



## SAHA INSTITUTE OF NUCLEAR PHYSICS

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

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

Phone: 2337-5345-49 (5lines), Fax: 0091-33-2337-4637

### [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 <b>35 years</b> 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 a 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 &amp; mechanical fabrication, testing of instruments in the field of lasers &amp; optics, developing low-noise analog &amp; digital electronics, developing FPGA based control systems &amp; 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	<b>August 12, 2022</b>
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. <b>Selected candidates will need to join their duty within two weeks of acceptance of the offer for the fellowship.</b></p>

**Procedure for Applying:**

Interested and eligible candidates should apply by email only to [chanakya.pdf@saha.ac.in](mailto: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
- (g) Proof of date of birth

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 August 12, 2022.**

**Please keep track of details/amendments on the SINP website**

**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.**

**Advt. No. SINP/Estt/Advt/11/2022**

**Professor-in-Charge, Registrar's Office**

## BIO-DATA PROFORMA



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### **BIODATA PROFORMA FOR CHANAKYA PDF**

1. Name of Candidate (In Block Letters)
2. Parent/Spouse Name
3. Date of birth and age on 12.08.2022
4. Permanent Address
5. Address for correspondence
6. Contact numbers (landline / mobile)
7. Email
8. Educational Qualifications (In chronological order) (Starting from Graduation onwards including additional degrees / diplomas)

RECENT  
PHOTOGRAPH

<b><u>S. No.</u></b>	<b><u>Class/ Degree</u></b>	<b><u>Name of Board/University</u></b>	<b><u>Year of passing</u></b>	<b><u>% Marks</u></b>	<b><u>Subjects Passed</u></b>

9. Details of Experience, if any

(Particulars of all previous and present employment) (List for which proof is available)

10. Are you an employee (not student/postdoc) elsewhere? *(If so, details and proof with no objection certificate must be provided. Advance copy may be forwarded; the NOC may be submitted at the time of the interview)*

11. List of Publications

12. Conference/ Workshops attended

13. Names of Referees with contact details

[At least TWO (2) confidential letters of reference sent directly by the persons recommending to Dr. Sankar De, Associate Professor, SINP via email to [chanakya.pdf@saha.ac.in](mailto:chanakya.pdf@saha.ac.in) (copy to [sankarde@gmail.com](mailto:sankarde@gmail.com)) for full consideration on or before August 12, 2022]

14. Name of Thesis supervisor and Thesis title

15. Status of Ph.D. degree (Whether submitted or awarded, with dates)

16. Present Position (if any)

17. Statement of purpose mentioning motivation and expertise in theoretical, experimental, instrumentation or other experience relevant to the project (Please use a separate sheet, max one A4 paper)

18. Any other relevant information relating to the position applied for:

**Declaration**

I do, hereby, declare that all statements made in this application are true, complete and correct to the best of my knowledge and belief I understand and agree that in the event of any information being found false or incorrect/incomplete or ineligibility being detected at any time before or after selection/interview, my candidature is liable to be rejected.

(Signature of the Candidate)

Date: -----

Place: -----

**\*Enclose self-attested copies of required documents only.**