



# IRFAN ALI

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Date of birth: 14/07/1996 | **Nationality:** Pakistani | (+92) 3403787516 |

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NOWSHERA, Pakistan

## About me:

The world offers infinite opportunities to grow. I have a vision to be identified as an engineer that epitomizes excellent communication and profound technical expertise with a responsible attitude towards the environment.

## WORK EXPERIENCE

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14/12/2020 – CURRENT – Nowshera, Pakistan

### **BUILDING CONTROL OFFICER – ASC COOPERATIVE HOUSING SOCIETY (PVT) LTD.**

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#### **Main Duties/Responsibilities:**

1. Inspection of ongoing construction projects in field area.
2. Inspection and testing of development works i.e. Sewerage system, Water supply system, overhead and Underground water tanks etc.
3. Checking and approval of residential/commercial drawings(working drawings, building layout, MEP drawings, structural drawings) according to building bye-laws.
4. Procurement and field management.

#### **Key achievements:**

- 21 kW on grid PV Solar system designed for field offices for sustainable green energy. I manually calculated the total load and designed Solar system keeping in mind the location and weather conditions and then cross verified it using HomerPro computer software.
- Created and compiled the building bye laws for residential/ commercial buildings and get it approved from the concerned authorities.
- Total load Calculations of whole office building for HVAC system.

01/08/2020 – 13/12/2020 – Nowshera, Pakistan

### **TRAINEE ENGINEER – JABCO (PVT) LTD.**

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Worked as a Trainee Engineer in construction field site. I had the opportunity to enhance my knowledge in civil construction field and other development works.

#### **Main Duties/Responsibilities:**

- Supervision of field development works.
- Inspection and testing of construction materials to be used.
- Creating Bill Of Quantity (BOQ) and other office administrations.

29/07/2019 – 09/08/2019 – Kamra, Pakistan

### **ENGINEER INTERN – PAKISTAN AERONAUTICAL COMPLEX**

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Working as a Internee at Mirage Rebuild Factory (MRF), where I had the privilege to enhance my knowledge in overhauling process of single and double seater Mirage Aircraft.

#### **Learning Outcomes:**

- Structure details of Mirage Aircraft and the material used for making its body.
- Aircraft different systems i.e. Hydraulic system, fuel system, cooling system, gear system, control system, hydromechanics and hydroelectric system.
- Different operating features of aircraft including turbine, compressor and combustion chamber.
- Overhauling process and pre-flight and post flight inspections.

## ● EDUCATION AND TRAINING

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10/10/2016 – 31/07/2020 – Scholars Ave, H-12, Islamabad, Islamabad, Pakistan

**BACHELOR OF MECHANICAL ENGINEERING** – National University of Sciences & Technology (NUST)

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<https://nust.edu.pk/>

## ● LANGUAGE SKILLS

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Mother tongue(s): **URDU**

Other language(s):

|                | UNDERSTANDING |         | SPEAKING          |                    | WRITING |
|----------------|---------------|---------|-------------------|--------------------|---------|
|                | Listening     | Reading | Spoken production | Spoken interaction |         |
| <b>ENGLISH</b> | C1            | C1      | B2                | C1                 | B2      |

*Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user*

## ● DIGITAL SKILLS

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### My Digital Skills

#### Softwares

Solidworks, Autodesk Inventor & AutoCad | Microsoft Office | ANSYS Workbench CFD Sherlock | PTC CREO

#### Soft Skills

Good leadership skills, planning and collaboration in heterogeneous groups | Ability to manage project timelines and multiple priorities | Decision-making | Motivated | Creativity

## ● PROJECTS

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20/10/2019 – 20/07/2020

### Design and Fabrication of Wrist Prosthesis using Complaint Mechanism

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This was our Final Year Project, designing a compliant joint mechanism for wrist replacement. After thoroughly studying the anatomy of the wrist and the volume occupied, we created different models of the wrist using 3D CAD/CAM software to do analysis and determine the feasibility of the model.

We studied different materials for our models and selected Polylactic Acid (PLA). PLA and its copolymers have been active for many years in the clinic, and have been proven to be biocompatible, effective, and safe.

The next phase was, to modify our design for wrist different motions i.e. Abduction, Adduction, Flexion, and Extension. Our focus was to make it as natural as it could be. We performed stress/strain analysis using ANSYS, by applying an extensive and compressive force to check the durability of our model.

We successfully defended our FYP and all three members secured an "A" grade in it.

## ● HONOURS AND AWARDS

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10/02/2021

### **Chinese Government Scholarship (CSC) – Chinese Government**

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I was selected for CSC scholarship for Master program of Fluid Mechanics in School of Aeronautics at North western Polytechnical University, China.

25/09/2018

### **Student Leadership and Training Conference 2018 – American Society of Mechanical Engineers (ASME)**

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Being Director Operations of ASME EME Section from 2017-2019, I organized many technical, social ad fund raising events within and outside our university. I was invited for SLTC'18 fully funded trip, that was held in Pittsburgh, Pennsylvania, US.

10/02/2019

### **Microsoft Office Specialist (MOS) – Microsoft**

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Being certified MOS demonstrates that I have the deepest level of skills needed to proficiently use key Office programs.