CURRICULUM VITAE

NAME: Muhammad Naeem Anjum

Date of Birth: 21.10.1969 Nationality: Pakistani

Marital Status: Married

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Current Position:

• Director, Institute of Physics, Bahauddin Zakariya University Multan.

• HEC approved supervisor

QUALIFICATIONS:

Post Doc in Medical Physics	McGill University Canada	Topic: Quality Assurance and
March 2010- June 2011		Risk Management in Radiation
		Oncology
PhD in Physics	The Islamia University of	Topic: Quality Assurance and
(15 Feb, 2010)	Bahawalpur, Pakistan.	Treatment Verification for
	- '	Radiotherapy of Tumor

Teaching and Research Experience:

- 1. Professor, Institute of Physics, Bahauddin Zakariya University Multan since April 6, 2023.
- 2. Associate Professor, Institute of Physics, The Islamia University of Bahawalpur, Pakistan from 6th October 2020 to April 5, 2023.
- 3. Assistant Professor, Institute of Physics, The Islamia University of Bahawalpur, Pakistan from 7th February 2012 to 5th October 2020.
- 4. Assistant Professor from June 2011 to February 2012, Department of Physics, Bahauddin Zakariya University Multan, Pakistan.
- 5. Post Doctoral Fellow in McGill Medical Physics Unit, McGill University Health Centre, Montreal General Hospital, Montreal Canada from March 2010 to June 2011.
- 6. Visiting Lecturer in the Department of Physics, The Islamia University of Bahawalpur, Pakistan from February 2009 to February 2010.
- 7. Research Fellow in McGill University Health Centre, Montreal General Hospital, from February 2008 to August 2008.
- 8. Lecturer in Sadiq Public School Bahawalpur (One of the largest Schools in Continent Asia) from 1998 to 2005.
- 9. Lecturer in Lodhran Public School and College Lodhran from 1993 to 1997.

Administrative Experience

- o Worked as incharge student's affairs from March 2014 to September 2018 in institute of Physics IUB.
- o Worked as assistant warden in Mahmood House, Sadiq Public School Bahawalpur from 2003-2005.

Professional Responsibilities

- o Member Academic Council, Thal University Bhakkar since 2nd October, 2025.
- Member Board of studies, Department of Physics, University of South Punjab, Multan.
- Member of Departmental Board of studies, Institute of Physics, Bahauddin Zakariya University Multan since April 6, 2023.
- Member of Board of Faculty, Bahauddin Zakariya University Multan since April 6, 2023.
- Member Academic Council, Bahauddin Zakariya University Multan since April 6, 2023.
- o Member Senate, Bahauddin Zakariya University Multan since April 6, 2023.
- Member of Departmental Board of studies, Department of Physics, Islamia University of Bahawalpur since 12.04.2018 to 05.10.2020
- Member of Departmental Board of studies, Department of Physics, IUB since 12.04.2018 to 05.10.2020
- o Departmental Focal Person of Laptop Scheme from 2014 to 2018.
- o Departmental Focal Person for fee and Scholarships from 2014 to 2018.

Clinical Experience in McGill University Health Centre Canada

- o Familiar with Eclipse & Corvus TPS,
- o Familiar with Gafchromic films.
- Experience of weekly and Annual QA of Linacs (Medical Linear Accelerators) under TG-51 protocol,
- o Patient specific QA on Linac and Tomotherapy Unit.

Society Membership:

Member of Canadian Organization of Medical Physicists (COMP) Canada.

Scholarships:

- 1. Scholarship for Post Doctorate from McGill University Canada from March 15, 2010 to June 15, 2011.
- 2. Scholarship under International Research Support Initiative Program (IRSIP) from Higher Education Commission Government of Pakistan.
- 3. Merit Scholarship for PhD Studies in Science & Technology (200 Scholarships) from HEC Government of Pakistan.

English Proficiency Certificates

- 1. IELTS certificate (International English Language Testing System) Overall Band Score:6.0
- 2. TOEIC certificate (Test of English for International Communication) Score:730/990

Knowledge of Computer Languages:

HTML, Perl, MySQL, C++,

Fellowship:

- 1. Department of Medical Physics, McGill University Health Centre, Montreal General Hospital, Montreal, Quebec, Canada.
- 2. Department of Radiation Oncology Aga Khan University Hospital, Karachi, Pakistan.
- 3. Department of Radiation Therapy, Bahawalpur Institute of Nuclear Medicine &

Oncology (BINO), Bahawalpur, Pakistan.

