Curriculum Vitae



Prof. Dr. GHANIM KADHEM ABDUL SADA

Professor (Mech. Engineering).

Mechanical Engineering Dept.

College of Engineering

Al- Mustinsiriya University

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Qualifications:

B.Sc.: Mechanical engineering. 1976.

Mechanical Engineering Department . Mousl University Iraq.

M.Sc.: Thermodynamics and related studies 1985.

Mech. Eng. Dept. Birmingham University England UK.

Ph.D.: Applications of the Solar Energy 1990.

Mech. Eng. Dept. Birmingham University England UK.

languages : English.

Arabic

Teaching Interests: - Heat transfer

- Thermodynamics

- Renewable energy technology

- Air Conditioning

Power plants Technology

- Hydraulics systems

Experiences:

1977- 1984: Mechanical engineer, agriculture machinery factory.

1984-1985: graduate student, (M.Sc. Degree) mechanical engineering University of Birmingham

- England UK. Specialized in Thermodynamics and related studies.
- 1985-1990 graduate student (Ph.D. Degree) mechanical engineering , University of Birmingham England UK. Specialized in applications of Renewable Energy
- 1990-1992: Consultant engineer in Al-Forat center for studies and design irrigation projects.

 Design pumping stations, and network piping system.
- 1992-2003: Assistant professor, Al- Mustansiriyah University, teaching courses in postgraduate and undergraduate levels. Conducting researches in the field of Renewable Energy applications, heat transfer, refrigeration and air-conditioning, and thermodynamics. Twenty five M.Sc. students and Six Ph.D students got the degree under my supervision in different topics of applications of Renewable Energy, thermodynamics, Air-conditioning applications, heat transfer, and enhancement of steam power plants.
- 2003-2006 Head of Mechanical Engineering Department (offers B.Sc, MEng. M.Sc, and Ph.D degree in both Mechanical and Manufacturing Engineering, and has over of 600 undergraduate student, and over 60 postgraduate student. The department is committed to excellence in Research and education). College of Engineering, Al-Mustansiriyah University.
- 2006-2007 visiting professor at University of South Australia, Sustainable Energy Centre.

 Department of Advanced Manufacturing and Mechanical Engineering,
 University of South Australia, Adelaide, Australia
- 2007-2008 Head of Mechanical Engineering Department College of Engineering, Al-Mustansiriyah University.
- 2008 Professor University staff teaching courses in postgraduate and undergraduate levels. Conducting researches in the field of Renewable Energy applications, heat transfer, refrigeration, air-conditioning, and thermodynamics.

Professional Consulting:

- I have a strong commitment to teaching and professional service.
- Over 20 years of outstanding experience in Design ,Engineering , Inspection Management of large projects of Industrial ,and irrigations .
- Professional Engineer, consulting work has included projects involving study and design industrial projects. Power plants Design & Technology (steam, Gas Turbine, and hydro power plants),
- consultant Engineering for ministry of industrial
- consultant Engineering for Baghdad Mayoralty.
- Team member design Basra water supply.
- Exceptional progressive supervisory experience in Design and industrial, Renewable energy technology (Renewable, alternative energy systems, Energy system planning).
- Air Conditioning projects.
- Pump stations for irrigations.
- Design Water desalination plants, (by using solar energy or by using waste heat power plants.

- Strong technical capability, able to work in a team environment with flexibility and co-operative attitude.
- Computer proficient, MS OFFICE, Internet Explorer, practical knowledge of AUTOCA.
- Always a generous source of guidance ,knowledge and advice for co-workers within the group

Courses taught

Courses design and manufacture of fire tube boilers (Engineering of industrial ministry). Courses design and manufacture of Heat exchanger (Engineering of industrial ministry).

Professional Associations:

- 1 Member of the World Renewable Energy Council (England UK)
- 2- Member of International Solar Energy Society (ISES) (Germany)
- 3- The National Society of Engineering Inspection & Civil Protection (Inspection and Design Boilers).
- 4- Member of Iraqi engineering society.

Major activates:

- 1- Design a steam boiler and heat exchanger for Al-faris CO.
- 2- Design the heating system for large oil tanks for najaf refinery CO.
- 3- Consultancy of large project water supplied for Basra (Pumping station units and piping system network .
- 4- Providing Consultancy to engineering staff of Amant Alasma for many projects.
- 5- Consultancy of Rebuilding large project after the Kuiwt war such as power stations, industrial projects.

Research Interests:

- Renewable Energy Technology (Solar, Wind, alternative energy systems, and energy system plan ing).
 - Building –Integrated solar and natural heating and cooling.
 - Power plants Technology.

Research Degree Supervisor:

Considerable experience in supervision of (36) research students in projects involving applied research. Research areas include energy conversion, Renewable energy utilization with emphasis on collaborative projects with industry, Energy use in building, heating and cooling.

Particular areas of expertise include enhancement of steam power plants.

