

UNITED ARAB EMIRATES UNIVERSITY
FACULTY OF ENGINEERING – MECHANICAL ENGINEERING DEPARTMENT

RESUME

Name:	Prof. Mohamed Younes El-Saghir Selim		
Academic Rank:	Professor (June 2013-Present) Associate Professor (2002-2013) Assistant Professor (1997-2002)	Mo/Yr Appointed at UAE University:	Sept. 1997
Highest Academic Degree: (Include field, university, year)		PhD, Mechanical Engineering, University of Cambridge, UK, 1992	
Special Fields and Research Interest:		Energy and Transportation: Renewable Fuels, Bio-fuels Combustion, Exhaust and Noise Emission Control	
Address: Dr Mohamed Younes El-Saghir Selim Professor, Mechanical Engineering Department Faculty of Engineering, United Arab Emirates University P.O. Box 15551, Al-Ain, UAE Tel. (9713) - 7135113 Office, Mobile: (971) 050 – 2355738			

1. Academic Background

<u>Institution</u>	<u>Dates Attended</u>	<u>Major</u>	<u>Degree</u>	<u>Dates Awarded</u>
Cambridge University, UK	1989	ME	PhD	1992
Helwan University, Egypt	1986	ME	MSc	1988
Helwan University, Egypt	1980	ME	BSc	1985

2. Other

<u>Company, Firm, Agency</u>	<u>Position</u>	<u>Dates</u>
Loughborough University, UK, Mechanical Engineering Department, CFD Group	Post-Doctoral Fellow (Islamic Development Bank Merit Scholarship)	Sept. 1995 – Sept. 1996

3. Professional Activities

3.1 Scientific and Professional Societies

Member: American Society of Mechanical Engineers (ASME)
 Member: Society of Automotive Engineers (SAE),

3.2 Professional Registration

Egyptian Society of Engineers

3.3 Honors, Prizes, and Awards (Provide year of award)

- UAE University College of Engineering Award for Excellency in Community Services, September 2007.

- Inclusion in "Cambridge Bibliography Association" Handbook, 2007/2008
- Cambridge Commonwealth Trust & Cambridge Overseas Trust PhD Scholarship Award , 1989-1992
- "Ford of Britain" Prize for top PhD Students (monthly award), Cambridge University, Engineering Department, 1990-1992.
- Islamic Development Bank (IDB) Merit Scholarship Award for young scientists. Fellowship spent as post-doctoral fellow in the Mechanical Engineering Department, Loughborough University, UK. [the only scholarship offered to Egypt in 1995]

3.4 Consulting:

- Industrial courses for STRATA students in “engineering drawings”, 2013-2014.
- Industrial courses given to engineers on AutoCAD program in Egypt from 1993-1997.
- Industrial consultant for design of HVAC and underfloor piping design in Dubai, from 2008-2010.
- Working as consultant for design of HVAC, water distribution systems and fire fighting systems in Egypt from 1993 – 1997.
- Updating one Gulf Standards for Emirates Authority for Standardization and Metrology for noise emission regulations Gulf Standards, 2009-2010.
- Updating three (3) Gulf Standards for Emirates Authority for Standardization and Metrology for light duty diesel engines emission regulations Gulf Standards 1040, 1041 and 1042, 2008-2010.
- Writing three (3) Gulf Standards for Emirates Authority for Standardization and Metrology for heavy duty diesel engines emission regulations, Gulf Standards 144, 145 and 146, 2007-2008.

3.5 Services and consultancies:

Vehicle testing and safety

Studies related to the safety of vehicles, fuel consumption and their compliance with inspection rules.

Heating, Ventilation, Air Conditioning and Refrigeration (HVAC & R)

Design of air conditioning central systems including cooling loads, equipment selection, air ducting, air distribution, refrigerated space load, etc.

Pumps and Piping

Design and selection of pumps, piping systems (chilled water and other water piping systems)

Fire Fighting Systems

Design and selection of fire fighting systems

Natural Gas Vehicles

Use of CNG, LPG in vehicles, testing, performance, assessment and pollution control

Fuels for I. C. Engines

Liquid fuels properties for diesel engines, additives, etc.

Engine Cooling

Engine cooling system design and improvement

3.6 Training Courses, Lectures and Workshop Available:

- Air conditioning cooling load calculation and selection of A/C equipment
- Air conditioning systems design: ducting, chilled water piping, air entries, etc.
- Thermal Engineering Principles
- Diesel Engines Operation and Maintenance
- Combustion Principles
- Air Pollution Measurements and Control
- Turbomachinery

4. Service Activities

(Include activities and indicate scope of involvement and responsibility, i.e., committee member, chairman, etc. Provide inclusive dates for activities.)

4.1 Department

- Member of Promotion Committee, Fall 2013 – Current.
- Director of Master Program in Mech. Eng., Fall 2007 – Fall 2011.
- Creator and Coordinator of the “Energy Research Group; ERG” with a team of faculty members from ME, EE, AE and CE Departments; September 2009.

4.2 College

- Head of Post-graduate Department Committee and member of the College Post-graduate Committee for the M.Sc & PhD program, 2008-2011.

