

CURRICULUM VITAE

ENTESAR H. BETELMAL, Ph.D.

Associate Professor

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PERSONAL PROFILE

Motivated and talented professional driven to inspire students to pursue academic and personal excellence. I can create an engaging curriculum and conduct high-quality classroom planning and management.

SUMMARY

- Twelve years of academic experience at the University of Tripoli, Tripoli, Libya
- Taught 6 different engineering courses
- Inspiring lecturer
- Curriculum planning
- Passionate

PROFESSIONAL EXPERIENCE

Currently

Associate Professor (09/2015)

Mechanical Engineering Department, University of Tripoli, Libya

Teaching undergraduate and graduate courses in Mechanical Engineering, research activities, advising and mentoring engineering students (10-12 students per year), participating in the Mechanical Engineering department and School of Engineering activities.

Courses taught - Undergraduate Courses

1. Thermodynamics I
2. Thermodynamics II
3. Heat Transfer
4. Energy Conversion
5. Fluid Mechanics
6. Technical Writing

Consultant (2013-2014)

Anti-Corruption Committee, Tripoli, Libya

Investigated government institutions and produced anti-corruption reports that include a mapping of the legal and institutional anti-corruption architecture in Libya. Analyzed and documented how these institutions and processes are intended to work together to limit the space for corruption and deter corrupt behavior.

Assistant Professor (09/2011 – 09/2014)

Mechanical Engineering Department, University of Tripoli, Libya

A full-time position teaching undergraduate Mechanical Engineering courses, advising students, and leading research activities.

Lecturer (09/2008 – 09/2011)

Mechanical Engineering Department, University of Tripoli, Libya

A full-time position teaching undergraduate Mechanical Engineering courses as well as academic advising.

Assistant Lecturer (1998–2000)

Mechanical Engineering Department, University of Tripoli, Tripoli, Libya

A full-time position as a lecturer for undergraduate Mechanical Engineering courses. Assessed student coursework, collaborated, and supported colleagues regarding research interests and co-curricular activities.

Teaching Assistant (1995)

Aeronautical Engineering Department, University of Tripoli, Libya

Provided academic assistance for undergraduate students in various engineering disciplines to achieve a better understanding of targeted weak areas within a subject.

Engineer (1993-1994)

Civil Aviation Authority, Tripoli, Libya

Maintained and developed safety and security legislation, policy, and guidance for airport, airspace, and occurrence reporting. Documented accurate records regarding flying hours and maintenance time.

EDITORIAL DUTIES

Associate Editor, Robotics & Automation Engineering Journal (RAEJ), 2018

RESEARCH & TEACHING INTERESTS

Research interests: Sustainable energy, Fluid Mechanics, Thermodynamics, Gas turbines

Teaching interests: Thermodynamics, Heat transfer, Fluid mechanics, Energy conversion, Refrigeration

EDUCATION

Doctor of Philosophy in Mechanical Engineering

Newcastle University, Newcastle upon Tyne, U.K.

Ph.D. Thesis: “Thermo-economic Study of Gas Turbine-Absorption Cogeneration Cycle”.

Master of Philosophy in Mechanical Engineering

Newcastle University, Newcastle upon Tyne, U.K.

M. S. Thesis: “A Study of Laser Ignition for Spark Ignition Engine”.

Bachelor of Science in Aeronautical Engineering

University of Tripoli, Tripoli, Libya. **Graduated with Distinction.**

Senior Project: “Autopilot Design”.

SERVICE

- Associate Editor, Robotics & Automation Engineering Journal (RAEJ), 2018
- The senior member of the Ministry for Higher learning committee for colleges and institutions 2013

PUBLICATIONS

1. Betelaml E. Agnew B. "An Introduction to Thermo-Economic Aspects of Gas Turbine-Absorption Cogeneration Cycle", postgraduate Conference University of Newcastle Upon Tyne, MMMEng, 2002
2. Betelaml E. Agnew B. "Modelling of a Gas Turbine-Absorption Cogeneration Cycle", HPC 3rd, International Conference on Heat Powered Cycles, Cyprus, October 2004.
3. Betelmal E., Agnew B. "THERMODYNAMICS AND COMBUSTION COMMITTEE, archives of thermodynamics, Vol. 26 (2005), No 2, 73-85.
4. Betelmal E., " Simulation Model of Combined Gas Turbine-Steam Turbine Cycle, archives of thermodynamics, 2012.
5. Betelaml E. Prof. Ali E. "The Performance of the H – Savonious Combined Machine", the 4th, International Renewable Energy Congress, Tunisia, December 2012
6. Betelaml E. E. Abdusalam E. "Simulation Model of Combined Gas Turbine-Steam Turbine Cycle ", International Journal of Mechanical Engineering Research, Vol. 3, No. 3, ISSN 2249-0019, 2013.
7. Betelmal E., S. A. Farhat 'LOCAL MEAN AND RMS VELOCITY MEASUREMENTS OF THE EXCITED AIR JET AT THREE REGIMES IN A RIJKE TUBE', International Journal of Mechanical Engineering and Robotics Research, IJMERR, Vol. 2, No. 4, ISSN 2278-0149, 2013.
8. Betelmal EH, Farhat S and Agnew B, "Exergy Analysis for Brayton and Inverse Brayton Cycles with Steam Injection", Journal of Applied of Mechanical Engineering, Volume 6, Issue 6, ISSN: 2168-9873, 2017.
9. E. H. Betelmal, A. M. Naas, "Influence of Steam Injection into Combustion Chamber on the Performance of the Combined Cycle", International Journal of Software & Hardware Research in Engineering, Volume 6, Issue 3, ISSN-2347-4890, March 2018.
10. Betelmal E., S. A. Farhat 'Energy and Exergy Analysis of a Simple Gas Turbine Cycle with Wet Compression', Mechanical Engineering Research; Vol. 8 No. 1, ISSN 1927-0607, 2018.
11. Entesar H Betelmal, Fatiam M Elafi, Salem Farhat 'AUTOMOTIVE ENGINE MUFFLER PERFORMANCE MEASUREMENTS', Journal of Engineering Research (University of Tripoli, Libya), Issue (25), March 2018.
12. E. H. Betelmal, A. M. Naas and A. Mjani, 'Energy and exergy analysis of a simple gas turbine

combined with linde cycle and N₂ injected into the compressor of the gas turbine', GSC Advanced Engineering and Technology, 2021, 01(01), 006–015.

13. Betelmal EH and Naas AM, 'Thermo-Economic Analysis of Gas Turbine Combined With Inverse Gas Turbine Integrated With Multi Effect Desalination (MED) Plant', J Phys Chem Res, ISSN: 2582-336, 2021.
14. Entesar H Betelmal, Book Chapter, 'Thermodynamic Cycles for Renewable Energy Technologies', 'Chapter 4, Thermodynamic cycles for renewable energy utilization', IOP ebooks, IOP Publishing Ltd Bristol, UK, DOI 10.1088/978-0-7503-3711-3, 2021.