



COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH

Anusandhan Bhawan, 2 Rafi Marg, New Delhi-110 001

CSIR is looking for Eminent Scientists/Technologist for the position of Distinguished Scientists

Council of Scientific and Industrial Research (CSIR) established in 1942, is an autonomous Society under the Department of Scientific and Industrial Research (DSIR), Ministry of Science and Technology. CSIR has the distinction of having the Prime Minister of India as the president of its Society. CSIR is a premier R&D organization in the country and has been contributing to the socio-economic development through its varied S&T interventions from its inception. With 37 state-of-the-art constituent laboratories, today CSIR is amongst the largest publicly funded innovative scientific and research organizations in the world. CSIR expertise and experience is embodied in its nearly 3,500 Scientists and 4200 scientific and technical support personnel apart from the 7,000 JRFs, SRFs, RAs and project staff. CSIR publishes more than 5,000 papers annually in peer-reviewed international journals (SCI) and also produces more than 500 Ph.D. students. CSIR has a patent portfolio of 1,132 unique patents in force, out of which 140 patents have been commercialized. CSIR also has 2,587 in force patents granted abroad in multiple countries. CSIR has ushered India into knowledge economy while grooming and nurturing talent in various streams of Science and Technology.

CSIR is looking for visionary R&D leaders to shape a new science and technology landscape in India so as to address global scientific and technological challenges as Distinguished Scientist through its prestigious national Laboratories/Institutes. The search is for scientists and technologists with scientific contributions of international eminence, excellent track record in the desired areas of cutting-edge S&T, and with proven leadership to develop and translate laboratory inventions to industry ready interventions. The selected candidate shall be able to participate and contribute in conceived vision and mission of CSIR which includes providing S&T leadership for sustainable development of the country encompassing economic growth with environment and societal benefits. The scientists would be expected to mentor and lead research activities in the identified areas, establish and implement mega research programmes, interact actively with the younger scientists, and involve in various academic activities including teaching and training programmes of the concerned CSIR laboratory. The details are given below:

- 1. Name of Lab./Instt.** –CSIR- Indian Institute of Toxicology Research, Lucknow.

No of Position: 01

Specialization: Risk Characterization & Assessment

Area of work: CSIR-IITR is in tune with the vision of toxicology for 21st century for understanding the adverse health effects/outcomes by efficient testing methods/protocols. Globally, the research is moving from hazard identification to risk identification, characterization and its assessment. CSIR-IITR is currently focusing to undertake studies on risk characterization and assessment of environmental chemicals. Presently 10 scientists and about 50 research students are working in this area. Chemical characterization and toxicity pathways need to be calibrated using appropriate models and bioinformatics/computational tools for human dosimetry facilitating the translation for human studies. Population based/epidemiological studies are needed to confirm effects observed or reported in cellular systems to i) suggest biological perturbations that require in vitro studies for clarification, and ii) interpret in vitro/experimental data in the context of human population. Further, to promote advances in exposure science, efforts have to be made to support research to develop new sensor systems and to identify biomarkers of response to exposure and define and explore the exposome associated with ambient pollution (air pollution and water contamination) for determining risks and decision-making. CSIR-IITR has set-up an advanced computing facility for development of AI based machine learning tools for environmental and health risk assessment. CSIR-IITR is looking forward to strengthen this activity to make this R&D area globally competitive.

2. Name of Lab./Instt. – CSIR-Central Drug Research Institute, Lucknow.

No of Position: 01

Specialization: Neuro-regeneration / Chemical neuroscience

Area of work: CSIR-CDRI has recently created new division of Neuroscience and Ageing Biology, and aims to conduct advanced research in the area of ageing and associated neurodegenerative disorders, Neuropathic Pain, Major Depression and Traumatic Brain Injury (TBI). Currently, this division has 4 Core Faculties, 2 Associate Faculties, group of medicinal chemists and about 60 Research Scholars. Our Neuroscience team is currently focusing on development of novel therapeutics for Neuropathic Pain, Treatment Resistant Depression and cognitive impairments encompassing several CNS disorders. Furthermore, CSIR-CDRI is also conducting fundamental research to understand epigenetic mechanisms of depressive disorders and neurodegeneration. CSIR-CDRI has, in house, established a very strong neurobehavior lab facility to support fundamental and drug discovery research in neurosciences. CSIR-CDRI looks forward to strengthen its forte in traumatic brain injury with more focus on innovative regenerative approaches in spinal cord injury.

3. Name of Lab./Instt. – CSIR-Indian Institute of Chemical Technology, Hyderabad.



No of Position: 01

Specialization: Homogenous/ Heterogenous catalysis

Area of work: CSIR-IICT has been working in the area of developing homogenous and heterogenous catalysts and exploring them for manufacture of bulk, fine and specialty chemicals. The need of the hour is to concentrate on developing technologies for bulk, fine and specialty chemicals using indigenous starting materials. To create minimum impact on the environment, the technologies need support of catalysts which will carry out the reaction following green chemistry principles with increased conversion and minimal wastages. CSIR-IICT has a dedicated department called Catalysis & Fine Chemicals. At present the department has 8 Core Faculty members and 9 Associate Faculty members with 30 Research Scholars. The team is currently working on developing new homogenous and heterogenous catalysts for application in chemical industry based on the fundamental research that is carried out. A fully equipped pilot plant for manufacturing the catalysts and studying the transformations is established in IICT. We would like to strengthen the team in the area of development and commercial applications of homogenous and heterogenous catalysts with a focus on bulk, fine and specialty chemicals for the Indian Chemicals and Pharmaceutical industry.

