Curriculum Vitae

Dr. Ahmad Muneer El-Deen Faik

Mustansiriyah University – College of Engineering Mobile: 07705549264

Email: a.faik@uomustansiriyah.edu.iq



PERSONAL SUMMARY:

- · Ahmad M. E. Faik,
- Mechanical Engineering Department,
- PhD in Mechanical Engineering,
- Research Interests: Combustion, IC Engines, Combustion Diagnosis, Flow Visualization, Bubble Dynamics, and Spray and Droplet Physics.

Google Scholar ID: https://scholar.google.com/citations?user=bOcGPpcAAAAJ&hl=en

Scopus ID: https://www.scopus.com/authid/detail.uri?authorId=57201603938

ORCID ID: https://orcid.org/0000-0003-1499-5515

Researchgate ID: https://www.researchgate.net/profile/Ahmad-Faik

EDUCATION:

- Ph.D. in Mechanical Engineering / The University of Sheffield / Mechanical Engineering Department, United Kingdom - Sheffield (2017).
- M.Sc. in Mechanical Engineering / Thermal Power Engineering, Al-Nahrain University / College of Engineering / Mechanical Engineering Department, Iraq - Baghdad (2006).
- B.Sc. in Mechanical Engineering, Al-Nahrain University / College of Engineering / Mechanical Engineering Department, Iraq - Baghdad (2003).

ACADEMIC HONORS AND AWARDS:

Associate Fellow of the Higher Education Academy (AFHEA), UK, 2016.

• Excellence in Academic Skills, The University of Sheffield, UK, 2015.

ACADEMIC / TEACHING EXPERIENCE:

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- Many years of academic experience built by giving lectures in different Iraqi Universities in addition to the
 University of Sheffield (the university where I have had my PhD degree). These lectures vary between
 module instruction and lab demonstration for both graduate and undergraduate students at different
 levels, in addition to graduation project supervisions for the 4th year students of the Mechanical
 Engineering Department.
- Undergraduate Tutor of the Mechanical Engineering Department / Mustansiriyah University for the academic years 2010/2011, 2011/2012, 2017-2018, and 2019-2020.
- Graduate Teaching Assistant (GTA) in the University of Sheffield for the period (2015-2017).

COURSES TAUGHT:

Undergraduate	Graduate
 Internal Combustion Engines Heavy Machinery English Language Environmental Engineering Engineering Drawing Internal Combustion Engines Lab Demonstration Computer Programming Lab Demonstration Fluid Mechanics Lab Demonstration Thermodynamics Lab Demonstration Gas Dynamics Lab Demonstration 	 English Language (M.Sc) English Language (PhD)

PROFESSIONAL AFFILIATIONS:

- Member of the Iraqi Engineers Union (IEU) since 2004.
- Member of Kurdistan Engineers Union (KEU) since 2007.
- Member of the Combustion Institute since 2012.

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PUPLICATIONS:

- Faik, A. M., Theeb, M. A., Zhang, Y., "Post-Impact Characteristics of a Diesel-in-Water Emulsion Droplet on a Flat Surface Below the Leidenfrost Temperature" International Journal of Renewable Energy Development (IJRED), 10(2)2021:297-306.
- Faik, A. M., Mohammed, A. A., "Effect of Temperature Variation on the Fluctuation of a Sessile Bubble Rising in a Stagnant Medium" Journal of Physics: Conference Series, 1783(2021):012079.
- Faik, A. M., Zhang, Y., "Liquid-Phase Dynamics during The Two-Droplet Combustion of Diesel-Based Fuel Mixtures" Experimental Thermal and Fluid Science, 115, 110084, 2020.
- Faik, A. M., Zhang, Y., Hanriot, S. de M., "<u>Droplet Combustion Characteristics of Biodiesel-Diesel Blends</u>
 <u>using High Speed Backlit and Schlieren Imaging</u>" Heat Transfer Engineering, 2019.
- Mohammed, A. A., Abdullah, M. L., and Faik. A. M. "The Impact of Methanol Addition to the Biodiesel-Diesel Blends on the Performance and Exhaust Emissions of the CI Engines" Journal of Physics: Conference Series. Vol. 1279. No. 1. IOP Publishing, 2019.
- Faik, A. M. "The Effect Of Diesel-Alcohol Blends On The Cold-Start Combustion Of A Compression Ignition Engine" Journal of Engineering and Sustainable Development, 22.2 (Part-5) (2018): 20-29.
- Faik, A. M., and Zhang, Y. "Multicomponent Fuel Droplet Combustion Investigation Using Magnified High Speed Backlighting and Shadowgraph Imaging" Fuel 221 (2018): 89-109.
- Faik, A. M., and Yang Zhang. "Quantitative Spray Analysis Of Diesel Fuel And Its Emulsions Using Digital Image Processing" EPJ Web of Conferences. Vol. 92. EDP Sciences, 2015.
- Faik, A. M., Ghulam, A. S., "Engine Cold Start Combustion and Its Effect on Exhaust Emissions" Gulf University Journal, Bahrain, Vol. 3, No. 1, p.p. 36-43, 2010.
- Saleh, F. A., Faik, A. M., "Theoretical and Experimental Investigation on the Combustion and Emission Characteristics of Mixing Alcohol with Gasoline Fuel in SI Engine" Al-Ma'moon College Journal, No. 15, pp. 95-105, Iraq / Baghdad, 2010.

