



Ranj Sirwan Abdullah, PhD Assistant Professor

Nationality: Iraqi

Date of birth: 28th June 1980

Place of birth: Baghdad– Iraq

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Profile:

- PhD Degree of Philosophy in Mechanical and Materials Engineering/
Renewable Energy
- Associate Professor at Mechanical and Energy Engineering Department/
Erbil Polytechnic University

Address: Iraq Kurdistan Region- Erbil

Language: English
 Arabic
 Kurdish

Skills

- Working on TRANSYS 16 for heating and cooling system
- Designing heating and cooling load calculations for buildings, By using special software (HAP)
- In the maintenance fields of Refrigeration Equipments (Chillers, Cooling towers, condensers, evaporators and heat exchanger).
- Working on Commissioning test for Air-Conditioning system.
- **Working in individual committees as a consultant for preparing courses in quality management and leadership**
- Good knowledge in computer Hardware installation & maintenance.
- Good knowledge in computer Software, such as AutoCAD, MICROSOFT OFFICE,
- VISUAL BASIC 6.0, FORTRAN 90.
- Excellent knowledge in Energy and power Management.
- Knowledge in water treatment stations.

Affiliations

2002	IRAQI ENGINEERS UNION. Membership NO.10480
2002	IRAQI ENGINEERS SOCIETY.
2006	KURDISTAN ENGINEERES UNION. Membership No. 7425
2015	KURDISTAN TEACHERS UNION. Membership No. 11042

(Qualifications)

2009-2013	PhD. In Mechanical Engineering, Mechanical and Material Department, National University of Malaysia <i>“Evaluated of A Solar Assisted Combined Ejector-Absorption Refrigeration System with Flash Tank”</i>	Malaysia
2003-2006	M.Sc. In Mechanical Engineering, Mechanical Engineer Department, University of Technology-Iraq <i>“Modeling on Design Parameter of Plate Fin and Tube Condenser and Direct Expansion Evaporator using R407C”</i>	Iraq

1998-2002	B.Sc. in Refrigeration and Air-condition Technology, Technical College of Baghdad	Iraq
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Courses

Participant	2019	Solar Power TOT Training Course	Erbil- Iraq
Participant	2018	How to Write Good Project Proposal for Funding	Amman-Jordan
Participant	2017-2018	U.S.-Iraq Higher Education Partnership Program, this program focused on “Leadership and Management Training for Polytechnic Universities”. This program support by the International Research and Exchange Board (IREX)	Boone- North Caroline- US Appalachian State University
Attending	2017	2 nd EPU symposium on <i>Internationalization of Scientific Research in Kurdistan</i>	Erbil- Kurdistan Region/Iraq
Organizer	2017	3rd International Engineering Conference (IEC2017)	Erbil- Kurdistan Region/Iraq
Organizer	2016	1 st EPU symposium on <i>The Role of Scientific Research and Publications in University Ranking</i>	Erbil- Kurdistan Region/Iraq
Attending	2015	Rehabilitation of Iraq Higher Education System Project “Review of Quality Improvement Plans of Pilot Colleges of Engineering-Phase-2”	Amman- Jordan UNESCO-Iraq Office
Participant	2014-2015	Iraq Public Policy & Leadership Program	Sharjah- UAE American University Sharjah
Participant	2014-2015	University Leadership and Quality Management Course <i>The program focused on how to manage projects, dealing with problems while implementing projects, identify the importance of budgeting and funding project, also work on the human resource management specially in education sectors, and finally analyses leadership problems in practice and in a cultural concept.</i>	Oldenburg- Germany University of Oldenburg, Berlin University for Professional Studying
Participant	2013	A comprehensive course in Methods of Instruction	Erbil-Iraq Polytechnic University Erbil
Attending	2012	Training Course in RET Screen (Assessment of renewable energy projects)	UKM-Malaysia National University of Malaysia

2020, CV

Participant	2012	A course in CATIA	UKM- Malaysia National University of Malaysia
Attending	2010	Training Course in using COMSOL Software (Computational Fluid Dynamic)	Kuala Lumpur
	2005	Training Course in Load Calculations and CAD applications.	Abu Dhabi- UAE
	2005	Courses in Microsoft Visual Basic	Baghdad – Iraq
	2002	A course in AutoCAD 2002	Baghdad – Iraq
	1998	A course including the following subject: <ul style="list-style-type: none">• MS DOS 6.22• MS- WINDOWS 3.11• MS- WINDOWS 95• MS- WORD 97• ACAD	Baghdad – Iraq

