

Dr. Dlair O. Ramadan

PhD in Mechanical Engineering-UK

Senior Engineer, Judicial Expert and Lecturer

Faculty of Engineering

Erbil Polytechnic University

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Ashty City 1

Erbil

Kurdistan-Iraq

PROFILE

EXPERTISE

I am a highly motivated and skilled engineering manager with ability to build and motivate a high-performing engineering team. Hardworking, ambitious and highly organised individual have the ability to work in a team or alone.

I have experience in managing sessions for example I have managed the sessions of an international conference (ICMMM 2015), which was held at Venice, Italy on 13th-14th August 2015. Where I have been chosen as a **chair** by the Committee chairpersons.

Over sixteen years of work in evaluation, monitoring, teaching, research and supervision as a lecturer at different universities for undergraduate and postgraduate studies. Expert in interviewing course applicants, lecture planning, preparation and research, contact and teaching time with students, checking and assessing students' work. Encouraging personal development via tutorial or pastoral work. Experienced in handling administrative and clerical duties. Furthermore, supervising master students and research staff. Attending and speaking at many conferences and seminars. Also, writing research proposals, papers and other publications

Lecturer with 15 years' experience. Areas of expertise include Theory of Elasticity (Postgraduate study), Engineering Mechanics: Static and Dynamics, Strength of Materials, Engineering Materials and Minerals, Metal Cutting Theory, Mathematics, Advance Mathematics and Engineering Drawing and Descriptive Geometry.

During my work at universities and during my PhD study in the UK and France, I have gained vast experience in different matters including time management, strategic planning, resourcefulness, anticipates needs, detail-oriented.

Finally, I have good skills in administration and solving problems, where I am expertise in establishing a network of collaborators and worked well with colleagues. Ability to schedule and maintain appointments for executives. Excellent organizational, multi-tasking, and coordination skills.

Through my education and work experience, I have achieved the ability to live and work with other people, to communicate and ensure a team spirit, namely to direct myself easily in multicultural environments.

COUNTRY EXPERIENCE:

Iraq, UK, Switzerland, France.

LANGUAGES

Kurdish is my mother language and Arabic is my home language

- Kurdish (Native language): Fluent (Speaking, reading, and writing)
- Arabic: Fluent (Speaking, reading, and writing)
- English: Fluent (Speaking, reading, and writing)
- Turkmen: Beginner Level

KEY SKILLS AND COMPETENCIES

A. Professional Skills

1. Negotiation and management skills
2. Critical thinking
3. Good organisation
4. Project planning
5. Ability to deal with changes effectively
6. Well processing
7. Leadership and team building
8. Manufacturing process controls
9. Excellent written and verbal communication
10. Certified Teacher Assistant
11. Technical problem-solving
12. Excellent presentation
13. Technical direction and product strategies
14. Excellent research
15. Works well in diverse team environment
16. Advanced critical thinking
17. Organisational skills, individual and teamwork
18. Component functions and testing requirements

B. Computer Skills

1. Microsoft Outlook
2. Internet setup and repair
3. Microsoft OneDrive
4. Desktop and laptop repair
5. Microsoft Office
6. MATLAB
7. Evernote
8. EndNote
9. Minitab Statistical Software
10. AutoCAD
11. Adobe Acrobat
12. ANSYS
13. LabVIEW
14. Mendeley
15. Internet setup and repair
16. Anti-virus software
17. DIADem

WORK EXPERIENCE

1. Lecturer, Erbil Polytechnic University from 05/2017 to Current

✚ Lecturer at Mechanical and Energy Engineering Techniques Department- Erbil Polytechnic University- Erbil_ Iraq

- a) **Undergraduate study:** Taught different modules for different stages such as Engineering Mechanics-Dynamics, Machine Design of Elements, and Engineering Drawing and Descriptive Geometry, and many other modules.
- b) **Postgraduate study:** Taught Theory of Elasticity and Tribology of Machine Elements for the master students
- c) In addition, I have supervised for different projects for the postgraduate and undergraduate students
- d) Also, I reviewed many journal papers.

2. Lecturer, The University of Sheffield-Sheffield-UK 2016

✚ I taught the tutorial of Fluid Engineering (2nd year Module for Mechanical Engineering, The University of Sheffield-UK).

3. Lecturer, Koya University from 10/2007 to 05/2017

✚ Lecturer at the Faculty of Engineering-Koya University-Erbil_ Iraq

- Taught introductory and upper level courses on **Mathematics, Engineering Mechanics, Strength of Materials and Engineering Drawing.**
- Demonstrated a continued commitment to undergraduate teaching through full participation in the college community.
- Developed and delivered engaging lectures to undergraduate and graduate students.

