Dr. HASAN JUMAAH MRAYEH

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Personal Information

First name: Hasan Jumaah

Last name: Mrayeh

Current University: University of Al-Muthanna

Department: Mathematics Department College of Education for Pure Science

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Education

DEGREES

- **Bachelor's degree:** University of KUFA, Iraq, Mechanical Engineering, 2003- 2007.
- **Master's degree:** University of ITMO, Russian Federation, Refrigerating, Freezing Equipment and Life Support Systems, 2011- 2013.
- **PhD's degree**, University of waterloo, Mechanical & Mechatronics Engineering 2016-2021.

Skills & Abilities

- Introduction to Mechanical Engineering
- HVAC/MEP design
- Mechanical engineering
- CFD
- COMSOL
- Nanoparticles Measurement
- Aerosol
- Teaching/tutoring
- Design engineering
- Manufacturing systems integration
- Manufacturing process controls
- Microsoft Excel
- MathWorks MATLAB
- Thermodynamics
- HVAC system design
- Fluid dynamics
- ANSYS Workbench
- Treatment of chemical compounds mixed in air.

Education History

1- Student in mechanical engineering faculty | university of Kufa, Iraq | 2003- 2007.
2- Mechanical engineer | university of Almuthanna, Iraq | 2007- 2010.
3- Master student in mechanical engineering faculty | university of ITMO, Russia | 2010- 2013.
4- Assistants teacher | university of Almuthanna, Iraq | 2013- 2014.
5- PhD Candidate | university of waterloo, Canada, on, waterloo | 2016- 2021.
6- PhD Lecturer | university of Al-Muthanna, Iraq | 2022- 2023.

Experience

1- 2007-2010, Mechanical Engineer with 3 years of training in varied industries, including manufacturing and high-tech environments. Experienced Research Engineer.
2- 2013- 2015, Assistants teacher with 2 years' experience at university of Al Muthanna in Iraq. Areas of expertise include Mechanical Engineering.
3- Efficient Mechanical Engineer leveraging a strong technical background in bringing products from the laboratory to mass-manufacturing.
4- Extensive work on Refrigerated and air conditioning equipment products.
5- 2016, I am measuring the size of nanoparticles by using a program ANSYS and CFD and as well as I work in the Lab APRIL at UW for measuring the size of nanoparticles experimentally.
6- Attended the courses:

    a- CFD for Engineering Design. ME 566, Spring 2016.
    b- Engineering Risk and reliability CIVE 601, Fall 2016.
    c- Manufacturing Processes Topics ME 739, Winter 2017.
    d- Energy and Environment ME 659, Fall 2017.

7- Worked as a Teaching Assistant in the Department of Mechanical and Mechatronics Engineering at the University of Waterloo in support of course ME101 Introduction to Mechanical Engineering and MTE 204 Numerical Method.
8- Currently, I am working as a PhD lecturer in the Mathematics Department College of Education for Pure Science Al-Muthanna University.