Research Interests:

CT and MRI Contrast Agents, Quality Assurance in Radiation Therapy, Effects of Ionizing Radiation on Optical Properties of Materials, and NanoBioPhysics

Trainings Attended:

- 1.PNRA-National Training Course on "Orphan Source Search" 27-31 March 2017 MINAR, Nishter, Hospital, Multan, Pakistan
- 2. PNRA-National Training Course on "Security of Radioactive Sources" from 09-13 December 2013 at Multan, Pakistan
- 3.PNRA-National Training Course on "Radiation Protection and Security of Sealed Radioactive Source (SRS)" 24-25 November 2008 MINAR, Nishter, Hospital, Multan, Pakistan.

Publications:

30 research papers in peer-reviewed journals:

Impact Factor: 65.1

List of publications attached.

- 2 Conference papers (Canada)
- 9 Conference papers (Pakistan)

Research Degrees Completed/In-Progress Under My Supervision:

<u>Ph.D.:</u>

- i. Four doctoral candidates have successfully completed their Ph.D. degrees under my guidance.
- ii. Two doctoral candidates have submitted their dissertation for review.

Two doctoral candidates have submitted their research proposal (synopsis).

M.Phil.:

- i. Sixty eight students have successfully completed their M.Phil. degrees under my supervision.
- ii. Fourteen students are currently engaged in ongoing research projects.

PhD Students Supervised in the Past		
1	Atiq Ur Rehman	Preparation and Assessment of the Impact of Nanoparticles in Biomedical Applications
2	Muhammad Hassan	Synthesis, Characterization and Application of Metal Based Nanoparticles As Contrast Agent

3	Qura Tul Ain	Synthesis, Characterization and Applications of Graphene based Nano- composite
4	Zaheer Abbas Gilani	Impacts of Rare Earth Cations on The Properties of Lithium Based Spinel Ferrites

M Phil Students Supervised in the Past

		1
1	Tanzeela Riaz	Peripheral Doses for 20 MeV Electron Beams
2	Sana Ilyas	Effect of Bolus on Dose Distributions in Radiotherapy
3	Nadia Riaz Gourmani	Peripheral Doses for 16 MeV Electron Beams
4	Muhammad jawad Malik	Synthesis, Characterization and Antibacterial activity of Zinc Ferrite Nanoparticles
5	Noman Ramzan	Dose Volume Histogram Patterns in Patients with Head and Neck Cancer
6	Maryam Nazeer	Role of Potassium and Iron in Hyperkalemia and Hemochromatosis Using White Light Microscopy Technique
7	Farzana Wazir	Effect of Gamma Irradiation on Photocatalytic Properties of Pure and Copper Doped Zinc Sulfide Nanoparticles
8	Muhammad Ikram	Effect of Gamma Irradiation on Optical and Structural Properties of Pure and Copper Doped ZnO
9	Muhammad Waris	Effect of Gamma Irradiation on Optical and Structural Properties of Pure and Silver Doped ZnO
10	Itfa Nizam	Dextrin-Coated Cobalt-Doped Zinc Ferrite Nanoparticles for MRI Contrast Enhancement
11	Rida Fatima	Advanced MRI Contrast Agents with Chitosan-Coated Nickel-Doped Zinc Ferrites
12	Maria ashraf	Enhanced MRI Contrast with PEG-Coated Manganese Doped Zinc Ferrites
13	Sidra Tehreem	Radio-sensitization effects of Zn doped bismuth oxide nanocomposites
14	Zainab Mehfooz	Radio-sensitization effects of Bismuth doped ZnO nanocomposites
15	Sana Khalid	Effect of ionizing radiation on optical properties of Ni doped MgO
16	Shahzaib Mirza	Effect of ionizing radiation on optical properties of Fe doped MgO
17	Usman Bashir	Effect of ionizing radiation on optical properties of Co doped MgO
18	Asad Yasin	Enhancement of Radiation Effects by Cerium based Nano Composites
19	Muhammad Adnan	Enhancement of Radiation Effects by Graphene based Nano Composites
20	Mukhtar Ahmad	Effect of Titanium Dioxide Nanoparticles on Functionalities of Buffalo Spermatozoa
21	Muhammad Asghar	Effect of Chitosan Coated Zinc Sulphide Nanoparticles on Functionalities of Buffalo Spermatozoa

