

Curriculum Vitae

Dr Gholamhassan Najafi

Associate Professor

Tarbiat Modares University

P.O. Box: 14115-336, Tehran, Iran

M: +98 (21) 48292322

E: g.najafi@modares.ac.ir

W1: <https://scholar.google.com/citations?user=aAAY3oYAAAAJ&hl=en>

W2: <https://www.scopus.com/authid/detail.uri?authorId=22938428000>



Career Specialization: Research and Teaching (Mechanics of Biosystem Engineering)

- Self-motivated Mechanics of Biosystems Engineer with a solid background in teaching, research, and manufacturing implementation.
- Lectured in thermofluids engineering fields across 12 years, and facilitated workshops
- Experienced researcher in model, control and optimization of thermofluids and renewable energy sources for more than 12 years
- Worked in a car manufacturing industry for 5 years as a project manager
- Invented 2 US patents on renewable energy technologies and nanofluids
- Published 3 books and 2 book chapter, more than 247 ISI and Scopus journal articles on thermofluids, renewable energy technologies and bioenergy
- Presented at 100 conferences locally and internationally, and received best paper awards from 5 conferences
- Published articles have already received over 7,491 citations with an h-index of 46 (Scopus)
- Successfully supervised 12 graduate and 36 postgraduate projects
- Collaborated with multi-disciplinary researchers in Iran, Malaysia, Australia, Netherlands, Canada, USA to publish benchmarking study in thermofluids, renewable energy and power system
- Proven team-working capabilities, communication skills and ability to work independently
- USQ research giant 2018

Academic Qualifications

Oct 2004 – Sept 2008	PhD in Mechanics of Biosystems Engineering , Tarbiat Modares University, Tehran, Iran
Mar 2008 – Sept 2008	PhD Exchange Program (Sabbatical) , Faculty of Mechanical Engineering, University of Southern Queensland (USQ), Australia
Sep 2002 – Jan 2004	Master, Mechanics of Biosystems Engineering , Tarbiat Modares University, Tehran, Iran
Feb 1998 – Dec 2002	Bachelor of Science in Mechanics of Biosystems Engineering , Urmia University, Urmia, Iran

Employment History

Academics

Mar 2014 – May 2021	Associate Professor , Mechanics of Biosystems Engineering, Tarbiat Modares University, Tehran, Iran
Oct 2009 – Feb 2014	Assistant Professor , Mechanics of Biosystems Engineering, Tarbiat Modares University, Tehran, Iran
Oct 2008 – Sep 2009	Lecturer , School of Engineering & Technology, Tarbiat Modares University, Tehran, Iran

Mar 2018 – Mar 2019	Visiting Researcher , Department of Mechanical Engineering Technical University of Eindhoven (TU/e), Netherlands
May 2018 – Jun 2018	Visiting Researcher , School of Mechanical and Electrical Engineering University Southern Queensland (USQ), Australia
Jun 2014 – Sep 2015	Postdoctoral Research Fellow , Faculty of Mechanical Engineering University Malaysia Pahang (UMP), Pekan 26600, Malaysia

Industrial

Jun 2006 – Feb 2008	Expert Engineer Project: Performance investigation of the hybrid and electrical engines. Mega Motors Co. Tehran, Iran
Jul 2004 – May 2006	Expert Engineer Project: Installation of QD32 engine (Diesel Engine) on Nissan Z24. Mega Motors Co. Tehran, Iran & Nissan Corp. Japan
May 2003 – Jun 2004	Expert Engineer Project: Modification of SI engine for using of E85 (85% ethanol, 15% gasoline). Mega Motors Co. Tehran, Iran
Jan 2002 – Jun 2005	Trainee Engineer Mega Motors Co. & Saipa car manufacturing corp. Tehran, Iran

Course Taught

- Thermodynamics
- Heat transfer
- Fluid mechanics
- Renewable energy technologies
- Advanced Internal combustion Engines
- Energy Management
- Advanced Engineering Mathematics
- Combustion Technology & biofuels

Expert Area

Thermofluids, Bioenergy, Biofuel, Air pollution, Renewable/ Clean Energy, IC Engine Combustion, Emission, Biomass,

