Curriculum Vitae

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Personal Information

Name: Gholamhassan Najafi

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Academic Qualification

- **Ph.D.:**
  Bioenergy department, Tarbiat Modares University, Tehran, Iran, 2004-2008.

Thesis: "Investigation of Combustion Parameters on KIA-B3I Internal Combustion Engine Using Bioethanol Fuel". 14. March. 2009.

- **Short period of study (sabbatical):**
  7 months at University of Southern Queensland, Faculty of Mechanical Engineering, combustion and fuels group, Australia (3rd of March 2008 - 20th of September 2008). Supervisor: Prof. Talal Yusaf

- **M. Sc.:**
  Tarbiat Modares University, Tehran, Iran, Mechanics of biosystems Engineering Department, 2002-2004.
  Dissertation: "Application and Comparing of Photoelacticity, Finite Element Method and Strength of Material's Formula for Study on Stress Distribution". 19. September 2004.

- **B. Sc.:**

  Urmieh University, Iran, Mechanics of Biosystems engineering, 1998-2002.

Background and Research Interests

1. **Renewable energies:**
   - Energy conversion,
   - Bioenergy,
   - Biomass (Biogas, Biofuels (bioethanol and biodiesel)),
   - Geothermal,
   - Wind,
   - Solar energy.

2. **Mechanical Engineering:**
   - Internal Combustion Engines (Fuels, Combustion, Pollutions).
   - Combustion Technology.
   - SI, CI, Hybrid & Electrical engines.

Projects

(a) I have been working in bioenergy departments of Tarbiat Modares University since 2008 till now. Some of works which I've performed are as follows:

1. Establishing and commissioning the Bioenergy National Research Center.

2. Set up the bioenergy Labs. (Consist of biodiesel, bioethanol, Biogas, Wind, Geothermal, Biomass and solar energy Labs).

3. Set up the SI and CI engines test Labs. at bioenergy department of Agricultural faculty, Tarbiat Modares University.

4. A plan for mass manufacturing the family type biodiesel processors.

5. Design and construction of 5000 liter capacity biodiesel production plant. Design and manufacture of biodiesel production units for rural areas.

6. Feasibility study of biodiesel and bioethanol fuel production in Iran and its possible use in

(b) I have been working in both Engineering & R&D departments of Mega Motors Co. which is one of the largest factories that manufactures passenger car engines, since 2003 till 2008. Some of projects which I've performed are as follows:

1. Project manager: Different projects regarding the hybrid and electrical engines.

2. Project manager: Installation of QD32 engine (Diesel Engine) on Nissan Z24.

3. Project manager: Modification of SI engine for using of E85 (85% ethanol, 15% gasoline).

Training Courses

- Renewable and alternative energy training course.
- IC engines and combustion technologies training course.
- A Course on Principles of Organization and Management.
- Training staff course, to improve management practices and incentives.
- Quality management training course.
- Specialized training course on diesel engines.
- Training on application of information technology in research and education.
- A course on NVH in Automotive Industry.
- A Training Course on Operational Modal Analysis.

Publications

- More than 100 papers in ISI journals (Q1) in the field of Combustion, IC engines and Renewable Energy Technologies.

- More than 80 papers in International conferences.

- 3 books in the field of Renewable Energy Technologies, Combustion & IC engines.

ISI Journals (Some Selected papers):

2018

1- Ahmadian, H., Hassan-Beygi, S.R., Ghobadian, B., **Najafi, G.** ANFIS modeling of vibration transmissibility of a power tiller to operator. ***Applied Acoustics***, 138, 2018, 39-51.

2- Ettefaghi, E., Ghobadian, B., Rashidi, A., **Najafi, G.,** Khoshtaghaza, M.H., Rashtchi, M., Sadeghian, S. A novel bio-nano emulsion fuel based on biodegradable nanoparticles to improve diesel engines performance and reduce exhaust emissions. ***Renewable Energy***, 125, 2018, 64-72.

3- Hoseini, S.S., **Najafi, G.,** Ghobadian, B., Ebadi, M.T., Yusaf, T. Novel environmentally friendly fuel: The effects of nanographene oxide additives on the performance and emission characteristics of diesel engines fuelled with Ailanthus altissima biodiesel. ***Renewable Energy***, 125, 2018, 283-294.