22	Muhammad Junaid Azeem	Effect of Chitosan Coated Nickel Oxide Nanoparticles on Functionalities of Buffalo Spermatozoa
23	Zara chaudry	Effect of gamma Irradiation on Structural and Optical Properties of Cobalt doped manganese Ferrite nanoparticles
24	Sadia parveen	Effect of gamma Irradiation on Structural and Optical Properties of Copper doped Nickel Oxide Nanoparticles
25	Bushra Ramadan	Impact of Ce-doped Bismuth Oxide NPs on Radio-sensitization Enhancement in Radiotherapy
26	Ayesha Perveen	Synthesis and Characterization of Dextrin Coated Bismuth Doped Nickel Ferrite nanoparticles used as X-Ray Contrast Agent
27	Uzma Younas	Radiosensitisation enhancement effect of the silver-Ceria hybrid nanoparticles in the radiation therapy
28	Bushra Shaheen	Influence of gamma Irradiation on Morphological, Structural and Optical Properties of carbon Coated Nickel Cobalt Oxide/RGO NanoComposites
29	Saadia Hafeez	Effect of gamma Irradiation on Structural and Optical Properties of Cadmium doped Nickel Oxide nanoparticles
30	Nageen Kousar	Synthesis and Characterization of Dextrin Coated Bismuth Doped mangnese Ferrite nanoparticles used as CT Contrast Agent
31	Misbah Iqbal	Effect of gamma irradiation on Optical and Structural properties of Pure and Copper Doped ZnS Nanoparticles
32	Humera Ajmal	Effect of gamma irradiation on Optical and Structural properties of Pure and Nickel Doped ZnS Nanoparticles
33	Hafiza Hina Shahzadi	Effect of Gamma Irradiation on Optical and Structural Properties of Pure and Manganese Doped ZnS Nanoparticles
34	Muhammad Adnan	Effect of gama irradiation on optical and structural properties of Yb doped ZnO nanoparticles
35	Muhammad Abbas	Effect of Gamma Irradiation on Structural and Optical Properties of Zirconium Doped Copper Oxide Nanoparticles
36	Gulzaib	Effect of Gamma Irradiation on Optical and structural properties of doped and undoped CdO Nanomaterials
37	Nasira Kanwal	Effect of Gamma Irradiation on Optical and Structural Properties of Lantanum doped and undoped ZnO Nanoparticals
38	Faisal Nawaz	Effect of Gamma Irradiation on Optical and Structural Properties of Pure and Neodymium Doped Copper Oxide Nanoparticles
39	Ashir Saeed	Conducting Polymer And Graphene Based Supercapacitor Electrodes
40	Faqeer Muhammad	Effect of Different Nanoparticles on Seed Germination
41	Aughsila Basharat	Structural and Optical properties of cerium doped zinc oxide nanoparticles
42	Muhammad Ameen	Synthesis, Characterization and Optical Properties of Cobalt doped Zinc Oxide Nanoparticles
43	Iram Masood	Synthesis, Characterization and Optical Properties of Cadmium doped Nickel