Publication Statistics

- 3 books (UMP and TMU universities published)
- 2 book chapters (1 published by Elsevier and 1 by Springer)
- 247 peer reviewed articles listed in ISI journals
- 100 international conference proceedings
- Total Citations: **7491 (Scopus), 4015 (Web of Science), 10565 (Google Scholar)**
- H-index: **46 (Scopus), 35 (Web of Science), 49 (Google Scholar)**
- **7 ESI Highly Cited papers (top 1%) and 1 top paper (top 0.1%) by Clarivate Analytics**

Awards

- Sep 2014-ongoing Thomson Reuters ISI Highly Cited author (top 1% globally) in Engineering (WOS Science).
- Dec 2019 Top Researcher Award by Tarbiat Modares University, Tehran, Iran
- Nov 2018 Research Scholarship, Technical University of Eindhoven (TU/e), Eindhoven, Netherlands
- May 2018 Australia USQ research giant, University Southern Queensland (USQ), Australia
- Nov 2017 Top Researcher Award by Research Ministry of Science & Technology , Tehran, Iran
- Mar 2016 Innovation Gold Medal Award by ITEX2016, Malaysia
- Sep 2014 Research Scholarship, University Malaysia Pahang, Malaysia

Patents

- US patent: US 2018/0273862 A1. Bio-nano emulsion fuel, Sep. 27, 2018.
- US patent: US2020/0362812 A1. Wind turbine augmented by a diffuser with a variable geometry

Research Funding

- Renewable Energies of Modares Research Group, Iran. Named investigators: Gholamhassan Najafi et al., in project: Lead Chief Investigator. Project title: Renewable energies and bio-energy grant number of IG/39705 (2019) Amount: AUD 180,000.
- Scientific Research at King Fahd University of Petroleum & Minerals (KFUPM), Dhahran, Saudi Arabia fund for Research Grant RG171001 and by the King Abdullah City for Atomic and Renewable Energy (K.A.CARE), Saudi Arabia through Research Fellowship Program, project number KACARE182-RFP-03 (2019), Named investigators: Gholamhassan Najafi et al., in project: Investigator. Project title: Effect of use of MWCNT/oil nanofluid on the performance of solar organic Rankine cycle Amount: AUD 200,000.
- University Malaysia Pahang under grant RDU172204. Named investigators: Gholamhassan Najafi et al., Project title: Performance, combustion, and emission characteristics of a CI engine fueled with emulsified diesel-biodiesel blends at different water contents (2017-2019), Amount: AUD 5000.
- d'Amico Leone, technician - Institute of Sciences of Food Production, National Research Council of Lecce for biofuels production. Named investigators: Gholamhassan Najafi et al., Project title: A comprehensive study on the effect of pilot injection, EGR rate, IMEP and biodiesel characteristics on a CRDI diesel engine (2017-2019), Amount: AUD 10,000.
- University Teknologi PETRONAS (<http://www.utp.edu.my>) grant and Tarbiat Modares University (<http://www.modares.ac.ir>) under grant number IG/39705 for Renewable Energies of Modares research group. Named investigators: Gholamhassan Najafi in project: Lead Chief Investigator. Project title: Thermal analysis of a hybrid solar desalination system using various shapes of cavity receiver: Cubical, cylindrical, and hemispherical (2017-2019) Amount: AUD 8,000.
- University Malaysia Pahang (UMP) for Grant RDU 180328 and Bangabandhu Science and Technology Fellowship Trust (Bangladesh). Named investigators: Gholamhassan Najafi et al., Project title: Significance of alumina in nanofluid technology: An overview, (2018-2019) Amount: AUD 6,000.
- University Malaysia Terengganu and University Malaysia Pahang grant. Named investigators: Gholamhassan Najafi et al., Project title: Determination of bio-diesel engine combustion pressure using neural network based model (2016-2018) Amount: AUD 5500.
- University Malaysia Pahang, Malaysia (UMP Research Grant Scheme, RDU 1803136). Bangabandhu Science and Technology Fellowship conferred to Kaniz Farhana by Ministry of Science and Technology, Bangladesh. Named investigators: Gholamhassan Najafi et al., Project title: Improvement in the performance of solar collectors with nanofluids — A state-of-the-art review (2018) Amount: AUD 4500.
- Department of Mechanical Engineering, University Malaysia Pahang for providing laboratory facilities and financial assistance under project no. RDU1803136. Named investigators: Gholamhassan Najafi et al., Project title: Study on friction and wear of Cellulose Nano crystal (CNC) nanoparticle as lubricating additive in engine oil (2016-2018) Amount: AUD 8500.
- Department of Mechanical Engineering, University Malaysia Pahang for providing laboratory facilities and financial assistance under project no. RDU150373. Named investigators: Gholamhassan Najafi et al., Project title: An experimental study on characterization and properties of nano lubricant containing Cellulose Nano crystal (CNC) (2016-2018) Amount: AUD 7500.
- University Malaysia Pahang (www.ump.edu.my) and Automotive Engineering Centre (AEC) given under RDU1603110 and PGRS170381. Named investigators: Gholamhassan Najafi et al., Project title:
- Experimental investigation on stability and thermo-physical properties of $Al_2O_3-SiO_2/PAG$ Nano lubricants with different nanoparticle ratios (2017-2018) Amount: AUD 4500.
- University Malaysia Pahang grant under RDU160395 and PGRS170374. Automotive Engineering Centre (EAC) and Advanced Automotive Liquids Laboratory (A2LL), Named investigators: Gholamhassan Najafi et al., Project