4. Name of Lab./Instt. – CSIR- Centre for Cellular and Molecular Biology, Hyderabad.

No of Position: 01

Specialization: Biology of plant pathogen interaction and crop improvement

Area of work: CCMB has a highly effective and socially relevant programme of improvement of rice variety. This programme has resulted into a disease resistant and low glycemic index size in rice which has helped significantly farmers and public at large. In the recent years, we have generated large number of mutant lines that show enormous potential to generate varieties of immense value. CCMB is looking forward to further strengthen this ongoing program. This position requires expertise in creation of disease resistant varieties, experience of working with other organizations for implementation of large programmes, established credentials in the areas of plant-pathogen interaction. Expertise in the area of high throughput screening, mapping and recombining of desired traits will be preferred.

5. Name of Lab./Instt. – CSIR- Centre for Cellular and Molecular Biology, Hyderabad.

No of Position: 01

Specialization: Genomics and epigenetic basis of gene regulation in complex organisms



Area of work: Genomics has taken a prominent place in different areas of modern biology that include healthcare, agriculture and understanding of biology in general. DNA sequencing and genome editing technologies have opened immense potential to understand the ability beyond model systems and made tremendous impact in the areas of healthcare (precision/personalized medicine, diagnostics, etc.), agricultural sciences, etc., using genomics approaches. Essential to these advances is to understand the sequence features of genomes in the context of biological/functional output. CCMB has emerged as dynamic center for genomics and epi-genomics and is looking to expand these activities in coming years. This position requires expertise and credible achievements in the area of genome analysis, and use high throughput technologies to explore novel regulatory functions in the genome. We expect use of genome editing technologies to address questions of fundamental aspects of genome biology and genetic regulations.

6. Name of Lab./Instt. – CSIR-Central Institute of Mining and Fuel Research
Dhanbad

No of Position: 01

Specialization: Blast design and fragmentation control

Area of work: The core activities of the Rock Excavation Engineering research group include developing and implementing cutting edge technologies in the field of rock excavation and blast design for safe and efficient exploitation of minerals. Currently, this group has 13 Scientists, 18 Technical and Supporting Staff, and a number of Research Scholars. The Rock Excavation Engineering team is focusing on development and implementation of blasting technique for maximum recovery of coal and minerals, controlled blasting techniques for exploitation of precious minerals nearby inhabitant areas, safe and efficient blasting technique for various civil infrastructure projects and structure demolition in urban areas. Furthermore, the group is conducting fundamental research for development and quality assessment of explosives and accessories for safe and effective blasting operations. The research group is also providing R&D inputs to Border Road Organization, Ordnance Factory Board, Airport Authority of India, Indian Railways for construction of roads, tunnels, underground metros and other civil infrastructures of strategic importance. We look forward to strengthen our forte in blasting and explosive research with more focus on innovative designs of safe and efficient blasting technique for various strategically important projects.

7. Name of Lab./Instt. – CSIR-National Aerospace Laboratories, Bangalore

No of Position: 01

Specialization: Design & Development of Avionics & Flight Control Systems for Civil / Military Aircraft programmes



Area of work: Design, Development & Certification activities for the aircraft programmes of CSIR-NAL.

Area of expertise required:

CSIR-NAL's Centre for Civil Aircraft Design & Development (C-CADD) is working on design, development & certification of Civil Aircraft. So far it has successfully certified HANSA twin seater aircraft and developed 14 seater SARAS Mk 1 aircraft. Based on the performance of these aircraft, the Government of India has recently sanctioned HANSA-NG and SARAS Mk 2 aircraft projects for Design, Development & Certification. The HANSA-NG is a unique aircraft project in the country. The Division is looking for a leader who can guide the team towards the delivering to the goals of CSIR-NAL for its aircraft programmes. Expertise is desired in the following areas: a). Design and Development of Avionics & Flight Control Systems like Flight Management Computer, Autopilot, Flight Control System, Utility System & Management Computer and Simulators etc. b). Knowledge of sizing & design selection of Components, Embedded Systems, actuators & flight control components c). Knowledge of transport aircraft certification needs like FAR 23, FAR 25, CEMILAC, DGAQA, DGCA requirements. d). Knowledge of equipment integration, testing, certification. e). Knowledge of Iron bird and Real time Simulator facility.

8. Name of Lab./Instt. – CSIR-National Aerospace Laboratories, Bangalore

No of Position: 01

Specialization: Aircraft Structural Engineering

Area of work: Structural Technologies Division is engaged in detailed Design & Engineering of Aircraft Structures mainly metallic as well as composites. Towards this, the team needs guidance of special expert for weight optimization, mass CG, use of new materials, sizing of components etc.

