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<b>Scopus</b>	<a href="https://www.scopus.com/authid/detail.uri?authorId=55582074800">https://www.scopus.com/authid/detail.uri?authorId=55582074800</a>
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<b>Google Scholar</b>	<a href="https://scholar.google.com/citations?user=j8NVqysAAAAJ&amp;hl=en">https://scholar.google.com/citations?user=j8NVqysAAAAJ&amp;hl=en</a>
<b>ResearchGate</b>	<a href="https://www.researchgate.net/profile/Obed_Ali">https://www.researchgate.net/profile/Obed_Ali</a>

### Academic Qualification

**PhD (Fuel & Energy), Universiti Malaysia Pahang (UMP), Malaysia, 2014.**

**MSc. Eng. (Heat Transfer), University of Mosul, Iraq, 2002.**

**Bachelor of Mechanical Engineering (Hon.), University of Mosul, Iraq, 2000.**

### Brief Profile

Dr. Obed Majeed Ali obtained Bachelor of Mechanical Engineering (Hons) in 2000 and a Master of Science in Mechanical Engineering in 2002 from the Department of Mechanical Engineering / College of Engineering at Mosul University, Iraq. Dr. Obed Majeed Ali obtained his DOCTOR OF PHILOSOPHY in Mechanical Engineering (Internal Combustion Engine and Alternative Fuels) in 2014 from University Malaysia Pahang, Malaysia. After finishing his PhD., he worked as a senior lecturer at Faculty of Mechanical Engineering-University Malaysia Pahang, Malaysia. While working as a senior lecturer, he supervised many PhD and Master Students. He has published many technical papers in very reputable journals and international conferences in the area of internal combustion engine, energy efficiency, engine performance, exhaust emissions and alternative green fuels. In addition, Dr. Obed Majeed Ali worked as a lecturer at the Foundation of Technical Education, Iraq from year 2003 to 2012, and currently Associate professor at the Northern Technical University, Iraq. His present research interests are Biofuel, combustion and emissions of Spark-Ignition (SI) and Compressed-Ignition (CI) engines, combustion strategies, fuel injection strategies, alternative future green fuels, fuel spray behaviour, modelling air flow, thermal stress analysis on Diesel Particulate Filter (DPF) and solar energy. Dr. Obed Majeed Ali is a Chartered Engineer (*CEng*), Institute of

Mechanical Engineers (*IMechE*) of UK and also registered with American Association for Science and Technology (AASCIT), USA and the Iraqi Engineers Society, Iraq.

### Working Experiences / Appointment

August 2023 – Present	Dean of the College of Oil and Gas Engineering Techniques, Northern Technical University, Iraq.
April 2020 – September 2022	deputy dean for administration and finance, HTI, Northern Technical University, Iraq.
April 2016 – 2020	Director of Renewable Energy Research Unit, Northern Technical University, Iraq.
October 2014 – April 2016	Senior Lecturer, Faculty of Mechanical Engineering, UMP, Malaysia.
November 2011 – February 2012	Head of Thermal Power Department, Hawija Technical Institute, Foundation of Technical Education, Iraq.
October 2010 – November 2011	Director of Renewable Energy Research Unit, Foundation of Technical Education, Iraq.
April 2003 – October 2010	Director of Computer Center, Foundation of Technical Education, Iraq.

### Expert Area

Renewable Energy, Internal Combustion Engines, Biofuel, Solar Energy, Statistical Analysis, Fluidized Bed.

### Research Interest

IC Engines, Combustion Analysis, Alternative fuels, Solar Energy, Fluidized Bed Heat Transfer, Wavelets Analysis.

### Research Project / Grant

1. Investigation of thermal management of CI engine operating with biofuel, RDU172204, 28/06/2017 – 27/06/2019, Project Member
2. Blending of Biodiesel-Diesel Fuel at High Blending Ratio to Operate Diesel Engines Using the Chemical Additives, RDU1403156, 25/12/2014 – 24/12/2016, Project Leader
3. Diesel Engine Cyclic Variations with Emulsified Water-Diesel Fuel, RDU1403149, 25/12/2014 – 24/12/2016, Project Leader
4. Testing the Properties of the Different Alternative Fuel that Prepared to Operate the Internal Combustion Engines, RDU141118, 01/12/2014 – 30/11/2016, Project Leader
5. Diesel Engine performance with Emulsified Water-Diesel Fuel, RDU150388, 01/10/2015 – 30/09/2017, Project Member
6. Development of In-cylinder Heat Transfer Models in Diesel Engine using Biodiesel Fuel, RDU150375, 01/10/2015 – 30/09/2017, Project Member

7. Investigation of Micro-explosion phenomenon in the Combustion of Tri-fuel (Diesel, Biodiesel and Bio-ethanol) emulsion in compression ignition engines, RDU150124, 02/11/2015 – 01/11/2018, Project Member
8. Performance and NOx Emissions of a Diesel Engine with Water Injection, RDU150342, 25/06/2015 – 24/06/2017, Project Member
9. Heat Transfer Enhancement using Refrigeration Nanolubricant in Automobile Air-Conditioning System, RDU1403153, 25/12/2014 – 24/12/2016, Project Member
10. Experimental Study On Exhaust Gas Recirculation (Egr) With Liquefied Petroleum Gas (Lpg) On-Board Injection Operating With A Single Cylinder Diesel Engine, RDU140302, 15/01/2014 – 14/01/2016, Project Member
11. Engine Testing on Biodiesel Blend With Small Portion of Additive For Performance Improvement, GRS130307, 01/04/2013 – 31/03/2016, Project Member
12. Fundamental Study of Jatropha Biodiesel Oil on Ultra-Low Emission Homogeneous Charge Compression Ignition Engine Combustion, RDU130131, 01/12/2013 – 30/11/2016, Project Member
13. Design of Built -In – Storage Solar Collector Suitable for IRAQ Environment, Research and Development Department, Ministry of Higher Education-Iraq, 2008, Project Member

### Professional Qualification / Membership / Affiliation / Experience

1. Chartered Engineer (CEng), Institute of Mechanical Engineers (IMechE) of UK
2. Member of American Association for Science and Technology (AASCIT).
3. Member of Iraqi Engineers Society.

