation conditions for the centrifugal pump).
- I assisted in the preparation of the syllabus for new courses in the Mechanical Engineering Systems Division.

PUBLICATIONS

Conference Article

DUCTILE IRON MICROSTRUCTURE DESIGN USING HEAT TREATMENT PROCESSES

Hasan Avdusinovic, **Salaheldin Abdelmagid Mohamed Badreldin**, Mohammed Abdelgadir Abdalla Mohammed, Faik U zunovic | 2018

Mechanical properties of the ductile iron strongly depend on its microstructure. Different microstructural constituents result in different values of mechanical and ductile properties of ductile iron castings. One of the possibilities to design (define) microstructure of ductile iron castings is an application of different heat treatment processes. In this paper it is presented the influence of different heat treatment processes on final microstructure and properties of ductile iron samples.

Access Link: <https://www.mtf.unze.ba/images/Dokumenti/MNM/Zbornik%20radova-MNM%202018-c.pdf>

COURSE

- 2017**
HEAT TREATMENT OF STEEL
BNT- HOLDING factory, and University of Zenica , Zencia, Bosnia and Herzegovina
This training was in two parts. The first part was held at Zenica University in Bosnia and Herzegovina, where it dealt with the theoretical aspect of heat treatment processes for steel:-
Normalization.
Soft Annealing.
Quenching and Tempering.
Softening, Quenching, and Precipitation Aging.
Carburisation.
Hardenability- Jominy Test.
Austempering of Ductile Iron.
In the second part, practical training was conducted on the heat treatments that are carried out on BNT factory.
- 2016**
SYSTEMS ENGINEERING
Road Map Training Centre, Khartoum State, Sudan
A short course in Principle of Systems Engineering.
- 2015**
PREPARATION COURSE IN PROJECT MANAGEMENT PROFESSIONAL (PMP) CERTIFICATION
GATE KEEPER TRAINING AND CAPACITY BUILDING , Khartoum State, Sudan
Training in Project Management Professional (PMP) Certification Preparation Course. (55 Hours).
- 2014**
RESEARCH METHODOLOGY
High Level Aviation Academy and UTM University, Khartoum State, Sudan
Training course in Research Methodology
- 2013**
CAD, CAM, CAE BY NX SOFTWARE
Thai German Institute, Kingdom of Thailand
Training in NX solid modelling software
- 2013**
QUALITY MANAGEMENT SYSTEM ISO 9001
Measurement Calibration centre, Khartoum State, Sudan
Training in Quality Management System ISO 9001 and Internal Auditing. (40 Hours)
- 2012**
CNC OPERATIONS
Tafra Engineering Co., Khartoum State, Sudan
CNC operation, Milling, &Turning (50 Hours).

● 2009

MECHATRONICS SYSTEM

International Islamic University, Malaysia

Training on PIC Microcontroller & Robotics Mechatronics System

PEOPLE YOU CAN REFER TO

Dr. Mohammed A.A. Mohammed
Senior Research Associate

● **Giad Industrial Group**
mgadir144@gmail.com
Mobile No.: +249123415841

Dr. Mohamed Ismail
Assistant Professor

● **Department of Chemical Engineering,**
College of Engineering, King Khalid University
moadismail@kku.edu.sa
Mobile No.: +966543969632