

Dr. Younis Khalid KHDIR
(Assistant Professor)

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Background Summary

- Ph.D. in Mechanic, Energy, Materials. Doctoral School of Engineering Sciences, University of Lille 1, Lille – France, Dissertation titled "Non-linear numerical homogenization: Application to elasto-plastic materials" 2014.
- M. Sc. In Mechanical Engineering. College of Engineering, University of Salahaddin Erbil-Iraq thesis titled "THE EFFECT OF CUTTING TOOL VIBRATION ON SURFACE FINISHING OF WORK PIECE IN TURNING OPERATION" 2005.
- B. Sc. In Mechanical Engineering. College of Engineering, University of Salahaddin Erbil-Iraq thesis titled "Design of heat exchanger – shell and tube type" 1998.
- More than 22 years experience working in the practical fields, University and Mechanical engineering.
- More that 20 years experience in the Experience more than ten years as a practical, technical and academic trainer, and as a trainer for trainees, in three Kurdish, Arab and English languages
- Very good spoken and written English and French. Excellent Arabic. And conversational.

Personnel

Nationality:	Iraqi
Date of birth:	01 July 1974
Place of birth:	Erbil
Marital state:	Married
Mother Tongue:	Kurdish

Current Employment

2007-2022 Erbil Technical Engineering College, Erbil Polytechnic University. Kurdistan Region Iraq, from January 2007 till now.

Rank: Assistant Professor

Achievements: Participate in the departments periodical meeting, member of the scientific committee of the department, member of examination committee, supervising the postgraduate and undergraduate student research, lecturing many subjects such as Factories (milling, welding, drilling, grinding, turning, casting, lapping, gear making and shaping) and Engineering drawing, Computer programs, Mechanics static and dynamic for 1st stage. Fluid mechanic, and Engineering materials for the 2nd stage, Theory of machine and Machine design 3rd stage, Finite element method 4th stage. Advanced numerical analysis and advanced finite elements for postgraduate students (Master degree), Approximate Methods in Mechanical Engineering for postgraduate PhD students.

Skilled Developed: A comprehensive deep review of some engineering subjects, teaching and contacting with engineering students, supervising engineering project, coordination, scientific research.

Previous Employment

2007-2022 Engineering Mechanical Designer, from January 2007 till now.

Rank: Senior Mechanical Designer

Achievements: Design different project such: water supply project; firefighting, drain system, hospitals, buildings and storm water management, sewerage treatments.

Skilled Developed: A comprehensive deep review of many design engineering projects, design calculation, drawing in AUTO CAD, and other project engineering.

2000-2007 Directorate of Water Erbil (1st Jun 2000 to 15th Jan 2007)

Rank: Mechanical supervisor engineer

Achievements: Maintenance of supply water pipe system for Ifraz water project Erbil, installing motors, pumps, both vertical and submersible. Supervising maintenance of water network piping system in Erbil governorate.

Skilled developed: Personal skills development including motivation, leadership, team-working, effective communication and decision making, self-management self-awareness proactively

2007-2009 CC Beverage Ltd., Coca Iraq, 28th Feb 2007 to 15th Oct 2009, Part time.

Rank: Technical Support Supervisor.

Achievements: Supervising maintenance department, cooler department and fleet department. Supervising maintenance of vehicles, cars, trucks, forklifts and other machines in the factory, and distributing coolers with controlling spare-parts.

Skills development: personnel skill development including team working, supervising, leading peoples, making decisions, solving problems, management under bad situation and controlling the team based on the international environments.

2005-2006 K-Water, Republic of South Korea water

Rank: Project coordinator

Achievements: Arranging the activities between K-Water Korea water organization and Ministry of municipality of Kurdistan regional government (meeting, reporting, contracts, and implementing for Ifraz Water Project in Erbil.

Skilled developed: Personnel skills development including team-working, effective communication and decision making, and managing the meeting and making contracts, especially project coordination.

2005 1st Jun 2005 to 10th Aug 2005, IRC Iraqi Reconstruction Company.

