

Council of Scientific and Industrial Research
NATIONAL AEROSPACE LABORATORIES
 PB No.1779, HAL Airport Road, Kodihalli, Bangalore – 560017.

Advt. No. NAL/PF/5/2013

APPLY ONLINE BEFORE 15 NOVEMBER 2013

(NAL Website: www.nal.res.in)

National Aerospace Laboratories (NAL) is a premier research laboratory under the Council of Scientific and Industrial Research (CSIR). In addition to many Research, Development and Technology Programmes in Aerospace, CSIR-NAL is actively involved in supporting the National Aerospace Programmes of ADA, DRDO, ISRO, HAL and IAF. Further, NAL has a programme in design and development of General Aviation aircraft. NAL is also exploiting several aerospace technologies as spin-off industrial applications. It has excellent facilities in all the aerospace disciplines.

For the 12th Five Year Plan Projects, CSIR-NAL is looking for Project Fellows / Senior Project Fellows in various disciplines, as under:

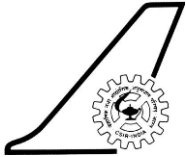
Sl. No.	Post	Minimum Qualification(s) / Experience Required	Remuneration
1.	PROJECT FELLOWS(PF) (19 POSTS)	First Class M.Sc. / BE / B.Tech in the relevant discipline OR Equivalent Degree from a Recognised Institution / University. Age limit: 28 years	Rs. 16,000/- PM + HRA @ 30%
2.	SENIOR PROJECT FELLOWS(SPF) (18 POSTS)	First Class M.Sc./BE/B.Tech. in the relevant discipline OR Equivalent Degree from a Recognised Institution / University with 2 years research experience OR ME/M.Tech in Engineering / Technology OR equivalent Degree with atleast 60% marks. Age limit: 32 years	Rs.18,000/- PM + HRA @ 30%

NOTE: 1) Apply online on our specially designed Electronic Application Form available on our website: www.nal.res.in under the caption "Project Fellows".

2) Please go through the full details of educational qualifications, area of specialization, expertise/experience required for each position and terms & conditions for Engagement of Project Fellows on our website: www.nal.res.in under the caption "Project Fellows", before filling the online application form.

INTERIM ENQUIRIES WILL NOT BE ATTENDED TO.

Date of Publication: 26 OCTOBER 2013



Council of Scientific and Industrial Research
NATIONAL AEROSPACE LABORATORIES

P.B. No.1779, HAL Airport Road, Kodihalli, Bangalore – 560 017

Advt. No.NAL/PF/5/2013

APPLY ONLINE BEFORE 15 NOVEMBER 2013

(Website: www.nal.res.in)

National Aerospace Laboratories (NAL) is a premier research laboratory under the Council of Scientific and Industrial Research (CSIR). In addition to many Research, Development and Technology Programmes in Aerospace, CSIR-NAL is actively involved in supporting the National Aerospace Programmes of ADA, DRDO, ISRO, HAL and IAF. Further, NAL has a programme in design and development of General Aviation aircraft. NAL is also exploiting several aerospace technologies as spin-off industrial applications. It has excellent facilities in all the aerospace disciplines.

For the 12th Five Year Plan Projects, CSIR-NAL is looking for Project Fellows / Sr. Project Fellows in various disciplines, as under:

Please go through the full text of the advertisement regarding qualifications, specialization, job requirements & experience, etc., required for each position, before filling the online application form.

Please fill the Electronic Online Application Form carefully. Your selection for interview and engagement as Project Fellow / Sr. Project Fellow will be based on the details entered in the Online Application Form only.

...2...

I. PROJECT FELLOWS (PF) (19 POSTS):

Remuneration : Rs.16000/- per month + House Rent Allowance (HRA)

Age Limit : 28 years, relaxable for SC/ST/OBC & Women candidates as per Gol / CSIR orders.

POST CODE: PF / FMCD / 01 (1 Post):

Qualification: First Class BE / B.Tech. in Electronics Engineering OR equivalent Degree from a Recognised Institution / University.

Desirable Experience: Experience in MATLAB & SIMULINK, digital image processing and computer vision.

POST CODE: PF / FMCD / 02 (1 Post):

Qualification: First Class BE / B.Tech. in Electronics / Computer Science Engineering OR MCA OR equivalent Degree from a Recognised Institution / University.

Desirable Experience: Experience in Embedded programming, Communication Protocols, C & C ++ programming, Visual Studio & .NET.

POST CODE: PF / FMCD / 03 (1 Post):

Qualification: First Class BE / B.Tech. in Electronics / Computer Science Engineering OR equivalent Degree from a Recognised Institution / University.

