Dr. Hani H. Negm

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Professional Summary

Associate Professor specializing in Nuclear Science & Technology with expertise in Nuclear Safeguard, Radiation Protection, Radiation Detection & Measurement, and Monte Carlo Particle Transport Simulation. A proven innovator with international awards, a strong track record in securing research grants, and extensive experience in teaching, scientific research, and academic leadership.

Education

- Ph.D. in Energy Science, Kyoto University, JAPAN, 2014
 Specialization: Nuclear Physics
- M.Sc. in Physics, Assiut University, EGYPT, 2009
 Specialization: Experimental Nuclear Physics
- B.Sc. in Physics, Assiut University, EGYPT, 2004
 Specialization: Physics, Graduated with Honors

Licenses & Certifications

- Health Physicist (License #210)
 - > Issued by: Egyptian Ministry of Health & Population General Administration of Medical Licenses
 - > Date of Issue: August 09, 2010
 - > Scope: Full authorization to work with all types of ionizing radiation equipment at all voltage and current specifications for applications in medicine, industry, and research. This license certifies official government recognition of expertise in radiation protection and safety protocols.

Professional Experience

Assistant Professor

Physics Department, College of Science, Jouf University, Al-Jouf, Saudi Arabia, Oct. 2019 – Present,

- > Instrumental in achieving Full National Program Accreditation for the Physics Bachelor's program from the Education & Training Evaluation Commission (ETEC), Mar. 2025.
- > Teaching and conducting scientific research,
- > Responsible for follow-up and internal review of executive work at the College of Science, (2024 Present).
- > Academic Affairs Coordinator at the Deanship of the College of Science (2023 Present).
- > Coordinator of the College of Science at the Mental Health Promotion Center of Jouf University (2023 2024).
- > Head of Academic Advising Unit, College of Science, Jouf University (2022 2024).

- > Coordinator of the College of Science at the Innovation and Entrepreneurship Center of Jouf University (2020 2023).
- Head of Schedules and Exams Unit, College of Science, Jouf University (2020 2022).

Associate Professor

Physics Department, Faculty of Science, Assiut University, Egypt Mar. 2025 – Present (On loan to the Kingdom of Saudi Arabia from Oct. 2019).

Assistant Professor

Physics Department, Faculty of Science, Assiut University, Egypt Jan. 2015 – Mar. 2025 (On loan to the Kingdom of Saudi Arabia from Oct. 2019).

- > Teaching and conducting scientific research,
- Director of the Laboratory and Scientific Equipment Unit at Assiut University (2017 2019).
- > Coordinator of Assiut University at the National Bank for the Scientific Equipment of Egyptian Universities, Supreme Council of Universities (2017 2019).
- > Program Co-Coordinator, Quality and Academic Accreditation Committee (2015 2019).

Assistant Professor

Faculty of Computers and Information Technology, The Egyptian E-Learning University (EELU), Egypt

Sep. 2016 - Aug. 2019 · Part-time

Teaching

• Assistant Lecturer

Physics Department, Faculty of Science, Assiut University, Egypt *May* 2009 – *Dec.* 2014

> Teaching & conducting scientific research.

Teaching Assistant (Demonstrator)

Physics Department, Faculty of Science, Assiut University, Egypt Nov. 2004 – Apr. 2009

> Teaching & conducting scientific research.

Research Experience

Postdoctoral Researcher | Assistant Professor

Institute of Advanced Energy, Kyoto University, Japan *Jan.* 2018 – *Jul.* 2018

- > Conducted advanced research in Nuclear Security and Non-Proliferation.
- > Developed and utilized CT isotope imaging techniques for applications in:
 - Nuclear safeguards and verification.
 - Homeland security and threat detection.
 - Advanced nuclear material characterization.

International Research Practitioner

Joint Institute for Nuclear Research (JINR), Dubna, Russia May - Jun 2010 & May – Aug. 2011

- > Participated in the International Student Practice for Postgraduate Students from Egypt.
- > Conducted research for the project: "Neutron physics and application in material science and nuclear physics".
- Gained hands-on experience with advanced experimental techniques at a premier international nuclear physics facility.

Conferences and Symposia

Presenters and participants in over 20 international conferences and symposia worldwide from 2005 to 2025, including the International Exhibition of Inventions Geneva, the IEEE Nuclear Science Symposium, and conferences hosted by the International Atomic Energy Agency (IAEA). A complete chronological list is provided in <u>Annex A.</u>

Training & Workshops

Completed over 50 specialized training courses and workshops in areas including radiation protection, nuclear security (IAEA), academic writing, simulation tools (GEANT4, COMSOL), and data analysis. A complete list with dates and providers is available in Annex B.