Rank: Mechanical engineer / supervisor.

Achievements: Supervising repairing duct system, air handling units, heating and cooling piping system for maternity and pediatric hospital, Erbil.

Skilled developed: Personnel skills development including team-working and decision making with maintenance of central air conditioning system

2003-2005 From 23rd September 2003 to 30th June 2004 Master Science Courses. From 20th July 2004 to 14th May 2005, completing M. Sc. research.

2000-2003 UNDP United Nations Development program, 20th Oct 2000 to 23rd Nov 2003.

Rank: Mechanical engineer supervisor / maintenance team leader

Achievements: Installing diesel generators, repairing and overhaul the diesel engines, types; such as Cummins, Volvo, John Deer, Man, and Perkins, with supervising maintenance of all diesel generator parts.

Skilled developed: Effective interaction at all levels of the international organization, and working in multi cultural environments and work independently, technical experience, and negotiation. Inter-personal skills oral communication and leadership, preparing time schedule for regular servicing maintenance of mechanical and electrical parts.

1998-2000 Windows Computer Center, 1st Oct 1998 to 25th May 2000.

Rank: Supervisor assistant and trainer

Achievements: Assisting the supervisor for managing the center, and training the students. Types of trains are Microsoft operating system and Microsoft office.

Skilled developed: Learning Microsoft office programs and my personal skills developed including team-working, effective communication, self-management.

Educational

2010-2014 PhD. In Mechanic, Energy, Materials. Doctoral School of Engineering Sciences, University of Lille 1, Lille – France, Dissertation titled "Non-linear numerical homogenization: Application to elasto-plastic materials"

2002-2005 M. Sc. In Mechanical Engineering. College of Engineering, University of Salahaddin Erbil-Iraq thesis titled "The effect of cutting tool vibration on surface finishing of work piece in turning operation"

1994-1998 B. Sc. in Mechanical Engineering. College of Engineering, University of Salahaddin Erbil- Iraq.

Publications

- 2007** **"The Effect of Cutting Tool Vibration on Surface Roughness of Workpiece in Dry Turning Operation"**. *Engineering & Technology*, Vol. 25, No. 7, 2007. 879-889. Younis Khalid Khdir, Safin Kassab.
- 2013** **"Computational homogenization of elastic–plastic composites"**. *International Journal of Solids and Structures*, Volume 50, Issue 18, Pages 2829-2835. Younis Khalid Khdir, T. Kanit, F. Zaïri, M. Naït-Abdelaziz.
- 2014** **"Computational homogenization of plastic porous media with two populations of voids"**. *Materials Science and Engineering: A*, Volume 597, Pages 324-330. Younis-Khalid Khdir, Toufik Kanit, Fahmi Zaïri, Moussa Naït-Abdelaziz.
- 2015** **"A computational homogenization of random porous media: Effect of void shape and void content on the overall yield surface"**. *European Journal of Mechanics - A/Solids*, Volume 49, January–February 2015, Pages 137-145. Younis-Khalid Khdir, Toufik Kanit, Fahmi Zaïri, Moussa Naït-Abdelaziz.
- 2016** **"Estimates for Linear hardening and Effective Yield Stress of Nano-Porous Media with Non-Uniform Distribution of Voids"**. *ZANCO Journal of Pure and Applied Sciences*. The official scientific journal of Salahaddin University-Erbil, ZJPAS (2016) 28 (2); Pages 396-405. Younis Khalid Khdir.
- 2018** **"Use of Different Graded Brass Debris in Epoxy-Resin Composites for Improving Mechanical Properties"**. *Eurasian Journal of Science and Engineering*. ISSN 2409-6997, doi:10.23918/jec2018.28. Younis Khalid Khdir, Gailan Ismail Hassan.
- 2018** **"Contact Stress Analysis of Spur Gear under the different Rotational Speed by Theoretical and Finite Element Method"**. *Academic Journal of Nawroz University 7 (4)*, 213-222. Under Press. Jwan Khalil Mohammed, Younis Khalid Khdir, Safeen Yaseen Kasab.
- 2018** **"Effect of Rotary Friction Welding Parameters on the Mechanical Behavior ABS/PE Polymers"**. *Academic Journal of Nawroz University 7 (4)*, 104-112. Under Press. Gailan Ismail Hassan, Younis Khalid Khdir.
- 2019** **"Analytical and Numerical Investigation of Hardening Behavior of Porous Media"**. *Polytechnic Journal 9 (2)*, 1-10, Younis Khalid Khdir.
- 2020** **"Study of Welding Dissimilar Metals-Low Carbon Steel AISI 1018 and Austenitic Stainless Steel AISI 304"**. *Polytechnic Journal 10 (1)*, Younis Khalid Khdir; Salim Azeez Kako; Ramadhan H. Gardi.

