

ASSAD ANIS

Curriculum Vitae

Department of Automotive & Marine Engineering,
NED University of Engineering & Technology-Pakistan
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EDUCATION

Qualification	Field/Specialization	University/ Board
Master of Science (MSc)	Mechanical Engineering/ Structural and Machine Design	Lappeenranta University of Technology-Finland
Bachelor of Engineering	Mechanical Engineering	NED UET Pakistan
Higher Secondary School Certificate	Pre-Engineering	Karachi Higher Secondary Board
Secondary School Certificate	Science	Karachi Secondary Board

COURSES ATTENDED

Course	Duration	Year/ Month	Organization
AI for everyone	4 weeks	February 2023	Deeplearning.com
Python for Everybody-Specialization	7 Weeks	February 2023	University of Washington
Machine Learning	11 Weeks	May 2022	Stanford University
Higher Education Teaching	12 Weeks	October 2019	Harvard University

FUNDING SECURED

Funding Body	Year/ Month	Project
NGIRI-IGNITE	May 2021	Development of Robotic Welding Station
NEDAASC Grant of Rs. 110,000/-	August 2022	Development of Condition Monitoring System for Automobile Components

EXPERIENCE

Teaching Experience				
S #	Organization	Designation	From	To
1	NED University of Engineering & Technology-Pakistan	Assistant Professor	April 2011	Currently working.
	Teaching Role	<ul style="list-style-type: none">Teaching Courses of Engineering Mechanics, Design of Machine Elements, Mechanical Vibrations, Vehicle Dynamics, Solid Mechanics I and II and, Stress Analysis, Engineering Drawing & Computer Graphics and Automotive Transmission & Drives to undergraduate students. Teaching course of Welding Mechanics and Automotive Materials and Manufacturing to M.Engg Students in evening programme.Supervise final year design engineering projects.		

	Management Role	<ul style="list-style-type: none"> • Academic adviser of 3rd Year Automotive students. • Student Counsellor of 1st year Automotive students. • Member of Board of Studies of Automotive department. • Steering Committee Member of evaluation of Design Engineering Projects of Automotive department. • Internship coordinator of Automotive department. • BOBEC (department outcome-based education committee) Co-opted member of Automotive department. • Consistently achieving Excellent Feedback since 2011 in all taught courses. 		
4	Dawood University of Engineering & Technology- Pakistan	Visiting Faculty	June 2010	July 2011
	Teaching Role	<ul style="list-style-type: none"> • Taught courses of CAD/CAM and Strength of Materials to undergraduate students. 		
5	Lappeenranta University of Technology- Finland	Teacher	May 2008	December 2008
	Teaching Role	<ul style="list-style-type: none"> • Taught a course of Servo Control Engineering to International Masters Students of department of mechanical engineering. 		
Industrial/ Research Experience				
S #	Organization	Designation	From	To
1	Lappeenranta University of Technology- Finland	Researcher	May 2008	February 2009
	Responsibilities	<ul style="list-style-type: none"> • Worked as Researcher on MSc project titled, assessment of factors affecting fatigue strength of cold formed members/ corners. This project involved extensive investigations of notches and residual stresses in cold formed members using linear and nonlinear FEA (ANSYS is used). • Worked as Research Assistant at the laboratory of fatigue & strength to do major project on high strength steels. 		
2	SUPARCO- Pakistan	Assistant Manager (R&D)	November 2003	May 2010
	Responsibilities	<ul style="list-style-type: none"> • Worked as Assistant Manager in Mechanical Design and Development section of Satellite Research and Development Centre Karachi (SRDC-K). Worked on satellite structures integration & testing. Welding operations of aerospace components, testing and analysis were major responsibilities. 		
3	NED University of Engineering & Technology- Pakistan	Research Assistant	July 2002	November 2003
	Responsibilities	<ul style="list-style-type: none"> • Developed PEM Fuel Cell test station at the department of mechanical engineering. 		
4	Gani Spinning Mills- Pakistan	Shift Engineer	May 2001	June 2002
	Responsibilities	<ul style="list-style-type: none"> • Maintenance of gas power plant. 		