		Oxide Nanoparticles
44	Auon Muhammad	Synthesis, Characterization and Optical Properties of Zinc doped Cadmium Oxide Nanoparticles
45	Muhammad Ilyas	Synthesis, characterization and optical property of cobalt doped Silica Nanoparticles
46	Qurat-ul-Ain	Synthesis, Characterization and antimicrobial application of Cadmimum doped cobalt nanoparticles
47	Muhammad Farooq	Synthesis, Characterization and antibacterial application of copper doped cerium oxide nanaoparticles
48	Muhammad Imran Anees	Antibacterial application of silica doped graphene oxide nanoparticles against E. Coli
49	Ambreen Aleem	Antimicrobial Effect of Bismith Oxide nanoparticles
50	Abdul Waras	Antimicrobial Activity of Iron Oxide Nanoparticles
51	Muhammad Adnan	Antimicrobial Effect of Silver Nanoparticles
52	Imtiaz Hussain	Antibacterial Properties of Copper doped Zinc Oxide Nanoparticles
53	Muhammad Umer Daraz	Antibacterial Properties of Zinc Doped Nickel Oxide Nanoparticles
54	Muhammad Zahid	Synthesis, Characterization and Antibacterial Activity of Silver Doped Zinc Oxide Nanoparticles
55	Muhammad Riaz	Antibacterial application of graphene oxide nanoparticles against E. Coli
56	Sumaira khan	Zinc Sulphide Quantum Dots: From Synthesis to Antibacterial Effect
57	Kanza Ghazanfar	Anti-Bacterial Activity of Cadmium Sulphide Quantum Dots
58	Maqbool Aslam	Synthesis, Characterization and Application of Cerium Oxide Nanoparticles
59	Murtaza Ahmad	Synthesis, Characterization and application of Zinc Oxide Nanoparticles
60	Muhammad Hamid Nazeer	Effects of Nanoparticles on Reproductive Health
61	Khizir Farooq	Synthesis and Toxicological Effect of Nickel Oxide Nanoparticles
62	Muhammad Adnan Ahsan	IMRT quality assurance using 2D 729Array
63	Muhammad Mohsin Waheed	Radiotherapy enhancement using silver nanoparticles in gel dosimeter
64	Muhammad Inayat	Synthesis and characterization of water soluble iron oxide nanoparticles
65	Muhammad Numan ul Hai	Synthesis and characterization of water soluble gold nanoparticles
66	Fawad Ahmad	Toxicity of Contrast Agent (MnFe2O4) for Magnetic Resonance Imaging
67	Sanamla Rani	Synthesis, Characterization and Toxicity of Carbon Dots

Comprehensive Evaluation of M.S. Theses from Selected Pakistani Universities:

Comprehensive evaluation involved a rigorous examination of multiple M.S. theses submitted by students from prominent Pakistani universities, including:

- The Islamia University of Bahawalpur.
- University of the Punjab, Lahore
- The Women University Multan
- University of Engineering and Technology Taxila
- of Information Technology, Balochistan University Engineering, and Management Sciences

Courses taught at Graduate and under Graduate level:

- 1. Advanced Medical Physics
- 2. Radiation Detection and Dosimetry
- 3. Nuclear Physics (I & II)
- 4. Classical Mechanics
- 5. Modern Physics
- 6. Waves and Oscillations
- 7. Mechanics
- 8. Electricity and Magnetism

Peer-Reviewed Journal Articles:

- Rafiq, Tooba, Bushra Shaheen, Muhammad Hassan, Ateeque Ur-Rehman, and Muhammad Naeem Anjum. "Chitosan coated Yb-doped MnCo ferrite: Tailoring properties via gamma irradiation for contrast agents and sensors." Radiation Physics and Chemistry 228 (2025): 112412.
- 2. Shaheen, Bushra, Nusrat Shaheen, and Muhammad Naeem Anjum. "Gamma-ray-elicited alterations in the structural, optical,

- morphological attributes of spinel nickel cobaltite NiCo2O4." *Radiation Physics and Chemistry* 222 (2024): 111771.
- 3. Saeed, Ashir, Sadia Khalid, and **Muhammad Naeem Anjum**. "Challenges and Opportunities: Conducting Polymer-Graphene based Nanocomposites of Metal Oxides and Metal Sulfides for Supercapacitors." *ChemistrySelect* 9, no. 6 (2024): e202303527.
- 4. Shaheen, Bushra, Nusrat Shaheen, and **Muhammad Naeem Anjum**. "Synergistic effect of Gamma-Irradiation on morphological, structural, and optical properties of Carbon-coated Nickel Cobalt Oxide/rGO nanocomposites." *Radiation Effects and Defects in Solids* (2023): 1-16.
- 5. Rehman AU, Wu Y, Tran HD, Vazquez-Prada K, Liu Y, Adelnia H, Kurniawan ND, **Anjum MN**, Moonshi SS, Ta HT. Silver/iron oxide nanopopcorns for imaging and therapy. ACS Applied Nano Materials. 2021 Sep 2;4(10):10136-47.
- 6. Mariam, Rukhsana, Gul Naz, Muhammad Ramzan, **Muhammad Naeem Anjum**, Shazia Anjum, and Muhammad Abdullah. "Fagonia stabilized gold nanoparticles as antimicrobial agents." *Materials Research Express* 8, no. 8 (2021): 085011.
- 7. Naz, Gul, **Muhammad Naeem Anjum**, Muhammad Irfan, Masooma Irfan, Muhammad Arshad, Sadia Z. Bajwa, and Waheed S. Khan. "Quats stabilized gold nanospheres for efficient ligand exchange procedure." *Results in Materials* 5 (2020): 100065.
- 8. Hassan, M., A. U. Rehman, M. N. Ashiq, R. ALIb, M. H. Nazeer, K. Farooq, and M. N. Anjum. "Synthesis and study of structural and magnetic properties of dextrin coated manganese ferrite nanoparticles." *Digest Journal of Nanomaterials and Biostructures* 14, no. 4 (2019): 1041-1047.
- 9. Arshad, Muhammad Javid, A. M. I. R. Saddique, Mehmood Zahid, Amin Niama, Husain Fayyaz, Saeed Ahmad BUZDAR, **Muhammad Anjum Naeem**, and Muhammad Imran. "Synthesis, Characterization and Blood Based Toxic Effects of Superparamagnetic Nanoparticles." *Materials Science* 25, no. 4 (2019): 359-364.
- 10. Hassan, Muhammad, Ateeque Ur-Rehman, Muhammad Hamid Nazeer, Khizir Farooq, Kanza Ghanzanfar, and **Muhammad Naeem Anjum**. "Synthesis, Characterization, and In Vitro Study of Dextrin-Coated Bismuth-Doped Manganese Ferrite Nanoparticles (Bi o. 3 Mn o. 55 Fe 2 O 4) as an MRI Contrast Agent." *Journal of Superconductivity and Novel Magnetism* 33 (2020): 859-865.
- 11. Ain, Qura Tul, Samina Hyder Haq, Abeer Al-Modlej, Abeer Alshammari, Shahzad Ahmed, and **Muhammad Naeem Anjum**. "Dose-dependent cytotoxicity of polyethylene glycol loaded nano-graphene oxide in cultured

