



Raman Research Institute (RRI) is a premier research institution for advanced research. Applications are invited from motivated and qualified students for admission to the PhD programme 2017. Details of the activities of the research groups can be found at [www.rri.res.in](http://www.rri.res.in)



## ASTRONOMY & ASTROPHYSICS (A&A)

Cosmology and Galaxy Formation  
Normal and Active Galaxies  
Clusters of Galaxies  
The Galaxy and the Interstellar Medium  
The Intergalactic Medium  
Neutron Stars, Pulsars and X-ray Binaries  
Signal Processing in Astronomy

## LIGHT AND MATTER PHYSICS (LAMP)

Degenerate Bose and Fermi gases  
Fundamental tests of quantum mechanics  
Intense laser-matter interactions  
Interaction of single atoms and single photons  
Nonlinear optics and ultrafast phenomena  
Quantum information, computation and cryptography  
Quantum optics and cavity QED  
Trapping and cooling of atoms, ions and molecules  
Waves in random media

## THEORETICAL PHYSICS (TP)

Condensed Matter and Statistical Physics  
Non-Equilibrium Dynamics  
Many Body Localization  
Light-Matter Interaction  
Classical and Quantum Gravity

## SOFT CONDENSED MATTER (SCM)

Structure, Dynamics and Phase Behavior of Soft Matter  
Rheology of Soft Matter and Living Cells  
Physics of Biological Systems—cells to DNA  
Nano-devices for Biosensing  
Liquid Crystals: Phase transitions, structure, topological defects, etc.

## CHEMISTRY

Synthesis, characterisation and applications of Liquid Crystals and their nano-composites

## FORMAT OF THE PHD PROGRAMME

Research Scholars undergo intensive course work during the first year. The medium of instruction is English. On successful completion of the course work and other requirements for confirmation of their candidature, research students will be registered for a PhD degree with the Jawaharlal Nehru University, New Delhi. Students are paid a scholarship of Rs.25,000/- per month for the first two years and Rs.28,000/- thereafter for the next three years, subject to satisfactory progress. In addition, they are paid a book grant of Rs.5,000/- per annum for four years. Hostel accommodation, if available, or HRA will be provided for a period of five years. RRI encourages and supports participation of students in national and international conferences.

RRI is also a participant in the Joint Astronomy Programme (JAP) with the Indian Institute of Science, Bengaluru.

## WHO ARE ELIGIBLE

Candidates seeking admission in Physics must have MSc degree in Physics/Mathematics with a minimum of **55% marks** in aggregate or equivalent or **first class** B.E./B.Tech degree in Engineering. Candidates seeking admission in Chemistry must have MSc degree in Chemistry with a minimum of **55% marks** in aggregate. Students who expect to complete their final degree in the academic year 2016-2017 may also apply, provided they can produce their final score card at the time of admission. Reservations for SC/ST/OBC candidates will be as per norms.

## SELECTION PROCEDURE

Candidates seeking admission are called for interview based on:

**Physics:** Performance in the Joint Entrance Screening Test 2017 (JEST-2017) to be held on Sunday, 19th February 2017 at several centers throughout the country.

Please visit <http://www.jest.org.in> for additional information about JEST.

OR

Performance in CSIR-UGC NET for JRF (Physics) or in subject GRE (Physics) or high score in GATE. Please note that for GATE, the streams that are acceptable for interviews to different groups at RRI are:

**A&A** : Physics (PH), Electronics & Communication Engg. (EC), Mechanical Engg. (ME), Electrical Engg. (EE), Computer Sc. & Information Technology (CS)

**LAMP** : Physics (PH)

**SCM** : Physics (PH), Electronics & Communication Engg. (EC), Chemical Engg. (CH), Electrical Engg. (EE), Metallurgical Engg. (MT)

**TP** : Physics (PH), Mathematics (MA)

**Chemistry:** The candidates are selected for interview based on their performance in CSIR-UGC NET for JRF (Chemistry).

The final selection of all the candidates is based on performance in interviews to be held at RRI during the beginning of June 2017. Call letters for interviews will be sent around second week of April 2017.

## HOW TO APPLY

All candidates need to apply online for admissions at RRI through [http://www.rri.res.in/phd\\_programme.html](http://www.rri.res.in/phd_programme.html) link. The online application will start only after the results of JEST, CSIR-UGC NET and GATE examinations come out. The expected date for opening of online application is around the end of March 2017. Please keep an eye on the RRI admission website in March 2017.

You may register an expression of interest in advance using the link at the admission website. In that case, you will receive an email once the online application is open.

