



SAHA INSTITUTE OF NUCLEAR PHYSICS

(Autonomous Research Institute under Department of Atomic Energy,
Govt. of India)

Sector-I, Block – ‘AF’, Bidhan Nagar, Kolkata- 700064

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[ADVERTISEMENT FOR THE POSITION OF CHANAKYA POST-DOCTORAL FELLOWSHIP]

Saha Institute of Nuclear Physics, an autonomous institute under the auspices of the Dept. of Atomic Energy, Govt. of India, invites applications via e-mail from candidates for the Temporary Position of Postdoctoral Fellow in the research project under the Chanakya Post-Doctoral Fellowships in Quantum Technology Scheme of I-Hub Quantum Technology Foundation, Pune.

No. of Position: 1 (One)

Essential Qualification: Ph.D. in Physical Sciences.

Project Title	Realization of broadband quantum memory by using electromagnetically induced transparency protocol in Rb atomic vapour medium
Sponsoring Agency	I-Hub Quantum Technology Foundation, Pune. (Chanakya Post-Doctoral Fellowships in Quantum Technology Scheme)
Consolidated monthly fellowship	INR 80,000/- per month consolidated. The salary will be directly paid by I-Hub Quantum Technology Foundation, Pune to the selected Postdoctoral Fellow. No other admissible benefits and allowances from SINP are applicable to this fellowship.
Tenure	Initially 1 year with a possible extension of 2 more years subject to satisfactory appraisal, performance review and availability of funding from I-Hub Quantum Technology Foundation, Pune.
Age	Maximum 35 years as on last date of receiving the application.
Principal Investigator	Dr.Sankar De
Division	Applied Nuclear Physics Division
Desirable Qualification	Fresh PhD in Physics with specialization in Quantum Optics / Optical Engineering /Optics / Laser Spectroscopy / Photonics/ other related areas. Candidates with training in both theory and experiments in the

	above areas are encouraged to apply. Preference shall be given to candidates with an experimental background and training in optics and/or atomic and molecular physics.
Nature of the Work	<p>The aim of this proposal is the realization of multiplexed quantum memory in physically separated individual units, with each unit comprised of rubidium vapour cells. The protocol used for our study is electromagnetically induced transparency. Magnetic fields produced by Helmholtz coils will be used to tailor the atomic energy levels in the vapour cells.</p> <p>The selected candidate will get an opportunity to work with external cavity diode lasers, electro-optic and acousto-optic modulators, RF electronics, atomic vapour cells, magnetic coils, photon detectors, optical fibers and related accessories for setting up the experiment. The job involves designing & mechanical fabrication, testing of instruments in the field of lasers & optics, developing low-noise analog & digital electronics, developing FPGA based control systems & related software to run opto-electronics and so on.</p> <p>Apart from the development of the experiment, he/she will have to work on theoretical simulations related to the physics problems necessary to meet the experimental goals. Within a lab, entire work will be executed in a collaborative manner.</p>
Last Date of Application	16th February, 2022
NOTE	<p>The shortlisted candidates will be informed by email only. Selection will be based on the qualification, experience, and interview. The interview and other logistics will be conducted via online mode only. The interview date will be notified to the shortlisted candidates by email. Candidates may appear in the interview through video conferencing. No TA/DA shall be paid to candidates appearing for an interview online. Selected candidates will need to join their duty within two weeks of acceptance of the offer for the fellowship.</p>

Procedure for Applying:

Interested and eligible candidates should apply by email only to chanakya.pdf@saha.ac.in (copy to sankarde@gmail.com) with the subject matter 'APPLICATION FOR SINP CHANAKYA PDF'.

The following details are to be appended in the application: -

- (a) Complete Bio-data Proforma with e-mail ID/ Phone No.
- (b) Details of qualification i.e., Examination passed, year and percentage of marks from Graduation onwards
- (c) Details of Publications
- (d) Details of Conferences/ Workshops attended
- (e) Each application should include the details of (at least) two (02) referees with contact details including email.
- (f) Ph.D. certificate

The entire application materials must be assembled into one PDF file. Any other format is not acceptable. This single PDF file must be sent as an attachment via email to the email address given above.

All applications are to be received on or before 16th February, 2022.

Please keep track of details/amendments on the SINP website. Amendments, if any will be published in the Institute website only. The Institute reserves the right to fill up or not fill up the position.

No. SINP/Estt/Advvt/02/2022

Professor-in-Charge, Registrar's Office