



# Council of Scientific and Industrial Research

## Human Resource Development Group

(Extra Mural Research Division-I)

CSIR Complex, Library Avenue,

Pusa, New Delhi -110 012

**ADVERTISEMENT**

**(Advt No. 2019/I)**

### **INVITING APPLICATIONS FOR direct SRF and RA**

**Apply Online on or before 26<sup>th</sup> July 2019**

at <http://www.csirhrdg.res.in>

**Only online applications followed by hard copy will be accepted.**

The Human Resource Development (HRD) Group of COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH (CSIR), New Delhi, provides opportunities to bright young men and women in the form of direct Senior Research Fellowships (SRFs) and Research Associateships (RAs) for training in methods of research under the expert guidance of faculty members/scientists working in universities, laboratories and institutes of Government Departments and recognised laboratories of industry in various fields of science and technology.

Preference will be given to the research topics relevant to R&D programmes of CSIR Laboratories, in the new and emerging fields of science and in the areas of importance for development of scientific and technological capability of the country. The Fellowships/ Associateships are tenable in all the universities and deemed universities/IITs/postgraduate colleges/government research establishments including those of CSIR, R&D establishments of recognised public sector, industrial firms and other recognised institutions. Only bonafide Indian citizens are eligible for the award. The award is for fixed tenure and does not imply any assurance or guarantee for subsequent employment by CSIR to the beneficiary. CSIR reserves the right to determine the place in India best suited to provide necessary facilities in the areas of science in which the awardee is to specialize. Selected Fellows and Associates will have to devote their full time to the approved research programmes. Fellows and Associates are not permitted to take up any other remunerative jobs/assignments during their tenure.

#### **A. SENIOR RESEARCH FELLOWSHIPS**

##### **ESSENTIAL QUALIFICATIONS:**

MSc/BE/B. Tech or equivalent degree with at least 55% marks and one publication in Science Citation Indexed (SCI) Journal and should have completed at least two years of post MSc/BE/B. Tech research experience as on the last date of application, as evidenced from fellowship/ associateship or from date of registration for Ph.D.

OR

M.Tech/ME or equivalent degree in engineering/technology with at least 60% marks.

OR

BE/B. Tech or equivalent degree with at least 60% marks and two years research experience as on the last date of application.

OR

MBBS/BDS or equivalent with at least 60% marks and one year internship.

OR

BPharm/BVSc/BSc(Ag) or equivalent degree with at least 55% marks and one publication in SCI Journal and should have completed at least three years research experience as on the last date of application, evidenced from fellowship/associateship or from date of registration for Ph.D.

OR

MPharm/MVSc/MSc(Ag) or equivalent degree with at least 55% marks and one publication in SCI Journal and should have at least one year research experience as on the last date of application, evidenced from fellowship / associateship or from date of registration for Ph.D.

**Documents in support of research, teaching (not below the undergraduate level) experience and Ph.D. registration should be attached.**

Those who have been awarded PhD/MD/MS/MDS degree or have submitted their thesis for the award of PhD/MD/MS/MDS degrees are not eligible for the position of SRF. **Those who are eligible for RA will not be considered for SRF.**

#### **EMPLOYED CANDIDATES:**

**These fellowships are held on a full time basis. Therefore simultaneous employment elsewhere is not permitted. However, those desirous of pursuing higher studies, but employed presently, whether temporary or permanent may apply with an undertaking that if selected, they will resign from the job before taking up the fellowship. The application will be rejected if the undertaking is not enclosed.**

#### **STIPEND AND TENURE:**

Rs. 35000/- per month during entire tenure of fellowship or date of PhD viva-voce whichever is earlier. In addition, each SRF will receive a contingent grant of a maximum Rs. 20,000/-p.a. The grant will be provided to the University/Institution with which the SRF will be affiliated. SRFs will be given Rs. 3000/- (lump sum) extra on submission of Ph.D thesis in e-form. For details regarding format, etc. of e-thesis please see CSIR's Unit for R&D of Information Products (URDIP) at [www.urdip.res.in](http://www.urdip.res.in).

