

# FAYZAN AHMED

HOUSE NO.172 BLOCK A AREA GULSHAN-E-HADEED PHASE-I KARACHI

+923323279397

▪ CNIC : 42501-6755145-3

▪ fayzan\_007@yahoo.com



## ▪ Current Status

NED University of Engineering & Technology, Karachi, Pakistan. Lecturer in Department of Physics from July 2022

## ▪ Education

(2023- Onwards) Enrolled **PhD (Physics)** From **UNIVERSITY OF KARACHI**.

(2016 - 2020) **MPhil (Physics)** From **UNIVERSITY OF KARACHI**.

(2008 to 2012) **B.S Physics (1<sup>st</sup> Division, with distinction)** From **UNIVERSITY OF KARACHI**.

(2006 to 2008) Intermediate **PRE-ENGINEERING (2<sup>nd</sup> Division)** from Askary Intermediate College Karachi.

(2004 to 2006) Matric **Computer Science (1<sup>st</sup> Division)** from Makhdoom Bilawal Higher Secondary School Karachi.

## ▪ E-Education

Courses from MIT (Massachusetts Institute of Technology) through EDX.

(1) 6.002x CIRCUITS AND ELECTRONICS

(2) 3.091x INTRODUCTION TO SOLID STATE CHEMISTRY

(3) 8.02x ELECTRICITY AND MAGNETISM

Courses from University of California (Berkeley) through EDX.

(1) CS191x QUANTUM MECHANICS AND QUANTUM COMPUTATION

(2) Stat2.1 INTRODUCTION TO STATISTICS

- RADIATION PROTECTION DURING C-ARM FLUOROSCOPY International Atomic Energy Agency (IAEA)

## ▪ Academic & Professional Experience

1. (July 2022 – Present) Lecturer in Department of Physics, NED University of Engineering & Technology.
  - Courses taught [Applied Physics, Solid State Physics, Mathematical Physics, Nuclear Physics, Optical Physics & Lasers]
  - Undergraduate Level Laboratory instructor
  - FYDP Undergraduate & Masters Project
    - i. Prediction of High Energy Levels for Rydberg Atoms within Boron Family Based on WBEPM Co-Supervisor.
    - ii. Estimation of patient radiation dose undergoing 2D x-ray based diagnostic imaging using DAP and OSLDs Co-Supervisor.
    - iii. Treatment planning: Comparison of intensity-modulated radiation therapy (IMRT) VS. volumetric-modulated arc therapy (VMAT) in esophageal cancer.
    - iv. Verification of radiation shielding calculations for Computed Tomography (CT) bunker Supervisor-2023

2. (June 2017 – July 2022) Medical Physicist, Radiation Protection officer (RPO) and visiting faculty at Liaquat National Hospital (LNH) Karachi
  - Managing radiation protection requirements of hospital as per PNRA regulatory requirements in compliance with hospital policy.
  - Conducting refresher courses and training of radiation workers.
  - Conducting Physics module classes for Radiology residents.
3. (August 2016 – June 2017) Lecturer Physics at Army Public School and College Saddar Karachi (APSC)
  - Teaching Physics courses at intermediate level Federal board and Karachi board
  - In charging Co-curricular activities e.g, house competitions, Naat and debate competitions
4. (August 2014 – August 2016) Trainee medical physicist at Aga Khan University Hospital Karachi
  - Coursework includes (physics, radiological sciences, imaging, methodology, dosimetry, anatomy and physiology, oncology and protocols are in progress
  - Quality assurance on weekly, monthly and annually of (2 VARIAN LINACS photons and electrons beam)
  - Research projects
5. (September 2013 – July 2014) Physics teacher for Intermediate level at BENINGN EDUCATIONAL LEGATES COLLEGE (GULSHAN-E-HADEED, KARACHI).
6. Invigilator for B.A and B.com examination (Private) in University of Karachi
7. Internship at Pakistan Council of Scientific and Industrial Research-PCSIR.
  - Dept of Embeded System
  - Dept of X-ray Spectroscopy
  - Dept of Calibration
8. Internship at Karachi Institute of Radiotherapy and Nuclear medicine-KIRAN.

▪ **Skills**

**Computer Skills:** Eclipse and Acuity (Varian), Windows 8, Microsoft Office, MATLAB, Mephysto (PTW) etc.

**Writing Skills:** Reviewing and proof reading of scientific articles.

▪ **Conferences and Seminars Attended**

December 21-22 2011 International conference of PHYSICS AND THE WORLD OF TODAY  
By NATIONAL CENTER OF PHYSICS Islamabad.