- 2020** **"Experimental Investigation of Earth Tube Heat Exchanger (ETHE) for Controlled Ventilation in Erbil"**. *6th International Engineering Conference "Sustainable Technology and Development, IEC2020 Conference, www.tiu.edu.iq/conf/iec*, Dastan Zrar Ghafoor; Younis Khalid Khdir.
- 2020** **"The Determination of the Stress Intensity Factors of a Steel Plate with different thickness using FEM"**. *International Conference on Recent Innovations in Engineering (ICRIE)*, Younis Khalid Khdir.
- 2021** **"Computational Fluid Dynamic Optimization of Supply and Return Duct Position for Zone Air Distribution"**. *Polytechnic Journal Vol. 11 No. 2: 69-78 (2021), Bashir E. Kareem*; Younis Khalid Khdir.
- 2022** **"Effect of crack length on stresses in a plate with a hole"**. *Al-Nahrain Journal for Engineering Sciences NJES 25 (1) 28-34, 2022, Thaker Saleh Dawood, Younis Khalid Khdir.*
- 2022** **"CFD Study of Pressure loss of Oil Products in T-junction"**. *Eurasian Journal of Science and Engineering (Vol. 7, No. 1, June 2021), Samara Aneis, Iyd Eqqab Maree, Younis Khalid Khdir.*

Trainings and other courses

- 1998** English language examination, 29th Jul 1998, College of Art, University of Salahaddin, Erbil, Certificate
- 1998** Computer Course, Computer Center, 8th Jul 1998 – 8th Sep 1998, Erbil, Windows operating system, Word, Excel, and Access, certificate.
- 2000-2001** English language course, 15th Oct. 2000 – 15th Jun 2001, Erbil, certificate.
- 2002** Computer Science examination, 12th Aug 2002, Erbil certificate.
- 2006** Project Management International Training Course, in Republic of South Korea, Certificate.
- 2006** English Language Course, 7th of Nov 2006, Training Learning Center, belong to Ministry of Municipalities and Public Work, Erbil, Certificate.
- 2007** Teaching method, 60 hours, 20th – 30th August 2007 Presidency of Technical Education Foundation Kurdistan Region Iraq, Certificate.
- 2008** Finance for non finance, 7th May 2008 Coca Cola – Iraq, CC beverage Ltd, Certificate
- 2009** French language, 80 hours, Center Culturel Francais d'Erbil, Certificate.

- 2011** Redaction scientific papers in English, 10 January – 14 February. Villeneuve d'ascq – France.
- 2018** Training of trainers on entrepreneurship development, 7 October – 8 November. 120 training hours, conducted by United Nations Industrial Development Organization UNIDO, Erbil – Iraq.
- 2009-2019** Working as trainer with many local and international organizations such as Islamic Relief, UNDP, UNIDO and many other companies and training centers.

Computer Skills

AutoCAD, Microsoft Office "Word, Excel, Power point, and Access" , Adop photo shop, Internet explorer. MS Nastran, MS ANSYS, Fortran, Matlab, Zebulon finite element program, Lenux system, Opensuse, and Paraview.

