Dr. Suleman Khan

(HEC Approved PhD Supervisor)
PhD in Physics | Impact Factor > 75.32
Currently Working as Assistant Professor of Physics

CONTACT

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Islamabad, Pakistan

PERSONAL INFO

Date of Birth: October 6, 1979
CNIC: 11201-4412671-9
Nationality: Pakistani
Passport No: EJ4126712
Skype: suleman_6000@yahoo.com

AWARDS

- Awarded with a best Teacher/Administrator throughout country in Army college system “APSACS”

CORE STRENGTH

- Nanomaterials Fabrication
- Electrical Characterization
- Scientific Data Analysis
- Research Supervision
- Academic Leadership
- Interdisciplinary Collaboration
- Technical Communication
- Magnetic Property Analysis
- Lab Management
- Curriculum Development
- Proposal Writing
- Conference Presentation
- Classroom Management
- Teaching Methodology

LANGUAGES

- English
- Urdu
- Pushto

PROFILE SUMMARY

Accomplished academic professional with a Ph.D. in Physics and over 18 years of progressive experience in teaching, research, and academic administration across university, college, and school-level institutions. Adept in delivering undergraduate and postgraduate physics curricula with specialization in nanotechnology, materials science, and applied physics. Demonstrates strong expertise in nanostructure fabrication, advanced characterization techniques, and scientific data analysis. Proven leadership in departmental management, student affairs, hostel administration, and protocol coordination. Recognized as an HEC-approved Ph.D

PROFESSIONAL EXPERIENCE

Abasyn University, Islamabad, Pakistan
Position: Assistant Professor – Physics, Department of Computing
Duration: Jan 2025 – Present
Responsibilities & Duties:

- Deliver undergraduate physics courses, focusing on applied physics and materials science.
- Guide students in research projects and supervise final year thesis.
- Design and supervise final year research projects for BS and M.phil students, ensuring alignment with current scientific trends and research standards.

NFC Institute of Engineering and Technology, Multan, Pakistan
Position: Assistant Professor & Head of Department – Physics
Duration: Nov 2020 – Jan 2025
Responsibilities & Duties:

- Managed departmental curriculum development and academic planning.
- Led faculty coordination, research initiatives, and quality assurance in the Physics department.

Allama Iqbal Open University (AIOU), Islamabad, Pakistan
Position: Visiting Assistant Professor & Research Advisor – Department of Physics
Duration: Sep 2016 – Oct 2020
Responsibilities & Duties:

- Conducted weekend workshops and evaluated M.Phil./PhD research progress.
- Provided research mentorship in materials science and nanostructure analysis.

International Islamic University Islamabad (IIUI), Pakistan
Position: Visiting Assistant Professor & Research Advisor – Department of Physics
Duration: Sep 2016 – Oct 2020
Responsibilities & Duties:

- Delivered advanced courses on nanomaterials and spectroscopy.
- Supervised interdisciplinary research collaborations and student thesis.

Hamza Army Public School & College (APSACS), Rawalpindi, Pakistan
Position: Senior Lecturer & Head of Department – Physics
Duration: May 2006 – Aug 2016
Responsibilities & Duties:

- Administered the physics department and taught higher secondary classes.
- Organized national-level science exhibitions and Olympiad participation.
- Served as Director of Student Affairs(DSA) and House Master.

Government Postgraduate College, Parachinar, Pakistan
Position: Lecturer – Physics
Duration: Sep 2004 – May 2006
Responsibilities & Duties:

- Taught undergraduate physics courses including classical mechanics and thermodynamics.
- Conducted practical lab sessions and internal assessments for B.Sc. students.

ADMINISTRATIVE EXPERIENCE

NFC Institute of Engineering and Technology, Multan, Pakistan
Position: Head of Department (HOD) – Physics
Duration: Nov 2020 – Jan 2025
Responsibilities & Duties:
- Oversaw departmental operations, curriculum design, and faculty performance evaluations.
- Ensured compliance with academic standards and promoted interdisciplinary research.
- Served as Syndicate Member and Member of the Academic Council

Position: Resident Hostel Warden (Boys & Girls Hostels)
Duration: Jan 2021 – Jan 2025
Responsibilities & Duties:
- Managed day-to-day administrative and disciplinary affairs of student hostels.
- Ensured hostel safety, hygiene, and student welfare through regular inspections.

Position: Chief Security Officer & Protocol Advisor
Duration: Aug 2021 – Jan 2025
Responsibilities & Duties:
- Developed and implemented campus security protocols and emergency response plans.
- Coordinated high-level protocol arrangements for university events and VIP visits.