4- Ibrahim, T.K., Mohammed, M.K., Awad, O.I., **Najafi, G.,** Mamat, R. A comprehensive review on the exergy analysis of combined cycle power plants. ***Renewable and Sustainable Energy Reviews***, 90, 2018, 835-850.

5- Jaliliantabar, F., Ghobadian, B., Carlucci, A.P., **Najafi, G.,** Santino, A., De Domenico, S. Comparative evaluation of physical and chemical properties, emission and combustion characteristics of brassica, cardoon and coffee based biodiesels as fuel in a compression-ignition engine. ***Fuel,*** 222, 2018, 156-174.

6- Hoseini, S.S., **Najafi, G.,** Ghobadian, B., Ebadi, M.T., Yusaf, T. Ailanthus altissima (tree of heaven) seed oil: Characterisation and optimisation of ultrasonication-assisted biodiesel production. ***Fuel,*** 220, 2018, 621-630.

7- **Najafi, G.** Diesel engine combustion characteristics using nano-particles in biodiesel-diesel blends. ***Fuel,*** 220, 2018, 668-678.

8- Asnida, M., Hisham, S., Awang, N.W., **Najafi, G.,** Tarlochan, F. Copper (II) oxide nanoparticles as additve in engine oil to increase the durability of piston-liner contact. ***Fuel,*** 212, 2018, 656-667.

9- Ettefaghi, E.-O.-L., Rashidi, A., Ghobadian, B., **Najafi, G.,**Yadegari, A., Xian, H.W. Experimental investigation of conduction and convection heat transfer properties of a novel nanofluid based on carbon quantum dots. ***International Communications in Heat and Mass Transfer***, 90, 2018, 85-92.

2017

10- Soufi, M.D., Ghobadian, B., Najafi, G., Mohammad Mousavi, S., Aubin, J. Optimization of methyl ester production from waste cooking oil in a batch tri-orifice oscillatory baffled reactor. ***Fuel Processing Technology***, 167, 2017, 641-647.

11- Hamzah, M.H., Sidik, N.A.C., Ken, T.L., Mamat, R., Najafi, G. Factors affecting the performance of hybrid nanofluids: A comprehensive review, ***International Journal of Heat and Mass Transfer.*** 115, 2017, 630-646.

12- Moosavian, A., Najafi, G., Ghobadian, B., Mirsalim, M. The effect of piston scratching fault on the vibration behavior of an IC engine. ***Applied Acoustics,*** 126, 2017, 91-100.

13- Zaharin, M.S.M., Abdullah, N.R., Najafi, G., Sharudin, H., Yusaf, T. Effects of physicochemical properties of biodiesel fuel blends with alcohol on diesel engine performance and exhaust emissions: A review. ***Renewable and Sustainable Energy Reviews.*** 79, 2017, 475-493.

14- Mat Yasin, M.H., Mamat, R., Najafi, G., Yusop, A.F., Ali, M.H. Potentials of palm oil as new feedstock oil for a global alternative fuel: A review. ***Renewable and Sustainable Energy Reviews***. 79, 2017, 1034-1049.

15- Ramasamy, D., Goh, C.Y., Kadirgama, K., Najafi, G., Carlucci, A.P. Engine performance, exhaust emission and combustion analysis of a 4-stroke spark ignited engine using dual fuel injection. ***Fuel,*** 207, 2017, 719-728.

16- Ghani, I.A., Sidik, N.A.C., Mamat, R., Asako, Y., Japar, W.M.A.A. Heat transfer enhancement in microchannel heat sink using hybrid technique of ribs and secondary channels. ***International Journal of Heat and Mass Transfer,*** 114, 2017, 640-655.

17- Hisham, S., Kadirgama, K., Ramasamy, D., Najafi, G., Rahman, M.M. Waste cooking oil blended with the engine oil for reduction of friction and wear on piston skirt. ***Fuel,*** 205, 2017, 247-261.

18- Ghanbari, M., Najafi, G., Ghobadian, B., Carlucci, A.P., Kiani Deh Kiani, M. Performance and emission characteristics of a CI engine using nano particles additives in biodiesel-diesel blends and modeling with GP approach. ***Fuel,*** 202, 2017, 699-716.

19- Darminesh, S.P., Sidik, N.A.C., Najafi, G., Ken, T.L., Asako, Y. Recent development on biodegradable nanolubricant: A review. ***International Communications in Heat and Mass Transfer.*** 86, 2017, 159-165.

