DEPARTMENT OF MECHANICAL ENINGEERING, NED UET, KARACHI
PHONE: (21) 3664-8443 / 0313 241 1814
mehaque101@yahoo.com , mehaque@neduet.edu.pk
Google Scholar Profile

DR. MUHAMMAD EHTESHAMUL HAQUE

EDUCATION

University Malaysia Pahang
PhD, Mechanical Engineering 2018
PhD Dissertation: CFD simulation of heat transfer augmentation with nanoparticles.

New Jersey Institute of Technology, Newark, NJ, USA
MSME, Master of Science in Mechanical Engineering, 1991

NED University of Engineering & Technology
BE, Bachelor of Mechanical Engineering, 1988

PROFESSIONAL EXPERIENCE

Teaching interest/experience:

NED University of Engineering & Technology, Karachi, Pakistan — January 2008-Present
Assistant Professor (Mechanical Engineering Department)

Industrial Experience:

Dawlance Group of Companies, Karachi, Pakistan — 2006–2007
Production Manager

Micro Data Source Inc., Costa Mesa, California, USA — 1998–2005
Network Specialist / Network Engineer / Project Coordinator

Hydraulics Chatsworth, California, USA — 1993–1997
Production Engineer

California Energy Engineer, Ontario, California, USA — 1991–1992
HVAC Engineer

PACO, Karachi, Pakistan — 1988–1989
Trainee Engineer

Administrative responsibilities:

Advisor, ASHRAE NED Student Chapter — 2017- Present
Member Board of Studies (Department of Petroleum Engineering) — 2019 - Present
Ac Consultant — 2017- 2020
Member BOR of Directorate of planning and Projects — 2010-2012

Honours and Awards

GRS from UMP for pursuing PhD 2012-2015
Scholarship for PhD, NED University of Eng. and Tech.2012-2016
Best paper Award, Seventh International Mechanical Engineering conference 2018

Professional Affiliation

Pakistan Engineering Council (PEC)
Institute of Engineers Pakistan (IEP)
American Society of Refrigeration, Air-conditioning and Heating Engineers (ASHRAE)

Courses Taught

Undergrad

- Thermodynamics
- Fluid Mechanics I and II
- Refrigeration and Air-conditioning

M. Engg.

- Advance Air Conditioning and Refrigeration
- Power Plant Engineering
- Thermo Fluidics
- Advanced Fluid Mechanics

Areas of Interests

Computational Fluid Dynamics, Thermo Fluids ,Augmentation of thermal conductivity of thermal fluids and refrigerants using Nano-size particles
Solar Energy
Renewable Energy,
Characterization techniques for nanomaterial such as Spectroscopy (FTIR, TEM, SEM, and X-ray Photon), X-ray diffraction (XRD), Thermal analysis (TGA), NMR, Zeta potential and Magnetic data analysis.
Water Desalination, Membrane Processes

JOURNAL PUBLICATIONS

2020

1. Mahrukh, M., et al., A numerical investigation of flow over single and three tandem square Cylinders at Reynolds number of 22000. Mehran University Research Journal of Engineering & Technology

2019

2. Shakaib, M. and M.E.-u. Haque, Numerical simulations for fluid dynamics and temperature patterns in membrane distillation channels. Heat and Mass Transfer 2019. (2019) 55:3509–3522.

3. Shakaib, M., A.N. M., and E.u. Haque, Analysis of Fluid Flow Patterns in Cylindrical Vessels of Anaerobic Digester using CFD. Journal of Engineering (Jurnal Kejuruteraan), 2019. Volume 31(2) 2019(Volume 31(2) 2019).

2018

4. Allauddin, U., et al., Numerical investigation of heat transfer by an impinging jet using alumina– water nanofluid. Numerical Heat Transfer, Part A: Applications, 2018. 74(8): p. 1486-1502.

2017

5. Haque, M. E., Bakar, R. A., Ming, G. L., & Shakaib, M. (2017b). MODELING OF TEMPERATURE AND AIFFLOW PATTERN IN A REFRIGERATOR. *ARPN Journal of Engineering and Applied Sciences, 12*(10)

2016

6. Haque, M. E., Bakar, R. A., Ming, G. L., & Shakaib, M. (2016). Predicting Airflow and Temperature Pattern Inside a Refrigerator Through CFD. *ARPN Journal of Engineering and Applied Sciences, 11*(14).

