

## Curriculum vitae

# Atia Atiq



### Research Profile

<https://scholar.google.com/citations?hl=en&user=Fs6YTEoAAAAJ>

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### Present Address

Department of Physics,  
University of Education,  
Lahore, Multan Campus,  
Bosan Road Multan,  
Pakistan.

### Permanent Address

House No. 577/1, Sadiq  
colony, Street No. 1,  
Ahmadpur Road,  
Bahawalpur, Pakistan.

### Date of Birth

June 30, 1987

### Religion

Islam

### Nationality

Pakistani

### Gender

Female

### Marital Status

Married

### Passport No.

AY1460792

### Present Employment

September 14, 2020 to date.

Working as an **Assistant Professor**

at University of Education, Lahore, Multan Campus, Lahore, Pakistan.

### Education

➤ **PhD (Medical Physics)** (February 2015- March 2019)

*Research Topic: Evaluation of Dosimetric Properties in External Beam Radiotherapy*

Department of Physics, The Islamia University of Bahawalpur, Pakistan

➤ **M.Phil (Medical Physics)** (2011-2013) CGPA: 3.76/4

*Thesis Title: Computational Tool for Efficient Determination of Tissue Air Ratio (TAR) in Gamma Beam Radiotherapy.*

Department of Physics, The Islamia University of Bahawalpur, Pakistan

➤ **M. Sc. (Physics)** (2007 -2009) CGPA: 3.73/4

Department of Physics, The Islamia University of Bahawalpur, Pakistan

➤ **B. Sc. (Physics, Math. A, Math. B)**, (2005-2007) Marks: 608/800

The Islamia University of Bahawalpur, Pakistan

➤ **F. Sc. (Pre-Eng. Group)** (2003-2005) Marks: 864/1100

B.I.S.E, Bahawalpur

➤ **Matriculation (Science)** (2001-2003) Marks: 682/850

B.I.S.E, Bahawalpur

➤ **Teaching Diploma (B. Ed.)** Marks: 691/1000

The Islamia University of Bahawalpur, Pakistan.

### Research Expertise

Currently, I am working on short functional peptides, including design, characterization, and self-assembled nanomaterials. I was inspired by nature to use a self-assembly approach, either bottom-up or top-down, to fabricate nanostructures. My research work has applications in nanomedicine and coacervates protocells formation. Moreover I have experience in radiotherapy treatment planning, photon dose calculation and gel dosimetry.

### Research Interests

- Nano-materials Synthesis and Characterization,
- Radiotherapy
- Treatment Planning
- Physics of Medical Imaging,
- Radiation Dosimetry
- Biophysics
- Gel Dosimetry