SUPERVISED PROJECTS

S #	Projects
1	Design and development of a low cost Segway
2	Design of an innovative regenerative suspension system
3	Development of low-cost suspension tester
4	Design of a free roll mechanism for automobiles
5	Development of Test Setup for Friction Stir Welding (FSW) Process
6	Design and Development of Vibration Monitoring Setup
7	Design and Development of Dent Resistance Machine
8	Development of Resistance Sport Welding Machine using Robotic Arm
9	Design and Development of Robotic Arm for Automobile Wheel Control
10	Mechanical Properties of Hybrid Joints
11	Fatigue of Welded Structures using FEA
12	Fatigue Analysis of Tractor Crankshaft
13	Testing & Mechanical Properties of CFRP- Metal Hybrid Joints
14	Pakistan first Formula Racing Car based on Monocoque Material. Testing of Monocoque material developed by us was the major part of the work
15	Fuel Cell car development for Shell Echo Marathon- Malaysia 2013 (Body made up of CFRP)
16	Design and Analysis of Fork Lifter for NED University
17	Design & Analysis and Development of Automatic Garbage Vehicle for NED University
18	Design, Analysis and Development of Pakistan's first off-road vehicle (BAJA 2013).
19	Design and Analysis of connecting rod for 550 cc passenger vehicle
20	Design and Development of student's transport vehicle with in NED University
21	Design and Development of smart for-two vehicle for Pakistan
22	Design and analysis of chassis and body for 250 cc vehicle.
23	Development of Test Setup for Friction Stir Welding (FSW) Process
24	Design and Development of Vibration Monitoring Setup
25	Design and Development of Dent Resistance Machine
26	Mechanical Properties of Hybrid Joints
27	Fatigue of Welded Structures using FEA

COMPUTER EXPERTISE

S #	Course	Proficiency	Field
1	Abaqus	Efficient	Finite Element Analysis
2	ANSYS Workbench	Efficient	Finite Element Analysis
3	Matlab & Simulink	Very Good	Programming & Simulation
4	Python	Very good	Programming
5	CATIA	Efficient	CAD
6	AutoCAD	Efficient	CAD & Drafting
7	Latex	Good	Writing
8	ADAMS	Good	Multibody Simulation
9	MS Office	Efficient	Word, Excel, Powerpoint
10	IGRIP	Good	Robot Simulations

PUBLICATIONS

Journal Papers	
Year	Journal
2017	<ul style="list-style-type: none"> Assad Anis, Design analysis and optimization of a crankshaft of a tractor, International Journal of Advanced Engineering and Technology ISSN: 2456-7655. Assad Anis, Computation of Micro-strains in Cold Formed Steels- FEA, International Journal of Mechanical Engineering and Applications, 2017; 5(5): 275-2812016, ISSN: 2330-023X (Print); ISSN: 2330-0248 (Online).

2016	<ul style="list-style-type: none"> Assad Anis, Prediction of Fatigue Life of Welded Structures, American Journal of Mechanical and Industrial Engineering 2016; 1(3): 91-95, doi:10.11648/j.ajmie.20160103.19.
2012	<ul style="list-style-type: none"> Assad Anis, Prediction of Residual Stresses in cold formed corners, Journal of Advanced Science and Engineering Research Vol. 2, No 4 December (2012) 252-264, ISSN: 2231-8844. Assad Anis, "A Finite Element Analysis Approach to predict the stress concentration factors in Cold Formed Corners", International Journal of Mechanical & Mechatronics Engineering, IJMME-IJENS Vol. 12, pg 94-98, Issue: 04 ISSN: 2227-2771. Assad Anis, "Simulation of Slider-Crank Mechanism using ADAMS software". International Journal of Engineering & Technology IJET-IJENS, Vol. 12, pg 108-112, Issue: 04, ISSN: 22272712.
Conference Papers	
Year	Conference
2022	<ul style="list-style-type: none"> Thermodynamic analysis of geothermal based multi-generation system and prediction of output via back propagation neural network using MATLAB, 13th International Conference on Hydrogen Production (ICH₂P-2022) December 11-14, 2022.
2013	<ul style="list-style-type: none"> Assad Anis, Investigations of micro-strains in structural members using finite element analysis, International conference on modeling & simulation, ICMOS 2013, November 25-27 2013, Islamabad, Pakistan.
2011	<ul style="list-style-type: none"> Assad Anis, "Investigation of Stress Concentration Factors in cold formed rectangular hollow steel tubes", International Conference on Advanced Modeling and Simulation, 28-30th November 2011, Islamabad, Pakistan, ISBN:978-8698535-11-7.
2008	<ul style="list-style-type: none"> Assad Anis, Design & Development of Cold Gas Propulsion System for PRSS, ICAST 2008, 2nd International Conference on Advances in Space Technologies, Islamabad, Pakistan, 29th – 30th November, 2008, IEEE, ISBN: 9781-4244-3299-8, Page 49-53, November 2008.
BOOK	
2012	<ul style="list-style-type: none"> Fatigue Strength of Cold Formed Members, Autor: Assad Anis, ISBN: 978-3847336822.
2012	<ul style="list-style-type: none"> Book chapter titled "Cold Gas Propulsion Systems – An ideal choice for remote sensing small satellites" in a book "Remote Sensing" published in March 2012, ISBN: 979-953-307-231-8, Edited by Dr. Boris Escalante UNAM, Facultad Ingeniería, División de Ing. Eléctrica, Mexico.

RESEARCH INTERESTS

- Structural Behavior of High Strength Steels
- Welding of Structures using Resistance Spot Welding
- Friction Stir Welded Joints Investigations
- Fatigue life predictions of Structural and Welded Connections

MEMBERSHIP

- Life time member of Pakistan Engineering Council (Signatory of Washington Accord)
- Life time member of Institute of Engineers Pakistan (IEP)