Desirable Experience: Experience in C, C++, Visual Studio Matlab & Simulink.

POST CODE: PF / ALD / 04 (1 Post):

Qualification: First Class BE / B.Tech. in Electronics / Computer Science / Electrical Electronics Engineering OR equivalent Degree from a Recognised Institution / University.

Desirable Experience: Experience in Mathematical analysis required as part of the formal methods in Software Engineering.

POST CODE: PF / ALD / 05 (1 Post):

Qualification: First Class BE / B.Tech. in Electronics / Computer Science / Electrical Electronics Engineering OR equivalent Degree from a Recognised Institution / University.

Desirable Experience: Experience in communication protocols, Embedded Systems and Software programming in C, VC++.

POST CODE: PF / ALD / 06 (1 Post):

Qualification: First Class BE / B.Tech. in Electronics / Computer Science / Electrical Electronics Engineering OR equivalent Degree from a Recognised Institution / University.

Desirable Experience: Experience in communication protocols, Embedded Systems and Software programming in C, VC++.

POST CODES: PF / EAD / 07 /08 / 09 (3 Posts):

Qualification: First Class BE / B.Tech. in Mechanical / Aerospace Engineering OR equivalent Degree from a Recognised Institution / University.

Desirable Experience: Experience in Wind Tunnel Model Design using CATIA software, Knowledge of Matlab programming, Basic knowledge of aircraft aerodynamics and wind tunnel measurements, Knowledge of balance measurements, model support design and porting for WT models.

POST CODE: PF / PR / 10 (1 Post):

Qualifications: First Class BE / B.Tech. in Mechanical / Aerospace Engineering OR equivalent Degree from a Recognised Institution / University.

Desirable Experience: Experience in Turbo Machinery design and analysis.

POST CODE: PF /PR / 11 (1 Post):

Qualification: First Class BE / B.Tech in Mechanical / Aerospace Engineering OR equivalent Degree from a Recognised Institution / University.

Desirable Experience: Experience in Propulsion.

POST CODE: PF / PR / 12 (1 Post):

Qualification: First Class BE / B.Tech. in Mechanical / Aerospace / Production Engineering OR equivalent Degree from a Recognised Institution / University.

Desirable Experience: Experience in Mechanical design, Vibration analysis, FEM, Rotor Dynamics.

POST CODE: PF / PR / 13 (1 Post):

Qualification: First Class BE / B.Tech. in Mechanical / Aerospace Engineering OR equivalent Degree from a Recognised Institution / University.

Desirable Experience: Experience in CAD / CFD & Combustion.

POST CODE: PF / STTD / 14 (1 Post):

Qualification: First Class BE / B.Tech / AM AeSI in Aeronautics / Mechanical Engineering OR equivalent Degree from a Recognised Institution / University.

Desirable Experience: Experience in CATIA with ability in Layouts, 3 views, Mass and Configuration etc.,

POST CODE: PF / STTD / 15 (1 Post):

Qualification: First Class BE / B.Tech / AM AeSI in Aeronautics / Mechanical Engineering OR equivalent Degree from a Recognised Institution / University.

Desirable Experience: Experience in Mechanical Systems, CATIA, Hydraulics etc.,

POST CODES: PF / STTD / 16 & 17 (2 Posts):

Qualification: First Class BE / B.Tech. in Aerospace / Mechanical / Civil Engineering OR equivalent Degree from a Recognised Institution / University. (Preference will be given to GATE/NET qualified candidates).

Desirable Experience: Knowledge of finite element analysis and dynamics of structures, Exposure to implicit / Explicit Finite Element software simulation tool, pre-post processing tools and willingness to work on both testing and simulations activity for impact and crashworthiness.

POST CODES: PF / CTFD / 18 & 19 (2 Posts):

Qualification: First Class BE / B.Tech. in Mechanical / Aerospace / Chemical Engineering OR equivalent Degree from a Recognised Institution / University.

Desirable Experience: Basic understanding of CFD, Exposure to commercial or open source CFD packages.

II. SENIOR PROJECT FELLOWS (SPF) (18 POSTS):

Remuneration : Rs.18000/- per month + House Rent Allowance (HRA)

Age Limit : 32 years, relaxable for SC/ST/OBC & Women candidates as per GoI / CSIR orders.

POST CODE: SPF / FMCD / 01 (1 Post):

Qualification: First Class BE / B.Tech. in Electronics / Computer Science Engineering with 2 years experience **OR** ME/M.Tech. in Electronics / Computer Science Engineering OR equivalent Degree from a Recognised Institution / University.

Desirable Experience: Experience in Embedded programming, Communication Protocols, C & C++ programming, visual studio and .NET.