**MANGER EDITOR, *NTU Journal for Renewable Energy* (P-ISSN: 2788-9912 E-ISSN: 2788-9920)**

#### **Organizing Committee Member**

1. Organization Committee member, 2022 1<sup>st</sup> International Conference on Sustainable Development Techniques 2022” (**ICSDT 2022**), 29-30 June-2022, Mosul, **Iraq**.
2. Organization Committee member, 2022 2nd International Conference on Renewable Energy 2022” (**ICRE 2022**), 11-12 May 2022, Kirkuk, **Iraq**.
3. Organization Committee member, 2021 International Multi-Disciplinary Conference Integrated Sciences and Technologies 2021” (**IMDC-IST 2021**), 7-9 Sep-2021, Sakarya, **Turkey**.
4. Organization Committee member, 2020 International Multi-Disciplinary Conference Theme: “Sustainable Development and Smart Planning” (**IMDC-SDSP 2020**), 5-7 Feb-2020, Antalya, **Turkey**.
5. Technical Program Committee, 2020 International Conference on Mechanical, Computer, Electrical Engineering (**MCEE2020**), April 15-16, 2020, Xiamen, **China**.
6. Technical Program Committee, The 6th International Conference on Renewable Energy Technologies (**ICRET 2020**), January 8-10, 2020, Perth, **Australia**.
7. Organization Committee member, International Conference on Chemical Engineering and Catalysis. November 12-13, 2019 Las Vegas, **USA**.
8. Honorary Committee member, 2nd World Congress on Mechanical and Mechatronics Engineering (**WCMM-2019**). April 15-17, 2019 Dubai, **UAE**.

9. Keynote speaker, 2nd International Conference on Electrical, Communication, Computer, Power, and Control Engineering (**ICECCPCE19**). Feb 13-14, 2019 Ninawa, **Iraq**.
10. Technical Committee, 5th International Conference on Renewable Energy Technologies (**ICRET 2019**). January 26-29, 2018, Seoul, **South Korea**.
11. Organization Committee member, 3rd International Conference on Chemical Engineering 2018. December 5-6, 2018 Dubai, **UAE**.
12. Technical Program Committee, 4th International Conference on Science, Engineering & Environment (**SEE2018**), November 12-14, 2018, Nagoya, **Japan**.
13. International Committee, International Conference on Civil, Architecture and Disaster Prevention (**ICCADP2018**), November 2-4, 2018, Hefei, **China**.
14. International Scientific Committees, 2018, INTERNATIONAL CONFERENCE ON ENGINEERING, MEDICINE, AND APPLIED SCIENCES (**ICEMAS 2018**). 24-26 Sep-2018, Antalya, **Turkey**.
15. Organization Committee member, 2nd International Conference on Renewable Energy and Resources. August 27-28, 2018 Boston, Massachusetts, USA Boston, Massachusetts, **USA**.
16. Organization Committee member, World Congress on Mechanical and Mechatronics Engineering. April 16-17, 2018 Dubai, **UAE**.
17. Organization Committee member, 9th Annual Congress and Expo on Biofuels and Bioenergy. April 16-17, 2018 Dubai, **UAE**.
18. Technical Committee, 4th International Conference on Renewable Energy Technologies (**ICRET 2018**). January 16-18, 2018, University of Malaya, Kuala Lumpur, **Malaysia**.
19. Organization Committee member, 2nd World Biodiesel Congress & Expo. December 6-7, 2017, Dallas, Texas, **USA**.
20. Organization Committee member, 2nd World Congress on Wind & Renewable Energy. September 28-29, 2017, London, **UK**.
21. International Scientific Committees, 2017, 2nd International Conference on Alternative Fuels (**ICAF2017**), October 15-17, 2017 in Daegu University, **South Korea**.
22. International Scientific Committees, 2017 International Conference on Applied Science, Engineering and Technology (**ASET 2017**), October 28-29, 2017, Changsha, **China**.
23. Organization Committee member, 4th Annual Congress and Expo on Biofuels and Bioenergy. 27th and 28th of April 2017, Dubai, **UAE**.
24. Organization Committee member, International Energy & Environment Summit 2017, MARCH 18-20, 2017, Dubai, **UAE**.
25. Technical Committee, 2017 The Third International Conference on Science, Engineering & Environment (**SEE2017**), November 13-16, University of Southern Queensland (USQ), Springfield Campus, Brisbane, **Australia**.
26. International Scientific Committees, 2017 2nd International Conference on Materials Engineering and Industrial Applications (**MEIA2017**), August 6-7, 2017 in Phuket, **Thailand**.
27. Technical Committee, 2017 International Conference on Energy and Environmental Science (**ICEES 2017**), January 22-24, 2017, Thammasat University, Rangsit Campus, **Thailand**.
28. International Scientific Committee, 2016 International Conference on Energy, Power and Electrical Engineering (**EPEE2016**), October 30-31, 2016 in Shenzhen, **China**.
29. Technical Program Committee, Second International Conference on Science, Engineering & Environment (**SEE2016**), November 21-23, 2016, Osaka International House Foundation, Osaka city, **Japan**.