20- Hoseini, S.S., Najafi, G., Ghobadian, B., Sidik, N.A.C., Azmi, W.H. Effects of biodiesel fuel obtained from Salvia macrosiphon oil (ultrasonic-assisted) on performance and emissions of diesel engine. ***Energy,*** 131, 2017, 289-296.

21- Moosavian, A., Najafi, G., Nadimi, H., Arab, M. Estimation of engine friction using vibration analysis and artificial neural network. ***2017 International Conference on Mechanical, System and Control Engineering, ICMSC 2017.*** 130-135.

22- Moosavian, A., Khazaee, M., Najafi, G., Sakhaei, B., Mohammad Jafari, S. Wavelet denoising using different mother wavelets for fault diagnosis of engine spark plug. ***Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering.*** 231(3), 2017, 359-370.

23- Yusri, I.M., Mamat, R., Najafi, G., Razman, A., Awad, O.I., Azmi, W.H., Ishak, W.F.W., Shaiful, A.I.M. Alcohol based automotive fuels from first four alcohol family in compression and spark ignition engine: A review on engine performance and exhaust emissions. ***Renewable and Sustainable Energy Reviews***, Volume 77, 1 2017, 169-181. (ISI-JCR, Impact Factor: 6.798)

24- Hoseini, S.S., **Najafi, G.,** Ghobadian, B., Sidik, N.A.C., Azmi, W.H. The effect of combustion management on diesel engine emissions fueled with biodiesel-diesel blends. ***Renewable and Sustainable Energy Reviews,*** 73 pp. 307-331. (ISI-JCR, Impact Factor: 6.798)

25- Ibrahim, T.K., Basrawi, F., Awad, O.I., **Najafi, G.,** Mamat, R., Hagos, F.Y. Thermal performance of gas turbine power plant based on exergy analysis. ***Applied thermal engineering,*** 115, pp. 977-985. (ISI-JCR, Impact Factor: 3.043)

26- Sharudin, H., Abdullah, N.R., **Najafi, G.,** Mamat, R., Masjuki, H.H. Investigation of the effects of iso-butanol additives on spark ignition engine fuelled with methanol-gasoline blends. ***Applied thermal engineering***, 114, pp. 593-600. (ISI-JCR, Impact Factor: 3.043)

27- Awad, O.I., Ali, O.M., Mamat, R., **Najafi, G.,** Yusri, I.M., Noor, M.M. Using fusel oil as a blend in gasoline to improve SI engine efficiencies: A comprehensive review. ***Renewable and Sustainable Energy Reviews,*** 62 pp. 1232-1242. (ISI-JCR, Impact Factor: 6.798)

28- Othman, M.F., Adam, A., Najafi, G., Mamat, R. Green fuel as alternative fuel for diesel engine: A review, ***Renewable and Sustainable Energy Reviews,*** 80, 2017, pp. 694-709.

29- Yasin, M.H.M., Mamat, R., Yusop, A.F., Rasul, M., Najafi, G. Study of a Diesel Engine Performance with Exhaust Gas Recirculation (EGR) System Fuelled with Palm Biodiesel. ***Energy Procedia,*** 110, 2017, 26-31.

30- Ibrahim, T.K., Kamil, M., Awad, O.I., Abd Alla, A.N., Mamat, R. Najafi, G. The optimum performance of the combined cycle power plant: A comprehensive review. ***Renewable and Sustainable Energy Reviews,*** 79, 2017, pp. 459-474.

2016

31- Beriache M'hamed, Nor Azwadi Che Sidik, Mohammad Noor Afiq Witri Muhammad Yazid, Rizalman Mamat, **Najafi, G.,** G.H.R. Kefayati. A review on why researchers apply external magnetic field on nanofluids. ***International Communications in Heat and Mass Transfer***, 78 (2016) 60–67. (ISI-JCR, Impact Factor: 2.56)

32- Mohammad Noor Afiq Witri Muhammad Yazid, Nor Azwadi Che Sidik, Rizalman Mamat, **Najafi, G.** A review of the impact of preparation on stability of carbonnanotube nanofluids. ***Communications in Heat and Mass Transfer***, 78 (2016) 253–263. (ISI-JCR, Impact Factor: 2.56)

33- Nor Azwadi Che Sidik, Isa Muhammad Adamu, Muhammad Mahmud Jamil, G.H.R. Kefayati, Rizalman Mamat, **G. Najafi.** Recent progress on hybrid nanofluids in heat transfer applications: A comprehensive review. ***International Communications in Heat and Mass Transfer*** 78 (2016) 68–79. (ISI-JCR, Impact Factor: 2.56)

