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Sebha University Faculty of Mining and Energy Engineering

Sebha-Libya

Personal Information

Nationality: Libyan.

Date and Place of Birth: 1962 Sebha, Libya.

- *Education:* -PhD Alexandria University Engineering Faculty Mechanical Engineering Department, (An Experimental and Numerical Study of Laminar Mixed Convection From An Isothermal Horizontal Circular Cylinder) Alexandria Egypt 2003.
 - -M.Sc. Alexandria University Engineering Faculty Mechanical Engineering Department, (Heat and Mass Transfer in Air Washers) Alexandria Egypt 1994.
 - -B.Sc. Garyounis University Engineering Faculty Mechanical Engineering Department Benghazi-Libya 1985.

Employment: - General Electric Company Sebha branch (1986 - 1990)

- -Head of Mechanical Engineering, University of Sebha Faculty of Engineering and Technology, (1995 1999).
- -Consultant engineer, Alsharara Complex of Industry and electromechanical Maintenance, Sebha, Libya, P.O.Box 715 (1996-1999).
- -Postgraduate representative in Mechanical Engineering Faculty of Engineering and Technology Sebha University, (2004-2007).
- -Head of Petroleum Engineering Faculty of Engineering and Technology Sebha University, (2007-2013).

- Dean of Faculty of Mining and Energy Engineering Sebha University, (2016-2017).

Training: - Implementation of a Quality Management System according to ISO 9001

(21-25 Jan 2007) Sebha - Libya.

- "Skills of Active Teaching" by Golden Seasons for Training & Consultation (03-07 Nov. 2013) Oman - Jordan.

Publications: -Rasem Ali, M. I. Alowa "Sebha Solar House as Solar Energy

Application" International Conference of Energy System 2000 ICES,2K 25-28 Sept. 2000 Amman-Jordan (in Arabic)

- M. I. Alowa, S. M. Elsherbiny and M. A. Teamah " An Experimental

Investigation of Laminar Mixed Convection from An Isothermal

Horizontal Circular Cylinder" Journal of Sebha University Vol. 3 No.2

(2004).

-Abul-Qasim M. Al Sageer, M. I. Alowa and M. Al-saad " Performance

Simulation of Serpentine Type Metallic Solar Collector" World Renewable

Energy and Environment Conference and Exhibition, 22-24 Jan 2006

Tripoli-Libya

- Mohammed I. Alowa, Ahmed A. Habeb, and Abdullha Abubaker "The Characterization of Air Flow and Heat Transfer by Natural Convection in Vertical Channels" Journal of Sebha University Vol. 1 No. 8 (2009).
- Mohamed Ibrahim Alowa "Characteristics of Parallel and Counter Flow of Air Washer "Journal of Sebha University Vol. 10. No. 2 (2011).
- Mohamed Alowa, and Gassem Azzain " Effect of some building materials on the thermal load for a residential house in Sebha area" Journal of Sebha University Vol. 15. No. 1 (2016) (in Arabic).
- Gassem Azzain, and Mohamed Alowa" Simulation study of solar water pumping systems to combat desertification in urban populated territories and isolated desert along the south of Libyan coastal line" Journal of Engineering Researches and Applied Sciences, No. 3 (in Arabic).
- Gassem Azzain, and Mohamed Alowa " Dynamic Simulation of Performance and Behavior of a CSP' Parabolic Trough Power Plant with Concrete Storage, If Operated in the South Region of Libya" First International Conference in

Chemical, Petroleum and Gas Engineering-ICCPGE 2016 20-22 December 2016 Al-Mergib University Alkhoms Libya.

- Mohamed I. Alowa, Hamed A. Said, Zakarreia A. Alarabi "Performance of Flat Plate Solar Collector for Water Heating At Sebha Weather Conditions" First International Conference on Sciences and Technology (1stICST) Sebha University 12-14 Feb. 2018.
- Mohamed A. Sharif, Mohamed Alowa "Compared of the Calculated Values of a Mathematical Models Used to Estimate the Amount of Solar Radition on a Horizontal Surface with the Measured Values of the Sebha City", First International Conference on Sciences and Technology (1stICST) Sebha University 12-14 Feb. 2018(in Arabic).
- Mohamed I. Alowa, Gassem A. Azzain"Theoretical Investigation of an Indirect Evaporative Air Cooling System", First Conference for Engineering Sciences and Technology (CEST-2018) 25-27 September 2018 /Garaboulli-Libya
- *Languages:* -Mother tongue is Arabic.

-English is the language of studying and researching.

The proposed works:

1 - CONVECTION HEAT TRANSFER:

Convection heat transfer is one of the important branch in the heat transfer because it has a wide applications. Accordingly the numerical study in the filed of convection heat transfer (natural, forced, mixed) from selected body to the air. The study includes :

- The numerical model suggestion (governing equations).
- Numerical solution of the model by using (the Patanker- spalding program)
- Results discussion and recommendations.
- The Patanker- spalding program (available).

All the work expenses are covered

The recommended time for this work is 6 months.

2- SPACE VENTILATION ANALYSIS:

The important of the ventilation is the removal of contaminants and smokes from the ventilated space and gives a higher degree of comfort. One of the effective parameters that make the introducing air ventilation to the space more effective is the flow and temperature distribution. The air velocity and temperature distribution in the ventilated space is numerically simulated in this work to study the effect of some parameters such as the space design configuration and equipments. The study includes :

- The numerical model suggestion (governing equations).
- Numerical solution of the model by using (the Patanker- spalding program)
- Results discussion and recommendations.
- The Patanker- spalding program (available).

All the work expenses are covered.

The recommended time for this work is 6 months.

Dr M. I. Alowa