Curriculum Vitae

Dr. Sami Ullah

Lecturer

Personal Information

Nationality	Pakistani
Department	Physics
Faculty	Faculty of Physical Sciences
University	University of Balochistan, Quetta
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Professional Summary

Ph.D. in Physics with over 13 years of teaching and academic experience at the University of Balochistan. Expertise in delivering undergraduate and postgraduate courses, mentoring students, and supervising research in experimental and theoretical physics. Possesses over 5 years of focused research experience in photovoltaics, including thin-film fabrication, materials characterization, and solar cell development. Research interests include metal oxide nanostructures, perovskite, organic and dye-sensitized solar cells, thin-film deposition, and 2D materials for optoelectronic applications.

Articles published (n)	**11**							
W-Category articles (n)	**6**							
X-Category articles (n)	**1**							
Y-Category articles (n)	**2**							
Z-Category articles (n)	**2**							
Quartiles of articles (n)	**Q1**	**6**	**Q2**		**Q3**	**1**	**Q4**	
Books published (n)								
Projects completed (n)	**National**		**International**					
MS./M.Phil. produced (n)	**In progress**							
Ph.D. produced (n)	**0**							
Patents registered (n)	**0**							
Honors and Awards	**0**							

Research Pages and Accounts

Title	Links
Web of Science	Web of Science ResearcherIDNXB-7701-2025
Scopus	https://www.scopus.com/authid/detail.uri?authorId=59435790400#
Google Scholar	https://scholar.google.com/citations?user=lKX2bgUAAAAJ&hl=en
ResearchGate	https://www.researchgate.net/profile/Sami-Ullah-150?ev=hdr_xprf
ORCID	https://orcid.org/0000-0002-2062-5353
Academia	https://xix.academia.edu/SUllah

Areas of Research Interests/ Specialization

- Photovoltaics
- Material Science
- Solid State Physics Nanoscience and Technology Material Science
- Synthesis of nano materials
- Materials characterization (SEM, AFM, PL, XRD, GIWAX, Solar simulator, XPS, FTIR)
- Photocatalysis
- Applications of Nano materials (energy harvesting, sensors and thin film preparation)

Education

Degree	Field of Study	Institution	Year
Ph.D.	Physics	University of Balochistan	2022
M.Phil.	Physics	University of Balochistan	2016
M.Sc.	Physics	University of Balochistan	2008
B.Sc.	Physics, Chemistry, Math	University of Balochistan	2005

Honors and Awards

Title of Award (s)	Institutions	Year
Ph.D. Slovak National research Scholarship	Institute of Physics, Slovak Academy of Sciences	2019
Institute of Physics postdoctoral fellowship	Institute of Physics, Slovak Academy of Sciences	2024-2026

Thesis/Dissertations

Thesis Title	Degree	University	Year
Transport layer Engineering of efficient Perovskite Solar Cells	Ph.D.	University of Balochistan	2022
ZnO Nanoballoons based solar cell	M.Phil.	University of Balochistan	2016

Professional Experience

Position	Institution/Organization	Duration	Responsibilities
Lecturer	University of Balochistan	From 01-08-2012 to till date	Teaching at graduate and post graduate level

Academic Appointments

Position	Institution	Duration	Years
Lecturer	University of Balochistan		2012 till date

Courses Taught

Course Title	Level	Years
Atomic and Molecular Physics, Microprocessor architecture (I,II)	M.Sc.	
Atomic and Molecular Physics,Microprocessor architecture, Introduction to computers Numerical analysis, Circuit theory	BS	

Courses Developed

Course Title	Level	Years
Atomic and Molecular Physics, Microprocessor architecture, Introduction to computers, Numerical analysis, Circuit theory	BS	2020
Atomic and Molecular Physics, Microprocessor architecture (I,II)	M.Sc.	2018