34- M.Kh. Abdolbaqi, Nor Azwadi Che Sidik, Mohd Fadzil Abdul Rahim, Rizalman Mamat, W.H. Azmi, Mohammad Noor AfiqWitri Muhammad Yazid, **G. Najafi**. Experimental investigation and development of new correlation for thermal conductivity and viscosity of BioGlycol/water based SiO2 nanofluids. ***International Communications in Heat and Mass Transfer*** 77 (2016) 54–63. (ISI-JCR, Impact Factor: 2.56)

35- Abdolbaqi, M.K., Sidik, N.A.C., Aziz, A., Mamat, R., Azmi, W.H., Yazid, M.N.A.W.M., **Najafi, G.** An experimental determination of thermal conductivity and viscosity of BioGlycol/water based TiO2 nanofluids. ***International Communications in Heat and Mass Transfer*** 77 (2016) 22-32. (ISI-JCR, Impact Factor: 2.56)

36- A.A.Razak, Z.A.A.Majid, W.H.Azmi, M.H.Ruslan, Sh.Choobchian, **G.Najafi,** K. Sopian. Review on matrix thermal absorber designs for solar air collector. ***Renewable and Sustainable Energy Reviews*** 64 (2016) 682–693. (ISI-JCR, Impact Factor: 6.798)

37- S.S. Hoseini, **G. Najafi,** B. Ghobadian. Experimental and numerical investigation of heat transfer and turbulent characteristics of a novel EGR cooler in diesel engine. ***Applied Thermal Engineering*** 108 (2016) 1344–1356. (ISI-JCR, Impact Factor: 3.043)

38- Mahmud JamilMuhammad, IsaAdamuMuhammad, Nor Azwadi Che Sidik, Muhammad Noor Afiq Witri Muhammad Yazid, Rizalman Mamat, **G. Najafi.** The

use of nanofluids for enhancing the thermal performance of stationary solar collectors: A review. ***Renewable and Sustainable Energy Reviews*** 63 (2016) 226–236. (ISI-JCR, Impact Factor: 6.798)

39- Yusri, I.M., Mamat, R, Azmi, W.H., **Najafi, G.**, Sidik, N.A.C., Awad, O.I. Experimental investigation of combustion, emissions and thermal balance of secondary butyl alcohol-gasoline blends in a spark ignition engine. ***Energy Conversion and Management*** 123 (2016) 1–14. (ISI-JCR, Impact Factor: 4.801)

40- M'hamed, B, Che Sidik, N.A., Akhbar, M.F.A., Mamat, R, **Najafi, G.** Experimental study on thermal performance of MWCNT nanocoolant in Perodua Kelisa 1000cc radiator system. ***International Communications in Heat and Mass Transfer.*** 76 (2016) 156–161 (ISI-JCR, Impact Factor: 2.56)

41- Amanlou, Y., Hashjin, T.T., Ghobadian, B., **Najafi, G.**, Mamat, R. A comprehensive review of Uniform Solar Illumination at Low Concentration Photovoltaic (LCPV) Systems. ***Renewable and Sustainable Energy Reviews***, 60 (2016) 1430–1441 (ISI-JCR, Impact Factor: 6.798)

42- Abdolbaqi, M., Azmi, W.H., Mamat, R., Mohamed, N.M.Z.N., **Najafi, G.** Experimental investigation of turbulent heat transfer by counter and co-swirling flow in a flat tube fitted with twin twisted tapes. ***International Communications in Heat and Mass Transfer,*** 75 (2016) 295–302. (ISI-JCR, Impact Factor: 3.043)

43- Damirchi, H., **Najafi, G.,** Alizadehnia, S., Mamat, R., Nor Azwadi, C.S., Azmi, W.H., Noor, M.M. Micro Combined Heat and Power to provide heat and electrical power using biomass and Gamma-type Stirling engine. ***Applied Thermal Engineering*** 103 (2016) 1460–1469 (ISI-JCR Impact Factor: 3.043)

44- Abdolbaqi, M.Kh., Azmi, W.H., Mamat, R., Sharma, K.V.,**Najafi, G.** Experimental investigation of thermal conductivity and electrical conductivity of BioGlycol-water mixture based Al_2O_3 nanofluid. ***Applied Thermal Engineering*** 102 (2016) 932–941 (ISI-JCR Impact Factor: 3.043)

