

SUMMARY

Dedicated Electrical Engineer with over five years of experience in power systems, grid integration, and large-scale renewable energy projects. Expertise in Grid Code Compliance, power plant certification, and protection and control strategies for low, medium, and high-voltage networks. Proficient in DIgSILENT PowerFactory, conducting power system studies, and providing engineering solutions that meet VDE-AR-N 4105, 4110, 4120, and IEC standards.

CORE COMPETENCIES

Electrical System Design

Designed low and medium-voltage electrical systems, incorporating switchgear, cable sizing, protection, and metering concepts.

Protection, Control & Metering

Developed protection, control, and metering strategies for utility-scale photovoltaic power plants in both low and medium-voltage systems.

Grid Code Compliance

Managed power plant certification and ensured compliance with VDE-AR-N 4105, 4110, 4120 as well as international IEC standards.

Technical Project Coordination

Oversaw multidisciplinary engineering projects, ensuring their successful execution and integration with the grid.

TECHNICAL SKILLS

- DIgSILENT PowerFactory & ETAP
- PV*SOL Premium & WindPRO
- AutoCAD & EPLAN
- LTspice & SimuRelay
- Microsoft Office & Adobe Acrobat Pro
- MATLAB & Python & C/C++

EDUCATION

Bachelor of Science (B.Sc.)

Cologne University of Applied Sciences

10/2016 - 11/2021

- Electrical Engineering – Electrical Power Engineering

ZEAD HASAN

Electrical Engineer | Grid Integration | Grid Code Compliance | Protection & Control | Power Systems

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Cologne, Germany

PROFESSIONAL EXPERIENCE

Project Engineer — 07/2024 - Present

UL Solutions — Remote

- Performed **Grid Code Compliance Certification** (Type A, Type B and Type C) in accordance with Grid Code Compliance (VDE-AR-N 4110 / 4120)
- Prepared **Declarations of Conformity** and technical certification reports
- Conducted **on-site conformity assessments** for renewable energy power plants
- Coordinated certification projects with customers, grid operators and certification bodies
- Reviewed **protection and control schemes** for medium- and high-voltage electrical systems
- Evaluated **power flow studies** and **dynamic simulations** using **DIgSILENT PowerFactory**
- Provided technical training and mentored junior engineers on various projects.
- Delivered expert consultations on **Grid Code Compliance**, **Power Plant Certification**, and the integration of renewable energy systems.

Project Engineer / AC Engineer — 08/2022 - 06/2024

PRIOGO AG — Zülpich, Germany

- Provided **technical customer consulting** and engineering support for utility-scale renewable energy projects
- Developed comprehensive **AC engineering concepts** for grid-connected photovoltaic power plants
- Managed the complete **grid connection approval process** in close collaboration with distribution and transmission system operators.
- Designed **protection, control, and metering systems** in compliance with applicable grid codes
- Planned electrical infrastructure for both **low-voltage (LV)** and **medium-voltage (MV)** systems.
- Conducted **cable sizing, electrical calculations, and equipment selection processes.**
- Designed and specified **Uninterruptible Power Supply (UPS)** systems tailored to project needs.
- Spearheaded **Grid Code Compliance** and **Power Plant Certification** initiatives for projects.
- Managed procurement activities related to electrical equipment and project materials.
- Directed construction coordination, technical supervision, and commissioning activities for electrical installations.
- Produced detailed **as-built documentation**, commissioning reports, and project close-out materials.

Project Developer — 11/2020 - 07/2022

Intelliprojekt GmbH — Cologne, Germany

Project Developer (January 2022 – July 2022)
Working Student – Electrical Engineering (November 2020 – December 2021)
****Promoted to Project Developer after achieving my Bachelor's degree.****

- Performed **project cost estimations**, technical feasibility assessments, and engineering calculations.
- Prepared **technical proposals**, tender documents, and commercial quotations.
- Prepared and submitted **grid connection documentation** for Distribution System Operators (DSOs).
- Coordinated **customer communications** and technical meetings with utilities and stakeholders.
- Designed **DC layouts** for utility-scale photovoltaic power plants.
- Conducted **DC cable sizing, voltage drop analyses, and cable routing designs.**
- Engineered **low-voltage AC distribution systems**, including switchgear and electrical distribution boards.
- Developed **metering, protection, and control concepts** that comply with relevant grid codes.
- Executed **AC cable sizing**, electrical calculations, and cable routing designs.
- Oversaw the **commissioning and grid connection** of photovoltaic power plants.
- Compiled comprehensive **as-built documentation**, commissioning reports, and project close-out materials.

PROFESSIONAL TRAINING

DIgSILENT PowerFactory Workshop
DIgSILENT GmbH | 2025

The Future of Medium Voltage Switchgear
Schneider Electric University | 2025

Power System Calculations & Protection Engineering Fundamentals
Engineering Academy | 2024

Periodic Testing of Protection Systems
Engineering Academy | 2024

Power Distribution I
Schneider Electric University | 2024

Short-Circuit Currents
Schneider Electric University | 2024

Current & Voltage Transformer Systems
Engineering Academy | 2023

Design and Testing of Protection Systems for Renewable Energy Facilities
Engineering Academy | 2023

Protection Relay Engineering
SEG Electronics GmbH | 2023

TreeSoft CAD – Protection and Control Engineering
TreeSoft GmbH & Co. KG | 2022

Huawei FusionSolar Service Certification
Huawei Technologies | 2022

PROFESSIONAL EXPERIENCE

Electrical Engineering Intern
05/2020 - 08/2020

HTM-Solar GmbH
Euskirchen, Germany

- Designed and optimized **grid-connected photovoltaic systems utilizing PV*SOL Premium.**
- Selected and specified **PV modules, inverters, mounting structures, and electrical balance-of-system (BOS) components.**
- Supported the **engineering, development, and execution** of photovoltaic projects.
- Generated **PV array layout drawings** and roof installation plans.
- Provided **technical customer support** and **managed project coordination.**
- Oversaw **project documentation**, including digital document management and archiving.
- Assisted in the installation and commissioning of photovoltaic systems.
- Conducted DC string wiring for photovoltaic arrays.
- Installed inverters, metering systems, and associated electrical equipment.

LANGUAGES

Arabic	Native	German	Fluent
English	B1		