30. International Scientific Committee, 2016 International Conference on Environment, Civil and Transportation Engineering (**ECTE2016**), August 28-29, 2016, Phuket, **Thailand**.
31. Technical Committee, 2016 International Conference on Energy and Environmental Science (**ICEES 2016**), August 27-29, 2016, Thammasat University, Rangsit Campus, **Thailand**.
32. International Scientific Committee, International Conference on Advanced Materials Science and Environmental Engineering 2016 (**AMSEE2016**), June 26-27, 2016, Chiang Mai, **Thailand**.
33. Technical Committee, 3rd International Conference on Mechanical Engineering Research 2015 (**ICMER 2015**), August 18-19, 2015, Kuantan, **Malaysia**.
34. Technical Committee, Session Chair, National Conference on Postgraduate Research 2015 (**NCON-PGR 2015**), January 25-26, 2013, UMP, Kuantan, **Malaysia**.

#### **As a Reviewer**

1. Energy, Elsevier.
2. Fuel, Elsevier.
3. Fuel Processing Technology, Elsevier.
4. Solar Energy, Elsevier.
5. Renewable & Sustainable Energy Reviews, Elsevier.
6. Energy & Fuels, ACS.
7. Energy Sources, Part A: Recovery, Utilization, and Environmental Effects, Taylor & Francis.
8. Korean Journal of Chemical Engineering, Springer.
9. Energy Conversion and Management, Elsevier.
10. Renewable Energy, Elsevier.
11. Applied Energy, Elsevier.
12. Journal of Energy Storage, Elsevier.
13. Case Study in Thermal Engineering, Elsevier.
14. Thermal Science and Engineering Progress, Elsevier.
15. Journal Engineering Science and Technology an International Journal, Elsevier.
16. Thermal Science and Engineering Progress, Elsevier.
17. Energy Report, Elsevier.
18. Engineering Science and Technology, an International Journal, Elsevier.
19. Materials Today: Proceedings - Journal – Elsevier.
20. International Journal of Energy Research, Wiley.
21. Environmental Progress & Sustainable Energy, Wiley.
22. Energy Storage, Wiley

23. Lubrication Science, Wiley
24. Journal of Thermal Engineering – Yildiz University, Turkey.
25. Journal of Energy-Hindawi
26. Journal of Renewable and Sustainable Energy – AIP.
27. Journal of Testing and Evaluation-ASTM.
28. The Open Fuels & Energy Science Journal
29. Waste and Biomass Valorization.
30. Energy & Environment
31. Jurnal Teknologi, Universiti Teknologi Malaysia.
32. International Journal of Renewable Energy and Biofuels (IBIMA Publishing).
33. International Journal of Automotive and Mechanical Engineering (IJAME)
34. Journal of Mechanical Engineering and Sciences (JMES).
35. Reviewer Conference Papers, International Multi-Disciplinary Conference Theme: “Sustainable Development and Smart Planning”. 5-7 Feb-2020, Antalya, **Turkey**.
36. Reviewer Conference Papers, “6th International Engineering Conference (IEC2020) in cooperation with IEEE Iraq Section”. 26-27 Feb-2020, Antalya, **Turkey**.
37. Reviewer Conference Papers, The 3rd International Conference on Science, Engineering & Environment (**SEE2017**), November 13-16, University of Southern Queensland (USQ), Springfield Campus, Brisbane, **Australia**.
38. Reviewer Conference Papers, the 2nd International Conference on New Energy and Future Energy System (**NEFES 2017**), September 22<sup>nd</sup> to 25<sup>th</sup>, 2017, Beijing, **China**.
39. Reviewer Conference Papers, 3rd International Conference on Mechanical Engineering Research 2015 (**ICMER 2015**), Kuantan, **Malaysia**.
40. Reviewer Conference Papers, UTP-UMP Symposium on Energy Systems 2015 (**SES 2015**), Ipoh, **Malaysia**.

## Teaching Experience

### Northern Technical University – Kirkuk, Iraq. (2016-present)

Courses: Thermodynamic; Heat Transfer; Engineering Mechanics; Fluid Mechanics; Power Plants.

PG courses: Advanced Heat Transfer (PhD), Exergy Analysis (MSc), Control and Measurements (MSc), Air Conditioning and Refrigeration Systems (MSc), Fluid Mechanics (High Diploma), Heat Exchangers Design (High Diploma)

### Universiti Malaysia Pahang (2014-2016)

Courses: Heat Transfer; Fluid Mechanics; Mechanical Laboratory 1.

### **Foundation of Technical Education – Kirkuk, Iraq. (2003-2012)**

Courses: Thermodynamic; Heat Transfer; Engineering Mechanics; Static and Dynamic; Control and Measurements; Power Plants.

## **Post Graduate**

### **As a Supervisor**

#### **PhD Students**

- MUGDAD HAMID RAJAB (2021) PhD Student, Thesis title: Second Generation Biodiesel Production For Operating Diesel Engine. (Co-Supervisor) Ecole Nationale d'Ingénieurs de Sousse, Tunis.
- ALI MOHAMMED SALEH (2021) PhD Student, Thesis title: Production of second generation biodiesel for diesel engine operation. (Co-Supervisor) Universiti Teknologi MARA, Malaysia.
- ASIAH BINTI AB.RAHIM (2021) PhD Student, Thesis title: Experimental study on combustion and emissions of dual alcohols fuel with biodisel blends on diesel engine. (Co-Supervisor) Universiti Teknologi MARA, Malaysia.
- Naseer T. Alwan (2019) PhD Student, Thesis title: New design of Solar Distillation using Ultrasonic waves. (Co-Supervisor) Ural Federal University, Russia.
- Mohammad Yusri Bin Ismail (2015) PhD Student, Thesis title: Gasoline Engine Running By Using Dual Fuel Mode. (Co-Supervisor) Universiti Malaysia Pahang (UMP), Malaysia.
- Omer Ibraheem Awad (2015) PhD Student, Thesis title: Experimental Investigation of The Thermal Loading of A Diesel Engine Operating With Biodiesel. (Co-Supervisor) Universiti Malaysia Pahang (UMP), Malaysia.

