

CURRICULUM VITAE

Name Muhanad Rasheed Ismael
Title Head of the Department of medical instrumentation techniques engineering.
Date & Place of Birth 30/03/1961 - Iraq
Nationality Iraqi
Sex Male
Marital Status Married

Correspondence

- 1993-2002- lecturer in laser physics& detector science- Dept of Applied Science- University of Technology.
- 2002-2003- Lecturer in laser and its application &Semiconductor (detectors) Science- Dept of Applied Science -University of Technology.
- 2004 Feb- 2004Jun Al-Isra Private University-Jordan-lecturer (PART TIME) in (Electric and Magnetic Physics).
- 2004-2005 Thamar University- Yemen, Lecturer in Physics Department - college of Applied Science.
- 2005 - 15/09/2015 /IBB University-Yemen, Associated Professor in Physics Department - college of science.
- 15/09/2015 – 2024 - Associated Professor / Royal University for Medical Sciences- Head of Radiology Department -Jordan.
- 1/09/2019 -2020 (Xavier University School of Medicine) – Istanbul.
- 2024- present - Al-Rashid University College - Head of the Department of Biomedical Engineering Technology

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Education B.Sc. in physics. Collage of science-Mosul University- IRAQ. 1982.
M.Sc. (Master). in Laser Physics By courses and dissertation (course in laser physics (Hatfield university – England) & University of Technology- IRAQ- thesis title “drilling material by using non-linear crystals (second harmonic generation from laser radiation)”. 1993. (**The first**)
PhD. in Applied Physics By courses and dissertation - (semiconductors detectors) University of Technology- IRAQ-

	thesis title “(Fabrication of array detector used in laser imaging system)”.2002. (The first)
Researches	medical physics, X-Ray theory and its application, Semiconductor Devices, Optical Devices, Detectors & Thermal Detectors, Medical laser Devices, Laser Amplifier, Laser Data Transmission, Solar Cells.
Teaching Subjects	General Physics (1&2) Alonso & serway, Medical Physics for Dentist &Pharmacy, Renewable Energy, Energy &Environment, Atmospheric Physics, Solar energy, Semiconductor Devices, Detectors & their applications, (Quantum Optics) Principles of Laser, second harmonic generation from laser radiation, Optical fiber communications, Laser Application in communication, medicine & Industry, Physic Geometrical Optics.
Languages	Arabic (mother language), English (spoken and written).
Current Job	2024 present - Al-Rashid University College - Head of the Department of Biomedical Engineering Technology

I was teaching the following subjects at the Department of applied Science & Electrical Engineering Design, University of Technology (Baghdad, Iraq), Al-Isra Private University- Jordan, Thamar University- Yemen, IBB University-Yemen and **other** universities since the year 1993 Till Now:

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|---|-----------------------|-------------------------|
| 1. Medical Physics for Dentist &Pharmacy, Medical laser systems, (Quantum Optics) Principles of Laser, second harmonic generation from laser radiation, Optical fiber communications, Laser Application in communication, medicine & Industry, Physic Geometrical Optics. | 31 th year | Academic year 1995/2026 |
| 2. General Physics (1&2) Alonso & serway, Atmospheric Physics, Solar energy, Semiconductor Devices, Detectors & their Applications, Renewable Energy, Energy & Environment. | 24 th year | Academic year 2002/2026 |

SUPERVISOR OF THE FOLLOWING THESIS

I was supervising the following thesis:

1. Transfer data through water media by using laser transmitter with fiber optics.
2. Study of electric characteristic of Te-detector.
3. Study electric characteristic of metal / p-n Junction.
4. Investigation of photovoltaic electric to semimetals.
5. Implementation of Electronic System in Laser Guided by Computer.
6. Design and Implementation on Detector in Visible Range.
7. Select of semi-Metal Material to design and implantation of detectors.
8. Applied of High conductivity material in Communications.
9. Applied Digital Circuit to Design and Implementation of power supply.
10. Analytical spectroscopy of laser dyes.
11. Study of the interaction between the laser and some organic materials and the production of new dyes.
12. Others.

PROJECTS

I had been working on the following projects:

1. Investigation in Communications using Laser Data Transmission.
2. Investigation in Communications using Laser Spectral Analysis.
3. Characteristic and Electric Properties of Semiconductors.
4. Characteristic and Optical Properties of Semiconductors.
5. Using Laser in non-Destructive Test.
6. Design and Fabrication of Silicon Quadrant Detector.
7. Design and Fabrication of Thermal Detector from 1-3 μ m.
8. Patent in Fabrication of Detector from 1-12 μ m.
9. Properties of Solar Cell Type CdS/Si by Chemical Sputtering Method.
10. Fabrication and characterization of (Cu₂O/Ps/p-Si) nanostructure heterojunction device for photovoltaic application.
11. Construction of electric power production from wind energy systems.
12. Building systems, solar water heaters.
13. Others