- cerebral cortical cells." *Materials Research Express* 6, no. 10 (2019): 105405.
- 12. Ain, Q. T., S. H. Haq, A. Alshammari, M. A. Al-Mutlaq, and M. N. Anjum. "The systemic effect of PEG-nGO-induced oxidative stress in vivo in a rodent model. Beilstein J Nanotechnol 10: 901–911." (2019).
- 13. Ain, Qura Tul, N. Bano, Abeer Al-Modlej, Abeer Alshammari, I. Hussain, and **Muhammad Naeem Anjum.** "Study of a saturation point to establish the doping density limit of silicon with graphene oxide." *Materials Science in Semiconductor Processing* 96 (2019): 116-121.
- 14. Zafar, Tayyaba, Bushra Bari, Khalid Alamgir, Sadia Khalid, Muhammad Arshad, and **Muhammad Naeem Anjum.** "Magnesium doped titania (TiO2) thin films: deposition, structural, morphological and optical properties." *Optoelectronics and Advanced Materials-Rapid Communications* 12, no. May-June 2018 (2018): 337-341.
- 15. Arshad Javid, M., Zafar Ullah Khan, Zahid Mehmood, Azeem Nabi, Fayyaz Hussain, M. Imran, Muhammad Nadeem, and **Naeem Anjum**. "Structural, electronic and optical properties of LiNbO3 using GGA-PBE and TB-mBJ functionals: A DFT study." *International Journal of Modern Physics B* 32, no. 14 (2018): 1850168.
- 16. Ain, Qura Tul, Abeer Al-Modlej, Abeer Alshammari, and **Muhammad Naeem Anjum.** "Effect of solvents on optical band gap of silicon-doped graphene oxide." *Materials Research Express* 5, no. 3 (2018): 035017.
- 17. Ali, Rajjab, Zaheer Abbas Gilani, Muhammad Shahzad Shifa, HM Noor Ul Huda Khan Asghar, Muhammad Azhar Khan, **Muhammad Naeem Anjum**, Muhammad Nauman Usmani, Muhammad Farooq Warsi, and Imtiaz U. Khawaja. "Evaluation and comparision of dc resistivity of NiZrxCoxFe2— 2xO4, Ni0. 5Sn0. 5CoxMnxFe2— 2xO4, Mg1— xCaxNiyFe2— yO4 and Mg1— xNixCoyFe2— yO4 nanocrytalline materials." *Materials Research Express* 4, no. 11 (2017): 115009.
- 18. Gilani, Zaheer Abbas, Muhammad Shahzad Shifa, Muhammad Azhar Khan, **Muhammad Naeem Anjum**, Muhammad Nauman Usmani, Rajjab Ali, and Muhammad Farooq Warsi. "New LiCoo. 5PrxFe2— xO4 nanoferrites: Prepared via low cost technique for high density storage application." *Ceramics International* 44, no. 2 (2018): 1881-1885.
- 19. Warsi, Mohamed Farooq, Zaheer Abbas Gilani, Najeeb Fuad Al-Khalli, Mansoor Sarfraz, Muhammad Azhar Khan, **Muhammad Naeem Anjum**, and Imran Shakir. "New LiNio. 5PrxFe2— xO4 nanocrystallites: Synthesis via low cost route for fabrication of smart advanced technological devices." *Ceramics International* 43, no. 17 (2017): 14807-14812.

