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Main Road, House # 12/B, Near Atta Chakki Mehar Gheba Khan, Mohallah Sikandarabad,
City & District Khushab, PAKISTAN
PHONE#03477978810
E-MAIL: mammarakram@gmail.com

Name: Muhammad Ammar Akram

CAREER OBJECTIVE

Looking for an progressive organization where i can work as hard worker and utilize my skills for improving operational performance and contributing substantially towards the growth of the organization. Self-motivated and ability to learn new concepts quickly for the consistent success of the organization.

PERSONAL DATA

Father Name	Muhammad Akram
Date of Birth	March 06, 1994
CNIC	38201-6424609-1
Religion	Islam
Province	Punjab
Nationality	Pakistani

ACADEMIC QUALIFICATION

Degree	University / Board	Session	GPA / %	Status
BS Mechanical Engineering	HITEC University Taxila Cantt.	2013-2017	3.12 / 4	Completed
F.sc	Fauji Foundation Higher Secondary School and Inter College Khushab (B.I.S.E Sargodha)	2011-2013	(899/1100) 81.72 %	Completed
Metric	Fauji Foundation Higher Secondary School and Inter College Khushab (B.I.S.E Sargodha)	2009-2011	(941/1050) 89.71%	Completed

EXPERIENCE

- KOT ADDU POWER COMPANY LIMITED (1 Month)
- PIONEER CEMENT LIMITED (1 Month)
- PAKISTAN ORDINANCE FACTORIES WAH CANTT. (1 Month)

FINAL YEAR PROJECT

FAULT LOCATION DETECTION AND ANALYSIS OF ROTARY MACHINE THROUGH VIBRATION ANALYSIS

Abstract:

Various industrial applications have wider use of Rotary Machines. Condition Based Monitoring (CBM) needs to be implemented for Rotary Machines in order to prevent failure, increase reliability and decrease maintenance cost of the system. Vibration analysis has been widely used in the condition monitoring of rotary machinery and engineering structures. It is particularly suited to the early detection of faults in different rotating components. The objective of this project is to analyze the vibrations produced by various faults of gear and belt pulley system. First, the test model was designed and developed and then different faults has been created in the test model to study its vibration characteristics. Fast Four Transform (FFT) analysis has been used for the detection and the analysis of these faults.

Conclusion:

Fast Fourier Transform (FFT) and Time Waveform are the effective tools for vibration analysis. Analysis of different percentage of tooth breakage was done through Frequency Spectrum, Time waveform, Kurtosis, Skewness, Crest Factor and RMS values shows that vibration of system first increases up to 75% of each tooth breakage and then decreases upon complete tooth removal.

Research Publications:

- Experimental Analysis of Tooth Breakage Effect on the Vibration Characteristics of Spur Gears (<http://tj.uettaxila.edu.pk/index.php/technical-journal/article/view/700>), Status : Published
- EXPERIMENTAL WEAR ANALYSIS OF FLEXIBLE TUBE WITH VARYING SUPPORT PLATE GEOMETRY, Status: Submitted

SEMESTER PROJECTS

- Design of Compound Gear Train
- Design of Chains and Bearings for Motorcycle
- Design of Ultrasonic Range Detector Using Arduino & SR04 Ultrasonic Sensor
- Design of Security Alarm system
- Design of Spur Gears on Milling Machine

TECHNICAL SKILLS AND SOFTWARE SKILLS

- Vibration Analysis Software to Detect Different Machine Faults like SIGVIEW, LAB VIEW ,Origin Pro 8

- CNC and Lathe Machine
- Pro Engineer, ANSYS 14, Matlab, AutoCAD, MS Office

EXTRACURRICULAR ACTIVITIES

- Keen interest in research activities.
- Travelling.