Conference Papers:

- Karamallah, A. A., Faik, A. M., "The Effect of Variable Thermophysical Properties on the Combustion of Hydrocarbon Fuel Droplet" Proceedings of The 10th International Combustion Symposium, The Combustion Institute, Turkey / Sakarya, 2008, p.p. 54-61.
- Karamallah, A. A., Faik, A. M., "Transient Combustion of Hydrocarbon Fuel Droplet" Proceedings of The 6th Scientific Conference of Engineering College, Baghdad University, Iraq / Baghdad, 2009, p.p. 119-133.
 - Faik, A. M., "The Effect of Different Diesel-Alcohol Blends on the Exhaust Emissions of a Compression Ignition Engine" Proceedings of the 8th National Clean Energy Symposium, Turkey / Bursa, 2010, p.p. 389-395.

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- Faik, A. M., "Estimating the Optimum Ethanol Blending Ratio for the Single-Cylinder Spark Ignition and Compression Ignition Engines" The 12th International Combustion Symposium, Turkey – Izmit, 2012.
- Faik, A. M., Zhang, Y., "Quantitative Spray Analysis of Diesel Fuel and its Emulsions Using Digital Image Processing" International Conference on Experimental Fluid Mechanics (EFM2014), Cesky Krumlov, Czech Republic, 2014.
- Faik, A. M., Zhang, Y., Hanriot, S., "The Investigation Of Droplet Combustion Characteristics Of Biodiesel-Diesel Blends Using High Speed Camera" 12th International Conference on Heat Transfer, Fluid Mechanics, and Thermodynamics (HEFAT 2016), Malaga, Spain, 2016.
- Zheng, L., Faik, A. M., Zhang, Y., "Flame Colour Analysis for the Droplet Combustion of Water-in-Diesel Emulsions" 12th International Conference on Heat Transfer, Fluid Mechanics, and Thermodynamics (HEFAT 2016), Malaga, Spain, 2016.
- Faik, A. M., Zhang, Y., 2017. High Speed Visualization of the Liquid-Phase Dynamics during the Combustion of Multicomponent Fuel Droplet. 8th European Combustion Meeting (ECM 2017), Dubrovnik, Croatia.
- Faik, A. M., "The Effect Of Diesel-Alcohol Blends On The Cold-Start Combustion Of A Compression Ignition Engine" Submitted to the 4th Engineering and 1st Sustainability Conference 2018.

PROFFESSIONAL DEVELOPMENT

- Training certificate from the Continuous Learning Department / University of Technology, 2007.
- Participation certificate of the 10th International Combustion Symposium / Turkey-Sakarya, 2008.
- Participation certificate of the 6th Scientific Conference of Engineering College / Baghdad University, Iraq / Baghdad, 2009.
- Participation certificate of the 2nd Scientific Conference of Al-Ma'amoun University College, Iraq / Baghdad, 2010.
- Training certificate from the Continuous Learning Department / College of Engineering / Al-Mustansiriyah
 University, 2010.
- Participation certificate for the 8th National Clean Energy Symposium, Turkey-Bursa, 2010.
- IC³ CERTIPROT Certificate, 2011.
- Training certificate from DAAD, 2011.
- Participation certificate of the 12th International Combustion Symposium / Turkey-Izmit, 2012.
- Participation certificate of the International Conference on Experimental Fluid Mechanics (EFM 2014), Cesky Krumlov, Czech Republic, 2014.
- The Academic Skills Certificate, 301 Skills Development Center, The University of Sheffield, 2015.
- Participation certificate of the 12th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT 2016), Malaga, Spain, 2016.
- Participation certificate of the University of Sheffield GRAD School Workshop, 2016.