Position: Chairman, Sports Committee
Duration: Feb 2022 – Jan 2025
Responsibilities & Duties:
- Planned and organized inter-university and intra-campus sports events.
- Promoted student participation in physical education and extracurricular activities.

Hamza Army Public School & College (APSACS), Rawalpindi, Pakistan
Position: Head of Department (HOD) – Physics
Duration: May 2006 – Aug 2016
Responsibilities & Duties:
- Led academic planning, staff training, and performance reviews within the department.
- Initiated science club activities and student-led research exhibitions.

Position: Director of Student Affairs & House Master
Duration: Sep 2006 – Aug 2016
Responsibilities & Duties:
- Managed student discipline, counselling, and overall campus life supervision.
- Organized leadership training, inter-house competitions, and welfare initiatives.

EDUCATION DETAIL

Ph.D. in Physics
International Islamic University Islamabad (IIUI), Pakistan
2013 – 2019
- Title: *Synthesis and Characterization of Multidimensional Co and Fe Based Ferromagnetic Nanostructures*
- Advisor: Dr. Naeem Ahmad (Professor, Dept. of Physics, IIUI)
- Publications: 25 international publications

M.Phil. in Physics – CGPA: 3.23
Riphah International University, Islamabad, Pakistan
2010 – 2013
- Title: *Electrical Characterization of Gallium-Nitride (GaN) using Deep Level Transient Spectroscopy (DLTS)*
- Advisor: Dr. Akbar Ali (Associate Professor, Quaid-e-Azam University, Islamabad)

M.Sc. in Physics – 1st Division
Gomal University, Dera Ismail Khan, KPK, Pakistan
2000 – 2002

B.Sc. in Physics & Mathematics – 1st Division
Gomal University, Dera Ismail Khan, KPK, Pakistan
1997 – 1999

HSSC (Pre-Engineering) – 1st Division
Govt. Post Graduate College, Lakki Marwat, KPK, Pakistan
1995 – 1997

SSC (Science Group) – 1st Division
Leading Public High School, Peshawar, KPK, Pakistan
1993 – 1995

B.Ed. (Bachelor of Education)
University of Peshawar, KPK, Pakistan
2003 – 2004

RESEARCH & PUBLICATIONS IN INTERNATIONAL JOUNRALS

1. **Enhancing mucoadhesion: Exploring rheological parameters and texture profile in starch solutions, with emphasis on micro-nanofiber influence**
   *Khurshid Ahmad, **Suleman Khan**, Peng Chen, Xia Yang, Chaozhong Fan, Yan Fan, Li Hao, Qiaoji Tian, Chaoxin Tu, Hu Hou*
   International Journal of Biological Macromolecules, 275 (June 2024). I.F: 8.2
   https://doi.org/10.1016/j.ijbiomac.2024.133392
2. **Ascorbic acid-mediated selenium nanoparticles as potential antihyperuricemic, antioxidant, anticoagulant, and thrombolytic agents**
   *M. Amir Ramzan, M. Ismail, Syed Ali Imran Bukhari, Khurshid Ahmad, **Suleman Khan**, Nafeesa Zahid, M. Aslam Khan, Mustafa Mubin Kayani, Sher Bahadar Khan*
   Green Processing and Synthesis (March 2024). I.F: 4.2
   https://doi.org/10.1515/gps-2023-0158
3. **Enhancement effect of AgO nanoparticles on fermentative cellulase activity from thermophilic *Bacillus subtilis* Ag-PQ**
   *Saddam Hussain, Muhammad Talha Yasin, Khurshid Ahmad, **Suleman Khan**, Rasheed Ahmad, Jallat Khan, Abdul Ghani, Muhammad Musaddiq Shah*
   Journal of Genetic Engineering and Biotechnology (Nov 2023). I.F: 3.5
   https://doi.org/10.1186/s43141-023-00619-1
4. **Covalent functionalization of electrochemically exfoliated 1T-MoS_2 nanosheets for high-performance supercapacitor electrode**
   *Raheela Naz, Waseem Abbas, Qinglei Liu, Sameera Shafi, Sehrish Gull, **Suleman Khan**, Tahir Rasheed, Guofen Song, Jiajun Gu*
   Journal of Alloys and Compounds, 951 (Aug 2023), 169944. I.F: 6.371
   https://doi.org/10.1016/j.jallcom.2023.169944
5. **Marine macroalgae polysaccharides-based nanomaterials: An overview with respect to nanoscience applications**
   *Khurshid Ahmad, **Suleman Khan**, Muhammad Talha Yasin, Saddam Hussain*
   Beni-Suef University Journal of Basic and Applied Sciences (Dec 2022)
   https://doi.org/10.1186/s43088-022-00335-8
6. **Silver nanowires/polypyrrole nanostructured composite as an alternative electrocatalytic material for dye-sensitized solar cells**
   *Muhammad Afzaal, Naeem Ahmad, Muhammad Shahid Khan, Khalid Javed, Adnan Gulab, **Suleman Khan***
   Optik – International Journal for Light and Electron Optics, 268 (Oct 2022). I.F: 2.84
   https://doi.org/10.1016/j.ijleo.2022.169734
7. **Enhanced starch hydrolysis by α-amylase using copper nanowires**
   *Khurshid Ahmad, **Suleman Khan**, Muhammad Talha Yasin, Saddam Hussain, et al.*
   Applied Nanoscience (June 2021). I.F: 3.869
   https://doi.org/10.1007/s13204-021-01931-3
8. **Magnetic hardening and exchange bias effect in dual-phase Co_3Mn nanowire arrays**
   *Liaqat Ali Azam, Affan Safeer, Naeem Ahmed, Andrés Rosales-Rivera, **Suleman Khan**, Imran Murtaza*
   Applied Physics A: Materials Science and Processing, 127, 398 (May 2021). I.F: 2.983
   https://doi.org/10.1007/s00339-021-04529-2
9. **Magnetic, Electronic and Structural investigations of Fe_1–XMnX ($0 \le x \le 0.39$) alloy nanowires via electrodeposition in AAO templates**
   ***Suleman Khan**, Naeem Ahmad, Affan Safeer, Ather Hassan, et al.*
   Solid State Sciences, 107 (Sep 2020). I.F: 3.752
   https://doi.org/10.1016/j.solidstatesciences.2020.106351