1. Atiq M, Atiq A, Iqbal K, Shamsi Q, Andleeb F, Buzdar SA. Evaluation of dose conformity and coverage of target volume for intensity-modulated radiotherapy of pelvic cancer treatment. *Indian journal of cancer*. 2017 Jan 1;54(1):379.
2. Atiq M, Atiq A, Buzdar SA. Gel Dosimeters for Radiotherapy: An Introductory Review. *Pakistan Journal of Medical Research*. 2017 Jul 1;56(3).
3. Shamsi, Q U, Atiq, M, Atiq, A, Buzdar, S A, Iqbal, K. Analysis of dosimetric indices for evaluating intensity modulated radiotherapy plans of head and neck cancer patients. *J Radiol Radiat Ther* 2017; 5 (1): 1065–1070
4. Atiq M, Atiq A, Iqbal K, ain Shamsi Q, Andleeb F, Buzdar SA. Interpretation of Gamma Index for Quality Assurance of Simultaneously Integrated Boost (SIB) IMRT Plans for Head and Neck Carcinoma. *Polish Journal of Medical Physics and Engineering*. 2017 Dec 1;23(4):93-7.
5. Atiq M, Atiq A, Buzdar SA, Iqbal K, Iqbal MM. Dosimetric comparison of photon beam profile characteristics for different treatment parameters. *Journal of Radiotherapy in Practice*. 2017 Dec;16(4):444-50.
6. Atiq A, Atiq M, Andleeb F, Iqbal K, Buzdar SA. Effect of Isodose Symmetry of Wedge-shaped Beam Profile for External Radiation Therapy. *Proceedings of Pakistan Academy of sciences*. 2017 A 54(4):417-424.
7. Buzdar SA, Altaf S, Atiq A, Atiq M, Iqbal K. Total scatter factor for small fields in radiotherapy: a dosimetric comparison. *Journal of Radiotherapy in Practice*. 2018 Sep;17(3):292-6.
8. Buzdar SA, Atiq A, Atiq M, Altaf S, Iqbal K. Dosimetric determination of tissue maximum ratios in small fields. *Journal of Radiotherapy in Practice*. 2018 Sep;17(3):289-91.
9. Andleeb F, Ullah H, Atiq A, et al. Laparoscopic surgery in gall bladder and abdominal disease along with risk factors. *J Cancer Prev Curr Res*. 2018;9(4):210-213
10. Atiq A, Atiq M, Iqbal K, Sial M, Altaf S, Shamsi Q, Buzdar S. A comparative study of RapidArc and intensity-modulated radiotherapy plan quality for cervical cancer treatment. *Indian Journal of Cancer*. 2018;55(1):74-9.
11. Andleeb F, Atiq A, Atiq M, Malik S. Attenuated total reflectance spectroscopy to diagnose skin cancer and to distinguish different metastatic potential of melanoma cell. *Cancer biomarkers: section A of Disease markers*. 2018;23(3):373-80.
12. Atiq A, Atiq M, Iqbal K, Buzdar SA. Study of dosimetric indices and dose constraints to critical organs for head and neck tumours treated with inverse planned simultaneous integrated boost intensity-modulated radiotherapy. *Journal of Radiotherapy in Practice*. 2018 Jun;17(2):179-87.
13. Atiq A, Atiq M, Iqbal K, Shamsi QA, Buzdar SA. Evaluation of various dose homogeneity indices for treatment of patients with cervix cancer using intensity-modulated radiation therapy technique. *Journal of Radiotherapy in Practice*. 2019 Mar;18(1):32-7.
14. Atia A, Maria A, Saeed A B . Computational Tool for Calculation of Tissue Air Ratio and Tissue Maximum Ratio in Radiation Dosimetry. *Curr Trends Biomedical Eng & Biosci*. 2019; 17(4): 555966. DOI: 10.19080/CTBEB.2019.17.555966.
15. Andleeb F, Hafeezullah AA, Atiq M. Hemoglobin structure at higher levels of hemoglobin A1C in type 2 diabetes and associated complications. *Chinese medical journal*. 2020 May 20;133(10):1138.
16. Abbas M, Atiq A, Xing R, Yan X. Silver-incorporating peptide and protein supramolecular nanomaterials for biomedical applications. *Journal of Materials Chemistry B*. 2021.
17. Sial MU, Majeed MZ, Atiq A, Farooq T, Aatif HM, Jaleel W, Khan S, Akbar R, Zaman M, Saeed R, Ali Y. Differential efficacy of edaphic traps for monitoring arthropods diversity in subtropical regions. *Journal of King Saud University-Science*. 2022 Jan 1;34(1):101686.
18. Saleem, S., Nazir, A., Atiq, M., Saleem, F., Batool, Z., Janjua, H. U., Atiq, A., & Kouser, R. (2021). Evaluation of Dose Distribution Indices by using RapidArc Technique for the Treatment of Gynecological Cancer. *FRONTIERS IN CHEMICAL SCIENCES*, 2(2), 165-173. <https://doi.org/10.52700/fcs.v2i2.33>
19. maria, Atiq, A. ., & Buzdar, S. A. (2021). Fabrication and Determination of Radiation Sensitive Features of Tissue Equivalent Gels in Radiation Dosimetry and Diagnostic Radiology. *FRONTIERS IN CHEMICAL SCIENCES*, 2(2), 195-206. <https://doi.org/10.52700/fcs.v2i2.35>
20. Ovais M, Ali A, Ullah S, Khalil AT, Atiq A, Atiq M, Dogan N, Shinwari ZK, Abbas M. Fabrication of colloidal silver-peptide nanocomposites for bacterial wound healing. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*. 2022 Oct 20;651:129708.
21. Abbas M, Ovais M, Atiq A, Ansari TM, Xing R, Spruijt E, Yan X. Tailoring supramolecular short peptide nanomaterials for antibacterial applications. *Coordination Chemistry Reviews*. 2022 Jun 1;460:214481.
22. Younis H, Ahmad F, Anees M, Atiq A, Shakeel N, Adil M, Mehboob K, Alhawsawi AM, Khan R, Khubrani AM, Qureshi AA. Gamma radioactivity and Environmental radiation risks of Granitoids in Central and Western Gilgit-Baltistan, Himalayas, North Pakistan. *Results in Physics*. 2022 Jun 1;37:105509.

### Conferences/ Symposia

- Poster presentation in 6th international symposium on biomedical materials (6th ISBM-2017)
- Poster Presentation in 16th Shaukat Khanum Cancer Symposium 2017.
- Oral presentation in 6th International Conference on Semiconductor Materials and Nano-Devices (6th ICSMAND-2018)

### Computer Skills

I am skilled in following **Computer Software** which can be used for Scientific Research:  
Microsoft Office, EndNote, Adobe Acrobat, Origin, MATLAB, Adobe Photoshop etc.

### Other Particulars

- HEC approved Supervisor
- 6 Month Research Training in Shaukat Khanum Memorial Hospital & Research Center, Lahore
- Teaching of Physics (Solid State Physics, Electricity and Magnetism, Atomic and Molecular Physics,, Classical Mechanics ) Under Graduate and Post Graduate Level.
- Member Organizing Committee “1st international conference on “Emerging trends in Physics” 23rd and 24th of May 2022.
- Member of A.Q Khan Society of Physics Department.
- Member of transport, admission, library stocktaking and various other committees in UE.
- Supervised 8 BS students and Co-Supervising one Scholar of M.Phil. (Physics), Department of Physics, UE.
- Training on “Peaceful and Safer Campuses” under Media Training and Research Center (MTRC). July 15-17, 2021.
- HEC four week training “National Faculty Development Program” 2020.
- Member of Review Editorial Board of Frontiers in Materials.

### References

References will be furnished on demand.