4.3 University

- Chair of UAEU committee to evaluate bids of companies for HVAC maintenance project in all University buildings [2012-2013].
- Chair of UAEU committee to check water piping network project in maqam hostels [2012-2013].
- Head of UAEU committee for evaluating bids for bus purchase for general services department, spring 2011-2012.
- Head of UAEU committee for A/C units transfer from maqam 4 to maqam 3, Spring 2011.
- Head of UAEU committee for A/C Bids review for maqam 3, Spring 2010.
- Member of UAEU receiving committee for water piping / A/C units for maqam 3, Fall 2010.
- Member of the UAEU University Committee for HVAC Maintenance Bids evaluations [2007].
- Member of the UAEU University Committee for HVAC Maintenance Bids evaluations [2010].

4.4 National and International

- Member of UAE Standardization Organization Committee for Vehicles Standards [2004-present].
- Member of the UAE Ministry of Finance and Industry Vehicle Standardization Committee (representing the UAE University) [2000-2004].
- Member of UAE Standardization Organization Committee for using natural gas in vehicles [2004-2007].
- Member of the GCC National Committee for Vehicle Standardization (representing the UAE University) met in Saudi Arabic, Riyadh [2002-2003].

4.5 Journal Editorships

- Associate editor, Journal of Petroleum Technology and Alternative Fuels (JPTAF) – Academic Journals – <http://www.academicjournals.org/JPTAF/index.htm>
- Editorial board member, Journal of Experimental and Numerical Heat Transfer, <http://jenht.yolasite.com/editorial-board.php>
- Editorial board member, International Journal of Applied Engineering Research – Research India Publications – <http://www.ripublication.com/ijaer.htm>
- Editorial board member, International Journal of Dynamics of Fluids (IJDF) – Research India Publications – <http://www.ripublication.com/ijdf.htm>
- Editorial board member, International Journal of Computations in Science and Engineering Research – National Association of Science and Engineering Research (NASER) – <http://ijcser.org>

4.6 Reviewer or evaluator for journals, publishers, research or accreditation agencies (include years served)

Energy & Fuels / Renewable Energy / Journal of Petroleum Gas and Engineering / International Journal of Sustainable Engineering / International Journal of Energy Research / Proceedings of the Institution of Mechanical Engineers, Part D, Journal of Automobile Engineering / Fuel / Energy Conversion and Management / Ain Shams Engineering Journal / Journal of Renewable and Sustainable Energy / International Journal of Exergy (IJEX) / International Journal of Thermal Sciences / ASME IMECE conference / ASME Journal of Energy Resources Technology.

5. M.Sc / Ph.D Thesis Supervision.

<u>No</u>	<u>Student</u>	<u>Degree Title</u>	<u>Degree Year</u>
1	Abdalla AL-Aseeri	M.Sc. (Environmental Engineering	Finished 2008
2	Ahmed Awad	PhD, Univ. of Damascus, Syria	Finished 2014
3	Hosam Mohamed	M.Sc., Helwan University	Finished 1997
4	Abdel Kader Ahmed	M.Sc., Helwan University	Finished 1997

6. Active research fields at present (major fields only)

Internal combustion engines fuels, combustion and emissions control. Simulation of internal combustion engines, Engine cooling and heat transfer. Air pollution control. Aerospace combustion.

6.1. Publications.

(A) Patents:

- Mohamed Y. E. Selim, et al., “a Heat Transfer Device for Reducing Heat inside Vehicles and a Method of Determining Optimal Structure Thereof”, UK – Patent Application No. 1203694.3. Filed on 2nd March 2012.

(B) Books:

Mohamed Y. E. Selim, S.M.S. Elfeky, and A-H. B. Helali, Improved Water Cooling of Internal Combustion Engines, Lap Lambert Academic Publishing AG & Co Kg, Published: 01 October 2012, ISBN 13: 9783847311676 ISBN 10: 3847311670.

(C) Chapter in a Book:

- Mohamed Y. E. Selim, "Alternative Fuels for Transportation", Chapter title: LPG", Editor: A.S. Ramadhas, CRC Press / Taylors and Francis Group, USA, ISBN 978-1-4398195-7-9, October 13th, **2010**.

- Mohamed Y.E. Selim, Yousef Haik, Chapter: Production and Properties of Algae Oil Biofuel and Environmental Benefits, Book title: Algae: Ecology, Economic Uses and Environmental Impact, Editors: Dagmar Krueger and Helga Meye , ISBN: 978-1-62081-280-8, Imprint: Nova, **2012**.