title: Application of response surface methodology in optimization of automotive air-conditioning performance operating with SiO₂ /PAG Nano lubricant (2016-2018) Amount: AUD 4000.

- Grant of Automotive Engineering Centre (AEC) RDU1603110 and RDU172204. Advanced Fluids Focus Group (AFFG) and Advanced Automotive Liquids Laboratory (A2LL), Malaysia. Named investigators: Gholamhassan Najafi et al., Project title: Energy saving in automotive air conditioning system performance using SiO₂ /PAG Nano lubricants (2016-2017) Amount: AUD 6000.
- Grant under the Fundamental Research Grant Scheme (FRGS) RDU130129, RDU180328 and University Malaysia Pahang. Named investigators: Gholamhassan Najafi et al., Project title: Multi-objective optimization on the machining parameters for bio-inspired Nano coolant. (2016-2017) Amount: AUD 4000.
- Research Council of Shahrekord University (grant No: 96GRN1M1796). Also, Tarbiat Modares University (<http://www.modares.ac.ir>) under IG/39705 grant for Renewable Energies of Modares research group. Named investigators: Gholamhassan Najafi et al., Project title: Enhancement of biodiesel production from waste cooking oil: ultrasonic- hydrodynamic combined cavitation system. (2016-2018) Amount: AUD 3000.
- The research projects: III42006 – Research and development of energy and environmentally highly effective polygeneration systems based on renewable energy resources and III45016 – Fabrication and characterization of nano-phonic functional structures in biomedicine and informatics. Both projects are financed by the Ministry of Education, Science and Technological Development of the Republic of Serbia by Dr. E. Bellos. Project title: Comparative study of spiral and conical cavity receivers for a solar dish collector (2016-2017) Amount: AUD 30,000.
- Fund of the Ministry of Higher Education in supporting the research through the Fundamental Research Grant Scheme (FRGS) RDU130129 and University Malaysia Pahang, Named investigators: Gholamhassan Najafi et al., Project title: Thermal analysis of cellulose nanocrystal-ethylene glycol nanofluid coolant (2016-2017) Amount: AUD 10,000.
- Fund of University Teknologi MARA (UiTM) for the opportunity to trigger this research and the financial support under the Fundamental Research Grant Scheme (FRGS) from the Malaysian Higher Education Department (Grant No. 600-RMI/FRGS 5/3 (79/2015)). Named investigators: Gholamhassan Najafi et al., Project title: Evaluation on physicochemical properties of iso-butanol additives in ethanol-gasoline blend on performance and emission characteristics of a spark-ignition engine, (2016-2017) Amount: AUD 5,000.
- Fund of the Ministry of Higher Education and University Technology Malaysia under Higher Institution Centre of Excellence Scheme (Project Number: R. J090301.7846.4J188), Fundamental Research Grant Scheme (Project Number: R. J130000.7846.4F846) and Research University Grant Scheme (Project Number: Q. J130000.2546.03G69). The authors also like to acknowledge technical and management support from Research Management Centre (RMC), University Teknologi Malaysia. The authors would also gratefully acknowledge the financial support from the Ministry of Higher Education and University Malaysia Pahang under Fundamental Research Grant Scheme (Project Number: Rdu170125). Named investigators: Gholamhassan Najafi et al., Project title: PI/NCC-based tubular carbon membrane: Influence of aging times towards oxygen separation performance (2015-2017) Amount: AUD 5,000.
- University Malaysia Pahang under project no. RDU151311 and TWAS 15-397 RG. Named investigators: Gholamhassan Najafi et al., Project title: Evaluation of specific heat capacity and density for Cellulose Nanocrystal-based nanofluid (2015-2017) Amount: AUD 3,000.
- University Malaysia Pahang under grant scheme (RDU160310). Named investigators: Gholamhassan Najafi et al., Project title: Experimental study on the effect of perforations shapes on vertical heated fins performance under forced convection heat transfer (2015-2017) Amount: AUD 4500.
- University Malaysia Pahang (www.ump.edu.my) through research grant RDU160352, RDU160319 and RDU160357 and Malaysia Ministry of Higher Education through research grant RDU130129, RDU140125 and RDU160152, Named investigators: Gholamhassan Najafi et al., Project title: Copper (II) oxide nanoparticles as additive in engine oil to increase the durability of piston-liner contact, (2015-2017) Amount: AUD 4500.