• In addition to more than 40 workshops attended during my PhD period in the University of Sheffield (2013-

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الدكتور احمد منير الدين فائق

الجامعة المستنصرية _ كلية الهندسة Mobile: 009647705549264 Emait <u>a.faik@uomustansiriyah.edu.iq</u>

ملخص تعريفي:

- احمد منير الدين فائق
- قسم الهندسة الميكانيكية.
- دكتوراه في الهندسة الميكانيكية.
- الإهتمامات البحثية: علم الاحتراق محركات الاحتراق الداخلي قياسات الاحتراق تصوير الجريان ديناميك الفقاعات فيزياء الرذاذ والقطرات.
- Google Scholar ID: https://scholar.google.com/citations?user=bOcGPpcAAAAJ&hl=en
- Scopus ID: https://www.scopus.com/authid/detail.uri?authorId=57201603938
- ORCID ID: https://orcid.org/0000-0003-1499-5515
- Researchgate ID: https://www.researchgate.net/profile/Ahmad-Faik

الشهادات الدراسية:

- دكتوراه في الهندسة الميكانيكية / جامعة شفيلد / المملكة المتحدة / 2017.
- ماجستير في الهندسة الميكانيكية / هندسة الطاقة الحرارية / جامعة النهرين / كلية الهندسة / قسم الهندسة الميكانيكية / 2006.
 - بكالوريوس في الهندسة الميكانيكية / جامعة النهرين / كلية الهندسة / قسم الهندسة الميكانيكية / 2003.

التكريم والجوائز الأكاديمية:

- زميل مشارك في الاكاديمية الملكية للتعليم العالى المملكة المتحدة منذ 2016.
- شهادة التميز في المهارات الاكاديمية جامعة شفيلد المملكة المتحدة 2015.

الخبرة الأكاديمية والتدريس:

- سنوات عديدة من الخبرة الأكاديمية تم بناؤها من خلال إلقاء محاضرات في جامعات عراقية مختلفة بالإضافة إلى جامعة شيفيلد (الجامعة التي حصلت فيها على درجة الدكتوراه). تتنوع هذه المحاضرات بين الدروس النظرية والمختبرية لكل من طلاب الدراسات العليا والأولية على مختلف المستويات، بالإضافة إلى الإشراف على مشاريع التخرج لطلاب المرحلة الرابعة في قسم الهندسة الميكانيكية.
- مقرر الدراسات الأولية في قسم الهندسة الميكانيكية / الجامعة المستنصرية للأعوام الدراسية 2011/2010 ، 2011/2010 ، 2017-2018 ، 2018-2018 ، 2018
 - مساعد تدريس خريج (GTA) في جامعة شيفيلد للفترة (2015-2017).

المقررات الدراسية التي تم تدريسها:

الدراسات العليا		الدراسات الأولية	
اللغة الانكليزية (ماجستير)	•	محركات الاحتراق الداخلي المكانن الثقيلة اللغة الانكليزية (مراحل مختلفة) الهندسة البينية الرسم الهندسي مختبر محركات الاحتراق الداخلي مختبر البرمجة مختبر ديناميك الموانع مختبر ديناميك الحرارة مختبر ديناميك العازات	•

الأنتساب المهني او الجمعيات:

- عضو نقابة المهندسين العراقية منذ 2004.
- عضو نقابة مهندسي كردستان منذ 2007.
 - عضو معهد علم الاحتراق منذ 2012.

المنشورات العلمية:

- Faik, A. M., Theeb, M. A., Zhang, Y., "Post-Impact Characteristics of a Diesel-in-Water Emulsion Droplet
 on a Flat Surface Below the Leidenfrost Temperature" International Journal of Renewable Energy
 Development (IJRED), 10(2)2021:297-306.
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الهندسة المساوية

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للشؤون العلمية والدراسات العلي

- Faik, A. M., and Yang Zhang. "Quantitative Spray Analysis Of Diesel Fuel And Its Emulsions Using Digital Image Processing" EPJ Web of Conferences. Vol. 92. EDP Sciences, 2015.
- Faik, A. M., Ghulam, A. S., "Engine Cold Start Combustion and Its Effect on Exhaust Emissions" Gulf University Journal, Bahrain, Vol. 3, No. 1, p.p. 36-43, 2010.

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المؤتمرات العلمية:

- Karamallah, A. A., Faik, A. M., "The Effect of Variable Thermophysical Properties on the Combustion of Hydrocarbon Fuel Droplet" Proceedings of The 10th International Combustion Symposium, The Combustion Institute, Turkey / Sakarya, 2008, p.p. 54-61.
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- Faik, A. M., "The Effect Of Diesel-Alcohol Blends On The Cold-Start Combustion Of A Compression Ignition Engine" Submitted to the 4th Engineering and 1st Sustainability Conference 2018.

تطوير المهارات:

Training certificate from the Continuous Learning Department / University of Technology, 2007.

Participation certificate of the 10th International Combustion Symposium / Turkey-Sakarya, 2008.

الإستاذ المساعد الدكتور

معاون العميد

والمعتم المفتلسة المياليسوي

No.

- Participation certificate of the 6th Scientific Conference of Engineering College / Baghdad University, Iraq / Baghdad, 2009.
- Participation certificate of the 2nd Scientific Conference of Al-Ma'amoun University College, Iraq / Baghdad, 2010.
- Training certificate from the Continuous Learning Department / College of Engineering / Al-Mustansiriyah
 University, 2010.
- Participation certificate for the 8th National Clean Energy Symposium, Turkey- Bursa, 2010.
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