Supervision of Postgraduate Research

- M.Sc. Thesis: Quality Assurance of 3D Treatment Planning System for Photon Beam Radiotherapy, Assiut University, 2017
- M.Sc. Thesis: Simulation Techniques in Radiotherapy Applications, Assiut University, 2020
- **M.Sc. Thesis**: Radioactive Pollution of Assiut Thermal Power Station and Its Effects on Plants, *Assiut University*, 2021.
- **M.Sc. Thesis**: Synthesis and Characterization of some metallic tungstate compounds for some physical applications, *Assiut University*, 2024.
- **M.Sc. Thesis**: Modeling, analyzing and investigating the radiation shielding properties of various composite materials, *Assiut University*, 2024.
- **Ph.D. Thesis**: Studies on human radiation exposure from natural radionuclides in some areas in Assiut Governorate, *Assiut University*, 2020.
- **Ph.D. Thesis**: Natural Radioactivity of Some Agricultural, Industrial, Archeological, and Reclaimed Soil Samples in Luxor Governor, Upper Egypt, *South Valley University*, 2022.

Awards and Honors

- Bronze Medal, International Exhibition of Inventions Geneva (April 2025)

 For the invention: "Recycling waste to create nanofibers for medical and industrial applications".
- Bronze Medal, International Exhibition of Inventions Geneva (April 2025)

 For the invention: "Moleculab: an integrated framework for designing and analyzing drug-like molecules".
- Special Prize, Korea Invention Promotion Association (April 2025)
 For the invention: "Moleculab: an integrated framework for designing and analyzing drug-like molecules".

• Certificate of Achievement, Taiwan Invention Association (April 2025)

For an invention with the potential to significantly enhance human living: "Moleculab".

• 9th Place, ChemLLMathon 2024 (Nov. 2024)

For an innovative solution demonstrating exceptional skill and creativity.

• Wiley Top Cited Article 2022-2023

For the paper: "Facile fabrication of polypyrrole/NiO_x core-shell nanocomposites for hydrogen production from wastewater" in Polymers for Advanced Technologies.

Letter of Appreciation, Jouf University

For efforts in the university's participation in the Geneva International Exhibition of Inventions (2024).

Letters of Appreciation, Jouf University & College of Science

For pivotal contributions to securing Full National Program Accreditation for the Physics program (2025).

Best Presentation & Best Poster

The International Conference "Atoms for Peace", Cairo, Egypt (2019)

• Best Research Topic and Presentation

Eco-Energy and Materials Science and Engineering Symposium, Kyoto, Japan (2018)

PhD Scholarship

Kyoto University, Japan (2011 - 2014)

Medal for Best Oral Presentation

Faculty of Science, Assiut University (2008)

Medal for Best Oral Presentation

IX Radiation Physics and Protection Conference, EAEA, Cairo, Egypt (2008)

Professional Memberships / Associations

- Egyptian Society for Radiological Sciences and Applications Egypt, (since 2024).
- Japan Atomic Energy Society Japan, (2012 2015).
- **Egyptian Society for Nuclear Sciences** Egypt, (since 2008).
- Egyptian syndicate of scientific professions Egypt, (since 2004).

Key Skills

- **Programming:** Fortran, Python, C++, MATLAB
- Simulation Tools: GEANT4, Monte Carlo Methods
- **Data Analysis:** ROOT, Origin
- Project Management: Research planning and execution
- Laboratory Safety: Radiation safety protocols and lab management

Peer Review Activities (Invited Reviewer)

A recognized peer reviewer for over **20 international journals**, providing more than **50 expert review reports** to uphold the quality of scientific publishing. Certified by leading publishers.

- Selected Journals I Review For:
 - > **Springer Nature:** Applied Physics A, Scientific Reports, Discover Applied Sciences, Silicon, Journal of Electronic Materials, Nuclear Science and Techniques

- Elsevier: Radiation Physics and Chemistry, Materials Science & Engineering B, Case Studies in Construction Materials, Journal of Applied Physics
- MDPI: Atmosphere, Energies, Catalysts, Journal of Marine Science and Engineering (JMSE), Foundations
- > Taylor & Francis: Journal of Taibah University for Science

Research Grants

- Research Group Grant | Jouf University, No. DGSSR-2025-FC-01060, Physics (2025-2026)
- Research Project Grant | Jouf University, No. DGSSR-2025-0X-01502, Physics (2025-2026)
- Research Project Grant | Jouf University, No. DGSSR-2025-0X-01487, Physics (2025-2026)
- Research Project Grant | Jouf University, No. DGSSR-2024-02-02031, Physics (2024 2025)
- Research Project Grant | Jouf University, No. DGSSR-2024-0X-01188, Physics (2024 2025)
- Research Group Grant | Jouf University, No. DSR-2022-RG-0126, Physics (2022 2023)
- Research Project Grant | Jouf University, No. DSR-2021-03-03168, Physics (2021 2022)
- Research Project Grant | Jouf University, No. DSR-2021-03-03167, Physics (2021 2022)
- Research Project Grant | Jouf University, No. DSR-2021-03-0232, Physics (2021 2022)
- Research Project Grant | Jouf University, No. DSR-2020-04-2583, Physics (2020 2021)

Publications | Research

Google Scholar | Scopus | ResearcherID | ORCID | ResearchGate

References

> References available upon request.