- Wrote course materials such as syllabi, homework assignments and handouts.
- Wrote, administered and graded midterm and final examinations.
- Planned, evaluated and revised course content and course materials.
- Supervised and evaluated students' laboratory work.
- Collaborated with admissions department on establishing prerequisites for undergraduate and graduate students.
- Monitored students' academic progress and referred students who were struggling to campus resources.
- Developed courses in line with the curriculum requirements of the Manufacturing, Geotechnical, Civil, and Petroleum Engineering Departments.

4. Maintenance Engineer, 07/2005 to 10/2007

Engineer-Iraq-Sulaymania-Chamchamal Municipality

I involved in control and monitoring devices and occasionally in the manufacture of items that will help in maintenance.

5. Judicial Expert- Mechanical Engineer (Since 2016)

From 2016 until now, I have contributed in solving different issues, in the Kirkuk Justice Court, which were related to organizing management and mechanical issues. Where, I have expertise in the evaluation of the values and solvencies, a consultancy in taxes, and other similar services.

6. Other Experience

- I have worked as an interpreter, from the English language to Arabic and Kurdish languages, at different civil society organizations in Iraq.
- I trained a course "Introduction to Technical Analysis of Hydraulics and Pumps". The course was for manager levels. The training course began on Tuesday the 22nd of October 2019 and lasted for three days. The course was attended by 17 engineers, with different specialties, from the Directorate of Water-Ninawa.

EDUCATION AND QUALIFICATIONS

- **The University of Sheffield-UK, 2012-2016**
PhD in Mechanical Engineering- Tribology. My thesis title was “Ultrasonic Reflection Technique for Measuring Contact Conditions at the Tool Chip Interface”
Relevant Modules:
Engineering Tribology, Signal Processing, Surface Coating and Condition Monitoring
- **The University of Baghdad-Iraq, 2004-2007**
MSc in Mechanical Engineering-Applied Mechanics
Relevant Modules:
Tribology, Elasticity, Plasticity, Stress Analysis, Vibration and Mathematics
- **The University of Technology, Iraq, 2000-2004**
BSc (4 years) in Mechanical Engineering-Production Engineering,
Relevant Modules:
Engineering Mechanics, Strength of Materials, Mathematics, Engineering Drawing, Metal Cutting, Selection of Materials and Heat Treatment, Plasticity and Elasticity, Material Science, Manufacturing Process, Electrical Engineering, Metallurgy and Production Engineering,

CONFERENCES, WORKSHOPS AND COURSES

- Oral presentation at the 4th International Conference on Materials Engineering & Science held at University of Duhok, Kurdistan Iraq on October 06-07, 2021.
- Oral presentation at the 22nd Mission of tribology research held at the Institution of Mechanical Engineers in London-UK. 4th December 2013
- Oral presentation at the 'Research & Innovation Conference' at Loughborough University-UK, hosted by the IOM3 Younger Members' Committee. 9th December 2013
- Oral presentation at the TriboUK 2014 Tribology in Energy and Climate Change held at the University of Sheffield-UK. 7th -8th April 2014
- Oral presentation at the 17th International Conference on Machining and Machinability of Materials (ICMMM 2015) held at Venice, Italy. 13th -14th August 2015
- Oral presentation at the 42nd Leeds-Lyon Symposium on Tribology conference held at Lyon, France. 7th -9th September 2015
- General English Course, The University of Sheffield, 2011.
- Pre-sessional English Course, The University of Sheffield, 2011.
- Large Group Teaching, University of Sheffield, 2012
- Small Group Teaching, University of Sheffield, 2012

- Assessment and feedback, University of Sheffield, 2012
- Supervising research projects, University of Sheffield, 2012
- Health and Safety Induction, The University of Sheffield, 2012.
- Supervising Research Project, The University of Sheffield, 2012.
- Fire Awareness Training, The University of Sheffield, 2012.
- Out of Hours Hazards and Risk Awareness, The University of Sheffield, 2012.
- Research ethics and integrity, The University of Sheffield, 2013.
- General Risk Assessment Techniques, University of Sheffield, 2014
- Health and Safety Induction, University of Sheffield, 2014
- Fire Awareness Training, University of Sheffield, 2014
- LabVIEW Core 1, University of Sheffield, 2014
- LabVIEW Core 2, University of Sheffield, 2014
- Workshop about Fire Training, University of Sheffield, 2015
- Out of Hours Hazards and Risk Awareness, University of Sheffield, 2016