**SRF will be tenable initially for a period of two years. The term is extendable by one year on the basis of assessment of the progress already made as judged by three member assessment committee. Those who have held or are holding equivalent fellowships awarded under various schemes of all India grant giving agencies such as DST, DBT, ICMR, UGC, ICAR etc. may apply **subject to the condition that the total tenure inclusive of CSIR fellowship shall not exceed three years. Those who have already availed, or would have availed by 31<sup>st</sup> March 2020, JRF for 5 years or SRF for 3 years from any source need not apply. The combined tenure of JRF, if any, and SRF will not exceed five years.** SRF will be terminated from the date of PhD viva voce or completion of tenure whichever is earlier. Those who are already holding equivalent fellowship should specify the reason for applying. **The application is likely to be rejected if the reason is not specified.****

#### **B. RESEARCH ASSOCIATESHIPS:**

##### **ESSENTIAL QUALIFICATIONS:**

1. PhD (in a science or engineering subject) or MD/MS/MDS (in medical science subject) or ME/MTech/MPharm/MVSc with three years R&D experience as on the last date of application, evidenced from fellowship or associateship or from date of registration of PhD.
2. PhD (science/engineering) thesis submitted is also eligible for RA'ship. Selection in such cases will be subject to the condition that PhD viva-voce done & declared qualified for award of PhD/awarded PhD degree before the expiry of the validity of the award offer.
3. The candidate applying for Research Associateship must have at least one research publication in standard refereed journal as listed in Journal Citation Reports (JCR).

**Employed candidates, whether temporary or permanent, and also those who have already availed higher fellowships like Senior Research Associateships etc. will not be considered for RAship.**

#### **STIPEND:**

The stipend of RA will be one of the following for the entire tenure:

Rs. 47,000/- p.m. (Fixed),

Rs. 49,000/-p.m. (Fixed),

Rs. 54,000/-p.m. (Fixed), as recommended by the selection committee.

In addition, each RA will receive a contingent grant of a maximum of Rs. 20,000/-p.a. which will be provided to the concerned University/Institution.

#### **TENURE:**

RA will be tenable initially for one year. It may be extended further annually at the discretion of CSIR based on three members assessment committee report. The total tenure of RA is fixed for 3 years. Those who have availed or are holding equivalent Associateships under various schemes of All-India grant giving agencies such as DST, DBT, ICMR, UGC, ICAR etc. may apply subject to the condition that the total tenure of RA including that of CSIR shall not exceed three years.

**Those who have already availed equivalent grant of any kind for three years need not apply.**

#### **C. OTHER CONDITIONS/INFORMATION**

##### **AGE LIMIT:**

Senior Research Fellow (SRF) : Maximum 32 years as on the last date of application.

Research Associate (RA) : Maximum 35 years as on the last date of application.

Upper age limit is relaxable by five years for SC/ST/Physically handicapped and women candidates and three years in case of OBC (non-creamy layer) applicants.

#### **SELECTION PROCEDURE FOR SRF/RA:**

Selection will be made through interview of candidates short-listed on the basis of their academic records, experience and assessment of research work already carried out and published by the candidates, by discipline-wise high level expert committees. The SC/ST candidates called for interview will be paid single second class rail/bus fare to and fro by the shortest route from the station mentioned in the address for correspondence given in the online application from (within India) to place of interview on production of documentary proof as per rule in force. **Merely fulfilling of the essential qualifications will not entitle a candidate for being called for interview. CSIR reserves the right to call or not to call a candidate for interview.**

#### **D. FELLOWSHIP IN ENVIRONMENTAL SCIENCES, ENVIRON/32 :**

**Only those candidates desirous of working on one of the following broad topics may apply under the Code ENVIRON / 32:**

