



**TO THE MAGNIFICENT RECTOR
OF THE UNIVERSITY OF MILAN COD. ID: 6566**

The undersigned requests to be admitted to participate in the public selection, based on qualifications and exams, for the awarding of a research grant at the Department of _____ Physics _____

Scientific manager: Prof. Matteo G A Paris _____

[Name and surname] **Manju**

CURRICULUM VITAE

PERSONAL INFORMATIONS

Surname	
First name	Manju

CURRENT EMPLOYMENT

Assignment	Structure

EDUCATION AND TRAINING

Title	Course of study	University	year of obtaining the qualification
Master's degree or equivalent	Mathematical Physics, Classical Physics, Quantum Mechanics, Electronic Devices and Circuits, Nuclear and Particle Physics, Solid State Physics, Seminar, Advanced Quantum Mechanics, Statistical Mechanics, Condensed Matter Physics, Electronics, Electrodynamics and Plasma Physics, Atomic	Kurukshetra University, Kurukshetra	2017



	and Molecular Physics, Physics Laboratory		
Specialization			
Ph.D	Quantum Optics and Quantum Information	IIT Ropar	2024
master's degree			
Medical Specialization Diploma			
European Specialization Diploma			
Other			

REGISTRATION TO PROFESSIONAL ORDERS

Registration date	Order	City



FOREIGN LANGUAGES KNOWN

languages	knowledge level
English	Advanced level

AWARDS, RECOGNITIONS AND SCHOLARSHIPS

year	Prize description
2012-2017	Central Sector Scheme of Scholarship for College and University Students by Ministry of Education (formerly the MHRD), Government of India for pursuing graduate and postgraduate degree in colleges and universities.
2018-2020	Junior Research Fellowship by Ministry of Education (formerly the MHRD), Government of India, as a PhD research scholar in Indian Institute of Technology, Ropar.
2020-2023	Senior Research Fellowship by Ministry of Education (formerly the MHRD), Government of India, as a PhD research scholar in Indian Institute of Technology, Ropar.

TRAINING OR RESEARCH ACTIVITIES

PROJECT ACTIVITY

Year	Project

OWNERSHIP OF PATENTS

Patent

CONFERENCES, CONFERENCES AND SEMINARS

Date	Title	Site
June 13-July 23, 2019	The Summer School on quantum information and quantum technology	QIQT 2019, IISER, Kolkata
May 8-June 15, 2023	4 th International Conference on Quantum Information and Quantum Technology	QIQT 2023, IISER, Kolkata



10 – 13 th November, 2022	Poster Presentation- Quantum synchronization and entanglement of two mechanical oscillators, using parametric interactions, in coupled optomechanical systems	COPaQ-2022, IIT Roorkee
4 th March, 2023	Poster Presentation- Quantum synchronization and entanglement of indirectly coupled mechanical oscillators in cavity optomechanics: A numerical study	Physics Day, IIT Ropar
11–13 th December, 2023	Poster Presentation- An uncertainty relation-based study of quantum correlations in optomechanical systems	OPTIQ, Cochin University, Kerala
5–8 th July, 2023	Oral Presentation- An Uncertainty-Based Unified Approach Towards Quantum Synchronization and Entanglement in Optomechanical Systems	Photonics, IISc Bengaluru
11–13 th December, 2023	Thesis Presentation- An Uncertainty Relation Based Study of Quantum Correlations	OPTIQ, Cochin University, Kerala

PUBLICATIONS

Publications
D. Garg, Manju , S. Dasgupta and A. Biswas, “Quantum synchronization and entanglement of indirectly coupled mechanical oscillators in cavity optomechanics: A numerical study”, Phys. Lett. A 457 , 128557 (2023) [arXiv:2305.04197 [quant-ph]]
Manju , A. Biswas and S. Dasgupta “Strong entanglement criteria for mixed states, based on uncertainty relations”, Journal of Physics A: Mathematical and Theoretical 56 , 025304 (2023) [arXiv:2210.16551 [quant-ph]]
Manju , S. Dasgupta and A. Biswas, “Entanglement boosts quantum synchronization between two oscillators in an optomechanical setup”, Phys. Lett. A 482 , 129039 (2023) [arXiv:2305.02862 [quant-ph]]

OTHER INFORMATION

Qualified National Eligibility Test (with JRF) conducted jointly by Council of Scientific and Industrial Research and University Grants Commission with All India Rank 236 in 2017
Qualified National Eligibility Test (with JRF) conducted jointly by Council of Scientific and Industrial Research and University Grants Commission with All India Rank 208 in 2018
Qualified Graduate Aptitude Test in Engineering (GATE) with All India Rank 521 in 2018
Qualified Graduate Aptitude Test in Engineering (GATE) with All India Rank 382 in 2019
Teaching Assistantship



Fall, 2019 B.Tech, Practical Lab For Physics, IIT Ropar
Spring, 2020 B.Tech, Physics For Engineer course, IIT Ropar
Fall, 2020 M.Sc., Advanced Quantum Mechanics course, IIT Ropar
Spring, 2021 M.Sc., Advanced Quantum Mechanics course, IIT Ropar
Fall, 2021 B.Tech, Practical Lab For Physics, IIT Ropar
Spring, 2022 B.Tech, Practical Lab For Physics, IIT Ropar
I know the programming Languages: MATLAB and Quantum Toolbox in Python (QuTip)

The declarations made in this curriculum are to be considered issued pursuant to articles. 46 and 47 of Presidential Decree n. 445/2000.

This curriculum does not contain sensitive data and judicial data referred to in art. 4, paragraph 1, letters d) and e) of the Legislative Decree . 30.6.2003 n. 196.

WE REMEMBER that **the curricula WILL BE MADE PUBLIC on the University website** and therefore please do not enter sensitive and personal data. This template is already pre-built to meet the need for publishing without sensitive data.

Please therefore **DO NOT SIGN** this form.

Place and date: _____Haryana, India_____, __26/04/2024_____