#### **MSc Students**

- Khawla Dawood Khalaf (2022) MSc Student, Thesis title: Effect of used fuel type on the Performance and efficiency of Kayara gas power plant. (Main Supervisor) Northern Technical University, Iraq.

- Ahmed Nawfal Mustafa (2021) MSc Student, Thesis title: Effect of used fuel type on the Performance and efficiency of Kayara gas power plant. (Main Supervisor) Northern Technical University, Iraq.
- Sally Adnan Awda (2021) MSc Student, Thesis title: Enhancement of Kirkuk cotton scotch operational efficiency using fuel from factory by-product. (Main Supervisor) Northern Technical University, Iraq.
- Maha Asaad Taha (2020) MSc Student, Thesis title: Improvement Of Gasoline Engine Performance Using High Octane Additives From Waste By-Products. (Main Supervisor) Northern Technical University, Iraq.
- Sarah Ahmed Saleh (2020) MSc Student, Thesis title: Evaluation Of The Performance Of A Gas Turbine Unit In Kirkuk Power Plant Under Real Ambient Conditions. (Co-Supervisor) Northern Technical University, Iraq.
- Mothana Mohammed Awad (2020) MSc Student, Thesis title: Enhancement Of Photovoltaic Solar Air Collector Using Multi-Phase Substance. (Main Supervisor) Northern Technical University, Iraq.
- Wissam Sattam (2019) MSc Student, Thesis title: Experimental and theoretical study of gasoline engine for the evaluation of thermal efficiency using simulation. (Co-Supervisor) Northern Technical University, Iraq.
- Ali Shukur Hadi (2018) MSc Student, Thesis title: Effect of Commercial Fuel Additives on Thermal Efficiency and Emissions of Gasoline Engines. (Co-Supervisor) Northern Technical University, Iraq.

#### **As Examiner for Master and PhD Students**

- External Examiner 2023, Othman Khalaf Zidan, PhD of Physical Science, College of Science, University of Tikrit, Iraq.
- Internal Examiner 2023, Ateka Khalil Ibrahim, Master of Mechanical Engineering, Northern Technical University, Iraq.
- External Examiner 2023, Abdullah A Abdullah, PhD of Physical Science, College of Science, University of Tikrit, Iraq.



- External Examiner 2022, Moneer Ramadhan Badah, PhD of Physical Science, College of Science, University of Tikrit, Iraq.
- Internal Examiner 2022, Abdullah Adel Badr, Master of Mechanical Engineering, Northern Technical University, Iraq.
- Internal Examiner 2022, Murad Ahmed Faker Aldeen, Master of Mechanical Engineering, Northern Technical University, Iraq.
- External Examiner 2022, Husam Talal Taha, Master of Agricultural Machines and Equipment, College of Agriculture and Forestry, University of Mosul, Iraq.
- External Examiner 2022, Rafee Mohammed Dawood, Master of Mechanical Engineering, College of Engineering, University of Mosul, Iraq.
- External Examiner 2022, Mahmood Fuad Mohammed, Master of Mechanical Engineering, College of Engineering, University of Mosul, Iraq.
- Internal Examiner 2021, Garmand Salah Alden Murad, Master of Mechanical Engineering, Northern Technical University, Iraq.
- Internal Examiner 2021, Alaa Nadhm Shaker, Master of Mechanical Engineering, Northern Technical University, Iraq.
- Internal Examiner 2021, Maral Mahmood Hussein, Master of Mechanical Engineering, Northern Technical University, Iraq.
- Internal Examiner 2019, Aminey Hatem Abdullah, Master of Air Conditioning Engineering, Northern Technical University, Iraq.
- Internal Examiner 2019, Roya Najm Aldeen Saleh, Master of Air Conditioning Engineering, Northern Technical University, Iraq.
- External Examiner 2019, Yahya Faraj Taha, Master of Mechanical Engineering / Thermal Power, College of Engineering, Tikrit University, Iraq.
- Internal Examiner 2018, Shaima Mohammed Bawa, Master of Air Conditioning Engineering, Northern Technical University, Iraq.
- Internal Examiner 2018, Murad Ramadan Mohammed, Master of Air Conditioning Engineering, Northern Technical University, Iraq.

- Internal Examiner 2018, Sahar Shaheen Ibrahim, Master of Air Conditioning Engineering, Northern Technical University, Iraq.
- Internal Examiner 2017, Zala Aziz Mohammed, Master of Air Conditioning Engineering, Northern Technical University, Iraq.
- External Examiner 2016, Dhanasekaran C., Doctor of Philosophy (Mechanical Engineering), ANNA UNIVERSITY, India.
- Internal Examiner 2015, Nur Fauzziah Binti Jaharudine, Master of Mechanical Engineering, University Malaysia Pahang, Malaysia.

