

## COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH (CSIR) EXTRAMURAL RESEARCH PROMOTION PROGRAMMES

CSIR supports a variety of extramural programmes meant to complement the efforts of national education and research systems in the areas of science and engineering. These are briefly summarized below.

### 1. RESEARCH FELLOWSHIP FOR PhD WORK

#### A. JUNIOR RESEARCH FELLOWSHIP (JRF)

**Tenure:** 2 years; extendable by 1 year; convertible into SRF (NET), depending on performance. **Stipend:** Rs 1800 p.m.; annual contingent grant of Rs 7500 and HRA according to the rules of the organisation where working. **Time for application:** February–March and August–September as advertised in *Employment News*. **Eligibility/qualifications/age:** MSc, BE, BTech or equivalent, age limit 28 years. **Selection procedure:** Merit in CSIR–UGC Joint Examination held in July and December. JRFs are expected to register for PhD degree.

#### B. SENIOR RESEARCH FELLOWSHIP (SRF) AND SRF (NET)

**Tenure:** 3 years. **Stipend:** Basic sciences, Rs 2100 p.m.; engineering, pharmaceutical, veterinary and medical sciences, Rs 2400 p.m.; annual contingent grant of Rs 7500 and HRA according to the rules of the organization where working. **Time for application:** January–February and July–August as advertised in *Employment News*. **Eligibility/qualifications/age:** MSc with 2 years research experience, MPharm; MBBS with one year internship; ME, MTech or equivalent degrees; age limit 32 years. **Selection procedure:** Evaluation by disciplinewise expert committees on the basis of documents submitted and/or personal discussion. SRFs are expected to register for PhD degree.

### 2. RESEARCH ASSOCIATESHIP (RA) FOR POSTDOCTORAL WORK

**Tenure:** 5 years (3+2 years) **Stipend:** Rs 2200–100–2700, Rs 2700–100–3200, Rs 3200–100–3700 or Rs 3700–125–4325; an annual contingent grant of Rs 10000 and HRA according to the rules of the organization where working. **Time for application:** January–February and July–August as advertised in *Employment News*. **Eligibility/qualifications/age:** PhD with research publications; ME or MTech, with 3 years experience; MD, and good academic record; age limit 35 years. **Selection procedure:** Evaluation by disciplinewise expert committees on the basis of documents submitted and/or personal discussion. Expert committees also fix the stipend in one of the four slabs.

### 3. POOL-OFFICERSHIP IN SCIENTISTS' POOL SCHEME

**Tenure:** 3 years, year-to-year continuation on the basis of performance. **Salary:** Basic pay as fixed between Rs 2200 and Rs 4575 p.m. by selection committee, depending upon qualifications, experience, research publications and performance in interview, plus allowances as admissible to CSIR officers drawing equivalent basic pay; no annual increment is allowed during the pool tenure. **Time for application:** Any time during the year. **Eligibility/qualifications:** PhD or equivalent in science, social science, arts/humanities; master's or equivalent degree in engineering/technology/all branches of medicine and surgery; and 2 years of experience following these. **Selection procedure:** Selections are made once in three months by UPSC in consultation with Special Recruitment Boards (SRB).

#### 4. EMERITUS-SCIENTISTSHIP (ES)

**Tenure:** Normally up to the age of 65 years (3+2 years) **Stipend:** Rs 4000 p.m. along with a suitable contingency grant and help in the form of research fellow/associate. **Time for application:** Any time during the year **Eligibility/qualifications/age:** Eminent superannuated scientist **Selection procedure:** Evaluation by referees and the standing committee(s) on the basis of publication record, committee meets twice a year

#### 5. BHATNAGAR FELLOWSHIP SCHEME

**Objective:** For recognition of excellence in S&T thrust or mission areas of CSIR in which the fellow will pursue his research **Duration:** Fellowship shall be for an initial period of 5 years, extendable in exceptional cases **Remuneration and perks:** Fellowship and all other emoluments will not exceed Rs 8000 p.m. if he/she is employed elsewhere or on pension, in addition, he/she will be entitled to allowances admissible as per Central Government rules; the fellow shall be provided with appropriate budget, S&T staff and facilities for the approved project work; office space, secretarial support, official conveyance, residence/office telephones will be provided by host institution which will be given appropriate grant not exceeding Rs 5 lakhs per annum, the fellowship will be tenable in the fellow's present place of work or at any CSIR laboratory/institute as per his choice. **Selection procedure:** Selection will be finalised by a committee of eminent scientists/technologists appointed by VP, CSIR; after initial screening of suggestions/recommendations by DG, final approval of president, CSIR, will be necessary, number of fellowships per year will be limited to two

#### 6. VISITING-ASSOCIATESHIP (VA) FOR COLLABORATIVE RESEARCH

**Tenure:** 3 years. **Facilities:** TA and DA for two visits to a CSIR laboratory, totalling up to 60 days in a year **Time for application:** Any time during the year. **Eligibility/Qualification/age:** Middle-level scientists from universities/academic institutions/R&D units in industry/government departments, etc. **Selection procedure:** Evaluation by committee(s).

