



ZARQA ZAHID

Assistant Professor
Physics

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P: +92 3424141529

A: Islamabad, Pakistan

SKILLS

Hands on instructions

Critical and Analytical thinking

Complex Problem Solving

Time management

Classroom Management

Performance Management

Mathematics and Physics
teaching expertise

Enquiry based learning teaching
approach

Computer proficient: MS Office,
MS teams, MS forms, IDL,
Fortran, Python

Strong research skills, published
3 papers todate

Developing Curriculum units

LANGUAGES

Urdu

English

PROFILE

Energetic educator and administrator with a solid history of achievement in both. Motivated leader with strong organizational and prioritization abilities. Dynamic educator with more than 20 years career experience as a Physicist, providing physics and mathematics expertise to undergraduate students. Excels in lecturing, test/exam administration, proctoring and creative lesson plan development.

EDUCATION

**PhD in Theoretical Plasma Physics | Theoretical Plasma Physics Division,
Department of Physics, University of Peshawar, Peshawar, Pakistan**

Feb 2014 - Feb 2022

PhD. Thesis Title

THE ROLE OF MULTIPLE SEPARATORS IN MAGNETIC RECONNECTION OF
SOLAR CORONA

Supervised by Dr. Anisa Qamar, Professor and Chairperson, Department of
Physics, University of Peshawar

**MPhil in Solid State Physics | Centre of Excellence Solid State Physics,
University of Punjab, Lahore, Pakistan**

1993 - 1995

Specialization Non Linear Physics(CHAOS)

M Phil Thesis Title:

"Computational Tools for Chaotic Dynamic Systems.",

Supervised by Dr. Tariq Abdullah, Professor, Center of Excellence Solid State
Physics, University of Punjab, Lahore.

**MSc.(Master of Science in Physics) | University of Government College,
Lahore, Pakistan**

1989 - 1991

BSc. (Becholar of Science) | University of Punjab, Lahore, Pakistan

1987 - 1989

Specialization: Physics, General and Applied Mathematics

**Fsc. | Queen Marry College under Lahore Board of Secondary and
Intermediate Education , Lahore, Pakistan**

1984 - 1986

**Metric | Queen Marry College under Lahore Board of Secondary and
Intermediate Education, Lahore, Pakistan**

1982 - 1984

EXPERIENCE

Assistant Professor | Comsats University, Islamabad

2013 - Present

- Prepared and delivered lectures to undergraduate students on mechanics, thermodynamics, modern physics, electrodynamics, quantum mechanics and mathematical methods, classical mechanics.
- Instructed and supervised student laboratory work, ensuring personal safety and proper techniques and procedures.
- Offered regular office hours and extended availability to assist and advise students as necessary.
- Developed Thermodynamics, Electromagnetism, Mechanics, Laser & Optics Labs for Undergraduate Students
- Worked as Coordinator of Undergraduate Final Year Research Project Assessment Committee & In charge of different Undergrad Laboratories
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Lecturer | Comsats University, Islamabad

2006 - 2012

- Select appropriate teaching materials, books, and course content.
- Maintain laboratory and classroom equipment, ensuring calibration and proper usage.
- Developed course material, including syllabus, homework assignments, tests, and lesson plans according to curriculum.
- Prepared and delivered lectures to undergraduate students.
- Worked as Program In charge of BS Physics & BS Electronics.
- Guided students to develop Lab equipment specifically for Thermodynamics Laboratory.

- Worked as Student Counsellor.

Lecturer | Kingridge High School, King William Town, South Africa

2004 - 2005

- Designing Math Lesson, implementation in class context.
- Evaluation of Lessons and knowledge assimilation of students
- Provided innovative methods of solving mathematics problems.
- Taught Algebra, Pre-Calculus, Calculus aligned with curriculum provided by school administration.

Lecturer | Islamabad College for Girls, Islamabad

1996 - 2004

- Taught mechanics, modern physics, electromagnetism, waves and oscillations to Grade 10, 11, 12 & BSc. Level students.
- Administered assessments and standardized tests to evaluate students progress.
- Worked as Class In charge of Grade 11-12.
- Worked with students one - to- one and in small groups.

Research Experience

- July 2017-Jan 2018 Simulations techniques developed for PhD research work on magnetic reconnection at multiple separators.
- Jan 2013- Dec 2013 Analysis of ion-acoustic waves in one dimensional non homogeneous plasma at TPPD Division, PINSTECH, Islamabad, Pakistan.
- Feb 2009- June2009 Synthesis and characterization of InAs Quantum dots/ wires by MO CVD and various analytical techniques at Nelson Mandela Metropolitan University, South Africa.
- 1989- 1991 Analysis of SSNTD samples for Earthquake prediction Radiation Physics Division, PINSTECH, Islamabad, Pakistan.

Publications

(National Journals)

1. Radon Concentration measurement in some selected houses using Cn-85 Plastic track Detectors .

Z. Zahid, et.al., Sci.int.(Lahore),6(1),5-7, 1994.

2. Earthquake prediction by radon signals using solid state nuclear track Detection Technique .

Z. Zahid, et.al., The Nucleus , 33(3), 1996: 133-138.

(International Journal)

3D non-driven magnetic reconnection at multiple separators.

Z. Zahid, et. al., Chaos 31(12) 2022.

REFERENCES

Dr. Sadia Manzoor
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Dr. Tariq Sajjad
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EXTRA-CURRICULAR ACTIVITIES

Workshops Attended

- August 25, 2022, "Leadership Reawakened", Bint Empowering Communities, Department of Art and Design, Comsats Islamabad.
- June 23, 2022, Teaching University Physics through active Learning Approach, University of Peshawar.
- September 19, 2017, Student Diversity, Online Training Module, St. Andres University, Scotland.
- September 27, 2017, Effective Lecturing, St. Andrews University, Scotland.
- October 06, 2017, Getting and Staying Organized for Success, St. Andrews University, Scotland.
- November 14, 2017, Microsoft Power Point, Essential Skills & Advanced Features, St. Andrews University, Scotland
- November 30, 2017, Latex for beginners, St. Andrews University, Scotland.
- April 9-13, 2007, COMSATS - NAM S&T, 6 th International Workshop & Training Course on Microelectronics Micro & Nano-Electronics and Photonics, Islamabad, Pakistan.
- July30-Aug11, 2007, 11th Faculty Development Workshop, Wah Campus, Comsats University, Pakistan.