POST CODE: SPF / FMCD / 02 (1 Post):

Qualification: First Class BE / B.Tech. in Electronics / Computer Science Engineering with 2 years experience **OR** ME/M.Tech. in Electronics / Computer Science Engineering OR equivalent Degree from a Recognised Institution / University.

Desirable Experience: Experience in video processing, knowledge on open scene graph, terrain rendering, C & C++ programming, MATLAB & SIMULINK, Visual Studio & .NET

POST CODE: SPF / FMCD / 03 (1 Post):

Qualification: First Class BE / B.Tech. in Electrical / Electronics / Aeronautics Engineering with 2 years experience **OR** ME/M.Tech in Controls / Aeronautics (Flight Mechanics, Guidance & Control) Engineering OR equivalent Degree from a Recognised Institution / University.

Desirable Experience: Experience in Matlab & Simulink, Auto code generation. Good Knowledge in Flight Mechanics & Control.

POST CODE: SPF / ALD / 04 (1 Post):

Qualification: First Class ME / M.Tech in Electronics & Communication Engineering OR equivalent Degree from a Recognised Institution / University.

Desirable Experience: To work in the area of formal methods in hardware engineering having working knowledge of verification of SOC (System on Chip). To provide technical support as part of the software engineering ground involved in the verification and validation of SOC based applications.

POST CODE: SPF / ALD / 05 (1 Post):

Qualification: First Class ME / M.Tech. in Computer Science / Electrical & Electronics / Electronics & Communication Engineering OR equivalent Degree from a Recognised Institution / University.

Desirable Experience: Experience in communication protocols, Embedded Systems and software programming in C, VC++.

POST CODE: SPF / EAD / 06 (1 Post):

Qualification: First Class BE / B.Tech in Mechanical / Aerospace Engineering with 2 years experience OR ME / M.Tech in Aerospace Engineering OR equivalent Degree from a Recognised Institution / University.

Desirable Experience: Wind Tunnel model design using CATIA, Wind Tunnel measurements using pitot, Hotwire, Knowledge of turbulence measurements, phase locked measurements, tunnel blockages, Knowledge of analysis techniques like correlation.

POST CODE: SPF / PR / 07 (1 Post):

Qualification: First Class BE / B.Tech in Mechanical Engineering with 2 years experience OR ME / M.Tech in Thermal / Aero / Propulsion OR equivalent Degree from a Recognised Institution / University.

Desirable Experience: Experience in CAD.

POST CODE: SPF / STTD / 08 & 09 (2 Posts):

Qualification: First Class BE / B.Tech in AM AeSI in Aeronautics with 2 years experience OR ME / M.Tech in AM AeSI in Aeronautics OR equivalent Degree from a Recognised Institution / University.

Desirable Experience: 3 years experience in preliminary design, performance analysis OR CATIA and CFD.

POST CODE: SPF / STTD / 10 (1 Post):

Qualification: First Class ME / M.Tech in Aerospace / Mechanical / Structural Engineering OR equivalent Degree from a Recognised Institution / University. (preference will be given for GATE / NET qualified candidates).

Desirable Experience: Knowledge in Finite Element Structural Analysis and Optimaization. Exposure to CAD modeling software (preferably CATIA), finite element modeling and analysis software (preferably Hypermesh and MSC Nastran) and PLM software (preferably Enovia v6). Programming skills in JAVA/Matlab/Fortran/C etc. are added advantage.

POST CODE: SPF / STTD / 11 (1 Post):

Qualification: First Class ME / M.Tech. in Aerospace / Mechanical / Structural Engineering OR equivalent Degree from a Recognised Institution / University. (preference will be given for GATE / NET qualified candidates).

Desirable Experience: Knowledge in Finite Element Structural Analysis and Optimization. Exposure to CAD modeling software (preferably CATIA), finite element modeling and analysis software (preferably Hypermesh and MSC Nastran) and MDO software (preferably ISight). Programming skills in Matlab/Fortran/C etc. are added advantage.

POST CODE: SPF / STTD / 12 (1 Post):

Qualification: First Class ME / M.Tech. in Mechanical Engineering with specialization in Machine design / Mechanical Systems / CAD / CAM OR equivalent Degree from a Recognised Institution / University. (preference will be given for GATE / NET qualified candidates).

Desirable Experience: Experience in Mechanism Synthesis, Multi Body Dynamics, Mechanical System Design.

POST CODE: SPF / STTD / 13 (1 Post):

Qualification: First Class ME / M.Tech. in Aerospace / Mechanical Engineering OR equivalent Degree from a Recognised Institution / University. (preference will be given for GATE / NET qualified candidates).

