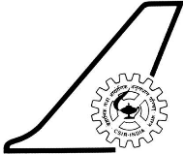


Date of Publication: 8th May 2023



Council of Scientific and Industrial Research
NATIONAL AEROSPACE LABORATORIES
P.B. No.1779, HAL Airport Road, Kodihalli, Bengaluru – 560 017

Advt. No. 4/2023

APPLY OFFLINE ON OR BEFORE 23rd May 2023
(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 Programs in Aerospace, CSIR-NAL is actively involved in supporting the National Aerospace Programs of ADA, DRDO, ISRO, HAL and IAF. Further, CSIR-NAL has a strong program in Civil Aircraft development including the nationally important project of design and development of a multirole Light Transport Aircraft (SARAS Mk2) and the Regional Turbo-Prop Aircraft (RTA). CSIR-NAL is also exploiting several aerospace technologies into spin-off industrial applications. It has excellent facilities in all the aerospace disciplines.

NAL is looking for a Specialist Consultant (individuals only) – Flight Control Systems for Regional Transport Aircraft Project.

SPECIALIST CONSULTANT – FLIGHT CONTROL SYSTEMS (1 POST):

A. Educational Qualification:

Master's degree preferably Ph.D in Engineering (Aerospace / Electrical / Electronics / Computers / Instrumentation / Automatic Control).

B. Experience:

1. The consultant should have worked for at least 15 years in an aircraft OEM of international repute.
2. The consultant should have worked in a civil aircraft programme with passenger capacity of at least 100 seats.
3. The consultant should have at least 15 years of experience in Civil Transport Aircraft Fly by Wire (FBW) Flight Control System (FCS) design, development and airworthiness (including FBW FCS system architecture studies, control laws, stability and control analysis, flying qualities, flight simulation, system development and certification).
4. The consultant should have extensive experience in Civil Aircraft FBW FCS safety assessment process and should have an extensive working knowledge on application of ARP 4754/4761 towards certification.
5. The consultant should have published relevant publications/technical memos and/or patents.
6. The consultant should have experience certifying aircraft to FAR/CS/EASA Part 25 regulations or equivalent and should be familiar with the compliance requirements.

C. Scope of work

Consultant is expected to collaborate with CSIR-NAL team to arrive at a consensus on the artefacts mentioned below. The Consultant is expected to participate regularly through online/virtual mode for technical discussions. If CSIR-NAL requires, Consultant is expected to visit CSIR-NAL, Bengaluru for 5 working days for technical discussions.

1. Comparison of powered hydro-mechanical FCS and FBW FCS for RTA class of aircraft in terms of development life-cycle, commercial, operational and engineering aspects.
2. Study on FBW FCS system architecture and configuration and to evolve the FBW FCS functional and system requirements optimized for weight budget, efficiency, performance, safety requirements.
3. Support for FBW FCS hazard and safety assessment and definition of safety requirements.
4. Guidance towards the ground test and flight test requirements and associated infrastructure development to comply with airworthiness requirements.
5. Study of FBW FCS cockpit control architecture (yoke-wheel vs. side-stick).

D. Deliverables:

1. Agreed upon minutes of the meeting (MoM) consolidating all the meetings conducted every month or as and when required.
2. Mutually agreed upon consolidated report for the items listed above in C(1) through C(5).

Duration: 4-6 months or 200 hours whichever is minimum. The engagement may be extended by 6 months on need basis, after review by the Competent Authority.

GENERAL CONDITIONS:

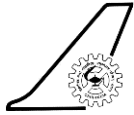
1. The Consultant is purely temporary and open to individual Specialist Consultant only.
2. The engagement will be in the CSIR - National Aerospace Laboratories (NAL), Bengaluru, under the Council of Scientific & Industrial Research (CSIR) which is an Autonomous Body under Ministry of Science & Technology, Govt. of India.
3. The engagement is for temporary duration for 4-6 months or 200 hours whichever is minimum. The engagement may be extended by 6 months on need basis.
4. Age should not be more than **64 years**, will be reckoned as on last date for receipt of applications.
5. Relaxation: The qualifications, age and experience can be relaxed in the case of exceptionally meritorious candidates with the approval of DG, CSIR/Competent Authority.
6. **Remuneration:** Remuneration is on par with Industry Standards and varies with experience and specialization in the field. The payment cycle is monthly, subject to fulfillment of the deliverables as mentioned in section D.
7. The period of experience in a discipline/area of work, where prescribed, shall be counted with effect from the date of acquiring the prescribed minimum educational qualifications for the post.
8. As the Screening/Shortlisting of applications will be done on the basis of information furnished through the Offline 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 CSIR-NAL will **NOT** be responsible for any of the consequences of furnishing such wrong/false information.
9. The decision of CSIR-NAL/DG, CSIR in all matters relating to eligibility, acceptance or rejection of applications, mode of selection will be final and no enquiry or

correspondence will be entertained in this connection from any individual or agency on behalf of the candidate.