### List of Publications

1. OR Alomar, KH Mohammed, **Obed Majeed Ali**, OM Ali, 2023, Energy, exergy, economical and environmental analysis of photovoltaic solar panel for fixed, single and dual axis tracking systems: An experimental and theoretical study; *Case Studies in Thermal Engineering*, 2023, 51, 103635. **(ISI, Q1 Elsevier)**
2. Naseer T. Alwan, **Obed Majeed Ali**, Omar R. AlOmar, 2023, Evaluation of the productivity of biogas from cow manure, vegetables, fruits, and paper waste for operating SI engines; *Energy Sources, Part A: Recovery, Utilization, And Environmental Effects*; 2023, 45(4), 11774–11787. **(ISI, Taylor and Francis)**
3. **Obed Majeed Ali**, 2023, Spark ignition engine performance analysis with low octane gasoline and Methyl tert-butyl ether additive for optimum operation; *Journal of Thermal Engineering*, xx, xx-xx. **(ISI)**
4. OR Alomar, KH Mohammed, **Obed Majeed Ali**, OM Ali, 2023, Analysis of complete boiling process inside double pipe porous heat exchanger filled with NanoFluids; *International Journal of Thermal Sciences* 193, 108461. **(ISI, Q1 Elsevier)**
5. Ahmed A. Hussein, **Obed Majeed Ali**, Naseer T. Alwan, 2023, Evaluation of Spark Ignition Engine Performance and Operation Stability with Low Octane Gasoline and Methyl Tert-Butyl Ether Additive; *International Journal on Engineering Applications (IREA)* 11 (3), 174-181. **(Scopus)**
6. KD Khalaf, **Obed Majeed Ali**, 2023, Effect of the Maintenance Strategy on the Performance and Efficiency of the Gas Turbine Unit: A Review; *Journal Européen des Systèmes Automatisés* 56 (2), 259-267. **(Scopus)**

7. AN Mustafa, **Obed Majeed Ali**, 2023, The Impact of Climate on the Efficiency and Performance of the Qayyarah Gas Station; *International Journal of Research in Science & Engineering (IJRISE)* 3 (4), 14-27.
8. AM Saleh, AB Alias, **Obed Majeed Ali**, NM Saleh, 2023, Factors Affecting on Process of Synthesizing Biodiesel and Arranging Production Steps: a Review Study; *International Review of Mechanical Engineering (IREME)* 17 (1), 1-13. **(Scopus)**
9. QA Yousif, OR Alomar, **Obed Majeed Ali**, OM Ali, 2023, Free Convective Heat Transfer Created From Heated Cylinder Immersed Inside Duct Cooled From Side; *Frontiers in Heat and Mass Transfer (FHMT)* 20, 1-14. **(ISI)**
10. Sally A. Auda, **Obed Majeed Ali**, 2023, Effect of operating conditions and air filters maintenance on the performance and efficiency of gas turbine power plant; *Materials Today: Proceedings*; <https://doi.org/10.1016/j.matpr.2023.01.290>. **(Scopus)**
11. R. Daoud, **Obed Majeed Ali**, O. K. Ahmed, 2023, Arduino-based design and implementation of experimental rooms with a trombe wall for solar cells applications; *Bulletin of Electrical Engineering and Informatics (BEEI)*; 13(3), 1248-1255. **(Scopus)**
12. Omar I Awad Awad, **Obed Majeed Ali**, Bo Zhou, Xiao Ma, Ali Thaeer Hammid, Naseer T Alwan, Salam J Yaqoob, Saad Motahir, SS Askar, Mohamed Abouhawwash, 2022, Utilization of additive from waste products with gasoline fuel to operate spark ignition engine; *Scientific Reports*; 12(1), 1-14. **(ISI, Q1 Nature)**
13. Muthanna M. Awad, Omer K. Ahmed, **Obed Majeed Ali**, 2022, Performance of Bi-fluid PV/thermal collector integrated with phase change material: Experimental assessment; *Solar Energy*; 235, 50-61. **(ISI, Q1 Elsevier)**
14. Muthanna Mohammed Awad, Omer Khalil Ahmed, **Obed Majeed Ali**, Naseer T Alwan, Salam J Yaqoob, Anand Nayyar, Mohamed Abouhawwash, Adel Fahad Alrasheedi, 2022, Photovoltaic Thermal Collectors Integrated with Phase Change Materials: A Comprehensive Analysis; *Electronics*; 11 (3), 337. **(Scopus)**
15. **Obed Majeed Ali**, Hasan Kotein, Naseer T. Alwan, 2022, Optimization of SI Engine Performance Operating with Low Octane Gasoline and Fuel Additives from Waste; *Mathematical Problems in Engineering Volume 2022, Article ID 9828556, 10 pages*.
16. Sarah A. Salah, Ehsan F. Abbas, **Obed Majeed Ali**, 2022, Evaluation of the gas turbine unit in the Kirkuk gas power plant to analyze the energy and exergy using ChemCad simulation; *International Journal of Low-Carbon Technologies*; 17, 1-17.
17. Ahmed Nawfal Mustafa, **Obed Majeed Ali**, Omar Rafae Alomar, 2022, Effect of Heavy Fuel Combustion in a Gas Power Plant on Turbine Performance: A Review; *International Journal of Design & Nature and Ecodynamics*; 17 (1), 105-111. **(Scopus)**