Desirable Experience: Knowledge in CFD modeling and Simulation and use of CFD codes like fluent, CFX, Star-CCM+ etc., Exposure to FE formulation and analysis methods in structural mechanics and Fluid-Structure Interaction (FSI) applications is advantageous. Programming skills in Matlab/Fortran/C etc. are added advantage.

POST CODE: SPF / STTD / 14 (1 Post):

Qualification: First Class ME / M.Tech. in Mechanical Engineering OR equivalent Degree from a Recognised Institution / University. (Preference will be given for GATE / NET qualified candidates).

Desirable Experience: Knowledge in Mechanisms, Dynamics of Machinery / Machine Design, Probabilistic methods and Mechanical reliability. Exposure to mechanical modeling and simulation software (preferably ADAMS), finite element modeling and analysis software (preferably Hypermesh /MSC Nastran / Abacus) will be advantageous. Programming skills in Matlab/Fortran/C etc. are added advantage.

POST CODE: SPF / STTD / 15 (1 Post):

Qualification: First Class M.S / ME / M.Tech in Mechanical Engineering OR equivalent Degree from a Recognised Institution / University.

Desirable Experience: Knowledge in Mechanical design, working experience in NASTRAN / ABAQUS / Hypermesh. Programming skills in Matlab / Fortran / C etc., are added advantage.

POST CODE: SPF / STTD / 16 (1 Post):

Qualification: First Class M.E./M.Tech. in Aerospace Engineering OR First Class B.E./B.Tech. in Aerospace Engineering with 2 years relevant industrial experience from a Recognized Institution / University.

Desirable Experience: Knowledge in vibration and aeroelasticity. Working experience in NASTRAN / MATLAB / Hypermesh.

...7...

POST CODE: SPF / STTD / 17 (1 Post):

Qualification: First Class M.Sc in Chemistry with 2 years industrial experience in the area of composites OR equivalent Degree from a Recognised Institution / University.

Desirable Experience: Knowledge in Polymer systems & fibre composites.

POST CODE: SPF / CTFD / 18 (1 Post):

Qualification: First Class BE / B.Tech. in Mechanical / Aerospace Engineering with 2 years experience OR ME/M.Tech. in Aerospace Engineering OR equivalent Degree from a Recognised Institution / University.

Desirable Experience: Basic understanding of Computational Fluid Dynamics, Exposure to commercial or open source CFD packages, CFD analysis of external flows, Knowledge of Fortran programming.

GENERAL:

1. Only Indian Nationals need apply.
2. The above positions are purely Temporary and on Contract basis for the duration of the 12th Five Year Plan Projects only. The contract may be terminated at any time by giving one month's notice by either side. The applicants will have no claim implicit or explicit for consideration against any CSIR / NAL post.
3. **Age limit will be reckoned as on 15 November 2013.** Age limit is relaxable for SC/ST/OBC and Women candidates as per Government of India / CSIR orders.
4. As regards reservation, if all things are equal, SC/ST/OBC candidates may be given preference over General candidates so as to ensure their representation.
5. Engagement of Project Fellows shall be as per CSIR Guidelines.
6. The validity of the applications will be for a period of one year from the closing date for receipt of Applications.
7. No TA/DA will be paid to the candidates for appearing in the Interview.
8. **Candidates applying for more than one post should Register online separately for each post indicating the Post Code.**
9. Mere fulfilling of minimum prescribed qualifications and experience will not vest any right in a candidate for being called for Interview. The Laboratory reserves the right to call for Test/Interview only those candidates who in its opinion are likely to be suitable and will not entertain any correspondence in this regard.
10. The selected appointees should be ready to work beyond office hours whenever need arises to meet project(s) delivery schedules.

... 8 ...

11. As the Screening/Shortlisting of applications will be done on the basis of information furnished in the Online application form by the applicants, it is necessary that only accurate, full and correct information is furnished by the applicants. Furnishing of wrong/false information will be a disqualification and NAL will **NOT** be responsible for any of the consequences of furnishing such wrong/false information. Candidates may register online immediately on seeing the advertisement to avoid last day rush/disappointment.
12. The decision of CSIR-NAL in all matters relating to eligibility, acceptance or rejection of applications, mode of selection, conduct of interview will be final and binding on the candidates and no enquiry or correspondence will be entertained in this connection from any individual or agency on behalf of the candidate.
13. Canvassing in any form and/or bringing in any influence political or otherwise will be treated as a disqualification for the post.

INTERIM ENQUIRIES WILL NOT BE ATTENDED TO.

No.2(27)5/2013-AI

Sd/-
Sr.Controller of Administration
CSIR-NAL