45- Khoobbakht, G., Akram, A., Karimi, M., **Najafi, G.** Exergy and Energy Analysis of Combustion of Blended Levels of Biodiesel, Ethanol and Diesel Fuel in a di Diesel Engine. ***Applied Thermal Engineering*** 99 (2016) 720–729 (ISI-JCR Impact Factor: 3.043)

46- G. Khoobbakht, A. Tabatabaee far, A. Akram, **G. Najafi** and M. Karimi. Optimization of operating factors and blended levels of diesel, biodiesel and ethanol to minimize exhaust emissions using response surface methodology. ***Applied Thermal Engineering***. 99 (2016) 1006–1017 (ISI journal, Impact Factor: 3.043).

47- **G. Najafi,** B. Ghobadian, S. A. Moosavian, T. Yusaf, R. Mamat, M. Kettner and W. H. Azmi. SVM and ANFIS for prediction of performance and exhaust emissions of a SI engine with gasoline-ethanol blended fuels. ***Applied Thermal Engineering*** 95 (2016) 186–203 (ISI journal, Impact Factor: 3.043).

48- W.H. Azmi, K.V. Sharma, R. Mamat, **G. Najafi**, M.S. Mohamad. The enhancement of effective thermal conductivity and effective dynamic viscosity of nanofluids-A

review. ***Renewable and Sustainable Energy Reviews*** 53 (2016) 1046–1058 (ISI-JCR, Impact Factor: 6.798)

49- A. Moosavian, **G. Najafi**, B. Ghobadian, M. Mirsalim, S. M. Jafari, P. Sharghi. Piston scuffing fault and its identification in an IC engine by vibration analysis. ***Applied Acoustics*** 102 (2016) 40–48. (ISI journal, Impact Factor: 1.5).

50- M. Kettner, S. Dechent, M. Hofmann, E. Huber, H. Arruga, R. Mamat, **G. Najafi**. Investigating the influence of water injection on the emissions of a diesel engine. ***Journal of Mechanical Engineering and Sciences,*** 10(1), 1863-1881 (ISI journal).

51- C.W. Mohd Noor, R. Mamat, **G. Najafi,** M.H. Mat Yasin, .K. Ihsan, M.M. Noor. Prediction of marine diesel engine performance by using artificial neural network mode. ***Journal of Mechanical Engineering and Sciences,*** Volume 10 (1), 1917-1930, (ISI journal).

2015

52- **G. Najafi**, B. Ghobadian, T. Yusaf, S. M. Safieddin, R. Mamat. Optimization of performance and exhaust emission parameters of a SI (spark ignition) engine with gasoline ethanol blended fuels using response surface methodology. ***Energy*** 90 (2015) 1815-1829. (ISI journal, Impact Factor: 4.844).

53- A. Moosavian, M. Khazaee, **G. Najafi**, M. Kettner, R. Mamat. Spark plug fault recognition based on sensor fusion and classifier combination using Dempster–Shafer evidence theory. ***Applied Acoustics*** 93 (2015) 120–129. (ISI journal, Impact Factor: 1.024).

54- **G. Najafi**, B. Ghobadian, R. Mamat, T. Yusaf, W. H. Azmi. Solar energy in Iran: Current state and outlook. ***Renewable and Sustainable Energy Reviews*** 49 (2015) 931–942. (ISI journal, Impact Factor: 5.9).

55- W. N. M. W. Ghazali, R. Mamat, H. H. Masjuki, **G. Najafi**. Effects of biodiesel from different feedstocks on engine performance and emissions: A review. ***Renewable and Sustainable Energy Reviews*** 51 (2015) 585–602. (ISI journal, Impact Factor: 5.9).

56- E. Fayyazi, B. Ghobadian, **G. Najafi**, B. Hosseinzadeh, R. Mamat, J. Hosseinzadeh. An ultrasound-assisted system for the optimization of biodiesel production from chicken fat oil using a genetic algorithm and response surface methodology. ***Ultrasonic Sonochemistry*** 26 (2015) 312–320. (ISI journal, Impact Factor: 4.3).