- University Teknologi MARA (UiTM) 600-RMI/FRGS 5/3(150/2014), 600-RMI/LRGS 5/3(4/2014), Named investigators: Gholamhassan Najafi et al., Project title: Numerical analysis of Al₂O₃ nanofluids in serpentine cooling plate of PEM fuel cell. (2015-2017) Amount: AUD 4500.
- University Malaysia Pahang for providing financial support through RDU 1603126 and RDU 160309, Named investigators: Gholamhassan Najafi et al., Project title: Analysis of particulate matter (PM) emissions in diesel engines using palm oil biodiesel blended with diesel fuel. (2015-2017) Amount: AUD 3500.
- University Teknologi MARA (UiTM) Shah Alam, Malaysia for the scheme of Tenaga Pengajar Muda (TPM) and Fundamental Research Grant Scheme (FRGS) from the Malaysian Higher Education Department (Grant No. 600-RMI/FRGS 5/3 (79/2015)), Named investigators: Gholamhassan Najafi et al., Project title: Investigation of the effects of iso-butanol additives on spark ignition engine fuelled with methanol-gasoline blends (2015-2016) Amount: AUD 5,000.

Research Supervision/Advisor

- Doctoral degree (PhD). Kiani Mostafa. Investigation of combustion and emission parameters of EF7 engine using bioethanol-gasoline blended fuels by Genetic Algorithm programming (2010-2014).
- Doctoral degree (PhD). Safieddin Ardebili Mohammad. Biodiesel production by using combined ultrasonic-microwave method (2010-2014).
- Doctoral degree (PhD). Amanlou Yasaman. Air cooling low concentrated photovoltaic/thermal (LCPV/T) solar collector to approach uniform temperature distribution on the PV plate (2010-2014).
- Doctoral degree (PhD). Abbaszadeh Mayvan Ahmad. Intensification of continuous biodiesel production from waste cooking oils using shockwave power reactor: Process evaluation and optimization through response surface methodology (RSM) (2011-2015).
- Doctoral degree (PhD). Khoobakht Mohammad. Optimization of thermodynamics and emission parameters of diesel-biodiesel-bioethanol blends in diesel engine (2011-2015).
- Doctoral degree (PhD). Shirneshan Alireza. Optimization of performance and emissions of OM314 diesel engine using diesel-biodiesel blends by RSM method (2012-2016).
- Doctoral degree (PhD). Jalilantabar Farzad. Multi-objective NSGA-II optimization of a compression ignition engine parameters using biodiesel fuel and exhaust gas recirculation (2012-2016).
- Doctoral degree (PhD). Etefaghi Ehsanollah. A novel bio-nano emulsion fuel based on biodegradable nanoparticles to improve diesel engines performance and reduce exhaust emissions (2013-2017).
- Doctoral degree (PhD). Moosavian Balabash, Ashkan. Piston Scuffing Fault Identification in an IC Engine Using Vibration Analysis (2013-2017)
- Doctoral degree (PhD). Dehghani soufi Masoud. Valorization of waste cooking oil based biodiesel for biolubricant production in a vertical pulsed column: Energy efficient process approach (2014-2018)
- Doctoral degree (PhD). Fayyazi Ebrahim. Optimization of Biodiesel Production over Chicken Eggshell-Derived CaO Catalyst in a Continuous Centrifugal Contactor Separator (2014-2018)
- Doctoral degree (PhD). Keramat Siavash Nemat. An innovative variable shroud for micro wind turbines (2014-2018)
- Doctoral degree (PhD). Zare Mehdi. Evaporation Characteristics of Diesel and Biodiesel Fuel Droplets on Hot Surfaces (2015-2019)
- Master degree (MSc). Fayyazi Ebrahim. Biodiesel fuel production using ultrasonic system (2010-2012)