#### 7. S. K. MITRA VISITING-PROFESSORSHIP

**Objective:** Promotion and sustenance of innovative R&D/teaching in radio and atmospheric physics, radio astronomy, etc. **Tenure:** Professorship will be granted to host institute for a period not exceeding 12 months **Eligibility:** Professorship shall be available to outstanding Indian and foreign scientists **Grant:** Honorarium/remuneration of Rs 8000 p.m., plus allowances as admissible to Central Government officers, CSIR shall reimburse host institute expenses in respect of awardee for honorarium/compensation and housing, office and residence telephones, travel in India, medical benefits, LTC, CPF/retirement benefits as per rules of host institute, CSIR shall pay host institute a pro-rata grant at Rs 30,000 per annum for administration, staff car and infrastructure expenses, scientists abroad shall be paid economy-class international air fare **Selection procedure:** Selection to be made by an evaluation committee appointed by DG, CSIR, which shall include one member of the host institute and president, INSA

#### 8. PERSON-BASED CENTRE OF EXCELLENCE

**Objective:** To build centres around individual excellence from within and outside CSIR **Grant:** CSIR would provide annual grant to run the centre, amount to be decided by a standing committee appointed specifically by advisory board/DG for the centre **Eligibility/qualifications/age:** Outstanding individual and group excellence in relevant thrust areas, grant shall continue till awardee continues or reaches the age of 65 years **Selection procedure:** Selection to be made by a standing committee appointed by advisory board/DG out of suggestions received from Technical Advisory Board

## 9. SUPPORT FOR RESEARCH SCHEMES

**Tenure:** Usually three years. **Grant:** Varies, usually up to 5 lakhs during the entire period. **Time for application:** Any time during the year. **Eligibility/qualifications/age:** All levels of scientists employed in universities, research institutions and R&D units. **Selection procedure:** Evaluation by referees and areawise research committees, committees meet twice a year.

## 10. CSIR GOLDEN JUBILEE AWARD

**Tenure:** Usually 5 years. **Grant:** Not exceeding Rs 30 lakhs for the entire project period. **Time for application:** On invitation of proposals by CSIR. **Eligibility/qualifications/age:** Indian scientists from both within and outside CSIR; age up to 40 years. **Selection procedure:** Selection to be made by committee appointed by DG in consultation with chairman, advisory board.

## 11. INSTITUTE-BASED CENTRE OF EXCELLENCE

**Objective:** To optimize research output from CSIR and universities/academic institutions. **Duration of support:** 5 years; can be extended after review/evaluation of work. **Grant:** Amount to be decided by committee appointed by advisory board/DG. **Eligibility:** Universities/academic institutes having outstanding track record and facilities for research in new and emerging areas. **Selection procedure:** Final selection to be made by a standing committee appointed by advisory board/DG out of suggestions regarding host institute and participating CSIR laboratories to be made by Technical Advisory Board.

## 12. TRAVEL GRANT TO RESEARCH FELLOW AND ASSOCIATE

**Purpose:** For presentation of research paper(s) at international meetings. **Grant:** 50 to 100% of air fare. **Time for application:** Any time during the year, 3 months before the event. **Eligibility/qualifications/age:** Junior and senior research fellows and research associates invited and whose research papers have been accepted for presentation. **Selection procedure:** Evaluation by a committee which meets 9–12 times in a year.

## 13. SUPPORT FOR INDIAN-LANGUAGE JOURNALS

**Tenure:** Year-to-year basis. **Grant:** Varies between Rs 5000 and Rs 25000 per year. **Time for application:** Any time during the year. **Eligibility:** Only journals brought out in Indian languages with the sole intention of popularizing science. **Selection procedure:** Evaluation by committee(s) which meet once a year.