- Principles and scope of Environmental Sciences, Ecosystems, Pathways in Ecosystems, Physico-chemical and biological factors in environment, etc.
- Structure and composition of atmosphere, hydrosphere, lithosphere and biosphere, mass and energy transfer across various interfaces. Scale of meteorology, pressure, temperature, precipitation, humidity, radiation and wind and atmospheric stability etc.
- Environmental chemistry, chemical composition of air, water chemistry, soil chemistry, toxic chemicals in environment, air pollution, climate change, etc.
- Biodiversity and its conservation; microflora of atmosphere; environmental biotechnology, endangered and threatened species; environmental genomics; environmental health, environmental virology, environmental impact and risk assessment, environmental materials, etc.
- Environmental geosciences- earth systems and biosphere; earth's processes and geological hazards, mineral resources and environment, water resources and environment, land use planning, environmental geochemistry, etc.
- Solar radiation and its spectral characteristics, fossil fuels; physic-chemical characteristics and energy content of coal, petroleum and natural gas; principles of generation of hydroelectric power, geothermal energy, bioenergy- energy from biomass and biogas, etc.
- Solid and Hazardous waste management, waste water technology and management, etc.

Candidates applying under this code should have essential qualification as applicable to other codes.

## **E. CANDIDATES APPLYING UNDER THE CODE STS/71:**

**Only those candidates desirous of working on one of the following broad topics may apply under the Code STS 71:**

- R & D Management (Planning, Priorities, Evaluation, Social and Economic Impact, etc.)
- Intellectual Property laws, Policies, Management and evaluation, etc
- Technology forecasting, Assessment and Management;
- Policies, Programmes, and approaches for innovation policies, promotion instruments and management;
- S & T Policies, Programmes and interface with global economic agenda.
- S & T interface with Society, Polity and Production sectors.
- Studies on Technological Change in the Production Sectors.
- Studies on mobility of S & T professionals: Demands, Trends, Impact, etc.
- Studies on International competitiveness of Indian S & T.
- Societal impact in the open economy era.

Subject code should be carefully selected (given in **Appendix I**) and it should be directly related to past education & experience and future area of study. Identification of irrelevant code or code not matching with the proposed topic of research may lead to rejection of the application.

Candidates applying under this code should have essential qualification as applicable to other codes with an exception that degree at the master level can also be in management, social sciences, commerce, etc.

## **F. FELLOWSHIP IN TRANS DISCIPLINARY AREA TDR/81:**

The objective of fellowship in Trans disciplinary area is to encourage research in new and emerging areas where boundaries between disciplines are transcended and knowledge and perspectives from different disciplines are integrated.

Trans disciplinary research brings together two or more disciplines to generate new knowledge through collaborations outside the limits of one's own discipline.

Candidates applying under this code should have essential qualification as applicable to other codes.

Application received under this code and not having any Trans disciplinary component in the proposed topic of research may lead to rejection of the application.

Subject code should be carefully selected (given in **Appendix I**) and it should be directly related to past education & experience and future area of study. Identification of irrelevant code or code not matching with the proposed topic of research may lead to rejection of the application.

## **G. INSTRUCTIONS TO THE CANDIDATES**

The candidates should carefully read these instructions before submitting their applications:

- A candidate can apply in only one subject code.** Code number of the subject should be carefully selected (given in **Appendix I**) and indicated against the appropriate column. It should be directly related to past education and experience and future area of study. **Identification of irrelevant code or code not matching with the proposed topic of research may lead to rejection of the application. No change of code would be permitted.**
- Details from the time of obtaining the qualifying degree till the last date of application should be mentioned clearly in column 18 of application form. **Unaccounted period, if any, may lead to rejection.**

- iii. All the necessary documents i.e. office orders in support of the research experience mentioned in column 18 of application form and proof of PhD registration should be attached, otherwise application will be rejected. **No testimonial will be accepted as proof of research experience.**
- iv. Candidates should be prepared to produce original certificate, PhD registration, research experience (office orders), reprints & letter(s) of acceptance about papers under publication, NET, GATE certificate at the time of interview and later when required.
- v. **Applications will be processed on the basis of information provided in the online application.** (If the information given in the application form does not match with the originals at the time of verification of documents, the candidate may not be allowed to appear for interview). **Applications/ documents received after the last date will not be entertained.**
- vi. Those who have already applied three times and not called or selected need not to apply.
- vii. **Date of interview will not be changed on request from candidates.**
- viii. Misrepresentation or hiding of facts shall lead to disqualification.
- ix. **Every effort is made by CSIR to have committees with wide-ranging expertise, therefore, complaints of rejection on this account will not be entertained by CSIR after the interviews.**
- x. **Decision of CSIR on all matters including calling for interview, selection, recommendation and placement etc. shall be final. No correspondence in the matter will be entertained.**
- xi. Research supervisor should not be the blood relative.
- xii. Canvassing if any form will be a disqualification. **No interim enquiries will be attended to.**
- xiii. The candidates are advised in their own interest to apply early enough to ensure timely receipt of their application by the CSIR on or before the closing date.

