

SABA JAVAID

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A Academic qualification

PhD from Department of Physics, University of Karachi, Pakistan.
MS from Department of Physics, University of Karachi, Pakistan.
M.Sc from Department of Physics, University of Karachi, Pakistan.
B.Sc (Honours) from Department of Physics, University of Karachi, Pakistan.
H.S.C.(Pre Eng.) from Khatoon-e- Pakistan degree girls College, Pakistan
S.S.C.(Science) from Oxford high school, Pakistan.

B Professional Experience

1. Assistant Professor, Department of Physics, NED University of Engineering and Technology from 12th March 2018 to date
2. Lecturer, Department of Physics, NED University of Engineering and Technology from 30th July 2010 to 11 March 2018.
3. Lecture, Department of Mathematics & Basic Sciences, NED University of Engineering and Technology from 1st July 2006 to 29th July 2010.
4. Co-operative Lecturer, Department of Physics, University of Karachi from Jan 2002 to June 2006.
5. Visiting Lecturer, Sir Syed University of Engineering & Technology from March 2005 to May 2006.

C Responsibilities at current Job

1. Postgraduate coordinator
2. Conduct theory and Practical classes for B.E and BS program.
3. Class Advisor of First Year.
4. Member of Duty Society.
5. Focal Person Library 2019
6. Departmental Representative on Orientation Day.
7. Factotum in Semester Exams.
8. Prepare and modification of Lab work books.
9. Participation in Lab installation.
10. Member of Examination review committee.
11. Member of MS and BS program committee.
12. Prepare Exam Panel for department of Physics.
13. Prepare time table for Semester Exams.
14. Prepare teaching load for department of Physics and Engineering departments.
15. Select visiting and cooperative teachers for BS program.
16. Expert on board of studies of department of Physics of sir syed university of engineering & technology.

D Research Activities:

(i) Final Year Project:

Year	Title	Status
2022	The verification of monitor unit of 3D conformal radiotherapy for various cancer.	ongoing
2021	(i) Comparison of 80 cm and 100 cm SAD cobalt-60 teletherapy unit dosimetric data. (ii) Comparison between doses of patients received at Co-60 and LINAC in 3 dimensional conformal radiotherapy.	completed
2020	Study of maximum usable frequency (MUF) Over Pakistan.	completed
2019	Day today variability of solar quiet sq (H,D,Z) components of Earth's magnetic field during deep solar minimum at EIA crest region.	completed
2018	Determination of ionospheric slab thickness of F2 layer.	completed

(ii) Masters Project:

Year	Title	Status
2022	(i) Quantum computing with cat states using circuit QED (ii) The commissioning and validation of Monaco treatment planning system and evaluating the beam matching accuracy of Twin Elekta VersaHD linear accelerators (iii) Performance evaluation of dose calibrator using various radioisotopes to assess and optimize radiation dose exposure in nuclear medicine imaging.	In progress
2021	Impact of technical factors affecting accuracy of SUV measurements in FDG PET/CT, MS Thesis in 2021.	Completed
2020	Analysis of spectra of Ba and Mg by quantum defect theory	Completed

E Professional Skills

1. MATLAB
2. Python
3. Endnote
4. Microsoft Office word & Excel
5. Microsoft office power point.

F Awards and Honours

1. Honored to be judge in Sindh Provincial Science Fair 2015 organized by Intel Pakistan Corporation from 27th to 29th October, 2015.
2. Awarded Merit certificate for First class, third position in B.Sc, (Honours), 2000.