10. **Effect of Mn (12 at%) substitution on magnetic anisotropy and magnetization reversal of equiatomic CoFe alloy nanorod arrays**
    *Affan Safeer, Liaqat Ali Azam, Danyal Bashir, **Suleman Khan**, Naeem Ahmad*
    Physica B: Physics of Condensed Matter, 586 (June 2020). I.F: 2.988
    https://doi.org/10.1016/j.physb.2020.412138
11. **Dominance of shape anisotropy in electrodeposited $(FeCo)_1$−xCux ternary alloy nanowires**
    *Naeem Ahmad, M. Zahid Shafiq, **Suleman Khan**, et al.*
    Journal of Superconductivity and Novel Magnetism, 33, 1495–1505 (May 2020). I.F: 1.675
    https://doi.org/10.1007/s10948-019-05394-0
12. **Structural and uniaxial magnetic anisotropy of $Co_{1-x}Mg_x$ (x=0.04–0.12) nanowires in alumina templates**
    *Naeem Ahmad, Wiqar Hussain Shah, **Suleman Khan**, et al.*
    Journal of Superconductivity and Novel Magnetism, 33:809–815 (Aug 2019). I.F: 1.675
    https://doi.org/10.1007/s10948-019-05225-2
13. **Voltage dependent physical, dielectric, and magnetic properties of electrodeposited $Co_{1-x}Mn_x$ alloy nanowires**
    *Muhammad Awais, Naeem Ahmad, **Suleman Khan**, et al.*
    Journal of Magnetism and Magnetic Materials, 474, 207–214 (March 2019). I.F: 3.097
    https://doi.org/10.1016/j.jmmm.2018.10.122
14. **Magnetization behavior of electrochemically synthesized Co_2MnSn full Heusler alloy nanowire arrays**
    *Affan Safeer, Naeem Ahmad, **Suleman Khan**, et al.*
    Journal of Applied Physics, 125, Issue: 4 (Jan 2019). I.F: 2.877
    https://doi.org/10.1063/1.5058066
15. **Structural, magnetic and transport properties of Fe-based full Heusler alloy Fe_2CoSn nanowires prepared by template-based electrodeposition**
    ***Suleman Khan**, Naeem Ahmad, et al.*
    Journal of Magnetism and Magnetic Materials, 465, 462–470 (Nov 2018). I.F: 3.097
    https://doi.org/10.1016/j.jmmm.2018.05.013
16. **Compositional dependent morphology and properties of $Fe_{100-x}Cu_x$ alloy nanowires via electrodeposition in AAO templates**
    ***Suleman Khan**, Naeem Ahmad, Affan Safeer, Javed Iqbal*
    Applied Physics A, 124, 678 (Sep 2018). I.F: 2.983
    https://doi.org/10.1007/s00339-018-2075-6
17. **Electronic, magnetic and half-metallic properties of $L2_1$-type ($Co_2Mn_{0.5}Fe_{0.5}Sn$) Heusler alloy nanowires**
    ***Suleman Khan**, Naeem Ahmad, Nisar Ahmed, X.F. Han*
    Journal of Magnetism and Magnetic Materials, 460, 120–127 (Aug 2018). I.F: 3.097
    https://doi.org/10.1016/j.jmmm.2018.03.028
18. **Mobility and perpendicular magnetic anisotropy in electrodeposited $Co_{32}Fe_{67}B_1$ thin films**
    *Naeem Ahmad, Fahad Hassan, **Suleman Khan**, et al.*
    Journal of Magnetism and Magnetic Materials, 458, 156–163 (July 2018). I.F: 3.097
    https://doi.org/10.1016/j.jmmm.2018.02.071
19. **Voltage variation influence on $Co_{12x}Sn_x$ nanowire alloys' structure and magnetic properties**
    *Naeem Ahmad, **Suleman Khan**, et al.*
    Applied Physics A, 123:65 (Dec 2017). I.F: 2.983
    https://doi.org/10.1007/s00339-016-0682-7
20. **Magnetization dynamics in $Ni_{76}Fe_{24}$ nanowires and $Ni_{77}Fe_{23}$ nanotubes synthesized by DC electrodeposition**
    *Naeem Ahmad, Ahmad Saeed, **Suleman Khan,** et al.*
    Journal of Alloys and Compounds, 725, 123–128 (Nov 2017). I.F: 6.371
    https://doi.org/10.1016/j.jallcom.2017.05.012
21. **Tuning of magnetic and structural properties of electrodeposited NiZn nanowires in Al_2O_3 templates**
    *Naeem Ahmad, **Suleman Khan**, et al.*
    Journal of Magnetism and Magnetic Materials, 441, 696–701 (Nov 2017). I.F: 3.097
    https://doi.org/10.1016/j.jmmm.2017.04.072
22. **Ferromagnetic relaxation and properties of $Co_{40}Fe_{40}B_{20}$ thin films**
    *Naeem Ahmad, Tian Yu, **Suleman Khan**, et al.*
    Journal of Superconductivity and Novel Magnetism, 30, 469–473 (Sep 2016). I.F: 1.675
    https://doi.org/10.1007/s10948-016-3730-9
23. **Magnetization reversal and surface spins in electrodeposited $Co_{90}Mn_{10}$ alloy nanowires**
    *Naeem Ahmad, Sajid Tanweer, **Suleman Khan**, et al.*
    Journal of Superconductivity and Novel Magnetism, 30, 505–509 (Sep 2016). I.F: 1.675
    https://doi.org/10.1007/s10948-016-3704-y

