



## Personal Information

✉ m-d.iqbal@outlook.com  
☎ +4917682044361  
📍 Essen, Germany  
🎂 10/03/1991

## Core Competencies

Multi-Physics Problems  
Numerical Methods  
Structural Analysis  
Engineering Materials

## Technical Skills

Advanced

FEM Ansys Matlab Fortran

Proficient

CFD Abaqus Python LaTeX

Intermediate

CAD C++ Html Css Git

## Languages

Urdu (native)  
English (business fluent)  
German (fluent)

## Links

🌐 <https://m-d-iqbal.github.io>  
🌐 <https://linkedin.com/in/drdanishiqbal>  
📄 <https://scholar.google.de/citations?user=cxAW-3MAAAAJ>

# Dr.-Ing. Danish IQBAL

## Computational Engineer

### Work Experience

- 08/2024 - present **Freelance & Skill Building**
- Automating and optimizing IT operational workflows for an e-commerce platform.
  - Pursuing self-directed study in Artificial Intelligence, Machine Learning, and Data Science.
- 08/2017 - 03/2024 **Research Assistant**  
University of Duisburg-Essen, Essen, Germany
- Designed, developed, and implemented an original numerical method (SB-FEM) in MATLAB for multi-physics simulation.
  - Utilized ANSYS, Abaqus, and FEAP for advanced simulations, including scripting for automation and customization.
  - Taught graduate courses in Structural Dynamics and programming with ANSYS, Fortran, C++, and Python.
  - Supervised three master's one bachelor's theses on diverse topics in computational mechanics.
  - Managed an e-learning project to digitize course content and develop tools like inverted classroom and virtual labs.
- 01/2020 - 03/2020 **Visiting Researcher**  
Federation University, Ballarat, Australia
- Collaborated with the University of Duisburg-Essen and Federation University under a prestigious Australia-Germany research grant, advancing SBFEM for modelling thermoelastic fracture in advanced engineering materials.
- 01/2017 - 03/2017 **Student Assistant**  
University of Duisburg-Essen, Essen, Germany
- Implemented a polygon-based SBFEM in FORTRAN and integrated it into the open-source software FEAPpv.
- 06/2015 - 10/2015 **Student Worker**  
Mercedes-Benz Group AG, Düsseldorf, Germany
- Executed spot welding with jigs and performed automotive assembly line tasks.
- 10/2014 - 12/2014 **Student Worker**  
Mercedes-Benz Group AG, Rastatt, Germany
- Carried out production tasks on automotive assembly line.
- 12/2013 - 12/2013 **Logistics Assistant**  
Amazon Deutschland Services GmbH, Rheinberg, Germany
- Scanned items and prepared them for packaging.
- 06/2011 - 07/2011 **Internship - CAD/CAM and Heat Treatment**  
Karachi Tools, Dies & Moulds Center, Karachi, Pakistan
- Practical training in CAD/CAM and nitriding heat treatment.

### Education

- 08/2017 - 07/2024 **Ph.D. Computational Mechanics**  
University of Duisburg-Essen, Germany
- 10/2013 - 07/2017 **M.Sc. Computational Mechanics**  
University of Duisburg-Essen, Germany
- 01/2009 - 12/2012 **B.E. Automotive Engineering**  
NED University of Engineering & Technology, Pakistan