### **CURRICULUM VITAE**



Professor: Giuma Emmhemed Fellah

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Gender: Male

Nationality: Libyan

Citizen of Libya

Place and date of birth: Tripoli-Libya, 1954

**Affiliation**: Professor, University of Tripoli, Faculty of Engineering, Department of Mechanical and Industrial Engineering.

### **Education**

- 1- Ph.D (1997) Warsaw University of Technology, Poland.
- 2- MS (1981) Washington University, St. Louise-USA.
- 3- B.Sc. (1978) University of Tripoli, Tripoli-Libya.

#### **Area of Interest**

- 1- Exergy analysis for thermal energy systems.
- 2- Design and evaluation of hydraulic systems.

# **Employment history**

- Junior engineer at Um-Aljwabi Oil Company (ALBIDA Oil Field), 1978-1979
- Staff member at Faculty of Engineering, University of Tripoli since 1982

## **Experience**

- 1- Reviewer at Elsevier, Journals of Energy and Applied Thermal Engineering.
- 2-Instructor of thermodynamics, fluid mechanics, power plants, heat transfer, desalination and hydraulic machines courses at Mechanical and Industrial Engineering Department, Faculty of Engineering, University of Tripoli.
- 3- Instructor of postgraduate thermodynamics, heat conduction and design of thermal systems courses
- 4- Supervising of Master of Science theses.
- 5- Instructor of training courses of centrifugal pumps for the engineers and technicians of zawia refinery, man-made river and abocamash companies.
- 6- Consultant engineer at manmade river (third stage) 1999-2003

6- Consultant and designer of hydraulic systems at DAMA Company

#### **Publications**

- (I) Articles
- 1- Thermal storage units.
- 2- Exergy as a tool to asses thermal systems.
- 3- Fuel cell technology.

## (II) Books

- 1- Maintenance and serviceability of plants.
- 2- Refrigeration and air conditioning.

# (III) Scientific Papers

- 1- Numerical Analysis for a Flow Past Wedges (1990, Journal of Engineering Science-Tripoli-Libya).
- 2- The Latest Development in Slow Speed and Medium Speed Marine Diesel Engines (1988, International Conference of Mechanical Engineering, Tripoli- Libya).
- 3- Exergy Analysis for the Optimum Performance of Phase Change Thermal Storage Units (1995, Archives of Thermodynamics, Warsaw University of Technology, Poland).
- 4- Exergy Analysis for the Evaluation of Phase Change Two Storage Units in Series (1996, Applied Thermal Engineering)
- 5- Exergy as a Tool in Designing and Operating Thermal Storage Units (1995, Biuletyn Instytutu Technik Cieplnej Poltechniki, Poland)
- 6- Exergy Analysis for the Optimum Performance of Selected Phase Change Thermal Storage Units (June 1997, 7-th International Conference on Thermal Energy Storage, MEGASTOCK '97, Sapporo, Japan)
- 7- Thermoeconomic Analysis of Sensible Heat, Thermal Energy Storage Systems (1998, Applied Thermal Engineering).
- 8- Exergy as A Tool for the Assessment of Constant Volume, Adiabatic Combustion Processes, (In Arabic), (2007, Journal of Engineering Researches, Tripoli-Libya).
- 9- The Assessment of a Reverse Osmosis Desalination Plant From Exergy Point of View, (In Arabic), (2007, Journal of Engineering Researches, Tripoli-Libya
- 10- On Temperature Distribution and Heat Transfer Characteristics of a Phase Changing Material in an Annulus. (2008, Journal of Engineering Researches, Tripoli-Libya).
- 11- Exergy Analysis for Unit Two of Zwara Desalination Plant (The First Chemical Engineering Conference, Faculty of Engineering, Al-Fateh University, June 2009).
- 12- Thermoeconomic Analysis for Unit GT14 of South Tripoli Gas Turbine Power Plant (2010, Jordan Journal of Mechanical and Industrial Engineering).
- 13- Effect of Ambient Temperature on the Thermodynamic Performance of a Selected Combined Cycle Power Plant ((2010, Journal of engineering researches, Tripoli-Libya).
- 14- Performance Enhancement for Unit number six in Misurata Gas Turbine Power Plant by Effective Utilization of the Exhaust Gases (23rd International Symposium on Transport Phenomena, Auckland, New Zealand, 19–22 November 2012).
- 15- Second Law Assessment for an Annular Sensible Heat Thermal Energy Storage Unit (2014, Journal of Engineering Research).
- 16- Exergy Assessment for a Typical Multi-Effect Thermal Vapor Compression Desalination Unit (2014, Journal of Engineering Research)

- 17- Thermodynamic Analysis of Zawia Combined Cycle Power Plant (2016, International Journal of Engineering papers)
- 18- Numerical Simulation for the Effect of Sand Molds Thickness on the Solidification Time of a Pure Melted Iron (2016, International Journal of Engineering papers).
- 19- Thermodynamic Performance of a Thermalvapor Compression Refrigeration Unit (2016, Journal of Engineering Research).
- 20- Excel Spreedsheets as a Tool for Simulating the Performance of Steam Power Plants (2019, Spreadsheets for Education, Bond University).
- 21- Ejector Incorporation to Enhance the Thermodynamic Performance of a 285MW Gas Turbine Unit (2019, Journal of Engineering Research).
- 22- Performance Analysis of Humidification-Dehumidification Desalination Processes (2018, I-manager's Journal on Future Engineering & Technology)
- 23- Performance Assessment of RO Desalination Plant at Different Salinities and Recovery Ratios (2019, I-manager's Journal on Future Engineering & Technology).
- 24- Thermoeconomic Analysis of a Single Effect, Mechanical Vapor Compression Desalination Unit (2019, I-manager's Journal on Mechanical Engineering).