POSTGRADUATE SUPERVISION

1. PhD. Research thesis "Fatigue Crack Growth Rate Properties of Hybrid Composite Using A Hybrid-Toughened Resin Matrix" ((Student name: Thaker S. Dawood), Mechanical and Energy Engineering Techniques Department-Erbil Polytechnic University- Erbil_ Iraq.
2. MSc. Research thesis "An Investigation into the Methods to Improve the Mechanical and Metallurgical Properties of Friction Welded AISI 304 SS and 6063 AA Joints" (Student name: Jwan K. Mohammed, 2020), Mechanical and Energy Engineering Techniques Department-Erbil Polytechnic University- Erbil_ Iraq.
3. MSc. Research thesis "Study the Wear Characteristics of Aluminium Alloys at Different Temperatures" (Student name: Karmand A. Ahmed, 2023), Mechanical and Energy Engineering Techniques Department-Erbil Polytechnic University- Erbil_ Iraq.
4. MSc. Research thesis "An Investigation into the Tribological Behaviour and Mechanical Properties of Aluminium Alloy MMC Fabricated by Stir Casting Method" (Student name: Khoshy H. Hassan, 2023), Mechanical and Energy Engineering Techniques Department-Erbil Polytechnic University- Erbil_ Iraq.

PUBLICATIONS

1. **Ramadan, D. O.,** & Dwyer-Joyce, R. S. (2015). Acoustic Emission for Tool-Chip Interface Monitoring During Orthogonal Cutting. In 17th International Conference on Machining and Machinability of Materials. Venice, Italy.
2. **Ramadan, D. O.,** & Dwyer-Joyce, R. S. (2015). Measuring interface conditions in a cutting tool contact with reflected ultrasound. In *Proceedings of the 42th Leeds-Lyon Symposium on Tribology*. Lyon, France.
3. **D. O. Ramadan** (2016). Ultrasonic Reflection Technique for Measuring Contact Conditions at the Tool Chip Interface. PhD thesis, University of Sheffield, UK.
4. **D. O. Ramadan** (2007). Comparative Analysis for Link Cross-Section of Manipulator Arms. Master thesis, University of Baghdad, Iraq.
5. **D. O. Ramadan** & Ahmed Abdul Hussain Ali (2010). Comparative Analysis for Link Cross-Section of Manipulator Arms. *Journal of Engineering*, University of Baghdad, Vol. 16, No. 2, pp.4930-4953, June 2010.
6. Jwan K. Mohammed, Ramadhan H Gardi and **D. O. Ramadan** (2020). Wear Resistance of 304 Austenitic Stainless-Steel Friction Welded Joints. *Journal of Duhok University*, 23(1).
7. Jwan K. Mohammed, Ramadhan H Gardi and **D. O. Ramadan** (2020). Investigation of the Microstructure and Wear Properties of AISI 304 Steel Friction Weldments. *Zanco Journal of Pure and Applied Sciences*.
8. Jwan K. Mohammed, Ramadhan H Gardi and **D. O. Ramadan** (2020). Optimizations in Impact Strength of Friction Welded AISI 304 Steel Joints. *Anbar Journal of Engineering Science (AJES)*, Vol. 8, Issue.4.
9. Nooruldeen S., Bayan F., and **D. O. Ramadan** (2020). Influence of Ash of Oak Tree on the Microstructure and Mechanical Properties of Medium Carbon Steel. In 6th International Engineering Conference (IEC2020) Erbil, Kurdistan Region-Iraq.
10. Z. K. Abdul, A. K. Al-Talabani and **D. O. Ramadan** (2020). A Hybrid Temporal Feature for Gear Fault Diagnosis Using the Long Short Term Memory. In *IEEE Sensors Journal*, vol. 20, no. 23, pp. 14444-14452, 1 Dec.1, 2020, doi: 10.1109/JSEN.2020.3007262.
11. N. F. Soliman, **D. O. Ramadan**, J. A. Yagoob (2021). Influence of Mould Thickness on Microstructure, Hardness and Wear of AL-Cu Cast Alloys. *International Journal of Engineering*. vol. 34, no. 8, pp. 2021-2027, August 2021, doi: 10.5829/IJE.2021.34.08B.23.