- Master degree (MSc). Damirchi Hojatollah. Micro Combined Heat and Power to provide heat and electrical power using biomass and Gamma-type Stirling engine (2010-2012)
- Master degree (MSc). Mohammadi Maryam. Design, fabrication and evaluation of heat exchanger for micro combined heat and power system (2011-2013)
- Master degree (MSc). Samadi Hashem. Dynamic modeling of micro combined heat and power system using biogas (2011-2013)
- Master degree (MSc). Dehghani Masoud. Experimental investigation of biolubricant on performance and emission parameters of diesel engine (2011-2013)

- Master degree (MSc). Keramat Siavash Nemat. Experimental investigation of diesel engine noise and vibration by using of biodiesel-diesel blended fuel (2012-2014)
- Master degree (MSc).Ghanbari Mani. Performance and emission characteristics of a CI engine using nano particles additives in biodiesel-diesel blends and modeling with GP approach (2012-2014)
- Master degree (MSc). Saghar Seifollah. Evaluation of a pre-heating system for solar desalination system with linear Fresnel lens (2012-2014)
- Master degree (MSc). Rahimi Ali. Diesel engine performance and emission parameters using biodiesel-diesel blended fuels (2013-2015)
- Master degree (MSc). Arashnia Ilva. Development of Micro-scale Biomass-fuelled CHP System Using Stirling Engine (2013-2015)
- Master degree (MSc). Abdzadeh Behzad. Evaluation and CFD simulation of three way catalyst convertor of diesel engine (2014-2016)
- Master degree (MSc). Salar Hosseini Seyed Salar. Experimental and numerical analysis of flow and heat transfer characteristics of EGR cooler in diesel engine (2014-2016)
- Master degree (MSc). Abdollahi Mohammad. Impact of water - biodiesel - diesel nano-emulsion fuel on performance parameters and diesel engine emission (2014-2016)
- Master degree (MSc). Jamali Farhad. Design, fabrication analysis of EGR cooler in diesel engine (2015-2017)
- Master degree (MSc). Taghizadeh Mohsen. CFD simulation of diesel engine EGR system (2015-2017)
- Master degree (MSc). Esmaeili Shayan, Mostafa. Design, Fabrication and Evaluation of Solar Energy Conversion System Based on Flexible Solar Panels (2016- 2018)
- Master degree (MSc). Almasi Sara. Optimization of an ultrasonic-assisted biodiesel production process from one genotype of rapeseed (Teri (OE) R-983) as a novel feedstock using response surface methodology (2016- 2018)
- Master degree (MSc). Babak, Nematzadeh. Theoretical and Experimental Analysis of the Altitude Effect on Performance and Emission Parameters of Diesel Engine (2016-2018)
- Master degree (MSc). Darvishi Zeinab. Design, Fabrication and Evaluation of micro wind turbine for electrical power generation in highways (2016-2018)
- Master degree (MSc). Rahmani Mohammad Hossein. Evaluation of CHP system by using of PCM materials (2017-2019)
- Master degree (MSc). Arkian Amir Hossein. Exergy and economic assessments of solar organic Rankine cycle system with linear V-Shape cavity (2017-2019)
- Master degree (MSc).Moazzez Fatahpour Armin. Numerical simulation and experimental investigation of air cooling system using thermoelectric cooling system (2017-2019)
- Master degree (MSc). Hassandoust Rostami Mohammadreza. CFD study based on effect of employing the Single Walled Carbon Nanotube (SWCNT) and Graphene quantum dot (GQD) nanoparticles and a particular fin configuration on the thermal performance in the shell and tube heat exchanger (2018-2020)