18. Alwan, N.T, Shcheklein, Milia H. Majeed<sup>1</sup>, Ihsan M. Khudhur, S. E. Shcheklein., **Obed M. Ali**, 2022, Assessment of the performance of solar water heater: an experimental and theoretical investigation; *International Journal of Low-Carbon Technologies*; 17, 528–539. **(Scopus)**
19. Jasim I. Musa, **Obed M. Ali**, Ahmed A. Hussein, 2022, Analysis of SI Engine Operation and Emission Characteristics with Low Octane Gasoline and Ether Additive; *International Journal on Energy Conversion*; 10(2), 45–51. **(Scopus)**
20. Salih, Sajjad A, Aljashaami, Baseem A, Alwan, Naseer T, Shcheklein, Sergey E., Velkin, Vladimir I, **Obed Majeed Ali**, 2022, Factors Affecting the Thermodynamic Performance of the Stirling Engines: a Review Study; *International Review of Mechanical Engineering*; 16 (1510), 529 - 539. **(Scopus)**
21. NJ Mahmood, AA Hussein, AS Hasan, **Obed Majeed Ali**, 2022, Comparative Study on the Elongation of Low-Carbon Steel and Stainless Steel at Different Creep Temperatures; *Annales de Chimie-Science des Matériaux* 46 (5), 247-250. **(Scopus)**
22. MM Awad, OK Ahmed, **Obed Majeed Ali**, RW Daoud, 2022. A comparison study of PV/thermal collector performance using air and water cooling. *American Institute of Physics*. 2660, 020128 (2022); <https://doi.org/10.1063/5.0124223>. **(ISI Indexing)**
23. Maha Asaad Taha, **Obed Majeed Ali**, Musa Mustafa Weis, 2022. Utilization of fusel oil as a fuel for gasoline engine, a review. *American Institute of Physics*. 2398, 030005 (2022); <https://doi.org/10.1063/5.0094015>. **(ISI Indexing)**
24. NJ Mahmood, AA Hussein, AS Hasan, **Obed Majeed Ali**, 2022. Effect of AISI 4140 carbon steel heat treatments on specified mechanical properties. *American Institute of Physics*. 2660, 020065 (2022); <https://doi.org/10.1063/5.0107707>. **(ISI Indexing)**
25. Ahmed Nawfal Mustafa, **Obed Majeed Ali**, 2022, The Impact of Climate on the Efficiency and Performance of the Qayyarah Gas Station. *Journal of Environmental Impact and Management Polic* ; 2 (6), 12-26.
26. Ahmed Nawfal Mustafa, Sally A. Auda, **Obed Majeed Ali**, 2022, Analysis of Gas Turbine Power Plant Production and Fuel Consumption. *NTU Journal of Renewable Energy* 3 (1), 44-50.
27. Sarah A. Salah, Ehsan F. Abbas, **Obed Majeed Ali**, 2022, Assessment of the gas turbine unit in Kirkuk gas power station using energy and exergy analysis; *NTU Journal of Renewable Energy*; 2 (1), 1-8.
28. **Obed Majeed Ali**, 2021, Utilisation of Chemical Waste Additives with Low Octane Commercial Gasoline Fuel to Enhance the Performance of SI Engines; *INTERNATIONAL JOURNAL OF AUTOMOTIVE AND MECHANICAL ENGINEERING (IJAME)*; 18 (1), 8612 – 8620. **(Scopus)**
29. Maha A. Taha, **Obed M. Ali**, Musa M. Weis, 2021, Implementation of Fusel Oil as an Octane Enhancer with Commercial Gasoline to Operate Gasoline Engine; *International Journal of Design & Nature and Ecodynamics* 16 (5), 593-599. **(Scopus)**

30. Alwan, N.T, Shcheklein, S.E., **Obed M. Ali**, 2021, Evaluation of distilled water quality and production costs from a modified solar still integrated with an outdoor solar water heater; *Case Studies in Thermal Engineering*; 27, 101216. (**Scopus**)
31. Alwan, N.T, Shcheklein, S.E., **Obed M. Ali**, Milia H. Majeed, and Ephraim Bonah Agyekum, 2021, Experimental and Theoretical Investigations of a Modified Single-Slope Solar Still with an External Solar Water Heater; *Sustainability*; 13(22), 12414. (**Scopus, ISI**)
32. AM Anmmar, AH Ahmed, **Obed M. Ali**, 2021, Analysis of Exergy and Energy Variation of Gas Turbine Power Plant in Taza-Iraq; *International Journal on Energy Conversion (IRECON)* 9 (2), 35. (**Scopus**)
33. S Ahmed, EF Abbas, **Obed M. Ali**, 2021, Review of gas turbine power plant modifications and the effectiveness of different operation parameters; *Case Studies in Thermal Engineering; Advances in Mechanics* 9 (3), 953-970. (**Scopus**)
34. Alwan, N.T, Shcheklein, S.E., Milia H. Majeed, **Obed M. Ali**, 2021, Experimental Study of a Tilt Single Slope Solar Still Integrated with Aluminum Condensate Plate; *Inventions*; 6 (77), 1-13. (**ISI, Q1**)
35. HM Wadullah, SM Sultan, **Obed M. Ali**, 2021, Electrochemical Corrosion Resistance and In Vivo Bioactivity of Nickel, Silver and Cobalt Nanoparticles Materials for Medical Applications; *Journal of Mechanical Engineering Research and Developments* 44 (4), 362-367. (**Scopus**)
36. Naseer T. Alwan, S. Shcheklein, **Obed Majeed Ali**, 2021, Experimental study and economic cost analysis about enhancement productivity for a conventional solar still combined with humidifiers ultrasonic; *Energy Sources, Part A: Recovery, Utilization, And Environmental Effects*; <https://doi.org/10.1080/15567036.2021.1924318>. (**ISI, Taylor and Francis**)
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## Conference Papers

118. Economic evaluation of the different fuel types utilization in Qayyarah gas power plant. 1st International Conference on Sustainable Development Techniques (ICS DT 2022), 15 to 16, June, 2022, Northern Technical University, Mosul, Iraq.
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120. Gas Turbine Design, Operating Conditions, Performance and Simulation: A Review. 2nd International Conference on Renewable Energy- (2nd IC RE 2022), 11-12 May, 2022, Northern Technical University, Kirkuk, Iraq.
121. Utilization of Fusel Oil as a Fuel for Gasoline engine, A Review. 1st International Conference on Advanced Research in Pure and Applied Science”, 24-25 March, 2021, Al- Muthanna University, Iraq.

