ಸಿಎಸ್‌ಐಆರ್ - ರಾಷ್ಟ್ರೀಯ ವೈಮಾಂತರಿಕ್ಷ ಪ್ರಯೋಗಶಾಲೆಗಳು
सीएसआईआर–राष्ट्रीय वांतरिक्ष प्रयोगशालाएं, बेंगलुरु – 560017, भारत
CSIR- NATIONAL AEROSPACE LABORATORIES
(Council of Scientific & Industrial Research)
Bengaluru – 560017, INDIA

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ADVT. No. 05/2024

WALK-IN-INTERVIEW FOR PROJECT STAFF

CSIR-NAL is a unit under the Council of Scientific and Industrial Research (CSIR), an autonomous body under the Ministry of Science and Technology, Govt. of India. Applications are invited from qualified candidates (Indian nationals) who meet the necessary educational and work experience for engagement of Project Staff to work in various projects at CSIR-NAL. The engagement of Project Staff is purely on temporary and contract basis under the CSIR/Externally funded/Other projects undertaken by CSIR-NAL. The engagement shall be for short period and **co-terminus** with the project.

Candidates who fulfil the under-mentioned educational qualifications and experience etc. may attend the Walk-in-Interview during **25/06/2024 to 04/07/2024** along with the application, in the prescribed format enclosed, as detailed below:

25/06/2024					
Sl. No.	***Position***	***Qualification / Specialization / Experience***	***No. of Positions***	***Age limit (in years)***	***Job Requirements***
1	**PA-I**	**M.Sc / B.E / B.Tech** [Ceramics / Material Science / Metallurgy / Chemical / Chemistry (Polymer / Physical / Inorganic / General / Analytical)]	07*	35	➢ To assist in synthesis and characterization of MAX/Mxene powders and preparation of MAX phase reinforced PVDF composite and characterization ➢ Analysis of electroplating baths and performing electroplating of alloy coatings. ➢ To assist in operation and maintenance of CVI reactor and to assist in preparation of samples for characterization. ➢ To assist in fabricating of preforms and to assist in operating LSI furnace ➢ Preparation of ceramic and polymer nanofiber by electrospinning. ➢ Preparation of filler materials and polymeric coatings, their characterization, testing of electrical resistance. ➢ Knowledge of Bath preparation and analysis and basic knowledge of electrochemical processes such as electroplating, anodization, electroless plating, etc..
2	**PA-II**	**M.Sc with 2 years' work experience** (Polymer Chemistry/ General Chemistry / Materials)	02*	35	➢ Knowledge of handling chemicals in laboratory. Scope of work including materials synthesis, coating development and testing. ➢ Must have working knowledge of materials synthesis with chemicals in the laboratory and characterization using analytical tools.

Contd…2

26/06/2024					
Sl. No.	***Position***	***Qualification / Specialization / Experience***	***No. of Positions***	***Age limit (in years)***	***Job Requirements***
1	**PA**	**Diploma/BCA/B.Sc** (Electrical/Electronics/CS/ECE	03*	50	➢ To operate the testing facility device to perform thermal and electrical conductivity measurements. ➢ Development of software GUI ➢ RF Measurements
2	**PA-I**	**B.E/B.Tech/M.Sc** (ECE/EEE/E&I/CS/Circuit Branches	08*	35	➢ Python programming for deep learning algorithm for radar absorbing structure (RAS), Electromagnetic design and performance analysis and documentation. ➢ EM design and analysis of metasurface based antennas and radar absorbing structures, application of machine learning in electromagnetics, software code development. ➢ EM design, simulation and measurement of microwave devices and antenna ➢ To assist in design, development and testing of FPGA based electronic hardware and firmware (VHDL). The job involves preparation of design documents, test schedules, test bench using VHDL, test reports, hardware testing, etc.. ➢ Development of Antenna design requirements for Civil Aircrafts. Drafting the antenna certification and testing requirements & TSO functional requirements. ➢ Software code development in FORTRAN/VHDL for adaptive algorithm implementation in phased array, EM design and analysis, simulations, measurements and documentation. ➢ Software code development in VHDL, Measurement for Active RCS Reduction and Documentation. ➢ FORTRAN/VHDL coding for Active RCS reduction in phased arrays, EM design and performance analysis of phased arrays and documentation.
3	**PA-I (NET/GATE)**	**B.E/B.Tech/M.Sc** (ECE/Electronics/EEE)	02*	35	➢ Design and optimization of metasurface structure at THz frequency range EM analysis of Leakywave antenna at THz. ➢ Electrical machines, Power Electronics and drives - Design, Analysis and Testing.