10. Canvassing in any form and/or bringing in any influence political or otherwise will be treated as a disqualification for the post.
11. In the event of engagement of the Consultant, the Consultant has to execute an agreement in the format on Non-judicial stamp paper.
12. Eligible candidates may download the application form given below (**given at the end of full advertisement**). Application form duly filled in together with recent passport size photograph, copies of matriculation / Degree and above, Experience and certificate with reference to nature of work carried out etc., should be sent in a sealed cover superscribing "**Application for the post of Specialist Consultant** Advt. No. 4/2023 **ON OR BEFORE 23rd May 2023** addressed to:

**The Administrative Officer
National Aerospace Laboratories
P.B.No.1779, HAL Airport Road
Kodihalli, Bengaluru – 560 017 (Karnataka).**

INTERIM ENQUIRIES WILL NOT BE ENTERTAINED



(Council of Scientific and Industrial Research)
NATIONAL AEROSPACE LABORATORIES
BENGALURU – 560 017

Affix a signed copy of your recent passport size photograph

APPLICATION FORM

IMPORTANT: This application form duly completed in the candidate's own handwriting or neatly typed must reach THE SR. CONTROLLER OF ADMINISTRATION, NATIONAL AEROSPACE LABORATORIES, P.B.No.1779, AIRPORT ROAD, KODIHALLI, BENGALURU - 560017 on or before 23rd May 2023

1. Advertisement No. : **4/2023**
2. Post : **SPECIALIST CONSULTANT**

3. Name of the candidate (in Block Letters)	
4. Sex (Male / Female)	
5. Father's Name	
6. Nationality (mention by birth / domicile)	
7. Present Postal Address (for communication purpose)	Pin Code <input type="text"/> Tel/Mobile No. _____, E-mail: _____
8. Permanent Address	Pin Code <input type="text"/> Tel/Mobile No. _____

09. Date of Birth (Either passport / Aadhar Card)	<input style="width:30px; height:20px;" type="text"/> <input style="width:30px; height:20px;" type="text"/> DAY	<input style="width:30px; height:20px;" type="text"/> <input style="width:30px; height:20px;" type="text"/> MONTH	<input style="width:30px; height:20px;" type="text"/> <input style="width:30px; height:20px;" type="text"/> <input style="width:30px; height:20px;" type="text"/> <input style="width:30px; height:20px;" type="text"/> YEAR
10. Age (As on the closing date of application)	<input style="width:30px; height:20px;" type="text"/> <input style="width:30px; height:20px;" type="text"/> YEARS	<input style="width:30px; height:20px;" type="text"/> <input style="width:30px; height:20px;" type="text"/> MONTH	<input style="width:30px; height:20px;" type="text"/> <input style="width:30px; height:20px;" type="text"/> DAYS

11. Educational/Professional Qualification etc.							
Examination Passed	Year of passing	Marks obtained / percentage of marks			Class / Grade obtained	Duration of Degree/ Diploma Course	Board / University / Institution
		Max Marks	Marks obtained	Aggregate %age			

12. Work Experience:					
Period		Name of Organisation & Place	Designation/ Post Held	Gross Pay Drawn	Permanent/ Temp. Post
From	To				

13. List of Awards/ Honours:

Sl. No.	Details of Awards/Honours	Professional Body	Citation of the Award

14. List of Publications

Sl. No	Title of Paper/Patent	Publisher	Year

15. Remuneration Details:

Duration of Contract: 4-6 Months initially and may be extended by 6 Months.
 Total length of engagement limited to 200 hours.

Expected remuneration (hourly basis) :
 Expected remuneration for 5 working days at CSIR-NAL :

Note:

1. Consultant to fill up expected remuneration above.
2. Total Remuneration is on par with Industry Standards and varies with experience and specialization in the field.
3. Remuneration will be decided by Competent Authority based on experience/expertise.

16. Willingness of the Consultant to be with the Project Team till the completion of certification on a payment basis Yes No

17. Any other details :

DECLARATION

I hereby declare that the information given above is correct, true to facts and nothing has been concealed / distorted. I am aware that, if at any time I am found to have concealed / distorted any information, my candidature/appointment is liable to be summarily terminated without notice.

Place: _____

Date: _____

Signature of the candidate

Check List:

Please tick the appropriate box and arrange the enclosures/information:

Sl. No.	Details	Check Box
1.	Qualifications, Experience, Expertise etc.	<input type="checkbox"/>
2.	Copy of Passport/AADHAAR Card (Personal Details)	<input type="checkbox"/>
3.	Remuneration details (Refer Sl. No. 14 of the application)	<input type="checkbox"/>
4.	Prior assignment reference documents (Refer Sl. No. 13 of the application form)	<input type="checkbox"/>