122. Experimental and theoretical investigations of traditional solar still productivity in cold climatic. The XXXVII Siberian Thermophysical Seminar (STS37) 2021 14-16 September 2021, Novosibirsk, Russia.
123. Gasoline Engine Simulation Software: A Comparison Review. 2nd-International Scientific Conference of Engineering Sciences (ISCES 2020), 16 - 17 Dec 2020, University of Diyala, College of Engineering, Iraq.
124. Comparative study of the different materials combinations used for roof insulation in Iraq. 3rd International Conference on Materials Engineering and Science, IConMEAS 2020, 28 - 30 Dec 2020, Kuala Lumpur, Malaysia.
125. Experimental analysis of thermal performance for flat plate solar water collector in the climate conditions of Yekaterinburg, Russia. 3rd International Conference on Materials Engineering and Science, IConMEAS 2020, 28 - 30 Dec 2020, Kuala Lumpur, Malaysia.
126. Experimental investigation of solar distillation system integrated with photoelectric diffusion-absorption refrigerator (DAR). The 8th International Conference on Applied Science And Technology (ICAST 2020), 15–16 April 2020, Karbala, Iraq.
127. Evaluation of the productivity for new design single slope solar still at different saltwater depth. First International Conference on Advances in Physical Sciences and Materials 2020, SNS College of Technology, India during 13 – 14, August 2020.
128. Productivity of enhanced solar still under various environmental conditions in Yekaterinburg city / Russia. 4th International Scientific and Technical Conference on Energy Systems, ICES 2019 - Belgorod, Russian Federation Duration: 31 Oct 2019 - 1 Nov 2019.
129. Enhancement of Gasoline Fuel Quality with Commercial Additives to Improve Engine Performance. The Fourth Scientific Conference for Engineering and Postgraduate Research (PEC19) Baghdad, Iraq, 16-17 December, 2019.
130. Experimental investigations of single-slope solar still integrated with a hollow rotating cylinder. The Fourth Scientific Conference for Engineering and Postgraduate Research (PEC19) Baghdad, Iraq, 16-17 December, 2019.
131. Improvement of AISI 1018 Carbon Steel Gr 1018 mechanical properties by liquid carburizing in salt bath. 2ndInternational Conference on Materials Engineering and Science (IConMEAS 2019) September 25-26, 2019, University of Technology Baghdad – Iraq.
132. Comparison of Local Gasoline Fuel Characteristics and SI Engine Performance with Commercial Fuel Additives. 2ndInternational Conference on Materials Engineering and Science (IConMEAS 2019) September 25-26, 2019, University of Technology Baghdad – Iraq.
133. Enhancement of SI Engines Performance Operating With Gasoline Fuel Using High Octane Additives from Waste Materials. 2ndInternational Conference on Materials Engineering and Science (IConMEAS 2019) September 25-26, 2019, University of Technology Baghdad – Iraq.

134. Evaluation of diesel engine performance with high blended diesel-biodiesel fuel from waste cooking oil. 2nd International Conference on Sustainable Engineering Techniques (ICSET 2019), 6-7 March-2019, Middle Technical University, Baghdad, Iraq.
135. Enhancement of engine performance with high blended diesel-biodiesel fuel using iso-butanol additive. 2nd International Conference on Sustainable Engineering Techniques (ICSET 2019), 6-7 March-2019, Middle Technical University, Baghdad, Iraq.
136. COD removal from disperse blue dye 79 in wastewater by using Ozone-Fenton process. 2nd International Conference on Sustainable Engineering Techniques (ICSET 2019), 6-7 March-2019, Middle Technical University, Baghdad, Iraq.
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144. Study of diesel-biodiesel fuel properties and wavelet analysis on cyclic variations in a diesel engine. (ICEP2016), 14-16 December 2016, Melbourne, Australia.
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146. Commercial and synthesized additives for biodiesel fuel. a review. (MUCET2015), 11-13 Octobed 2015, Johor Bahru, Malaysia.
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158. Experimental and Theoretical Study the Effect of Inclined on Natural Convection Heat Transfer between Two Concentric Cylinders Filled With Porous Media. Proceeding of the 12th scientific conference of the foundation of technical education 2011, Baghdad, Iraq.
159. Performance analysis of a separately excited DC motor fed by half-controlled bridge rectifier using Matlab Simulink and FORTRAN power station language methods. Proceeding of The international conference of the foundation of technical education 2009, Najaf, Iraq.
160. Effect of the shape surface of absorber plate on performance of built-in-storage solar water heater. Proceeding of 1st scientific conference of the Center of Desert Studied, University of Anbar 2009, Anbar, Iraq.
161. The influence of Particulate Matter (PM) of diesel engine using Palm Oil Methyl Ester (PME), (ICBBVAP 2012), 23-24 October, Kuala Lumpur, Malaysia.

162. Effects of particulate matter (pm) emissions of diesel engine using diesel-methanol blends, (ICMER2013), 1-3 July 2013 UMP, Kuantan, Malaysia.
163. Analysis of blended fuel properties and engine cyclic variations with ethanol additive. (ISBBB2014), 19-24 May 2014 Guelph, Canada.