Area of expertise required:

CSIR-NAL's Centre for Civil Aircraft Design & Development (C-CADD) is working on design, development & certification of indigenous civil and military aircraft. CSIR-NAL is looking for expert leader who can help guide the CSIR-NAL team in achieving the desired objectives. The experience is to cover: a). Knowledge of Air Frame Design for Civil or Military Aircraft including airframe component sizing, analysis & detail engineering and manufacturing, b). Knowledge of using FEM, CATIA, NASTRAN tools for Design analysis for metallic / composite structures c). Knowledge of transport / military aircraft certification like FAR 23, FAR 25 & CEMILAC d). Knowledge of design of tools and jigs / fixtures e). Knowledge of assembly process, methods & structural testing f). Knowledge of Design for manufacture for latest jigless assembly lines for high production throughput.



9. Name of Lab./Instt. – CSIR-Central Leather Research Institute, Chennai

No of Position: 01

Specialization: Leather Science & Leather Product Development

Area of work: CSIR-CLRI has a global presence in the area of development and dissemination of S&T products worldwide. The institute has a twinning arrangement with Ethiopia, through which Indian model of Academy (University) – Research (CSIR) – Industry has been successfully translated to an organization – LIDI. This also helps translation of S&T leads of CSIR-CLRI being implemented in other countries. Discussions are on for similar model arrangements with Rwanda, Vietnam, etc. Institute has a strong group of researchers who participate in such networking. Recently the institute has created a Centre for International Consultancy and Social Impact Assessment, with a core strength of 2 Scientists. We look forward to strengthen our forte as the global leader in development and dissemination of S&T products by setting up an S&T hub in Africa, which would facilitate better coordination with prospective partner nations/agencies not only for CSIR-CLRI but also other CSIR laboratories.

Eligibility Criteria:

- a. The Applicant must be citizen of India or Scientist/Technologist of Indian origin (STIO).
- b. Proven track record in areas of cutting edge Science & Technology.
- c. International Eminence.
- d. Leadership qualities required for building/nurturing new groups of young Scientists in emerging areas of Science & Technology and of interest to the country.

General Conditions:

Scale of Pay: Level 16 (Rs. 2,05,400- 2,24,400) of Pay Matrix as per the 7th CPC OR such consolidated pay as recommended by the committee.

Tenure of Appointment: (i) Appointment of Distinguished Scientist shall be on contract on full time basis for a period upto five years or on a part time basis for the same period where under he/she shall work on a time sharing basis between his/her parent organization and CSIR, the pattern of time sharing to be recommended by the Search-cum-Selection committee in consultation with the candidate. (ii) Persons appointed as Distinguished Scientists and who are below the age of superannuation will continue until the age of superannuation and thereafter will continue up to five years contract period or 65 years, whichever is earlier. (iii) Superannuated Scientists/Technologists can be appointed as Distinguished Scientists on contractual basis up to 5 years or till the age of 70 years, whichever is earlier. (iv) Only in exceptional cases, the appointment or renewal of contract can go beyond 70 years, if the Distinguished Scientist has been recognized by International honor like FRS, FNA (US), Field Medal, Noble Prize or equivalent awards. (v) Extension of tenure may be considered by an Evaluation Committee.

How to apply: The application/nomination for the post of Distinguished Scientist with detailed bio-data highlighting scientific and translational contributions in details alongwith list of publications/patents etc. may be sent through email on email ID drc@csir.res.in or by post to Director Recruitment Cell, Council of Scientific and Industrial Research (CSIR), Anusandhan Bhawan, 2, Rafi Marg, New Delhi-110001. A brief bio-data in the proforma given below may also be sent. The last date of the receipt of applications is **15.02.2021**.

Note : The Advertisement No. 02/2018 issued earlier for the position of Distinguished Scientist may be treated as cancelled and withdrawn. Those who wish to be considered for the position of Distinguished Scientist need to apply afresh, as per the terms of this advertisement i.e. 05/2020.

Format for Bio-Data

1. Name:
2. Name of the Lab. applied/nominated for:
3. Area of Specialization applied/nominated for:
4. Date of Birth:
5. Current Position and Address:
6. Educational Qualification:

Sl. No.	Degree/Certificate	Year of Passing	University/Institute	Subjects

7. Academic/Research Experience/Employment:

Sl. No	From	To	Name of Organization	Position held

8. Areas of Specialization:
9. Honors/Awards/Recognitions received:
10. Professional Affiliations:
- 11.* (a) List of Research Publications including popular articles, if any;
(b) List of best professional outputs/outcomes in last 10 years, relevant to present field of specialization;
(c) Highlights of contributions to the area of specialization.
(b) Technologies developed, Licensed and/or commercialized with details.
12. Dissertations supervised:

- (a) Ph.D.
- (b) Post-Graduation
- 13. 1-2 page summary of vision for the post applied.
- 14. List of 5 professional referees of high repute with whom candidate has interacted in the past;

Signature of the Applicant

Date:
Place:

* Details may be enclosed separately

