



CURRICULUM VITAE

PERSONAL DETAILS:-

Name : SHAILENDRA KUMAR SINGH

Date of Birth : 29th November 1981

Nationality : Indian

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Present Position : Assistant Professor,
Department of Physics,
MJCET, Hyderabad, India

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Uttar-Pradesh-245207, India.

Google Scholar Profile :

<https://scholar.google.com/citations?user=iDG0LUgAAAAJ&hl=en>

Citations- 105; h-Index-6

EDUCATIONAL QUALIFICATIONS:-

Bachelor of Science (B.Sc.)

Subject : **Physics, Mathematics, Statistics**
Institution : V.B.S. Purvanchal University, India
Year of Passing : 2002
Percentage of Marks : 82.2%

Master of Science (M.Sc.)

Subject : **Physics**
Institution : Department of Physics,
Banaras Hindu University, India
Year of Passing : 2004
Percentage of Marks : 73.3%

Doctor of Philosophy (Ph.D.) obtained on 8th January 2012.

Subject : **Physics (Theoretical Quantum Physics)**
Institution : Department of Physics,
Visva-Bharati (Central University), Shantiniketan,
West-Bengal, India
Title of the Thesis : Nonclassical properties of light
coupled to dielectric media

WORK EXPERIENCE:-

- Assistant Professor (Contractual) at School of Physical Sciences, Central University of Karnataka, **India** from 14th January 2021 to 13th July 2021.
- Theoretical Research Associate at **AIFI Technologies LLC, Abu Dhabi, UAE** from 1st July 2019 to 7th October 2020.
- Assistant Professor at Department of Physics, Lovely Professional University, Jalandhar, Punjab, **India** from 9th July 2018 to 9th February 2019.
- Assistant Professor at Department of Physics, Mohammad Ali Jauhar University, Rampur, U.P., **India** from 6th May 2017 to 30th June 2018.
- Assistant Professor at School of Engineering Science and Technology, Jamia Hamdard, New- Delhi, **India** from 3rd August 2015 to 30th April 2017.
- Postdoctoral Fellow at Department of Physics, Hacettepe University, **Turkey** from 2nd December 2014 to 30th June 2015.
- Postdoctoral Fellow at Department of Physics, University of Malaya, **Malaysia** from 19th September 2013 to 18th September 2014.
- Postdoctoral Fellow at Theoretical Physics Division, Physical Research Laboratory, **Ahmedabad, India** from 26th July 2012 to 25th July 2013.
- Research Fellow at Theoretical Quantum Optics Group, University of Rostock, **Germany** from 1st March 2010 to 30th June 2011.

PRESENT RESEARCH INTEREST:

Theoretical Quantum Optics and Quantum Information:- Cavity optomechanical and Cavity Magnomechanica; system and its application in quantum information and quantum sensing.

Quantum Computing and Quantum Machine Learning:- Application of Quantum Machine learning in Nanocomposite Materials and polymers.

COMPUTATIONAL SKILLS:- Matlab, Mathematica, Python (Learning Stage).
Certification in Machine Learning and Deep Learning.

LIST OF PUBLICATIONS:

1. S.K. Singh et. al, Physics Letter A, **442**, 128181 (2022).
2. S.K. Singh et. al, Quantum Information Processing **21**, 47 (2022).
3. S.K. Singh et. al, J. Phys. B: At. Mol. Opt. Phys. **54**, 215502 (2021).
4. S.K. Singh, Applied Physics B **127**, 90 (2021).
5. S.K. Singh et. al, Quantum Information Processing **19**, 297 (2020).
6. S.K. Singh et. al, Int. J. Theo. Phys. **58**, 2418 (2019).
7. S.K. Singh, Journal of Modern Optics **66**, 562 (2019).
8. S.K. Singh and Mehmet Emre Tasgin, Phys. Rev. B **93**, 035410 (2016).
9. S.K. Singh and S.V. Muniandy, Int. J. Theo. Phys. **55**, 287 (2016).
10. S. K. Singh and C.H. Raymond Ooi, J. Opt. Soc. Am. B **31**, 2390 (2014).
11. S. K. Singh and Werner Vogel, Phys. Rev. A **83**, 063806 (2011).
12. S.K. Singh and Swapan Mandal, Optics Communication **283**, 4685 (2010).
13. S.K. Singh and Swapan Mandal, Journal of Modern Optics **55**, 1603 (2008).
14. S.K. Singh and Swapan Mandal, Journal of Modern Optics **55**, 1387 (2008).

SUBMITTED WORKS:

15. “Enhanced weak force sensing based on atom-based coherent noise cancellation in a hybrid cavity optomechanical system” (<https://doi.org/10.48550/arXiv.2203.01678>). (First Author).
16. “Strong photon antibunching effect in a double cavity optomechanical system with squeezed driving” (<https://doi.org/10.48550/arXiv.2209.07401>). (Corresponding Author).
17. “Controllable Fano-type optical response and four-wave mixing via magnetoelastic coupling in a opto-magnomechanical system”. (Corresponding Author).
18. “Enhanced bipartite entanglement through the magnon squeezing in a cavity magnomechanical system”. (Co-Author).
19. “Normal mode splitting and optical squeezing in a linear and quadratic optomechanical system with optical parametric amplifier”. (First Author).