Contd…3

28/06/2024					
Sl. No.	***Position***	***Qualification / Specialization / Experience***	***No. of Positions***	***Age limit (in years)***	***Job Requirements***
1	**PA-II**	**B.E/B.Tech/M.E/M.Tech/M.Sc with 2 years' work experience** (ECE/EEE/CS/Power Electronics / Instrumentation & Control)	09*	35	➢ Signal processing, handling electronic testing instruments with basic MATLAB skills. ➢ EM design and analysis of THz antennas, metasurface based THz absorbers, deep learning based model development for Electromagnetics, software code development. ➢ Design, development and certification of SARAS MKII stall warning, brake management and autopilot systems. MATLAB / SIMULINK based implementation, auto code generation and real time simulation, certification documentation. ➢ Programming in LabVIEW, Handling Data Acquisition Systems, Configuring Sensors & Measurement, Instruments. ➢ UAV Avionics Components Integration, Wiring and Testing; Experience in Pixhawk based Autopilot (Configuration, Integration with external sensors and actuators; Knowledge to use MAVLINK based GCS Software (Mission planner); Experience with soldering, assembly, crimping, testing and UAV inte. ➢ Electronics circuit design and testing, circuit analysis, project documentation. ➢ Experience of Programming in C++/Python and working knowledge of Linux, etc..
2	**PA-II (NET/GATE)**	**B.E/B.Tech/M.E/M.Tech with 2 years' work experience** (RF Microwave / Electronics / ECE/Circuit Branches	04*	35	➢ EM design and analysis of FSS / metasurface based Leakywave antenna ➢ Assist in design of Electronics System ➢ Design and simulation of antennas, fabrication of antennas ➢ Design and simulation, software development using MATLAB and EM measurement.
3	**SPA**	**M.E/M.Tech with 2 years' work experience / Ph.D** (ECE/Instrumentation/RF Microwave/Metamaterial/Antennas/Circuit Branches/CSE)	03*	40	➢ Instrumentation, data acquisition and processing of turbomachinery test rigs. Knowledge of sensors like pressure transducers, Accelerometers, RPM sensors and thermocouples. Software knowledge on LABview, Matlab. ➢ EM design and simulation of Microwave and Terahertz passive and active devices ➢ Electromagnetic Design, Simulation and Testing

Contd…4

01/07/2024					
Sl. No.	***Position***	***Qualification / Specialization / Experience***	***No. of Positions***	***Age limit (in years)***	***Job Requirements***
1	**PA**	**Diploma** (Aerospace/Aeronautical/ Mechanical/Civil)	07*	50	➢ Generation of CAD models using CATIA, 2D CAD drawings using AUTOCAD/DRAFTSIGHT and Drawing Checking. ➢ To support Scientist in 3D modelling, detailed design and testing of air to air heat exchanger for small aircraft. ➢ To work in air heat exchanger test rig to support scientist in the 3D modelling and preparation of fabrication drawings and realization of test rig. ➢ Experience in the aircraft structural assembly of composites and metallic structures. Knowledge in Cocured and cobonded composite structure by autoclave moulding process. ➢ Knowledge in composite fabrication and structural assembly. ➢ Knowledge in CATIA and Autocad, Design of Moulds and tools for composite parts. ➢ Knowledge in composite manufacturing and structural assembly requirements.