Membership/Professional Affiliation

- Certified as a Professional Mechanical Engineer by Engineers Iran (Jun 2010)
- Society of Automotive Engineers (SAE) (since Mar 2008)
- Institute of Engineers, Malaysia (IEM) (since September 2014)
- Institute of Engineers, Iran (September 2008)

Professional Service and Collaboration

➤ **External examiner**

- 4 Ph.D. thesis examiner in University Malaysia Pahang (UMP), Malaysia

➤ **Journal Editorial Role**

- Jun 2017- Dec 2018 Guest Editor, Special issue/topic on ‘biofuels’ in Journal “Energies” (I. F. – 2.7). (Q1 Journal)

- Mar 2018- Mar 2019 Guest Editor, Special issue/topic on ‘Renewable Energies’ in Journal “Applied Sciences” (I. F. – 2.2). (Q1 Journal)
- **Recognised Reviewer**
 - Applied Thermal Engineering, Publisher: Elsevier, UK. Since January, 2010
 - Energy and Environment, Publisher: Sage, UK. Since May 2014
 - Applied Energy, Publisher: Elsevier. Since June, 2012
 - Renewable & Sustainable Energy Reviews, Publisher: Elsevier. Since June, 2009
 - Industrial Crops and Products, Publisher: Elsevier, UK. Since January 2014
 - Journal of Cleaner Production, Publisher: Elsevier. Since January 2012
 - Fuel, Publisher: Elsevier. Since March 2010
 - Energy, Publisher: Elsevier. Since March 2009
 - Energy & Fuels, Publisher: ACS publications. Since February 2012
 - Renewable Energy, Publisher: Elsevier. Since October 2010
 - Environmental Science and Pollution Research, Publisher: Springer since 2014
- **Project Reviewer**
 - Assessor (External Reviewer) of Research grant proposals on invitation for Ministry of Education of Malaysia since 2014-ongoing.
- **Research Collaboration**
 - Biofuel Engine Research Facility, University Malaysia Pahang, Malaysia since March 2014
 - Clean and Renewable Energy inst., University Southern Queensland University, Australia since March 2018
 - Centre for Energy Sciences, UiTm, Malaysia since Jan 2015
 - Renewable Energy inst., UPM, Malaysia since January 2019
 - Metal Fuels research center, Technical University of Eindhoven, Netherlands, May 2017
 - Automotive and Mechanical Engineering center, Karlsruhe University of Applied Sciences, Karlsruhe, Germany, May 2015
 - Institute of Energy Engineering, Tehran University of Engineering and Technology, Tehran since February 2013

Conference service: Presentation, organization, scientific committee membership and review

- 11th. International Conference on Internal Combustion Engines & Oil, 18-20 Feb. 2020, Sapco company, Tehran, Iran
- The International Conference on Mechanical Engineering (ICMER 2019), 30-31 July, 2019, Pahang, Malaysia
- 33rd European PV Solar Energy Conference, Amsterdam, Netherlands, 2017
- International Conference on Mechanical System and Control Engineering (ICMSC), 2017, Russia
- International Conference on Advanced Energy Materials(ICAEM 2016), Kuala Lumpur, Malaysia
- International Conference on Mechanical Engineering research-ICMER2015, Kuantan, Malaysia
- 7th International Conference on Applied Energy (ICAE2015), Abu Dhabi, UAE
- 2nd International Conference on Green Technology Ecosystem for Global Sustainable Development-ICGT2014, Kuala Lumpur, Malaysia
- The European Workshop on Renewable Energy Systems-EWRES2012, Germany
- 10th International Conference on sustainable energy technologies-SET 2011, Kuala Lumpur, Malaysia