7. Haque, M. E., Bakar, R. A., Kadirgama, K., Noor, M. M., & Shakaib, M. (2016). Performance of a domestic refrigerator using nanoparticles-based polyolester oil lubricant. *Journal of Mechanical Engineering and Sciences, 10*(1), 1778-1791. doi:10.15282/jmes.10.1.2016.3.0171

2013

8. Shakaib, M., Hasani, S. M. F., Haque, M. E., Ahmed, I., & Yunus, R. M. (2013). A CFD study of heat transfer through spacer channels of membrane distillation modules. *Desalination and Water Treatment, 51*(16-18). doi: 10.1080/19443994.2013.789234

INTERNATIONAL CONFERENCE PUBLICATIONS

2021

1. Haque, M. E., Mahrukh, M., Shakaib, M., & Rosli, A. B. (2021). *Investigation of Enhanced thermal conductivity of nanolubricant*. Paper presented at the 10th International Mechanical Engineering Conference (IMEC-2021), NED UET, Karachi.

2018

2. Haque, M. E., Bakar, R. A., & Shakaib, M. (2018). *Experimental investigation of no-frost refrigerator with nano-lubricants*. Paper presented at the 8th International Mechanical Engineering Conference (IMEC- 2018), Karachi, Pakistan.

2017

3. Haque, M. E., Bakar, R. A., Ming, G. L., & Shakaib, M. (2017a). *DEVELOPMENT OF A CFD MODEL FOR AIRFLOW AND TEMPERATURE PATTERN INSIDE A DOMESTIC REFRIGERATOR*. Paper presented at the 7th International Mechanical Engineering Congress (SEMEC 2017) Karachi, Pakistan

2015

4. Muhammad E. Haque; Rosli Abu Bakar, G. L. M. (2015). *Air Flow and Temperature Pattern inside an Empty no-frost Refrigerator*. Paper presented at the National Conference on Postgraduate Research (NCON 2015), 25th -26th, January, Universiti Malaysia PAHANG, Kuantan, Pahang.

5. Haque, M. E., B., R. A., Kadirgama, K., M.M.Noor, & Shakaib, M. (2015). *Nanoparticles Application In A Domestic Refrigerator For Performance Enhancement.* Paper presented at the 3rd International Conference on Mechanical Engineering Research (3rd ICMER2015), 18-19 August, Zenith Hotel, Kuantan, Malaysia.

6. Haque, M. E., Bakar, R. A., & Ming, G. L. (2015). *CFD simulation of temperature and air flow in a domestic refrigerator.* Paper presented at the International Conference on Computational Fluid Dynamics in Research & Industry (CFDRI 2015), 17 – 19 August, Kuala Lumpur, Malaysia.

7. Haque, M. E., Bakar, R. A., & Ming, G. L. (2015). *Predicting airflow and temperature pattern inside a refrigerator through CFD.* Paper presented at the 6th international conference on mechanical and manufacturing engineering (icme 2015), 19-21 October.

2010

8. Haque, M. E.-u., Shakaib, M., & Ahmed, I. (2010). *Unsteady fluid flow and temperature patterns in membrane distillation process*. Paper presented at the Proceedings of the 13th Asian Congress of Fluid Mechanics, Dhaka, Bangladesh.

MASTERS PROJECTS

1 CFD modeling of a developed small-scale wind turbine for residential application (range: 400 watts to 20 kilowatts)
2 Optimization of HVAC Duct of an Auditorium through CFD Simulation
3 HVAC design and energy modeling of central library

Ph.D. SUPERVISOR

1 Co-supervisor for "Modeling Heat and Mass Transport in Membrane Distillation Process for Desalination Application"
2 Supervisor for "Effect of Nano-particles on thermophysical properties of refrigerants".

LICENSES AND CERTIFICATIONS

Microsoft Certified Professional (MCP)
Novell CNA
Seven Basic Tools for Quality Control (Statistical)
House Keeping – 5S
ISO-9001:2000
ISO-14001:2004