02/07/2024					
Sl. No.	***Position***	***Qualification / Specialization / Experience***	***No. of Positions***	***Age limit (in years)***	***Job Requirements***
1	**PA-I**	**B.E/B.Tech** (Aerospace/Aeronautical/Electrical/EEE/Electronics/ECE/ Mechanical/Electronics & Telecommunication/Mechatronics/Instrumentation/CS/IT)	04*	35	➢ Linear algebra, linear classical control design, basic understanding of flight dynamics, MatLab & Simulink and C language. ➢ Mechanical system design, development and experimentation. ➢ Knowledge in development of moulding tools, assembly jigs & fixtures and coordination with design team to release the moulids/ tools required for composite products. Knowledge in composite manufacturing & assembly and project monitoring.
2	**PA-I (NET/GATE)**	**B.E/B.Tech** (Mechanical/Aerospace/Aeronautical/CS/Electronics/ Aeronautical with CFD)	06*	35	➢ CAD modelling in solidworks/CATIA. Drafting in solidworks/AutoCAD. Familiar with Mesh Generation & Finite Element Analysis Tools like ANSYS. ➢ Flight Data Analysis, Signal Processing, MATLAB / C / C++ , Computer Vision ➢ Preparation of composite materials for EMI Shielding. ➢ Candidate should have basic knowledge of CFD and Aerodynamics. Working knowledge on Ansys Meshing, Pointwise Meshing and Fluent CFD Solver. Preliminary knowledge on CAD tools like CATIA/Solidworks. ➢ Detail design, drafting and analysis.

Contd…5

04/07/2024					
Sl. No.	***Position***	***Qualification / Specialization / Experience***	***No. of Positions***	***Age limit (in years)***	***Job Requirements***
1	**PA-II**	**B.E/B.Tech/ME/M.Tech with 2 years' work experience** (Aerospace/Mechanical/EEE/ Thermal/Aerodynamics/CFD/ Propulsion)	15*	35	➢ Design, development and certification of SARAS MKII stall warning, brake management and autopilot systems. MATLAB / SIMULINK based implementation, auto code generation and real time simulation, certification documentation. ➢ Thermal or heat transfer experimental experience. Experience in the design of heat exchangers is an added advantage. ➢ Knowledge of aircraft design and analysis practices, GD&T and CAD/CAE tools like CATIA/Draftsight/Hyperworks/Nastran. CAD modelling and 2D drawing generation for metallic & composite parts. Proficiency in Generative shape design & part design workbenches in CATIA V5 is desirable. ➢ To carry out strength of materials and composite design calculations, static, buckling, dynamic and nonlinear analysis. Software tools: Hypermesh and Nastran. ➢ To support Scientist in thermal and structural analysis and characterization of air to air heat exchanger for small aircraft using CFD & FEA tools. ➢ To support Scientist in design, development and testing of air to air heat exchanger for small aircraft and development of executable model for the same. ➢ To work in air to air heat exchanger test rig to support scientist in detailed design and stress analysis of test rig, its realization and testing of heat exchangers. ➢ Generation of 3D CAD Models using CATIA, 2D CAD Drawings using AutoCAD/Draftsight and Drawing Checking. ➢ Knowledge of CFD, Aerodynamics with experience of programming in C++/Python and working knowledge of Linux, awareness of grid generation softwares, post processing, etc.. ➢ Heat Transfer Design, Experiments and Data Analysis related to Heat Exchangers. ➢ Propeller-Electrical Engine Matching Study, Propeller-Engine Integration, Testing, Related Design activities

Contd…6

Sl. No.	*Position*	*Qualification / Specialization / Experience*	*No. of Positions*	*Age limit (in years)*	*Job Requirements*
2	**PA-II (NET/GATE)**	**B.E/B.Tech with 2 years' work experience** (Aerospace/Aeronautical/ Mechanical	03*	35	➢ To work in field of aircraft, aerodynamics, stability, control and aircraft performance estimation and programming skills in C/MATLAB. CAD skills (CATIAV5) are desirable. ➢ SARAS simulation, analysis, SIF support. ➢ Assist in Mechanical System Design for Avionics
3	**SPA**	**B.E / B.Tech with 4 years' work experience (Mechanical)**	01*	40	➢ FEA of Turbomachinery parts, Rotor dynamic analysis of turbomachinery rigs and Gas turbine engines. Hot to Cold Geometry generation of Turbomachinery parts. CAD modelling and Drafting. Software knowledge- ANSYS FEA, Solid works, AutoCad.

Positions may vary as per the Project requirements and CSIR-NAL will make a panel of waitlisted candidates to supplement the new projects. Such panel will be valid for one year from the date of notification of result, or till the completion of the project, whichever is earlier.

Monthly Stipend / Emoluments:

I. Project Assistant: ₹20,000/- + HRA

II. Project Associate-I

(a) ₹25,000/- + HRA

(b) * ₹31,000/- + HRA to Scholars who are selected through (i) National Eligibility Tests – CSIR-UGC NET including lectureship (Assistant Professorship) or GATE or (ii) A selection process through National level examinations conducted by Central Government Departments and their Agencies and Institutions.