12. K. H. Hassan and **D. O. Ramadan**, "Influence of SiC Particles on Microstructure , Hardness , Tensile and Wear of Al6061," *Comput. Integr. Manuf. Syst.*, vol. 28, no. 12, pp. 1091–1106, 2022, doi: 10.24297/j.cims.2022.12.74.
13. K. A. Ahmed and **D. O. Ramadan**, "Study the Wear Characteristics of 2024 Aluminium Alloy at Different Temperatures," *Comput. Integr. Manuf. Syst.*, vol. 28, no. 11, pp. 1494–1506, 2022, doi: 10.24297/j.cims.2022.11.105.
14. T. S. Dawood, B. M. Fadhil, and **D. O. Ramadan**, "Effect of Adding SiO₂ Nanoparticles on Tensile and Bending Materials Tests of Glass / Carbon Hybrid Composite," *J. Jilin Univ. (Engineering Technol. Ed.)*, vol. 41, no. 11, pp. 55–68, 2022, doi: 10.17605/OSF.IO/VCX68.
15. **D. O. Ramadan**, "Finite Element Analysis of Conventional and Composite Materials of Automobile Drive Shaft," *AIP Conf. Proc.*, vol. 2660, no. November, 2022, doi: 10.1063/5.0108822.
16. J. Mohammed and **D. O. Ramadan**, "Numerical and Theoretical Analysis of a Spur Gear Using Composite and Conventional Materials," *Eng. Technol. J.*, vol. 40, no. 7, pp. 1–10, 2022, doi: 10.30684/etj.2022.133641.1198.
17. K. H. Hassan and **D. O. Ramadan**, "Experimental Investigation of the Mechanical Properties and Tribological Behaviour of Al6061 Enhanced by - TiB₂ Particles," *Trans. Indian Inst. Met.*, no. 0123456789, 2023, doi: 10.1007/s12666-023-02874-9.
18. Dawood, T. S., Fadhil, B. M., & **Ramadan, D. O.** (2023). Improving the Mechanical Properties of Carbon-Epoxy and Glass-Epoxy Composites by Incorporating Silica Nanoparticles. *Journal of Duhok University*, 26(2), 682 - 692. <https://doi.org/10.26682/csjuod.2023.26.2.61>.
19. Dawood, T.S., Fadhil, B.M., & **Ramadan, D.O.** (2023). Effects of silica nanoparticles on carbon fiberglass epoxy composites. *Nexo Scientific Magazine* , 36 (05), 75–86. <https://doi.org/10.5377/nexo.v36i05.17286>
20. **Ramadan, D. O.** (2024) "Effects of Different Projectile Nose Shapes on the Impact Performance of the Aluminium 2024 Thin Plate," *Polytechnic Journal: Vol. 14: Iss. 1, Article 3.* DOI: <https://doi.org/10.59341/2707-7799.1744>.

21. Modules Taught

- Fluid Mechanics (2nd year Course Tutorial, The University of Sheffield, UK).
- Manufacturing Technology (2nd year BSc., Tishk International University-Hawler, Iraq)
- Theory of Elasticity (M.Sc. course, Erbil Polytechnic University- Hawler, Iraq)
- Tribology of Machine elements (M.Sc. course, Erbil Polytechnic University- Hawler, Iraq)

- Metal Cutting Theory (3rd year BSc., Manufacturing Eng. Dept.- Koya University-Hawler, Iraq).
- Machine Design I and Machine Design II (4th year BSc. Erbil Polytechnic University-Hawler, Iraq)
- Engineering Materials (2nd year BSc., Petroleum Eng. Dept.-Koya University-Hawler, Iraq).
- Engineering Mechanics-Static (1st year BSc., Koya University-Hawler, Iraq).
- Strength of Materials (2nd year BSc., Koya University-Hawler, Iraq)
- Mathematics I (1st year BSc., Koya University-Hawler, Iraq).
- Mathematics II (2nd year BSc., Koya University-Hawler, Iraq).
- Engineering Dynamics (2nd year BSc., Erbil Polytechnic University- Hawler, Iraq)
- Engineering Drawing and Descriptive Geometry (1st year BSc., Erbil Polytechnic University- Hawler, Iraq).

AWARDS

I have been awarded the 3rd Prize for Oral Presentations at the TriboUK 2014 Tribology in Energy and Climate Change held at the University of Sheffield on 7th-8th of April 2014.

INTEREST AND ACTIVITIES

I am a very active and enthusiastic person who enjoys accompanying my time with activities. I enjoy playing football and regularly attend the gym. I also enjoy watching documentaries to broaden my knowledge.

PROFESSIONAL MEMBERSHIP

- Institutions of Mechanical Engineers-London-UK, Since 2012
- Judicial expert in Mechanical Engineering - Supreme Judicial Council of Iraq, Since 2017.
- Iraqi Engineers Union, since 2005.
- Kurdistan Engineers Union, since 2004.

REFERENCES

Available upon request

CV UPDATE

Last update of this CV is January, 2024.