

# Curriculum Vitae

## Personal Details

Name : Hassan Raza  
Father Name : Muhammad Raza  
NIC : 37402-4123346-3  
Gender : Male  
Marital Status : Single  
Date of birth : 05-10-1996  
Postal Address : House No A-10, Sirsyed Blocks, KrL Colony, P.O.  
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## Career Objective

Working with an organization is easy process but working with honesty is the main aim which gives me opportunities to learn more and polishes myself.

## Academic Records

Examination Passed	Science Subjects	Institute Attended	Year of Passing	Marks Obtained or gpa	Maximum Marks or gpa
SSC	Medical	KRL Model College for boys	2012	927	1050
HSSC	Pre-Engineering	KRL Model College for boys	2014	905	1100
Bachelors	Mechanical Engineering	Institute of Space & Technology	2018	3.08	4.00

## Internships

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Duration	Departments
4 weeks	Pakistan Institute Of laser & Optics (PILO) ,krl.
3 weeks	503 Qasim Aviation Base ,Rawalpindi.

## Core Subject Studied

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1 <sup>st</sup> Year	Engineering Drawing & Graphics	Industrial Chemistry	Statics*	Workshop Technology *	CAD*	
2 <sup>nd</sup> Year	Dynamics*	Workshop Technology *	Engineerin g Materials	Mechanic of Materials*	Thermo- dynamics*	
3 <sup>rd</sup> Year	Fluid Mechanics	Machine Design *	Control Systems*	Heat and mass transfer*	Manufacturing process *	
4 <sup>th</sup> Year	Mechanical Vibrations	IC engines	Powerplant	MBM	FEM	

Note: \*with respected lab.

## Management Skills

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### Events

- Organized International Conference named ICASE 2017 (International Conference on Aerospace Science and Engineering) in IST on behalf of IST Student Affairs Department.
- Organized Student Research Paper Conference SRPC 2017 in IST on behalf of IST Material Science and Engineering Department.

## Projects

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### Semester Projects

- Wood lathe machine
- Hydraulic scissor lift
- Assembly and Analysis of Bolted Flange
- Marry Go Round
- Vibrations in Laith machine due to a small mass
- Theoretical calculations of different parameters for gas turbine cycle.
- Calculations of different Parameters for finned type heat exchangers.

## Final Year Project

In aerospace applications composite material are extensively used as skin panel in air crafts. Composite materials are made up of fibers and epoxy. During the flight an aircraft experience a temperature range of  $-50^{\circ}\text{C}$  to  $55^{\circ}\text{C}$ . Temperature variations during flight affect the mechanical properties of epoxy and introduce cracks. These cracks are the stress raisers towards the failure. In this study thermo-mechanical characterization of epoxy will be carried out at a temperature range of  $-50^{\circ}\text{C}$  to  $55^{\circ}\text{C}$ . The effect of Nano-filler is demonstrated.

### FYP Objective:

Thermomechanical Characterization of Nanoparticles Based Epoxy Resin for aerospace Applications.

## Technical Skills

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### Technical Hand

- Universal Testing Machine (UTM)
- Milling Machine
- Drilling Machine
- Grinding & Polishing Machine
- Micro-Vickers Hardness (MVH) & Brinell Hardness Machine (BH)
- Sonicator
- Laser cutting and welding
- Lathe Machine: **Turning, Facing, Taper Turning, Threading, Grooving, Drilling**

### Software Skills

- Microsoft office
- Matlab
- Ansys Workbench
- Creo Parametric
- Abacus

## Interest and Activities

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- Manufacturing
- Management
- Adventure Trip
- Photography
- Outdoor games