Professional Skills

- **Technical software:** FORTRAN, LAB VIEW, MATLAB, ANSYS, ABAQUS, SOLIDWORKS, CATIA, SIMULINK, GT-SUITE, GT-POWER
- **Writing software:** MS Word (advanced), MS Excel (advanced), MS Power Point (advanced), MS Access (intermediate), and MS Operating System (intermediate)
- **Language:** English (fluent), Persian (native), Malaya (moderate), Arab (read only)
- **Others:** Independent research, Group based research and Interdisciplinary collaboration

Participation and Training

- Renewable and alternative energy training course. 12-18th Sep. 2018. Organized by Mechanical Engineering Department, Technical University of Eindhoven, Eindhoven, Netherlands.
- IC engines and combustion technologies training course. 14th Nov. 2018. Organized by Mechanical Engineering Department, Karlsruhe University of Applied Sciences, Karlsruhe, Germany
- A Course on Principles of Organization and Management. 6-8th Jun 2017. Organized by Mechanical Engineering Department, Tarbiat Modares University, Tehran, Iran
- Training staff course, to improve management practices and incentives. 10-14th. May 2016, Organized by IranKhodro car manufacture corp., Tehran, Iran
- Quality management training course. Saipa Company 7-10th Aug. 2015. Tehran, Iran
- Specialized training course on diesel engines. Sep. 2014, Organized by IranKhodro car manufacture corp., Tehran, Iran
- Training on application of information technology in research and education. Organized by Tarbiat Modares University, Tehran, Iran (2013)
- A course on NVH in Automotive Industry. 2-4th. Nov 2012, Organized by Mega Motor corp., Tehran, Iran
- A Training Course on Operational Modal Analysis. 12th. Feb. 2012, Organized by Mega Motor corp., Tehran, Iran

List of Publications

Book

1. Mostafa Esmaeili Shayan, **Gholamhassan Najafi**, Shiva Gorjian. 2019. Principles Design and applications of Solar power systems. Iranian Academic Center for Education and Research, Amirkabir University of Technology Branch Press. ISBN: 978-964-210-321-8.
2. **Gholamhassan Najafi**, Seyed Ashkan Mousavian, Seyed Mostafa Mirsalim 2018. Internal Combustion Engines and their fault diagnostics by vibration analysis. Tarbiat Modares University Press. ISBN: 322-102-203-165-8.
3. O.M. Ali, R. Mamat, M. G. Rasul, **G. Najafi**. 2017, CLEAN ENERGY FOR SUSTAINABLE DEVELOPMENT/CHAPTER 18/ Potential of Biodiesel as Fuel for Diesel Engine, Elsevier. ISBN: 978-0-12-805423-9.
4. R. Mamat, O. M. Ali, **G. Najafi**, A. Aziz. Glossary of Internal Combustion Engine, 2015: University Malaysia Pahang, Malaysia Press. ISBN: 978-967-0691-62-6.
5. M. Kiani, B. Ghobadian, F. Omni, **G. Najafi**, Yusaf T. 2012: Multidisciplinary Research and Practice for Information Systems. Springer.

Referred Journal Publications (Selected papers)

2021

1. Ahmadian, H., **Najafi, G.**, Ghobadian, B., Reza Hassan-Beygi, S., Bastiaans, R.J.M. Analytical and numerical modeling, sensitivity analysis, and multi-objective optimization of the acoustic performance of the herschel-quincke tube. *Applied Acoustics*, 2021, 180, 108096.
2. Akbar, A., **Najafi, G.**, Gorjian, S., Kasaeian, A., Mazlan, M. Performance enhancement of a hybrid photovoltaic-thermal-thermoelectric (PVT-TE) module using nanofluid-based cooling: Indoor experimental tests and multi-objective optimization. *Sustainable Energy Technologies and Assessments*, 2021, 46, 101276
3. Hoseini, S.S., **Najafi, G.**, Ghobadian, B., Akbarzadeh, A.H. Impeller shape-optimization of stirred-tank reactor: CFD and fluid structure interaction analyses. *Chemical Engineering Journal*, 2021, 413, 127497.
4. Ghiasi, P., **Najafi, G.**, Ghobadian, B., Jafari, A. Analytical and numerical solution for H-type darrieus wind turbine performance at the tip speed ratio of below one. *International Journal of Renewable Energy Development*, 2021, 10(2), pp. 269–281.
5. Siavash, N.K., Ghobadian, B., **Najafi, G.**, ...Mamat, R., mazlan, M. Prediction of power generation and rotor angular speed of a small wind turbine equipped to a controllable duct using artificial neural network and multiple linear regression. *Environmental Research*, 2021, 196, 110434.