28 (students) M.Sc degree.

9 (students) Ph.D degree.

Conferences and Exhibition

Participated in many conferences and seminars inside and outside Iraq.

Iraqi university conferences relating to various facets of science and technology.

Attendance of Iraqi industrial conferences & seminars including chairing sessions papers with active participation .

ISES Solar world congress 1987 Germany.

Renewable Energies Congress Baghdad Iraq, 1992

Sharjah solar energy conference, UAE 2001.

ISES Solar world congress 2002 Germany

Mechanical Eng. congress kofa university 2002.

Bahrain solar energy conference, 2004.

Energy conferences Maraud Australia 2007).

Clean Energy congress (8 UTEG10) 2010 Turkey

World renewable energy forum (WREF 2012) Denver Colorado USA.(13-17 May 2012).

7th heat transfer congress and 13th renewable energy congress Minnesota USA.(13-19 July 2013).

World solar energy congress Iran (University of Tehran 2015)

The Smart cities congress Kuwait 2016.

Committees and boards:

- Member of committee for reconstruction of the Iraqi upstream the industrial and electrical Sector consequest to 1990 war.
- Chairman and member of various Technical committee dealing with renewable energy and Applications.
- Reviewer for many International Scientific journals such as
- ETASR (- Engineering, Technology & Applied Science Research) (Gress)
- ASME (American society mechanical Engineering) USA.

Countries Visited:

USA, England , Denmark , Germany , Australia , Sweden, Turkey , Singapore, UAE, Bahrain , Jordan , Lebanon, Jordan , Syria . Iran, Kuwait

Publications:

- 1- Solar energy for irrigation system. (Renewable Energies Congress Baghdad Iraq, 1992).
- 2- Solar ponds for northern latitudes. (ISES Solar world congress Germany 1987).
- 3- Solar ponds with and without insulation. (ISES solar world congress kobe Japan 1989).
- 4- Sawa salt lake for power production. (j. Science & Eng. Tikrit Un. 1995).
- 5- Mal- coating for measuring the emissive of blade turbine. (j. Science & Eng. Tikrit Un. 1995).
- 6- Transients caused by power failure in pumping station. (mce. journal no.14 1994).
- 7- Experimental for Iraqi solar houses.(paper summated to ISES solar world congress 2001. Adelaide Australia).
- 8- Simulation model for solar heat pump.
- 9- Effect of clarity of water upon performance of solar pond (Sharjah solar energy conference, uae. 2001).
- 10 Soil heating by waste heat of power generation plants. (J.Eng. and Tech. Un. of technology 2002)
- 11 Enhance performance of steam power plant generation.(mechanical eng. congress kofa university 2002).
- 12- Experimental and Numerical modeling for Rotary air pre- heater used in steam power plants.(j. Engineering and developments, Baghdad Iraq 2006).
- 13- Appropriate techniques model to minimize environments impacts of building. (paper summated to ISES solar world congress 2006 . Florence Italy).
- 14- modeling of solar desalination system (paper accepted into energy conferences Maraud Australia 2007).
- 15- The effect of Increasing sub-cooling on air cooled A/c, system capacity. (j. Engineering and developments, Baghdad Iraq 2007).
- 16- Minimizing effect the impact of enlivenment upon residence building in hot arid regions Iraq " 8 UTEG10, Clean Energy congress 2010 Turkish"

- 17- A nonintrusive auto-transformer technique for measuring phase volume ratio in oil-water two-phase stratified flow "Journal of Petroleum Science and Engineering 54 (2006) 25–33" www.elsevier.com/locate/petrol.
- 18- Enhancing thermal stratification in liquid storage tank during relaxation periods (j. Engineering and developments, Baghdad Iraq 2002)

- 20 Experimental model of Rotary Air Pre-Heater for thermal power plants
 Proceeding of the ASME 2010 International Mechanical EngineeringCongress & Exposition IMECE 2010-08-20 November 12 18, 2010 Vancouver, Canada
- 21 Solar energy for produced steam.
- 22 Techniques to reduce the energy consumption in building in hot rejoin (IRAQ) World renewable energy forum (WREF 2012) Denver Colorado USA.(13-17 May 2012).
- 23- techniques to reduce the energy consumption in building in hot Arid rejoin; Journal of energy and power engineering vol. 7 number 6 June 2013
- 24 Experimental steady to produce steam by solar energy using solar dish concentration with copper coil receiver; International journal of Engineering and innovative Technology (IJEIT) vol. 4 Issue 7 January 2015
- 25- Experimental small scale solar power tower in Iraq ; ; Journal of energy and power engineering vol. 10 number 6 January 2016
- 26- Experimental and theoretical study for the performance of new local thermal insulation in Iraq Building 13 th World Renewable energy congress (WREC X111) London , Uk August (3-8, 2014)
- 27 Experimental study to evaluate the performance of Iraqi passive house in summer season; Journal of energy and power engineering vol. 9, April 2015