24. **Concentration variation and domain wall pinning in $Co_{1-x}Zn_x$ (x = 0.4–0.5) nanorods**
*Naeem Ahmad, Amna Jaral, **Suleman Khan**, et al.*
Journal of Superconductivity and Novel Magnetism, 29, 509–513 (2016). I.F: 1.675
https://doi.org/10.1007/s10948-015-3274-4
25. **Electrical Characterization of GaN**
*Nazir A. Naz, **Suleman Khan**, Akbar Ali*
Progress in Electromagnetics Research Symposium Proceedings, Guangzhou, China, Aug 25–28, 2014. I.F: 4.3

CONFERENCES ATTENDED

i. **Potential Dependent Tuning of Magnetic and Structural Properties of Electrodeposited NiZn Nanowires in Al_2O_3 Templates**
***Suleman Khan**, Naeem Ahmad, Wenjing Li, Saqlain Shah, Saddique Ghumen, Saifullah Awan, Javed Iqbal, Abdul Majid, X. F. Han*
61st International Conference on Magnetism and Magnetic Materials (MMM 2016)
New Orleans, Louisiana, USA | October 31 – November 4, 2016

ii. **DFT Calculations and Effect of Voltage Variation for Synthesis of Full Heusler Alloy Fe_2CoSn Nanowires Using AC-Electrodeposition in Alumina Templates**
***Suleman Khan**, Naeem Ahmad, X. F. Han*
Accepted Abstract ID: SMR2017-223P
3rd International Conference on Smart Material Research (ICSMR 2017)
Melbourne, Australia | November 15 – 17, 2017

ii. **Magnetic Interactions and Ferromagnetic Relaxation in High-Density Vertically Electrodeposited $Ni_{76}Fe_{24}$ Nanowires and $Ni_{77}Fe_{23}$ Nanotubes**
*Naeem Ahmad, **Suleman Khan**, Ahmad Saeed*
Workshop on Recent Trends in Nanomagnetism and Spintronics
National Center for Physics, Islamabad, Pakistan | September 28 – 30, 2016