(Academic Experience)

2018-present	Lecturer and Academic Researcher <p>Responsible for preparation, presentation, review, and examinations of lectures delivered to undergraduates and postgraduate students through selected courses. In addition to provision of feedback to students on regular basis. Preparation of time tables by working with other professionals and teachers. Leading a team of teachers to design new projects in the department (scientific Committee).</p> <p>While at the meantime I am acting as Director of International Relations Office at Erbil Polytechnic University. The mission of the International Office in EPU is to increase the international recognition of the university's qualification.</p>
2013 – 2018	Lecturer and Academic Researcher <p>Responsible for preparation, presentation, review, and examinations of lectures delivered to undergraduates and postgraduate students through selected courses. In addition to provision of feedback to students on regular basis. Preparation of time tables by working with other professionals and teachers. Leading a team of teachers to design new projects in the department (scientific Committee).</p> <p>While at the meantime I was acting as a deputy dean of engineering college, responsible for managing and monitoring college budget, allocate and provide oversight department budget and the scientific program. Moreover, develop, administrate, and promote the academic programs and academic support functions of the college through Providing leadership, conduct and implement strategic planning of the college.</p>

Courses titles

2007-2008 Course Title: Engineering Drawings I
Course Title: Workshops & Factories

2008-2009 Course Title: Engineering Drawings I
Course Title: Equipment Technology I
Course Title: Air-Condition I

2013-2014 Course Title: Equipment Technology II
Course Title: Refrigeration
Supervision: B.Sc. Graduation Project (*Design and Fabricate of a Solar Duct System for Domestic Application*)

2014-2015 Course Title: Equipment Technology I
Course Title: Equipment Technology II
Course Title: Refrigeration
Course Title: Solar Energy (Master)
Supervision: B.Sc. Graduation Project (*A Study on a Ducted Flat Plate Collector using Single Glass and Double Glass*)
Supervision: M.Sc. Project title [*Study of Thermal Solar Energy System for Cooling System in Erbil*]

2015-2016 Course Title: Refrigeration
Course Title: Air Conditioning System design
Supervision: B.Sc. Solar Air Heating System using Solar Ducted Collector system
Supervision: M.Sc. Project title [*Study of Thermal Solar Energy System for Cooling System in Erbil*]

2016-2017 Course Title: Refrigeration and Air Conditioning System design / 4th Stage
Course Title: Solar Energy/ 3rd Stage
Supervision: B.Sc. The influence of using different wall material and windows in the cooling load estimation of the building in Kurdistan Region

2017-2018 Course Title: Refrigeration and Air Conditioning System design / 4th Stage
Course Title: Solar Energy/ 3rd Stage
Course Title: Solar Energy (Master)
Course Title: Research Methodology (Master)
Supervision: B.Sc. Study the influence of using wall insulation material on the cooling load estimation of the building in Erbil city

2020, CV

2018-2019	Course Title: Refrigeration and Air Conditioning System design / 4 th Stage Course Title: Solar Energy/ 3 rd Stage Supervision: Performance analysis of double glaze glass air solar collector for heating process in Erbil
2019-2020	Course Title: Refrigeration and Air Conditioning System design / 4 th Stage Course Title: Solar Energy/ 3 rd Stage Supervision: B.Sc Energy Management of Commercial Building , Case Study Erbil Technical Engineering College Supervision: M.Sc. Project title [Evaluation of Thermal Solar System using Flat Plate Collectors: case study Thermodynamic Optimization]

Other experiences

2013-Present	Consultancy Engineering Bureau of Erbil Engineering Technical College	Erbil- Iraq
	MEP Consultant Engineer, responsible for Designing of Air Conditioning System (HVAC), plumbing, drainage and firefighting systems. Commissioning test, and Arbitration and Mediation expert	
2007	ALMCO GROUP, over site/ Supervisor engineer and supervisor of training learning center – Erbil	Erbil - Iraq
2006-2007	Engineering Office – Sal hiding Over site engineer (Mechanical Design)	Erbil - Iraq
July- September 2001	Technician in a Ministry of Higher Education and Scientific Research, Doing Maintenance for central cooling system + cooling towers. The General Company for light Industries About Refrigerators and Freezers assembly and maintenance.	Baghdad – Iraq
July – September 2000	Ishtar Sheraton Hotel Working on maintenance of the Central Cooling and Heating system for the hotel	Baghdad – Iraq