57- I. Zakaria, W. H. Azmi, W.A.N.W. Mohamed, R. Mamat, **G. Najafi**. Experimental Investigation of Thermal Conductivity and Electrical Conductivity of Al_2O_3 Nanofluid in Water - Ethylene Glycol Mixture for Proton Exchange Membrane Fuel Cell Application. ***International Communications in Heat and Mass Transfer*** 61 (2015) 61–68. (ISI journal, Impact Factor: 2.78).

58- A. Moosavian, M. Khazaee, H. Ahmadi, M. Khazaee, **G. Najafi.** Fault diagnosis and classification of water pump using adaptive neuro-fuzzy inference system based on vibration signals. ***Structural Health Monitoring***. 2015, Vol. 14(5) 402–410. (ISI journal, Impact Factor: 2.663).

59- S. M. Safieddin, T. Tavakoli, B. Ghobadian, **G. Najafi**, S. Mantegna, G. Cravotto. Optimization of biodiesel synthesis under simultaneous ultrasound-microwave irradiation using response surface methodology (RSM). ***Green Processing and Synthesis***, 2015; 4: 259–267. (ISI journal, Impact Factor: 1.125).

60- A. Shirneshan, M. Almasi, B. Ghobadian, A. M. Borghei, **G. Najafi**. Investigating the effects of biodiesel from waste cooking oil and engine operating conditions on emission characteristics of a diesel engine by response surface methodology. ***Environmental Engineering and Management Journal*** (in press). (ISI journal, Impact Factor: 1.065).

61- A. Moosavian, M. Khazaee, **G. Najafi**, M. Khazaee, B. Sakhaei, S. M. Jafari. Wavelet denoising using different mother wavelets for fault diagnosis of engine spark plug. ***Proc IMech E Part E: J Process Mechanical Engineering*** (in press), 2015, 1-12 (ISI journal, Impact Factor: 0.772).

62- Y. Amanlou, T. Tavakoli Hashjin, B. Ghobadian, **G. Najafi**. Mathematical Modeling of Thin-Layer Solar Drying for Yarrow, Coriander and Hollyhock. ***International Journal of Food* Engineering**. 2015; 11(5): 691–700 (ISI journal, Impact Factor: 0.497).

63- K. Abdul Hamid, W. H. Azmi, R. Mamat, N. A. Usri, G. Najafi. Effect of titanium oxide nanofluid concentration on pressure drop. ***ARPN Journal of Engineering and Applied Sciences***. Vol. 10, No. 17, 2015. (Scopus journal).

64- I. Arashnia, **G. Najafi**, B. Ghobadian, T. Yusaf, R. Mamat, M. Kettner. Development of micro-scale biomass-fuelled CHP system using Stirling Engine. ***Energy Procedia***. 75 (2015) 1108 – 1113 (Scopus journal).

65- H. Damirchi, **G. Najafi**, S. Alizadehnia, B. Ghobadian, T. Yusaf, R. Mamat. Design, Fabrication and Evaluation of Gamma-Type Stirling Engine to Produce Electricity from Biomass for the micro-CHP system. ***Energy Procedia***. 75 (2015) 137–143 (Scopus journal).

66- N. K. Siavash, **G. Najafi**, R. Hasanbeigi, B. Ghobadian. Acoustic analysis of a single cylinder diesel engine using biodiesel fuel blends. ***Energy Procedia***. 75 (2015) 893–899 (Scopus journal).

67- M. Dehghani Soufi, B. Ghobadian, **G. Najafi**, M. Sabzimaleki, F. Jaliliantabar. Performance and Exhaust Emissions of a SI Two-stroke Engine with Biolubricants Using Artificial Neural Network. ***Energy Procedia***. 75 (2015) 3–9 (Scopus journal).

68- M. H. M. Yasin, R. Mamat, A. Fitri Yusop, A. Aziz, **G. Najafi.** Comparative study on biodiesel-methanol-diesel low proportion blends operating with a diesel engine. ***Energy Procedia***. 75 (2015) 10–16 (Scopus journal).

69- M. H. M. Yasin, R. Mamat, A. Fitri Yusop, A. Aziz, **G. Najafi**. Effects of Exhaust Gas Recirculation (EGR) on a Diesel Engine fuelled with Palm-Biodiesel. ***Energy Procedia***. 75 (2015) 30–36 (Scopus journal).

70- M. H. M. Yasin, P. Paruka, R. Mamat, A. Fitri Yusop, **G. Najafi**, A. Alias. Effect of Low Proportion Palm Biodiesel Blend on Performance, Combustion and Emission

Characteristics of a Diesel Engine. ***Energy Procedia***. 75 (2015) 92–98 (Scopus journal).