### **IMPORTANT INSTRUCTION**

Candidates after successfully submitting application online are required to take print out of the Application Form and paste his/her recent photograph in the space provided and send (as the topmost page) along with the following documents to **Scientist-In-Charge, EMR-I, Human Resource Development Group, CSIR Complex, Library Avenue, Pusa, New Delhi 110 012, so as to reach latest by August 2<sup>nd</sup>, 2019** :

- (i) Detail description of proposed research topics giving an outline of the problem (about 1000 words) to be addressed, its importance, objective(s), technical programme and year wise plan of work.
- (ii) Self attested copies of school leaving certificate, degrees, marksheets, Proof of PhD registration, Proof of PhD Submission/PhD Viva-Voce/PhD degree, NET, GATE, etc. Attested copies of documents in support of research experience. **Only office orders (OMs) will be accepted as proof of experience.** Testimonials **will not** be accepted for this purpose.
- (iii) Self attested copies of research papers published, accepted for publication.
- (iv) Testimonial from Guide/ Supervisor.
- (v) Undertaking to resign in case of employed candidates in the event of award of Senior Research fellowship/Research Associateship (SRF/RA).
- (vi) Attestations by the proposed Guide/Supervisor and the Head of the Institute at the space provided in the hard copy of the Application Form

**There is no application fee. The subject code in which applied should be clearly and boldly written on the envelope. Since the application is to be forwarded through proper channel, it will be advisable to apply well in time.**

Applications received after the last date or incomplete applications will be rejected. No interim correspondence will be entertained. The decision of CSIR on all aspects of selection process will be final.

**Give your correct Email ID which should be clearly written, as all further correspondence will be through Email. CSIR - HRDG will not be responsible for any communication not received due to incorrect Email ID.**

**SUBJECT CODE (column 2 of Application form)**

Medical & Pharmaceutical Sciences	MEDIC	11
Biochemistry, Biophysics, Immunology, Microbiology & Physiology of Living Systems	LIFE	12
General Biology, Genetics & Molecular Biology	GEN BIO	13
Organic Chemical Sciences	CHEM	21
Inorganic & Analytical Chemical Sciences	CHEM	22
Physical Chemical Sciences	CHEM	23
Material Sciences	CHEM	24
Earth, Ocean, Atmosphere & Planetary Sciences	EARTH	31
Environmental Sciences	ENVIRON	32*
Aeronautical, Civil, Mechanical, Chemical & Metallurgical Engineering Sciences	ENG	41
Agro-Bio, Physico-, Chemico-, Food-, Leather & Textile Technology	ENG	42
Electrical, Electronics, Instrumentation & Computer Engineering Sciences	ENG	43
Mathematical (Mathematics, Operations Research, Statistics) Sciences	MATH	51
Astronomy/Astro Physics/Nuclear Physics/Particle Physics/Plasma Physics	PHYS	61
Atomic & Molecular Physics / Optics / Spectroscopy / Quantum Informatics/ Theoretical Physics	PHYS	62
Condensed Matter Physics	PHYS	63
Material Physics	PHYS	64
Science & Technology Studies (R&D Management & Planning, MIS, Manpower Planning etc.)	STS	71 <sup>#</sup>
Trans Disciplinary Research	TDR	81 <sup>\$</sup>

\* Applicants under this code should read the relevant para D above before filling up the application form.

# Applicants under this code should read the relevant para E above before filling up the application form.

\$ Applicants under this code should read the relevant para F above carefully before filling up the application form.