III. Project Associate-II

(a) ₹28,000/- + HRA

(b) * ₹35,000/- + HRA to Scholars who are selected through (i) National Eligibility Tests – CSIR-UGC NET including lectureship (Assistant Professorship) or GATE or (ii) A selection process through National level examinations conducted by Central Government Departments and their Agencies and Institutions.

V. Senior Project Associate: ₹42,000/- + HRA

*** NOTE: Candidates appearing for position of PA-I and PA-II having valid GATE score card will be paid only ₹25,000/- and ₹28,000/- + HRA respectively. If at all, the project needs GATE qualification, only then, they will be paid ₹31,000/- and ₹35,000/- + HRA respectively.**

Contd…7

General Conditions:

1. The engagement of Project Staff which is on contract basis in respect of all above positions will confer no rights on the candidates, whatsoever, implicitly and / or explicitly for their continuation beyond tenure /absorption/ regularization in CSIR. The engagement shall be for short period and co-terminus with the project and may be terminated at any time by giving a notice of one month from either side or one-month stipend in lieu thereof.

2. Project Staff would be governed by the CSIR/NAL Guidelines relating to engagement of project staff in CSIR Projects including NMITLI projects, OLP/MLP, Contract R&D and non-CSIR funded Projects.

3. Director, CSIR–NAL reserves the right to increase / decrease the number of positions and also cancel the recruitment process for the positions mentioned above at any stage of the recruitment process. The decision of the Director, CSIR-NAL will be final and binding on all candidates at any stage for engagement of Project Staff.

4. Maximum duration in one project or in different projects taken together in CSIR-NAL or other CSIR labs shall not be more than five years in any case.

5. If the candidate is already working in CSIR-NAL or any other CSIR labs, a "**No Objection Certificate**" from the Project Leader/HOD is mandatory at the time of interview.

6. The prescribed essential qualifications are the minimum and should be in the areas required as above. Mere possession of the same does not entitle candidates to be called for interview. CSIR-NAL will adopt its own criteria for shortlisting of candidates. The candidate should, therefore, mention in the application, all the qualifications and experience in the relevant area, over and above the minimum prescribed qualification, supported with documents and ensure that all details are complete and accurate.

7. The selection would be based upon the performance in the interview or any other criteria adopted by the selection committee(s). A panel of suitable candidates would be generated after the selection process and the validity of this panel would be for a maximum period of one year. Empanelment does not provide automatic guarantee of engagement. Utilization of panels depends on the number of positions available in various projects during the period and any interim inquiry will not be entertained.

8. In case a large number of candidates appear for the interview, the Selection/Screening Committee will have discretion to shortlist the candidates for the interview based on written exam or any other criteria deemed fit. In respect of equivalence clause in Essential Qualifications, if a candidate is claiming a particular qualification as equivalent qualification for recruitment as per the requirement of advertisement, then the candidate is required to produce order/letter in this regard, indicating the Authority (with number and date) under which it has been so treated otherwise the application is liable to be rejected.

9. The candidates may clearly mention the category they belong to i.e., SC/ST/OBC/PH/EWS and attach documentary proof of the same.

10. No TA/DA will be paid to the candidates for attending the Walk-in-Interview.

Contd…8

11. Candidates who have completed their degree with requisite educational qualifications only need to attend the Interview. However, candidates appearing/appeared for the qualifying examination whose results are awaited **are not eligible to attend the interview.**

12. List of selected candidates will be notified on our website: https://www.nal.res.in. In addition, panel of waiting list will also be drawn for future requirements and it will be valid for a period of one year.

13. The selected candidates are expected to join within 15 days from the date of receiving the offer letter and no further extension is normally entertained. If the candidates are unable to report within 15 days, the offer will be cancelled without further notice and the offer will be issued to the next waitlisted candidate.

14. **The engagement of Project Staff will be subject to production of ORIGINAL documents viz. Educational Qualification certificates with all mark sheets, Experience certificates, Caste Certificate etc.**

15. The date of determining qualification and age shall be the date of Walk-in-Interview.

16. Candidates are requested NOT to send the application by post/speed post/e-mail.

17. Canvassing in any form and/or bringing any influence political or otherwise will be disqualified.

Walk-in-Interview Dates:

The candidates willing to attend the Walk-in-Interview are informed to report at CSIR-NAL (RAB Meeting Complex, National Aerospace Laboratories [NAL], Adjacent to SBI, NAL Branch, Kodihalli, Bengaluru – 560017 on the specified dates **between 8.30 AM to 9.30 AM** for registration and verification of documents.