- 20. Asghar^{abc}, HMN Khan, MS Shifa, ZA Gilani, P. Wang, JU Rehman, **MN Anjum**, MN Usmani et al. "Redistribution of carbon from silicon by electron beam melting."
- 21. Gilani, Z. A., M. N. Anjum, S. Shifa, HMN UL HUDA KHAN, J. U. ASGHARa, M. N. Usmani, S. Aslam, M. A. Khan, Muhammad Shahid, and M. F. Warsi. "Morphological and magnetic behavior of neodymium doped LiNi0. 5Fe2O4 nanocrystalline ferrites prepared via micro-emulsion technique." *J. Nanomater. Biostruct* 12 (2017): 223-228.
- 22. Rehman, Ateeque Ur, Saeed Ahmad Buzdar, Muhammad Hassan, Asghar Gadi, Muhammad Afzal Khan, and **Muhammad Naeem Anjum.** "Impact of brachytherapy applicators geometry on dose distribution in gynaecological cancer." *J Pak Med Assoc* 66 (2016): 1566-1570.
- 23. Hassan, Muhammad, M. M. Waheed, and M. N. Anjum. "Dose of radiation enhancement, using silver nanoparticles in a human tissue equivalent gel dosimeter." *JPMA. The Journal of the Pakistan Medical Association* 66, no. 1 (2016): 45-48.
- 24. Gilani, Zaheer Abbas, Muhammad Farooq Warsi, Muhammad Azhar Khan, Imran Shakir, Muhammad Shahid, and **Muhammad Naeem Anjum.** "Impacts of neodymium on structural, spectral and dielectric properties of LiNio. 5Fe2O4 nanocrystalline ferrites fabricated via micro-emulsion technique." *Physica E: Low-dimensional Systems and Nanostructures* 73 (2015): 169-174.
- 25. Gilani, Zaheer Abbas, Muhammad Farooq Warsi, **Muhammad Naeem Anjum**, Imran Shakir, Shahzad Naseem, Saira Riaz, and Muhammad Azhar Khan. "Structural and electromagnetic behavior evaluation of Nddoped lithium—cobalt nanocrystals for recording media applications." *Journal of Alloys and Compounds* 639 (2015): 268-273.
- 26. Kildea, J., M. N. Anjum, M. Evans, and W. Parker. "SU-E-T-57: Comprehensive Web-Based QA in Radiation Oncology." *Medical Physics* 38, no. 6 Part11 (2011): 3498-3498.
- 27. **Anjum, M.** N., W. Parker, I. Aldahlawi, R. Ruo, and M. Afzal. "Evaluation of treatment planning system monitor unit calculations for three intensity modulated radiotherapy delivery techniques." (2011): 145-150.
- 28. **Anjum, Muhammad Naeem**, William Parker, Russell Ruo, Ismail Aldahlawi, and Muhammad Afzal. "IMRT quality assurance using a second treatment planning system." *Medical Dosimetry* 35, no. 4 (2010): 274-279.
- 29. **Anjum, Muhammad Naeem,** William Parker, Russell Ruo, and Muhammad Afzal. "Evaluation criteria for film based intensity modulated

radiation therapy quality assurance." *Physica medica* 26, no. 1 (2010): 38-43.

30. **Anjum, M. N.**, A. Qadir, and M. Afzal. "Dosimetric evaluation of a treatment planning system using pencil beam convolution algorithm for enhanced dynamic wedges with symmetric and asymmetric fields." *Iranian Journal of Radiation Research* 5, no. 4 (2008): 169-174.

References:

1. Dr. John Kildea McGill University Health Centre, Montreal General Hospital, Canada.

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2. Prof. Dr. Muhammad Afzal (Retired) Department of Physics, The Islamia University of Bahawalpur, Pakistan.

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