Publications

	Journal Articles	
No.	**Title**	**Category/Impact Factor**
1.	Omnidirectional Ionic Locking Network for Stable Perovskite Photovoltaics. Nature Photonics (accepted)	W
2.	Mesoporous SnO_2 nanoparticle-based electron transport layer for perovskite solar cells. *ACS Applied Nano Materials*, *5*(6), 7822-7830.	W
3.	Tailoring the electronic properties of the SnO_2 nanoparticle layer for nip perovskite solar cells by Ti_3C_2TX MXene. *Materials Today Communications*, *36*, 106700.	W
4.	A synergistic effect of the ion beam sputtered NiOx hole transport layer and MXene doping on inverted perovskite solar cells. *Nanotechnology*, *33*(42), 425202.	W
5.	Simulation-based optimization of CdS/CdTe solar cells incorporating MXene-enhanced SnO_2 buffer layer: insights from experimentally validated material properties. *Solar Energy*, *294*, 113510.	W
6.	Self-powered TENG probe for scanning surface charge distribution. *Nanotechnology*, *35*(6), 065707.	W
7.	Natural plant trifolium pratense, mirabilis jalapa and bassia scoparia extract used as photosensitizer in dye-sensitized solar cell. *Iranian Journal of Chemistry and Chemical Engineering*, *40*(3), 872-880.	X
8.	Production of biogas as an energy source in colder area, using flat plate thermal collector. *Scientific Journal of Mehmet Akif Ersoy University*, *1*(2), 29-35.	Y
9.	Design and analysis of solar air heating system for room. *Scientific Journal of Mehmet Akif Ersoy University*, *2*(3), 55-62.	Y
10	Numerical Modeling and Optimization of Perovskite Solar Cells Using SCAPS-1D. *Journal of Physics and Material Sciences*, 11-16.	Z
11	Fabrication of ZnO Nanorods Based Biosensor via Hydrothermal Method, World Academy of Science, Engineering and Technology International Journal of Chemical and Materials Engineering Vol:12, No:10, 2018	Z

Citations (As of 25 September 2025)

Google Scholar	
Citations	**69**
Publications	11
h-index	6
i-10 index	4
Web of Science	
Citations	29

Publications	2
h-index	2

Conferences Presentations with Abstracts Publications

Year	Title	Conference	Location
2013	Controlled feedback network for humanoid robot	Pakistan society of computational sciences/Biology	International Islamic University Islamabad
2015	Growth of ZnO nanoneedles by thermal oxidation of metallic zinc microparticles in air	Third International Conference on Advances in Applied Science and Environmental Technology - ASET 2015	Bangkok, Thailand 28-29 December 2015.
2015	Growth and optimization of ZnO nanostructures via rapid annealing	2nd conference on frontiers of Nanoscience and Nanotechnology	PINSTECH, Islamabad
2018	Metal oxide nanostructure for energy harvesting applications	1st international conference on material science and nanotechnology	University of Balochistan Quetta

Conferences Organized

Year	Title	Conference	Location
2018	1st international conference on material science and nanotechnology	1st international conference on material science and nanotechnology	University of Balochistan Quetta

Workshops and Seminars Attended

Title	Workshop/Seminar Name	Location	Year	Role
National Workshop on Physics Education challenges and Prospects	National center for Physics	Islamabad Pakistan	2015	Participant
Workshop on Tracking and detectors in high energy Physics	National center for Physics	Islamabad Pakistan	2015	Participant

Research Supervision

Name of Students	Thesis Title	M.Phil. Degree	Year
Tasmia Noman	Numerical Analysis of Effective Perovskite Solar Cells Using SCAPS-1D	MPhil	2026

Technical/Laboratory Skill Set

Skills	Levels
Project Planning	Expert
Project Designing and Implementation	Advanced
Data Collection Tools Development	Expert
Quantitative Data Analysis	Expert
Qualitative Data Analysis	Expert
Grant writing	Advanced

Languages Proficiency

Language	Proficiency
English	Read, write, understand, speak
Urdu	Read, write, understand, speak

Softwares/ Analytical Tools

Software	Proficiency
MS Office	Expert
ImageJ	Expert
Gwyddion	Expert
Origin	Expert
SCAPS-1D	Expert
Solid work	Advance
Xpert High Score	Proficient
Design Expert	Proficient
MATLAB	Proficient
Paios	Proficient

References

1.	Name	Prof. Jafar Khan Kasi
	Institution	University of Balochistan, Quetta
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2.	Name	Prof. Ajab Khan Kasi
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4.	Name	Prof. Eva Majková. RNDr.
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