RAMAN RESEARCH INSTITUTE

Advt.11/2019

Announcement of opportunity for exciting research in
Experimental Quantum Communications

Raman Research Institute invites applications from individuals for <u>research assistant positions.</u> The candidates must possess excellent and consistent academic record and core competence and research aptitude in Physics, especially desirable in the areas of Quantum Physics and Optics.

The Quantum Information and Computing (QuIC) lab of RRI has recently embarked on an international collaboration titled "A low cost, light, compact source for QKD based on intra-particle entanglement in an integrated photonic circuit" in collaboration with the University of Trento, Italy. This is a project under the India Trento Programme of Advanced Research (ITPAR) which is an international bilateral programme under the DST. Our project also involves tie-ups with several institutes in the country especially with teams at IISER Kolkata, ISI Kolkata and Bose Institute.

We are currently looking for two appointments within the Quantum Information and Computing lab, Light and Matter Physics group of the Institute. The appointment is on a contractual basis. The candidates will be associated with the **<u>Quantum Information and Computing lab, LAMP Group</u>** of the Institute for a **period of one year, with a possible extension up to three years or coterminous with the project (whichever is earlier). The yearly extension will be based on annual performance review which will be conducted at RRI**. While one of the positions is for a theory candidate, the other is for a candidate with experimental aptitude. The details of the required qualifications and experience are given below.

Remuneration:

A consolidated remuneration of Rs.23,500/- per month at commencement + HRA (24% of consolidated remuneration) will be paid to the selected candidates. An increment of Rs.1000/- will be provided in the second year and third year.

Eligibility:

Age: Not more than 30 Years as on the closing date for receiving the completed application forms online. Age relaxation may be considered for candidates with relevant research experience.

Essential:

M.Sc (Physics/ Engineering Physics/ Photonics) or B.E./ B.Tech (Engineering Physics/ Electronics/ Computer Science Engineering).

Desirable:

The experimental candidate should be motivated and should have a flair for experimental work as well as programming skills. The theory candidate should be proficient in programming and numerical skills. 75% or more marks in aggregate or equivalent CGPA in the qualifying course is desirable.

Experience in one or more of the following is desirable:

1. Programming knowledge in Matlab/ Mathematica/ C++/ Python.

2. Prior experience of working in an optics based lab environment and familiarity with practical handling of optical and opto-mechanical components as well as equipment like signal generators, spectrum analyzers and digital oscilloscopes.

3. Knowledge in controlling of equipment using Labview.

4. Previous work experience in quantum information/ quantum communication based research work and familiarity with basic concepts in the field through course work, online classes etc.

General Information:

- Those who are already working in Government/Semi Government/PSU/Autonomous Bodies shall submit their applications through proper channel.

- The Institute reserves the right to restrict the number of candidates for interview to a reasonable limit, on the basis of qualification and experience higher than the minimum prescribed in the advertisement. Mere fulfilling the essential and desired qualifications will not entitle an applicant to be called for interview.

- Age relaxation will be applicable as per Govt., of India rules for the candidates belonging to SC/ST/OBC/Persons with disabilities categories.

- The institute reserves the right to relax any of the above requirements in exceptional cases.

- The Institute reserves the right not to fill the posts herein advertised. Canvassing in any form shall disqualify the candidate.

Selection procedure:

Candidates who qualify in the required criteria will be called for an interview. Call letters for interviews are likely to be sent by mid-July 2019; the interviews will be held at RRI.

Apply online at: http://www.rri.res.in/openings/raitpar.html

Online submission of application starts: 27/05/2019
Closing date for receiving the completed application forms online: 26/06/2019
Applications received after the last date will not be considered.