71- M. Sabzimaleki, B. Ghobadian, M. M. Farsibaf, **G. Najafi**, M. Dehghani Soufi, S. M. Safieddin. Optimization of Biodiesel Ultrasound-Assisted Synthesis from Castor Oil Using Response Surface Methodology (RSM). ***Chemical Product and Process Modeling*** 2015; 10(2): 123–133 (Scopus journal).

72- M. Kh. Abdolbaqi, C.S.N. Azwadi, R. Mamat, W. H. Azmi, **G. Najafi**. Nanofluids heat transfer enhancement through straight channel under turbulent flow. ***International Journal of Automotive and Mechanical Engineering (IJAME).*** Volume 11, pp. 2294-2305, 2015 (Scopus journal).

73- K. Abdul Hamid, W. H. Azmi, R. Mamat, N. A. Usri, **G. Najafi**. Effect of temperature on heat transfer coefficient of titanium dioxide in ethylene glycol-based nanofluid. ***Journal of Mechanical Engineering and Sciences (JMES).*** Volume 8, pp. 1367-1375, 2015 (Scopus journal).

2014

74- W. H. Azmi, K. V. Sharma, P. K. Sarma, R. Mamat, **G. Najafi**. Heat transfer and friction factor of water based TiO_2 and SiO_2 nanofluids under turbulent flow in a tube. ***International Communications in Heat and Mass Transfer*** 59 (2014) 30–38. (ISI journal, Impact Factor: 2.78).

75- A. R. Shirneshan, M. Almassi, B. Ghobadian, **G. Najafi**. Investigation the effects of biodiesel from waste cooking oil and engine operating conditions on the diesel engine performance by response surface methodology. ***IJST, Transactions of Mechanical Engineering*** Vol. 38, No. M2, pp 289-301, 2014. (ISI journal).

76- S. Karimi, B. Ghobadian, **G. Najafi**, A. Nikian, R. Mamat. Effect of Operating Parameters on Ethanol–Water Vacuum Separation in an Ethanol Dehydration Apparatus and Process Modeling with ANN. ***Chemical Product and Process Modeling*** 2014; 9(2): 179–191. (Scopus journal).

2013

77- R. Yahyaee, B. Ghobadian, **G. Najafi**. Waste fish oil biodiesel as a source of renewable fuel in Iran. ***Renewable and Sustainable Energy Reviews*** 17 (2013) 312–319 (ISI journal, Impact Factor: 5.9).

78- M. Mohammadi, B. Ghobadian, **G. Najafi**, R. Janzadeh. Potential of biogas production in Iran. ***Renewable and Sustainable Energy Reviews*** 28 (2013) 702–714 (ISI journal, Impact Factor: 5.9).

79- M. Mohammadi, B. Ghobadian, **G. Najafi**, R. Janzadeh. Micro combined heat and power (MCHP) technologies and applications. ***Renewable and Sustainable Energy Reviews*** 28 (2013) 510–524 (ISI journal, Impact Factor: 5.9).

80- S. Haghighi Mood, A. H. Golfeshan, M. Tabatabaei, G. Salehi Jouzani, **G. Najafi**, M. Gholami, M. Ardjmand. Lignocellulosic biomass to bioethanol, a comprehensive review with a focus on pretreatment. ***Renewable and Sustainable Energy Reviews*** 27 (2013) 77–93 (ISI journal, Impact Factor: 5.9).

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Thesis / Dissertation Supervised/supervising

- I was supervisor for 14 Ph.D. students thesis and 20 M.Sc. students dissertation; all are in the field of renewable energy technologies, combustion and IC engines.

Courses taught

- Renewable energy technologies (Ph.D.).
- Advanced Internal combustion Engines (Ph.D.).
- Sustainable development (M.Sc.).
- Energy Management (M.Sc.).
- Advanced Engineering Mathematics I & II (M.Sc. & Ph.D.).

Computer Knowledge

OS

Windows XP, 7, 2000, 98

Programming Languages

FORTRAN

Engineering Soft wares

1. Lab view,
2. Matlab,
3. Ansys,
4. Abaqus,
5. Solidworks,
6. Catia,
7. Simulink,
8. Gt-Suite,Gt-power,

Office software MS Word, Excel, Power point, Access