(D) Journals (Sample):

- 1) AS Al-Awad, Mohamed Y.E. Selim, AF Zeibak, R Moussa, Jojoba ethyl ester production and properties of ethanol blends, Fuel, Volume 124, 73-75, 15 May **2014**.
- 2) Mamdouh T Ghannam, Mohamed Y.E. Selim, Rheological properties of water-in-diesel fuel emulsions, International Journal of Ambient Energy, 2014, 1-16, published online in 9th of Jan **2014**.
- 3) Mohammad O. Hamdan, Mohamed Y.E. Selim, Salah-A.B. Al-Omari, Emad Elnajjar, Hydrogen supplement co-combustion with diesel in compression ignition engine, Renewable Energy, In Press, Corrected Proof, Available online 29 August 2014.
- 4) Mohamed YE Selim, Yousef Haik, SA-B Al-Omari, Emad Elnajjar, Combustion of waste chocolate oil biofuel in a diesel engine, International Journal of Ambient Energy, Volume 35, Issue 2, Pages 60-70, 2014.
- 5) Emad Elnajjar, Mohamed Y.E. Selim, Mohammad O. Hamdan, Experimental study of dual fuel engine performance using variable LPG composition and engine parameters, Energy Conversion and Management, **2013**; 76: 32-42.
- 6) Emad Elnajjar, Mohammad O. Hamdan, Mohamed Y.E. Selim, Experimental investigation of dual engine performance using variable LPG composition fuel, Renewable Energy 56, pp. 110-116, **2013**.
- 7) Y. Haik, Mohamed Y. E. Selim and T. Abdelrahman, Combustion of algae oil methyl ester in an indirect injection diesel engine, Energy, The International Journal, Volume 36, Issue 3, pp. 1827-1835, March **2011**.
- 8) Mohamed Y. E. Selim, S.-A. B. Al-Omari, S. M. S. Elfeky and M. S. Radwan, Utilization of extracted jojoba fruit as fuel, Int. Journal of Sustainable Energy, Volume 30, Supplement 1, **2011**.
- 9) Mohamed Y. E. Selim, Mamdouh Ghannam, S. Aldajah and H. Saleh, Effect of temperature and mixing on density and viscosity of jojoba-diesel fuels, accepted in Energy Sources Journal, Part A: Recovery, Utilization, and Environmental Effects, November **2011**.
- 10) Salah A-B. Al-Omari, Mohamed Y. E. Selim, and Abdalla J. Al-Aseeri, Control of Noise and Exhaust Emissions from Dual Fuel Engines, Journal of Renewable and Sustainable Energy, 3, 043103, July **2011**.
- 11) Mohamed Y. E. Selim, M. Maraqa, Y. Hawas and A. M. O. Mohamed, Assessment of Vehicle Inspection and Emission Standards in the United Arab Emirates, Transportation Research Part D: Transport and Environment, Volume 16D, Issue 4, pp. 332-334, June **2011**.

(E) Educational Papers:

- 12) Mohamed Y. E. Selim and Sameera Al-Zarooni, Does secondary school grade predict the performance of engineering students? AJEE (**Australasian Journal of Engineering Education**), Vol. 15, Issue No. 3, pp. 1 – 10, Nov., 2009.
- 13) Abdel-Hamid I. Mourad and Mohamed Y. E. Selim, On the Awareness of Engineering Students with ABET accreditation Elements, Volume 4 Issue 2, **Journal of Education Research**, 2010.

Other Educational – Research Activities:

- Graduation project sponsorship for 50,000 AED for diesel smoke filter, from ADNOC Company, UAE.
 - Graduation project sponsorship for 50,000 AED for heat pipes applications in air conditioning of vehicles. Also the GP won many prizes in the gulf countries exhibitions and competitions.
7. **Seminars and lecture presentations (such as short courses, workshop, invited talk and departmental seminars, which are NOT listed in any category above).**
- Keynote lecture about CNG vehicles standards, City Gas MENA 2010, 21 - 24 March 2010, Sheraton Abu Dhabi Hotel & Resort, Abu Dhabi, UAE
 - SAE 2009 Powertrains, Fuels & Lubricants Meeting, Florence, Italy, June 15 – 17, 2009.
 - The SAE 2009 World Congress, Detroit, Michigan, USA, April 20-23, 2009.
 - The 10th Biennial INQAAHE Conference, The Commission for Academic Accreditation, Beach Rotana Hotel, Abu Dhabi, UAE, March 30th – April 2nd, 2009.

8. Teaching Activities:

- Taught the following courses:
Turbomachinery, Eng. Thermodynamics, Thermal Eng. Lab., Air Conditioning Systems, Thermofluid System Design, Heat Engines, Selected Topics Env Eng. (post graduates), Applied Thermodynamics, Refrigeration and Air Conditioning, Mathematics & Engineering Applications (1) (The Applications part), Mathematics & Engineering Applications (2) (The Applications part), Physics and Eng. Applications 1 (The Applications part), Technical installations (for Arch. Students), Combustion and Fuel Technology, Automotive Engineering, GP1 & GP2, ME Seminar (for post-graduates), Air Pollution Control (post-graduate) - Heat Transfer – Power Plants – Fund. of Eng. 1B.
- Development of courses:
Achieved fund from the UAE University to develop the following courses:
 - 1- Laptop developed course “Refrigeration and Air Conditioning” for the use of laptop in teaching.
 - 2- Laptop developed course “Mathematics and Eng. Applications (1)”.
 - 3- Laptop developed course “Mathematics and Eng. Applications (2)”.
 - 4- Developed course “Heat Engines” – introduced many experiments with data acquisition.