- October 08-09 2012 First National Conference on Space Science (NCSS-2012) organized by Institute of Space and Planetary Astrophysics, University of Karachi.
- January 23<sup>rd</sup> 2013 Virtual workshop on SCIENTIFIC WRITING organized by INTERNATIONAL CENTER FOR CHEMICAL AND BIOLOGICAL SCIENCES (ICCBS) under the VIRTUAL EDUCATION PROJECT PAKISTAN (VESP).
- October 09-13 2017 Training Course on MEDICAL RESPONSE DURING A NUCLEAR OR RADIOLOGICAL EMERGENCY organized by PAKISTAN NUCLEAR REGULATORY AUTHORITY (PNRA)
- October 17-19 2017 Workshop on IMPROVE SAFETY ASSESSMENT OF RADIOTHERAPY FOCUSING ON GAMMA KNIFE, CYBER KNIFE & LINAC STEREOTACTIC organized by PAKISTAN NUCLEAR REGULATORY AUTHORITY (PNRA) & INTERNATIONAL ATOMIC ENERGY AGENCY (IAEA)
- January 05-07 2018 Workshop on CURRENT TRENDS & TECHNOLOGIES IN MEDICAL PHYSICS, CANCER IMAGING & TREATMENT organized by AMERICAN ASSOCIATION OF PHYSICISTS IN MEDICINE (AAPM) & JINNAH POST GRADUATE MEDICAL CENTER (JPMC)
- January 19<sup>TH</sup> 2018 Workshop on EXCEL SPREADSHEETS FOR NON-PROGRAMMERS SCIENTISTS organized by DEPARTMENT OF PHYSICS, UNIVERSITY OF KARACHI (UoK)

#### ▪ **Publications**

- Ahmed, F., Iqbal, M., Tariq, I., & Talat, M. (2024). Virtual learning via spreadsheets: Real-time simulation of an RC circuit. *American Journal of Physics*, 92(5), 328-328.
- Ahmed, F., Iqbal, M., Naqvi, S. M., & Iqbal, J. (2024). Staff radiation doses during Sentinel Lymph Node procedure of breast cancer from injection to surgeon. *Heliyon*.
- Teaching physics using Microsoft Excel-II Uddin, Zaheer and Razzak, Atteeq and Ahmed, Fayzan and Iqbal, Majid, *Physics Education*, 58(5). 055001, 2023, IOP Publishing.
- SIR Model and COVID-19 Data-Based Numerical Ro Estimation for Pandemic Modeling Ahmed, Fayzan and Iqbal, Majid and Iqbal, Arshad and Uddin, Zaheer, *Sir Syed University Research Journal of Engineering & Technology*, 12(2). 39–45, 2022
- Teaching physics online through spreadsheets in a pandemic situation Iqbal, Majid and Ahmed, Fayzan and Iqbal, Arshad and Uddin, Zaheer, *Physics Education*, 55(6). 063006, 2020, IOP Publishing
- Estimation of external dose rates from nuclear medicine imaging patient Fayzan Ahmed, Majid Iqbal, Syed Ghayour Abbass, Naseem Ahmed, Dr. Mansoor Naqvi, Zaheer Uddin, 2nd Annual National Symposium on International Day of Medical Physics, Dr Ziauddin Hospital, 2019. Poster Presentation
- Performance Assessment of Clinical Technicium-99m Generator by Moly Assay Test in a Tertiary Care Hospital Ahmed, Fayzan and Iqbal, Majid and Iqbal, Javaid and Abbass, Syed Ghayour and Ahmed, Naseem and Mansoor, Ayub, *Journal of Health, Medicine and Nursing*, 55. 1–4, 2018, International Institute for Science, Technology and Education (IISTE)
- Molybdenum-99 breakthrough assay of radionuclide generator: Clinical findings at LNH, Karachi Ahmed, Fayzan, 33rd Radiological Annual Conference, 2017. Poster Presentation

- Quality Assurance Method to Analyse the Scanner Response and Film Uniformity in Film Dosimetry Ahmed, Fayzan and Jangda, Abdul Qadir and Saeed, Saad Bin and Laghari, Imtiaz Ali and Hussain, Amjad, 18th National Health Sciences Research Symposium, 2015. Poster Presentation

- **Distinctions**

- B.S First Stand First, Department of Physics UoK.
- Certificate from Prof. Dr. Atta Ur Rahman after successful completion of scientific writing test.

- **References**

Will be furnished upon request