NOTE:

- **No candidates are allowed for registration after 09.30 AM.**
- Candidates who wish to apply for more than one position need to **apply separately for each position**.
- Candidates are informed to bring a copy of Aadhar Card or any Government issue ID Cards with photograph of the applicant and duly filled in application form (available in our website) without fail, along with latest passport size photograph, **original certificates with one set of Xerox copies** (including Caste Certificate, if any, in the proper format issued by the appropriate authority as per the latest instructions issued from time to time on the subject).
- ***Preference will be given to those with experience as per the desirable skills and ability to work as a part of a team.***
- *Further, you may have **to come with necessary preparations to attend the interview on the next day** in the event of your interview not being completed on the indicated day for any reason.*

For further information, please visit: https://www.nal.res.in

For any query please contact
☎ 080-25086078, Email: recruitment@nal.res.in

Sd/-
Controller of Administration

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(Council of Scientific & Industrial Research)
Bengaluru – 560017, INDIA

Affix your latest passport size photograph

ADVT. No. 05/2024

APPLICATION FORM FOR WALK-IN-INTERVIEW

DATE: _____

1.	Name of the Post applied for	**PA**	**PA-I**	**PA-I (NET/ GATE)**	**PA-II**	**PA-II (NET/ GATE)**	**SPA**
2.	Specialization						
3.	Name in full (Block letters)						
4.	Father's / Husband's Name (Block letters)						
5.	Date of Birth (as per X Std. / SSLC Certificate) (DD/MM/YYYY)						
6.	Age						
7.	Sex (Male/Female)						
8.	Nationality						
9.	Category	UR/SC/ST/OBC/EWS/PWD					
10.	Address for Communication with PIN code						
		Mobile No.:					
		E-mail ID:					
11.	Permanent Address with PIN code						

12.Educational Qualification (attach relevant copies)

Details of Courses and Specialization	*Period of Course*		*Total Marks*	*Total Marks Obtained*	*%/ CGPA score*	*Board/ University/ Institution*
	From (MM/YY)	*To (MM/YY)*				
SSLC / X Std.						
10 + 2 / PUC						
Diploma						
Graduation						
Post-Graduation						
Ph.D						

13. Details of Employment (in Chronological Order) (attach relevant copies)

Name of the organization & Place (Please specify whether Central/Govt. /State Govt./Public Sector/Autonomous Body/Private Sector)	*Position(s) held*	*Period*		*Nature of Work*	*Gross Pay Scale*	*Whether working on Regular/ Contractual / Adhoc Basis etc.,*
		From (MM/YY)	*To (MM/YY)*			

...3

14.	Are you having CSIR-UGC NET/GATE Score card? **YES / NO** (If yes, please attach valid score card / certificate)	
15.	Any other information	
16.	Particulars of close relatives working in CSIR / CSIR-NAL: **YES / NO** (If yes, please provide following details)	
Name		
Designation		
Division		
Relationship		
17.	Are you under any Bond / Contractual obligation to serve Central / State Govt. / PSU / Autonomous or any other body / organization	
18.	Whether dismissed from service from any other institution / office or debarred by the Public Service Commission. If Yes, give details	

- I hereby declare that all the statements made in this application are true, complete and correct to the best of my knowledge and belief.
- I understand that in the event of any information being found false or incorrect at any stage, my candidature / appointment shall be liable to be cancelled / terminated summarily without notice or any compensation in lieu thereof.

Place: Signature:

Date: Name:

Date: ……..

NO OBJECTION CERTIFICATE

This is to certify that Ms./Smt/Shri…… is working as …….. (Designation), …….. (PA No.) at …….. (Division) w.e.f. ……

It is further certified that we have no objection to his/her attending interview for the post of ……. at CSIR-NAL against Advertisement No…….. scheduled to be held during …….. to …… . If selected, he/she will be relieved within 15 days from the date of his / her resignation.

Signature of the PL/HOD:……..

Name:……

Designation:……

Division:……