G Certificate Courses /work shop / Trainings / Seminars

1. Emerald Guide to Getting published online workshop by Emerald Publishing held on 15 April 2020.
2. Online training on 'How to select right Journal' by Emerald Publishing held on 1 Nov.2020.
3. Online training on structuring a publishing paper' by Emerald Publishing held on 9th Nov.2020
4. Road show on New R &D Frame work of HEC held on 15.Nov.2019 at NEDUET
5. Understanding of Harassment Rules and Prevention held on 25th Nov.2019 at NEDUET
6. NED Women conference 2019 held on 20 Dec.2019 at NEDUET
7. Attended two days training program on **Quality Assurance in Education** organized by Quality Enhancement Cell, NED University of Engineering & Technology on May 17-18, 2017.
8. Attended two days Workshop on **Dye sensitized Solar Cell** held at NED University of Engineering & Technology on March 3rd -4th, 2016.
9. Attended three days Workshop on **LATEX** organized by Department of Physics, University of Karachi from 28th to 30th Dec. 2015.
10. Attended the ACSE short course on **Publication Ethics, Peer Review and Metrics** by Elizebath Wager (Publications Consultant, Sideview, UK, Ex Chairperson COPE, Member of Ethics Committee for BMJ & WAME) held at Metropolitan Palace, Dubai UAE on August 13-14th, 2015.
11. Attended the ACSE short course on **Developing a Successful Journal** by Pippa Smart (Research communication and publishing consultant, UK) held at Metropolitan Palace, Dubai UAE on August 13-14th, 2015.
12. Attended the ACSE short course on **C21st Marketing for Scholarly Journals** by Rachel Maund (Marketability, a UK-based publishing consultancy. London) held at Metropolitan Palace, Dubai UAE on August 13-14th, 2015.
13. Attended eight days **HEC Indigenous On campus Training on Organizational Interdepartmental communication** organized by Quality Enhancement Cell , NED University of Engineering & Technology from 23rd Feb-4th March, 2015
14. Attended one day seminar on **English for Academic and Occupational Purposes** organized by Department of Humanities, NED University of Engineering & Technology in collaboration with HEC ELTR project on June 12, 2008.
15. Attended training on **duties and responsibilities of Class Advisor** held at NED University of Engineering & Technology, 2014.
16. Attended training on **IT Tools for Academic profession** held at NED University of Engineering & Technology.
17. Attended training on **Research methodology** held at NED University of Engineering & Technology.
18. Attended training on **Library Facilities** held at NED University of Engineering & Technology.
19. Attended virtual seminar on **CMS experiments at CERN** for Pakistani Students held at NED university of Engineering & Technology.

H Publication / Conference Attended

1. Shaheen Kousar, Roohi Zafar, and **Saba Javaid**. "Python program to generate spherical harmonic." *International Journal of Advanced Trends in Computer Science and Engineering* 10.3 (2021).
2. Roohi Zafar, **Saba Javaid**, and Zaheer Uddin, 'Wavefunctions for ground state $4f^3 6s^2$ configuration of praseodymium to calculate energy of fine levels and other spectroscopic quantities' *Journal of Physics Communications* 4.3 (2020): 035003.
3. **Saba Javaid**, Roohi Zafar, and Zaheer Uddin, 'Theoretical analysis of $4f^2 5d^2$ configuration of singly ionized praseodymium' *Journal of Physics Communications* 3, no. 9 (2019): 095012.
4. Roohi Zafar, **Saba Javaid**, and Zaheer Uddin, 'Wave function for configuration $4f^2 5d 6s^2$ of Praseodymium (Pr I) to calculate energy and other spectroscopic quantities. *International Journal of Advance Research* Vol.7, 233-237, (2019).

5. **Saba Javaid**, Roohi Zafar, and Zaheer Uddin, 'Coulomb energies for the configuration 4f² 5d² and fine level details of the configurations 4f³ 6p & 4f³ 6s of singly ionized Praseodymium (Pr II). *International Journal of Advance Research* Vol.7, 294-302, (2019).
6. Babar, I. M., **Saba Javaid**, and Shabana Rizvi. "Transport Properties of Chalcopyrite (CuFeS₂) in a Wide Range of Temperatures." *Journal of Electronic Materials* 2215-2218, (2019) I.F= 1.7
7. M. A Ahmed, Syed Nazeer Alam, Maliha, Afshan ,**Saba Javaid**, 'Estimation Of Global And Diffuse Solar Radiation For Multan, Punjab, Pakistan, '*Journal of Information & Communication Technology (JICT)*, 12(1), 5, (2018).
8. Shabana Rizvi, **Saba Javaid**, Adeel Tahir, Ibrahim Babar, S. Dabir H.Rizvi, " Characterization of Dolomite, Pyrite, and Chalco pyrite mineral rocks of Pakistan", *Science International (Lahore)*, 22(1), 59-62, (2010).
9. Theoretical Analysis of (i) 4f³6s² (ii) 4f²5d²6s (iii) 4f²5p⁶s² Configurations of Praseodymium (Pr-I), 1st International Conference on Applied Physics & Engineering (ICAPE-2021) held on 16-17 September 2021 at NED University of Engineering & Technology.
10. Study of Transport Properties Of Pyrite, Saba Javaid, Poster Presentation, KPS 1st National Conference on Multi- Disciplinary Topics in Physics held at Department of Physics, University of Karachi on 12th-13 Feb. 2016.
11. International Conference of Energy and Sustainability organized by Mechanical Engineering Department, NED university of Engineering & Technology, 2013.
12. National Conference on Physics and The World of Today organized by Department of Physics, university of Karachi, held on Dec. 16-17, 2009.