

(CURRICULUM VITAE)

Dr. Muhammad Tahir

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Nationality: Pakistani Date of Birth: 12-04-1966



PROFESSIONAL PROFILE

32 years experience of technical, academic and research services to the national and international departments and universities. Performed simulations in the development of training simulators for operator training & licensing and contributed in the plant human factors engineering and procedure development initiatives and activities.

Served as an expert with the International Atomic Energy Agency (IAEA) for one year and established research collaboration with Physics department of Texas Tech University, USA. Participated and presented research at international conferences and institutions, including Tarleton State University (USA), Shanghai Jiao Tong University (China), and Cairo University (Egypt). Published research in well-reputed international Journal of Elsewhere *Annals of Nuclear Energy*. Actively engaged in teaching and research with a strong commitment to continuing these activities with dedication and enthusiasm.

ACADEMIC EDUCATION

- PhD, Nuclear Engineering, PIEAS – Pakistan (2012)
- PGD, Power Plant Systems, SNERDI– China (1994)
- MSc (NE), Qaid-A-Azam University Islamabad– Pakistan (1992)
- MSc (Physics), Punjab University Lahore – Pakistan (1990)
- BSc (Mathematics and Physics) – Pakistan (1986)

INTERNATIONAL EXPERIENCE

International Atomic Energy Agency (IAEA) – Consultant (2018–2019)

- Delivered technical presentations to Member States in training courses.
- Served as Activity Lead for open-source part-task simulators.
- Prepared contract specifications for advanced training simulators.
- Worked on thermo-physical properties of materials in collaboration with KAERI.
- Participated in the IAEA General Conference (62nd Session, 2018).
- Took part in multiple consultancy and training meetings.

Texas Tech University, USA – Faculty Member, Department of Physics

- Contributed under the U.S. International Academic Exchange Program.

NATIONAL EXPERIENCE

Pakistan Atomic Energy Commission (PAEC) – Scientific Officer / Deputy Chief Scientist

- Development of full-scope training simulators.
- Human factors engineering design.
- Human resource training and capacity building.

Pakistan Institute of Engineering & Applied Sciences (PIEAS) – Visiting Faculty

- Supervised MS-level graduate research projects.
- Examiner for MPhil and PhD students.

Al-Khair University, Islamabad – Visiting Faculty

- Conducted graduate-level courses in computer programming languages and database.

University of the Punjab, Lahore – Department of High Energy Physics

- MSc thesis research on Particle Physics
- Examiner for MPhil and PhD students at University of the Punjab.

University of Management and Technology (UMT), Lahore – Department of Physics

- Participation in international conferences and research paper presentations.

NATIONAL/INTERNATIONAL PUBLICATIONS/ CONFERENCES PRESENTATIONS

- M. Tahir, et al, Qualitative response of SIS for a large size break LOCA in the SRC cold leg, **Annals of Nuclear Energy** 34(2007) 922-925.
- M. Tahir, et al, Response of Proposed Passive SIS for an Intermediate Size Break LOCA on CHASNUPP-1, **Annals of Nuclear Energy** 35(2008) 1986-1993.
- M. Tahir, et al, Proposed Passive SIS for CHASNUPP-1 Type Reactors, International Workshop on Passive Safety Systems in Advanced PWRs, 28-30 April 2008, **Shanghai Jiao Tong University, Shanghai, China**.
- M. Tahir, et al, Comparative Study of the Passive Safety and the SIS under Loss of Coolant Accident, International Conference in Meeting of the Texas Sections of the APS, AAPT, and SPS, 02-04 April 2009, **Tarleton State University, Stephenville, USA**.
- M. Tahir, et al, Simulation of a Passive Safety Injection System for a Small-Scale Advance Pressurized Water Reactor Design, Modern trends in physics research, MTPR-10, 12-16 December 2010, **Cairo University, Egypt**.
- M. Tahir, et al, Science International, *Fragmentation Model and Hadron production in Electron-Positron Annihilation*, 1991, Punjab University Lahore

RECOGNITIONS/MEMBERSHIPS

- PhD Supervisor, Higher Education Commission (HEC), Pakistan
- Journal Reviewer, *Annals of Nuclear Energy*
- **Lifetime Member, Pakistan Nuclear Society (PNS)**
- Winner, International Research Support Initiative Program (IRSIP), USA

PROGRAMMING SKILLS

- Simulation codes and programming tools: BASIC, VISUAL BASIC, FORTRAN, PASCAL, JAVA
- Databases: SQL, MS Access

TRAININGS/CERTIFICATIONS

- Human Factor Engineering Workshop (IAEA, 2023)
- UNDSS Security Trainings (2018)
- Social Engineering Red Flag (IAEA, 2018)
- Senior Officers Management Course (PIEAS, 2018)

PRESENT INTERESTS (Academia)

- Pure and applied Mathematics
- Applied Physics
- Computer programming/databases
- Human Factors Engineering
- Modeling and Simulation

(Industry)

- IAEA/CERN/ICTP and international collaboration projects
- National Universities/Departments collaboration projects
- Industrial and applied science technological projects