

Mohamed Abd Elmagied Hamied

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Academic Profile

Mechanical Engineer and Teaching Assistant with research interests in building energy efficiency, heat transfer, and thermal systems. Experienced in undergraduate teaching, applied research, and industrial training. Actively publishing in peer-reviewed journals in the fields of thermal engineering and energy storage.

Education

Master of Science in Mechanical Engineering

Arab Academy for Science, Technology and Maritime Transport (AASTMT)

Graduation Year: 2022

Thesis Title:

Improving Building Energy Consumption in Hot Arid Climate Using Phase Change Material (PCM) as Passive Cooling

Academic Appointments

Teaching Assistant – Mechanical Engineering Department

Arab Academy for Science, Technology and Maritime Transport (AASTMT)

2019 – Present

Teaching Experience (Undergraduate Courses)

- Thermodynamics (ME231)
 - Heat Transfer (ME431)
 - Refrigeration and Air Conditioning (ME434)
 - Steam Plant Engineering (ME423)
 - Renewable Energy Resources (ME524)
 - Power Plant Measurement and Control (ME526)
 - Air Conditioning Units and Control (ME536)
 - Air Conditioning Systems and Design (ME538)
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Publications

- Improving Office Building Energy Performance Using Phase Change Material in Building Envelope. *IEEEA 2022 Proceedings* (Conference Paper).
 - A novel sequential approach through structural enhancements for designing a new serrated helical heat exchanger. *Case Studies in Thermal Engineering* (Journal Article).
 - A novel integrated approach to heat transfer enhancement using baffles and inner fins in helical coil heat exchangers. *Case Studies in Thermal Engineering* (2025).
 - Analysis of the Best PCM as Insulating Material for Building Envelope in Egyptian Climate. *Energy Storage* (Under Review).
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Research Interests

- Building Energy Efficiency
 - Phase Change Materials (PCM)
 - Heat Transfer Enhancement
 - Thermal Systems Design
 - Sustainable and Renewable Energy
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Professional Experience

- Teaching Assistant, Mechanical Engineering Department, AASTMT (2019 – Present)
 - Naval Shipyard, Summer Training (July 2017 – August 2017)
 - Kobaa Co. for Manufacturing, Industrial Training (July 2016 – August 2017)
 - Alexandria Shipyard, Summer Training (June 2014 – July 2014)
 - Erasmus Proposal Participation, Team Member (2019)
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Technical Skills

- **Engineering Software:** SolidWorks, AutoCAD, Autodesk Fusion 360, DesignBuilder, HAP, Solaris, Elite
 - **General Software:** Microsoft Office
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Academic and Extracurricular Activities

- RoboCup Junior
 - Dream Team
 - Coursera Mentor
 - Unilever – The Quest
 - ROV Explorer
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Languages

- Arabic: Native
 - English: Excellent
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Personal Information

- Date of Birth: 24 July 1995
 - Nationality: Egyptian
 - Gender: Male
 - Religion: Muslim
 - Marital Status: Exempted from Military Service
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References

Available upon request.