Conferences and Other Activities

- 1998** From August 1998 membership in Kurdistan Engineers Union, KEU.
- 2000** 25th June – 20th Nov, member in supervising committee of implementing Soran water project in Soran-Iraq.
- 2005** 25th Jan – 30 June, member in supervising committee of installing 3rd line of Ifraz water project in Erbil-Iraq.
- 2005** 1st Sep – 30th Nov Direct manager of installing Khabor water project in Zakho-Iraq.
- 2008** 1st Jan – 31st Dec, member in supervising committee of installing first beverage factory in Erbil-Iraq.
- 2008** From 30th may 2008 membership in Contracting, Engineering and Design Organization, K-CEDO.
- 2008** 27-29 May 2008, participating in a first conference of Contracting, Engineering and Design Organization, K-CEDO in Erbil.
- 2000-2009** Writing engineering articles (engineering essays) with all the numbers of Engineer magazine belong to Kurdistan Engineers Union.
- 2011** le métier denseignqnt chercheur; the conferene in French lqnguage.

- 2011** la création d'entreprise par les docteurs; the conferene in French lqnguqge.
- 2012** les réseaux sociaux professionnels. Comment en faire bon usage; the conferene in French lqnguqge.
- 2012** Intelligence économique et dynamique de l'innovation; the conferene in French lqnguqge.
- 2012** 26th Jun 2012, participating in conference of (5^{ème} Journée des docteurs), Ecole des Mines de DOUAI, France.
- 2012** 13th November 2012, participating in conference of (DocEmploi, forum de l'emploi des docteurs). Lille, France.
- 2013** 26-28 June 2013, 3rd International Conference of Engineering Against Failure, Kos, GREECE.
- 2014** 3rd Jun 2014, participating in conference of i-MOCCA, Lille, France.
- 2015** DAAD-Workshop Modern Measuring Methods in the Laboratory (software and Hardware) October 20-21, 2015.
- 2016** 1st Symposium on The Role of Scientific Research and Publications in University Ranking. March 8-9, 2016.
- 2016** 1st International Conference on Engineering and Innovative Technology April 12-14, 2016 Erbil, Kurdistan.
- 2017** 2nd Symposium on Internationalization of researches in Kurdistan. May 2-3, 2017.
- 2018** Polytechnic Research Center Workshop titled "The Importance of Writing and Publishing High Profile Scientific Researches" 12 hours, at EPU Scientific Research Center.
- 2018** 4th International Engineering Conference on Developments in Civil & Computer Engineering Applications. Erbil, Kurdistan, Iraq on February 26-27, 2018.
- 2020** 6th International Engineering Conference "Sustainable Technology and Development". Erbil, Kurdistan, Iraq on February 26-27, 2020.
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Mechanical Designed Projects

Calculation, Design, Drawing, and technical reports for different project, such as air conditioning system, water supply, firefighting system, storm water design, ventilation, drain system, fire sprinkler system, and swimming pool design, car parking design ventilation. Beach field design, hospitals, water treatment plant, and waste water treatment plants.

Other Activities

- After many years of experience as a trainer and TOT, a non governmental organization founded in 2018 with name of ZER Organization for Science and Research Development, and I became the head of the organization up to now. We have a very good practical and academic staff to manage many training courses and also TOT.
- Member of Carrier Development Center board of the Erbil Polytechnic University under the UNICEF organization. Since Jan 2018 up to now. Our activities are to develop the practical parts of the university.
- President of ZER Organization for Science and Research NGO.
- Member in Flower Organization for the development of herbal medicine culture NGO.
- Member of Editorial team – Polytechnic Journal – Erbil Polytechnic University.
- Member of higher education scientific committee at Erbil Polytechnic University.
- Member of student association committee at Erbil Polytechnic University.
- Member of exam objection’s committee at Erbil Polytechnic University.

Interests & Achievements:

Traveling around Europe and Republic of South Korea helped develop my communication skills through meeting a variety of people in the international environments.

Best Regards
YOUNIS KHALID KHDIR
June, 2022