

AMBER FISHAN ZAFAR
Assistant Professor
Mechanical Engineering Department
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EDUCATION

MS (Mechanical Engineering), National University of Science and Technology, Pakistan, (GPA 3.94/4.0), 2003.

BE (Mechanical Engineering), NED University of Engineering and Technology, Pakistan, (First Division with 78.5% marks), 1993.

PUBLICATIONS

Conference:

'First Fuel cell powered vehicle of Pakistan, A case study' Amber F. Zafar., Syed M.H.Hashmi, Proceedings of International conference on Energy systems engineering, October 2010, College of Electrical and Mechanical Engineering, National University of Sciences and Technology (NUST), Islamabad, ISBN 978-869-8535-07-0

Numerical Simulation of Proton Exchange Membrane Fuel Cell , Amber Fishan Zafar and S. M. H. Hashmi , Proceeding of Conference on Energy and Sustainability, NED University of Engineering & Technology, Karachi, Pakistan, April 27, 2013

Journal :

Large scale model predictions on the effect of GDL thermal conductivity and porosity on PEM fuel cell performance , Obaid ur Rehman, Amber Fishan Zafar, *Journal of Electrochemical Science and Engineering*, Vol 7 No 4, 2017, page 223-225, ISSN 1847-9286.

Master's Thesis: Transient thermal analysis of thin discs and plates by Finite Element Methods

TEACHING EXPERIENCE

Assistant Professor, Department of Mechanical Engineering, NED University of Engineering and Technology, Pakistan. January 2005 – Present

Instructor, Pakistan Navy Engineering College, National University of Sciences and Technology (NUST), Pakistan. August 1998 – July 1999

Visiting Faculty, NED University of Engineering and Technology, Pakistan. April 1994 – September 1994

PROFESSIONAL EXPERIENCE

Resource Person, Employers' Federation of Pakistan, September 1993 – August 1994

Worked on Industrial Engineering aspects (Work study and management planning) of a pilot project of International Labor Organization (ILO) "enterprise based productivity improvement program".

RESEARCH SUPPORTING ACTIVITIES

Design and development of the first ever fuel cell testing facility in Pakistan at NED University from the concept phase to final calibrations.

Design of Experiments in Fuel cell Lab for undergraduate students of Dept. of Automotive, Chemical and Polymer and Petrochemical Engineering.

Supervised Bachelor Project of Design and fabrication of First Fuel Cell Powered Vehicle of Pakistan .The project was launched in the International event of Shell Eco-marathon Asia 2010, Sepang, Malaysia. After passing all the design and safety tests of the event, the vehicle completed 02 laps on the Formula-1 track.

Along with winning many regional awards, The project was also reported in HEC (Pakistan) Magazine , News and Views in July 2011 and SAE International Magazine, Momentum in Feb., 2012.

PROFESSIONAL TRAININGS, COURSES, WORKSHOPS Attended:

Factory Training of fuel cell testing System, Arbin Instruments, Texas, USA, 2007

Training of Micro Gas Chromatograph from suppliers in Fuel cell Lab 2010

Workshop on fuel cells organized by Alternative Energy Development Board and Clean Power (Pvt) Ltd, Islamabad, 2006, Primary Conductor Mr. Stefan Sonntag , Sales Engineer, Heliocentris, Germany

A full semester course on Electrochemistry, taught by Prof. Mahboob Mohammad, H.E.J. Research Institute of Chemistry, International center for chemical sciences, University of Karachi, 2006

Course on Computational ThermoFluid Dynamics, NED University of Engineering and Technology June-July 2011, by Dr. Ovais Khan, Research Associate, Wichita State University.

Workshop on “ Matching plots to develop conceptual design of an aeroplane for given mission specification” by Dr. Syed Firasat Ali, at PNEC , NUST.

Industrial Training, Orient Energy Systems (Pvt.) Ltd. Karachi, Nov, 2019-Jan, 2020

SOFTWARE COMPETENCE

FLUENT, GAMBIT, AutoCAD, MATLAB, Working knowledge of ANSYS, FORTRAN, MS Office

AWARDS, HONORS & AFFLIATION

Received **Gold Medal** for being first in class of MS Program by President of Pakistan.

P.E. (Professional Engineer), Pakistan Engineering Council.