### List of Course / Training Attended

- 1- How to manage Publons account, Online Workshop. 2020, Northern Technical University, Continuous Training Centre, Mosul, Iraq (Lecturer).
- 2- How to select high impact factor journal for high quality research paper publication, Workshop. 2019, University of Kirkuk, Continuous Training Centre, Kirkuk, Iraq (Lecturer).
- 3- Basics of Mechanical Engineering, Workshop. 2019, University of Kirkuk, Continuous Training Centre, Kirkuk, Iraq (Lecturer).
- 4- How to avoid plagiarism in technical writing, Workshop. 2018, University of Kirkuk, Continuous Training Centre, Kirkuk, Iraq (Lecturer).
- 5- Energy systems, human and environmental pollution, Workshop. 2018, University of Kirkuk, Continuous Training Centre, Kirkuk, Iraq (Lecturer).
- 6- Biodiesel fuel sources and utilization, Workshop. 2017, Northern Technical University, Technical college of Kirkuk, Kirkuk, Iraq (Lecturer).
- 7- How to write high impact factor journal, Workshop. 2017, University of Kirkuk, College of Agriculture, Kirkuk, Iraq (Lecturer).
- 8- How to select high impact factor journal for publication, Workshop. 2017, Northern Technical University, Technical college of Kirkuk, Kirkuk, Iraq (Lecturer).
- 9- Current Trend of Alternative Fuel Utilization, Workshop. 2017, Northern Technical University, Technical Institute of Haweeja, Kirkuk, Iraq (Lecturer).
- 10- Submission and review process for high impact factor journal, Workshop. 2017, College of Agriculture, University of Kirkuk, Kirkuk, Iraq (Lecturer).
- 11- How to write high impact factor journal, Workshop. 2017, Northern Technical University, Technical Institute of Kirkuk, Kirkuk, Iraq (Lecturer).
- 12- Google Scholar account and H-Index, Workshop. 2016, Northern Technical University, Technical Institute of Haweeja, Kirkuk, Iraq (Lecturer).



- 13- How to write high impact factor journal, Workshop. 2016, Northern Technical University, Technical Institute of Haweeja, Kirkuk, Iraq (Lecturer).
- 14- Google Scholar account and H-Index, Workshop. 2016, Northern Technical University, Technical college of Kirkuk, Kirkuk, Iraq (Lecturer).
- 15- How to write high impact factor journal, Workshop. 2016, Northern Technical University, Technical college of Kirkuk, Kirkuk, Iraq (Lecturer).
- 16- Analysis of in-cylinder pressure and fuel combustion in ICE, Training. 2015, Faculty of Mechanical Engineering – Universiti Malaysia Pahang, Malaysia (Lecturer).
- 17- Principle and Development of Fuel Injection System in Cars, Training Course. 2009, Haweja Technical Institute - Foundation of Technical Education, Kirkuk, Iraq (Lecturer).
- 18- Modern Systems in Cars, Training Course. 2007, BOSCH Company, Cairo, Egypt (Participant).
- 19- Principle and Development of Fuel Injection System in Cars, Training Course. 2009, Haweja Technical Institute - Foundation of Technical Education, Kirkuk, Iraq (Participant).
- 20- Research methodology, Training Course. 2012, Institute of Postgraduate Students (IPS) – Universiti Malaysia Pahang, Malaysia (Participant).
- 21- Technical writing, Training Course. 2013, Institute of Postgraduate Students (IPS) – Universiti Malaysia Pahang, Malaysia (Participant).
- 22- How to write high impact factor journal, Workshop. 2014, MS Garden Hotel Kuantan, Malaysia (Participant).
- 23- Outcome Based Education (OBE), Workshop. 2015, Faculty of Mechanical Engineering – Universiti Malaysia Pahang, Malaysia (Participant).
- 24- Introduction to Ansys Fluent, Training Course. 2015, Center of Excellence for Advanced Research in Fluid Flow (CARIFF) - University Malaysia Pahang, Malaysia (Participant).

### List of Books

- Glossary of Internal Combustion Engine, Publisher Universiti Malaysia Pahang 2015.
- Potential of biodiesel as a fuel for diesel engines, book chapter, Clean Energy for Sustainable Development, 1st Edition, (Elsevier) 2016.

## List of Research / Project

- Utilization of Fusel Oil as a by-product fuel from waste for SI engine.
- Enhancing Fusel Oil energy content through water extraction.
- Optimization of diesel engine performance and exhaust emissions operate with blended fuel and chemical additives using artificial neural network.
- Investigate the effect of increasing palm biodiesel ratio in the biodiesel-diesel blended fuel on the engine cyclic variation using wavelet analysis method.
- Experimental measurement and statistical analysis of blended biodiesel-diesel fuel properties with increasing biodiesel ratio.
- Integrated solar still.

## Awards / Research / Achievements

- **Excellent Publication Award**, Northern Technical University 2023, Mosul, Iraq.
- **Excellent Publication Award**, Al Ain University 2022, Nasriya, Iraq.
- **Excellent Publication Award**, Northern Technical University 2022, Mosul, Iraq.
- **Excellent Academic Staff**, Iraqi Academic Syndicate 2022, Baghdad, Iraq.
- **Excellent Publication Award**, Northern Technical University 2021, Mosul, Iraq.
- **Excellent Publication Award**, Northern Technical University 2020, Mosul, Iraq.
- **Excellent Publication Award**, Northern Technical University 2019, Mosul, Iraq.
- **Excellent Publication Award**, Northern Technical University 2017, Kirkuk, Iraq.
- **Gold Medal**, Novel Combustion of N-Heptane Fueled in Homogenous Charge Compression Ignition Engine, Advanced Innovation and Engineering Exhibition (ITEX 2016), 12-14 May, 2016, Kuala Lumpur, Malaysia.
- **Gold Medal**, High Blend Palm Biodiesel Fuel for Diesel Engine, Advanced Innovation and Engineering Exhibition (AiNEX 2015), Zenith Hotel, Kuantan, 18 August, 2015.
- **Silver Medal**, High Blended Fuel, Creation, Innovation, Technology and Research exposition (CiTRex2015), Sports Complex, UMP, 9-10 March, 2015.
- **Silver Medal**, Numerical Study of Intake Air Temperature on Combustion and Performance Characteristics in an HCCI Engine. Blended Fuel, Creation, Innovation, Technology and Research exposition (CiTRex2016), Sports Complex, UMP, 7-8 March, 2016.
- **Best Oral Presenter Award**. The International conference on Fluids & Chemical Engineering (FluidsChE2015), 25-27 November 2015, Langkawi, Malaysia.