PUBLICATIONS

Ranj Sirwan Abdullah, (2018). Numerical Study of Heat Transfer Enhancement of Nanofluids Spray in Shell and Tube Heat Exchangers, **Polytechnic Journal**, Volume 8, Issue 2, (324-346)

Ranj Sirwan Abdullah, Iyd Eqqab Maree, Azhar Kareem Mohammed.(2017). *Experimental Study of the Performance of Solar Air Heating System*, **Polytechnic Journal**, Volume 7, Issue 2, (70-82)

Azhar K. Mohammed, **Ranj S. Abdullah**, Iyd E. Maree. (2016). *Comparison between hand calculation and HAP programs for estimating total cooling load for buildings*, **Zanco Journal of Pure and Applied Sciences**

Ranj Sirwan, K. Sopian and M.A. Alghoul. (2016). *Experimental Study of Modified Absorption Cooling Systems by Adding Ejector–Flash Tank Unit*, Switzerland, Springer International Publishing, Renewable Energy in the Service of Mankind Vol II, P605-614

Azher M. Abed, M.A. Alghoul, **Ranj Sirwan**, Ali Najah Al-Shamani, K. Sopian 2015. Performance enhancement of ejector-absorption cooling cycle by re-arrangement of solution streamlines and adding RHE. **Applied Thermal Engineering**, Volume 77, Issues 1-2, (65-75)

Ranj Sirwan, M.A. Alghoul, K. Sopian, and Yusoff Ali 2012. Thermodynamic Analysis of an Ejector-Flash Tank-Absorption Cooling System. **Applied Thermal Engineering**, Volume 58, Issues 1-2, (85-97).

Ranj Sirwan, M.A. Alghoul, K. Sopian, Yusoff Ali and Jasim Abdulateef 2013. Evaluation of Adding Flash Tank to Solar Combined Ejector-Absorption Refrigeration System. **Solar Energy**, Volume 91 (283-296).

Ranj Sirwan, Yusoff Ali, and K. Sopian 2012, Combined Ejector-Absorption Solar Cooling System. *World Renewable Energy Forum, WREF 2012, Including World Renewable Energy Congress XII and Colorado Renewable Energy Society (CRES) annual Conferen*, Denver, USA.

Ranj Sirwan, Yusoff Ali, Lim Chin Haw, Sohaif Mat, A. Zaharim, and K. Sopian 2012. Modelling and Optimization of Heat Transfer in Smooth Circulate Tube Used in The Shell and Tube Evaporator. *Proceeding of the 9th WSEAS International Conference on Fluid Mechanics (FLIUDS 12) and Heat and Mass Transfer (HMT 12)*, Harvard, Cambridge, USA

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Ranj Sirwan, Yusoff Ali, and Kamaruzzaman Sopian 2011. Effect of Spray Nozzle Flow Rate and Saturation Temperature on the Heat Transfer Rate Inside Shell and Tube Evaporator.

Proceeding of the Regional Engineering Postgraduate Conference (EPC) 2011, Universiti Kebangsaan Malaysia, Malaysia.

Ranj Sirwan, Yusoff Ali, A. Zaharim, and K. Sopian 2011. Effect of Adding Flash Tank on the Evaporator's Thermal Load of The Combined Ejector-Absorption Cooling System.

Proceedings of the 10th WSEAS International Conference on System Science and Simulation in Engineering (ICOSSSE '11), Penang, Malaysia.

J. M. Abdulateef, M. A. Alghoul, **Ranj Sirwan**, A. Zaharim & K. Sopian, Second Law Thermodynamic Analysis of a Solar Single-Stage Absorption Refrigeration System. *Proceeding of the 2th International Conference on Environment, Economics, Energy, Devices, systems, Communications, Computer, Mathematics (EDSCM 12), Saint Malo & Mont Siant-Michel, France.*

J. Abdulateef, K. Sopian, W. Kader, B. Bais, **R. Sirwan**, B. Bakhtyar and O. Saadatian, Economic analysis of a stand-alone PV system to electrify a residential home in Malaysia. *Proceeding of the 10th WSEAS International Conference on Heat Transfer, Thermal Engineering and Environment (HTE '12) and Fluid Mechanics & Aerodynamics (FMA '12), Istanbul, Turkey.*