## 14. SUPPORT FOR HOLDING SYMPOSIUM/SEMINAR/CONFERENCE/WORKSHOP/COURSE

**Grant:** Partial support. **Time for application:** Any time during the year, 3 months before the event. **Eligibility:** Organizations registered and bona fide. **Selection procedure:** Evaluation by a committee which meets 9–12 times a year.

For JRF, SRF and RA positions, relaxation in age limit up to 5 years for SC/ST and female candidates and marginally for highly meritorious general candidates will be considered.

Further details, terms and conditions and application formats that are not published in *Employment News*, can be had from **Head, Human Resource Development Group, CSIR Complex, NPL Campus, Hillside Road, NEW DELHI 110 012**, or **CSIR, Rafi Marg, NEW DELHI 110 001**.



#### **Second International Congress on Amino Acids and Analogues**

Place: Vienna, Austria

Date: 5-9 August 1991

Topics include analysis, separation, synthesis, biosynthesis, nutrition, parental nutrition, cross-linking amino acids, updating of tryptophan, amino acids and the immune system (incl. AIDS), amino acids in sports medicine, recemization, modification of amino acids (e.g. methylation), new roles for arginine, neurochemistry including excitatory amino acids, food chemistry and technology (incl. radiated food amino acids), polyamines, renal physiology and amino acids, amino acids in nephrology and gastroenterology, amino acids and behaviour, inborn errors of metabolism, molecular biology of amino acids, therapeutic implications, pharmacology, amino acids as free oxygen scavengers, stable isotopes.

Contact: Prof. G. Lubec

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#### **Seventh National Convention of Chemical Engineers. Seminar on Pollution and its Control in Chemical and Allied Industries**

Place: The Institution of Engineers, New Delhi

Date: 25-26 October 1991

Concepts in managing pollutants in chemical industries of India; generation of hazardous wastes in inorganic chemical industries—paints, pigments, organic chemical industries such as dyestuff, pesticides, paper, pulp, petrochemical industries; releases from cement, fertilizer, textile, leather industries, thermal power stations, etc; chemical, mechanical and biological process treatments, waste recycling and reuse techniques; handling, storage and transportation of hazardous chemicals, health aspects, environmentally friendly technologies in chemical engineering.

Contact: Dr S. Ghosh

Convener, Seminar on Pollution

Chemical Engineering Division

The Institution of Engineers (India)

Delhi State Centre

Bahadur Shah Zafar Marg

New Delhi 110 002

Phone: 11 3319948, 11 3311052

#### **Fifth National Symposium on Aphidology**

Place: University of Agricultural Sciences, Bangalore

Date: 28-31 October 1991

Topics are evolution and biosystematics of aphids, cytogenetics of aphids; bio-ecology of aphids, aphid-plant relationships; ant-aphid relationships; physiology of aphids, transmission of plant virus diseases; natural enemies and biological control, aphid life cycle in varied ecological conditions; economic threshold and yield loss assessment; population dynamics and forecasting, integrated management strategies of aphids.

Contact: Dr K. C. Devaraj Urs

Organizing Secretary, Aphidology Symposium

Dept of Entomology

University of Agricultural Sciences

Bangalore 560 065

#### **IGCP 264 Workshop/Seminar on Geological Applications of Remote Sensing With Emphasis on Spectral Properties**

Place: University of Poona, Pune, India

Date: 2-12 December 1991

Workshop/seminar is for young scientists from developing countries. It is part of the International Geological Correlation Program Project 264, Remote Sensing Spectral Properties

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Co-Chairman IGCP 264

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#### **Second Congress of the Asia and Oceania Society for Comparative Endocrinology**

Place: New Delhi, India

Date: 3-6 December 1991

Topics include neuroendocrinology; hormones in reproduction and behaviour; hormones and biological rhythms, hormonal control of growth and differentiation; cellular and molecular endocrinology; hormones in biotechnology, aquaculture, and preservation of endangered animal species.

Contact: Prof R. N. Saxena

Chairman, SCAOSCE

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#### **International Seminar on Downstream Processing in Biotechnology**

Place: Calcutta, India

Date: 19-21 December 1991

Topics include recovery of biomass, cells and particulates; integration of fermentation/cell culture and separation, primary isolation processes—extraction, precipitation, sorption and chromatography; affinity techniques; membrane processes; electrokinetic processes; liquid/liquid extraction; downstream processing in r-DNA and hybridoma technologies, simulation modelling, computer-aided design, and process monitoring; technology transfer and adaptation.

Contact: Prof R. N. Mukherjee

Convener, Downstream Processing Seminar

Process Engineering Design and Development Institute

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