RESEARCH INTEREST

- Design, Synthesis and application of magnetic nanostructures, including giant magnetoresistance (GMR) magnetic tunnel junction (MTJs) and other spintronic materials.
- Magnetization Reversal mechanism in ferromagnetic Nanostructures such as Nanowires and Nanotubes.
- Magnetization reversal mechanism study to use in high density recording media.
- To synthesize the Heusler Alloys/Compound Nanowires, Nanotubes, Nanoparticles and Thin Film to enhance the magnetic storage efficiency and spintronic devices.
- To enhance the properties in field of biotic (medicines, foods, Enzymes, Fibers) using Nanostructures.
- To study the Photovoltaic Properties and Enhance the efficiency of perovskite solar cells using Potentiostat. Apparatus.

RESEARCH SUPERVISION

- I have Co-Supervised Fifteen (15) M.Phil students Projects in AIOUI & IIUI
- I have also Co-Supervised twenty (20) MSc students Projects in AIOUI & IIUI
- And Supervised Forty-Eight (48) BS students Projects in NFCIET Multan, Pakistan
- Presently working with various level students Projects in Master, M.Phil as well as at PhD level.

BOOKS/CHAPTERS PUBLISHED

- Naz, R., Rasheed, T. **Khan, S.** Bilal, M. Nanostructured 2D Transition Metal Dichalcogenides (TMDs) as Electrodes for Supercapacitor. In: Thomas, S., Gueye, A.B., Gupta, R.K. (eds) “Nanostructured Materials for Supercapacitors. Advances in Material Research and Technology”. **Springer, Cham.** (2022).

PHD THESIS EVALUATION FROM FOREIGN EXAMINERS

- Prof. Zhongwu Liu, 381 Wushan Road, South China University of Technology, Guangzhou, 51064, ***China.*** Email: zwliu@seut.edu.cn
- Dr. Antonio Feteria (Reader), Materials and Engineering Research Institute, Sheffield Hallam University, City Campus, Haward Street, Sheffield S 1 1WB, ***UK.*** Email: a.feteira@shu.ac.uk

PROFESSIONAL SKILLS

- Nanotube Fabrication
- Thin Film Deposition
- Perovskite Solar Cells
- Two-Probe Technique
- Four-Probe Method
- Hall Effect Measurements
- X-Ray Diffraction (XRD)
- Nanostructure Fabrication
- Electrochemical Deposition (ECD)
- Anodized Aluminum Oxide (AAO) Templates
- Nanowire Synthesis
- Atomic Force Microscopy (AFM)
- Fourier-Transform Infrared Spectroscopy (FTIR)
- UV-Vis Spectroscopy
- Potentiostat Measurements
- Deep Level Transient Spectroscopy (DLTS)
- Spin Coating
- Photovoltaic Efficiency Analysis
- Magnetic Property Measurement
- LabVIEW
- OriginPro
- MATLAB
- COMSOL Multiphysics
- AutoCAD
- ImageJ
- VESTA
- LaTeX
- MS Office Suite
- Research Proposal Writing
- Scientific Report Writing
- Peer-reviewed Publishing
- Literature Review
- Thesis Supervision
- Curriculum Development
- Conference Presentation
- Research Project Management
- Academic Counseling
- Lab Safety Management
- Interdisciplinary Collaboration
- Teaching Methodology
- Classroom Management
- Student Engagement
- Lesson Planning

REFERENCE

1. Muhammad Javed
   Lecturer of Mathematics
   International Maritime College Oman (IMCO),
   National University of Science & Technology, Oman
   Contact: +968 9383 7508
   Email: muhammad.javed@imco.edu.om
2. Muhammad Usman Farooq
   Biology Teacher
   Applied Technology High Schools (ATHS), UAE
   Contact: +971 52 819 2416
   Email: muhammad.farooq@actvet.gov.ae
3. Dr. Ali Zaman
   Assistant Professor, Department of Physics
   COMSATS University Islamabad, Pakistan
   Contact: +92 300 9820890
   Email: ali.zaman@comsats.edu.pk
4. Dr. Ather Hassan
   Assistant Professor, Department of Physics
   Allama Iqbal Open University, Islamabad, Pakistan
   Contact: +92 334 9078209
   Email: ather.hassan@aiou.edu.pk