6. Shirneshan, A., Bagherzadeh, S.A., **Najafi, G.**, Mamat, R., Mazlan, M. Optimization and investigation the effects of using biodiesel-ethanol blends on the performance and emission characteristics of a diesel engine by genetic algorithm. *Fuel*, 2021, 289, 119753.
7. Alawi, O.A., Kamar, H.M., Mallah, A.R., ...Che Sidik, N.A., **Najafi, G.** Nanofluids for flat plate solar collectors: Fundamentals and applications. *Journal of Cleaner Production*, 2021, 291, 125725.
8. Sandhya, M., Ramasamy, D., Sudhakar, K., ..., **Najafi G.**, Mofijur, M., Mazlan, M. A systematic review on graphene-based nanofluids application in renewable energy systems: Preparation, characterization, and thermophysical properties. *Sustainable Energy Technologies and Assessments*, 2021, 44, 101058.
9. Mofijur, M., Fattah, I.M.R., Alam, M.A., ..., **Najafi, G.**, Uddin, M.A., Mahlia, T.M.I. Impact of COVID-19 on the social, economic, environmental and energy domains: Lessons learnt from a global pandemic. *Sustainable Production and Consumption*, 2021, 26, pp. 343–359.

2020

10. Alenezi, R.A., Erdiwansyah, Mamat, R., Norkhizan, A.M., **Najafi, G.** The effect of fusel-biodiesel blends on the emissions and performance of a single cylinder diesel engine. *Fuel*, Vol. 279, 118438.
11. Samani, B.H., Behruzian, M., **Najafi, G.**, Mazlan, M., Yue, J. The rotor-stator type hydrodynamic cavitation reactor approach for enhanced biodiesel fuel production. *Fuel*, Vol. 283, 118821.
12. Abdollahi, M., Ghobadian, B., **Najafi, G.**, Mofijur, M., Mazlan, M. Impact of water – biodiesel – diesel nano-emulsion fuel on performance parameters and diesel engine emission. *Fuel*, Vol. 280, 118576.
13. Soltani, S., Kasaeian, A., Lavajoo, A., (...), **Najafi, G.**, Mahian, O. Exergetic and environmental assessment of a photovoltaic thermal-thermoelectric system using nanofluids: Indoor experimental tests. *Energy Conversion and Management*, Vol. 218, 112907.
14. Maawa, W.N., Mamat, R., **Najafi, G.**, De Goey, L.P.H. Performance, combustion, and emission characteristics of a CI engine fueled with emulsified diesel-biodiesel blends at different water contents. *Fuel*, Vol. 267, 117265.
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Administrative Experience

- Head of the Department, Mechanics of Biosystems Engineering Department, Tarbiat Modares University, Tehran, Iran (2015-2017)
- Research and Innovation Deputy, Faculty of Agriculture, Tarbiat Modares University, Tehran, Iran (2017-2019)
- Education Deputy, Faculty of Agriculture, Tarbiat Modares University, Tehran, Iran (2019-ongoing)

References

- Professor David Buttsworth (Thermofluids Engineering), School of Mechanical and Electrical Engineering, Toowoomba Campus, USQ, Australia, Phone: +61 7 4631 2614, Email: David.Buttsworth@usq.edu.au

- Professor Talal Yusaf , School of Mechanical and Electrical Engineering Toowoomba Campus, USQ, Australia, Phone: +61 7 4631 2691, Email: Talal.Yusaf@usq.edu.au
- Professor Philip de Goey , Mechanical Engineering Department, TU/e, Netherlands, Phone: +31 40 247 3268, Email: l.p.h.d.goey@tue.nl