

#### Aeronautical Development Agency (Ministry of Defence, Govt. of India) PB No.1718, Vimanapura Post, Bangalore - 560 017

Advt Ref No.:ADA:ADM:EST:ADV-091:2013

31 July 2013

ADA is an Autonomous Organization under the Department of Defence Research & Development, Ministry of Defence (MOD), Government of India, entrusted with the design & development of both the Air Force and Naval versions of Light Combat Aircraft (LCA). LCA Programme is a prestigious National Programme with more than 100 major work centres contributing to this Programme and the Programme is in an advanced stage. ADA has advanced and sophisticated facilities for Aircraft Design activities and provides excellent growth potential.

ADA invites applications for **SCIENTIST / ENGINEERS** in various disciplines in the area of Design, Development, Testing & Evaluation of various Systems / Sub-systems and Project Management. Details of the posts, no. of posts, Pay Band and Grade Pay, educational qualifications required / desired and nature of experience required / desired are given below:

#### (1) Scientist/Engineer 'F'

(Pay Band - 4) Rs.37,400 - 67,000/- & Grade Pay Rs.8,900/-

(Gross monthly Emoluments at current rates: Rs 1,11,950/-)

	No. of Post(s)	Educational Qualification required	Nature and area of Experience required
1.5F	1		<b>Essential</b> : Experience in one or more of the following areas:
		Essential:  Bachelor's Degree in	(a) Design & Development of Hydraulic system and its associated Mechanical LRUs of Combat Aircraft.
		Engineering in Mechanical / Aeronautical Engineering	(b) Design components meeting the requirements of Military, Aerospace and Naval standards.
		Desirable :	(c) Mechanical aircraft components and systems with sound knowledge of Hydraulic systems and Design of Hydraulic LRUs.
	ME / M.Tech or equivalent in Mechanical Engineering	(d) Design, Engineering principles, product development and type testing in the field of aircraft hydraulics; design and development process, type testing and executing the job in collaboration with various Government agencies.	

	Desirable	: Experience	e in Advanc	ed combat
		Hydraulic ability and so	,	Reliability,

## (2) Scientist/Engineer 'E'

(Pay Band – 4) Rs.37,400 – 67,000/- & Grade Pay Rs.8,700/- (Gross monthly Emoluments at current rates: Rs 1,05,470/-)

Post Code	No. of Post(s)	Educational Qualification required	Nature and area of Experience required
2.5E	1	Essential: Bachelor's Degree in	<b>Essential</b> : Experience in one or more of the following areas:
	Engineering in Mechanical / Aeronautical Engineering	(a) Design, Development and testing of High temperature Pneumatic valves of ECS and valves of Hydraulic and Fuel system for Combat Aircrafts.	
		Desirable:  ME / M.Tech or equivalent in Mechanical / Aeronautical Engineering	(b) Design of Solenoid Valves / Non-return valves / Relief Valves/Pressure Regulators, Flow throttling Valves / Two way-three way command valves and integrated hydraulic and pneumatic modules / systems; re-evaluation, testing and delivery of Aircraft components.
			(c) Requirements of Military, Aerospace and Naval standards. Design and development process, type testing and executing the job collaboratively with various Government Agencies.
			Desirable: Experience in -
			CAD (CATIA V.5) with analysis background; Electro-mechanical systems and simulation techniques.
3.7E	1	Essential: Bachelor's Degree in Engineering in Electronics and	<b>Essential</b> : Experience in Design, Development and testing of Onboard embedded systems.
		Communications	<b>Desirable :</b> Experience in Coordination of design and development activities of Avionics systems; usage of DO 254/ DO 178B.

4.10E	1	<b>Essential</b> : Bachelor's Degree in Engineering in	<b>Essential</b> : Experience in one or more of the following areas:
		Electronics & Communication / Computer Science / Information Technology	(a) Certification of airborne Embedded systems such as navigation system, Mission Computing system, Flight Control
		or	System, Weapon System, Displays,
	Master of Science in Electronics / Computer Science / Information	Utility Management System, sensors and electrical system for military aircraft.	
		Technology  Desirable: M Tech in	(b) Military standards for air worthiness certification.
		Desirable: M Tech in Digital Electronics / Computer Science Engineering	(c) Certification methodologies such as qualification procedure, acceptance procedures, screening process, manufacturing process, drawing drafting procedures, Environment stress screening, HALT & HASS screening methods, use of DO-254, DO-2167, IEE 12207; Software & Hardware life cycle process; Test rig & integration rig design and certification; ATE design.

# (3) Scientist/Engineer 'D (Pay Band 3) Rs.15,600 – 39,100/- & Grade Pay Rs.7,600/(Gross monthly Emoluments at current rates: Rs 69,610/-)

Post Code	No. of Post(s)	Laucanonai	Nature and area of Experience required
5.4D	1	Essential: Bachelor's Degree in Engineering in Computer Science / Electronics & Communication / Aerospace / Avionics Engineering	Essential: Experience in one or more of the following areas:  (a) Navigation sensors like INS-GPS, VOR-ILS and TACAN.  (b) Developing algorithms for Navigation & Guidance in Fighter Aircraft and Autopilot
			<b>Desirable</b> : Development of weapon trajectory algorithm and analysis

Post Code	No. of Post(s)	Educational Qualification required	Nature and area of Experience required
6.7D	1	Essential: Bachelor's Degree in Engineering in Electronics & Communication / Electrical & Electronics / Instrumentation/ Aeronautical Engineering	<b>Essential</b> : Experience in Flight control systems / Hardware in loop simulation.
7.7D	1	Essential: Bachelor's Degree in Engineering in Electronics & Communication  Desirable: ME/ M.Tech or equivalent in Electronics & Communication Engineering	Essential: Experience in one or more of the following areas:  (a) Design and Development of processor based Airborne and Ground systems, Development, testing & Qualification of Automated test Equipment for Aerospace Sub-System.  (b) Certification of airborne and ground based systems.  (c) Software development using DO-178B.  Desirable: Exposure to complete system (Hardware & Software) development process cycle for Avionics systems.
8.16D	1	Essential: Bachelor's Degree in Engineering in Mechanical / Production / Industrial Production Engineering	Essential: Experience in one or more of the following areas:  (a) Engineering drawings, tolerance stack up analysis, tool design concepts, design of assembly line jigs, sub assembly jigs, design of fixtures and templates at component level, design of interchangeability (ICY) media / Master Tooling Gauges.  (b) Manufacture and Jig setting of tooling elements, first off proving of jigs / Tools / Fixtures / Drilling templates, use of optical instruments / Laser tracker for tool setting and calibration of tools.  (C) CAD package viz., CATIA / UG / Pro-E for tool design activities.  Desirable:  Digital manufacturing; Experience in Aircraft industry.

### Scientist/Engineer 'C'

## (Pay Band – 3) Rs.15,600 – 39,100/- & Grade Pay Rs.6,600/-

(Gross monthly Emoluments at current rates: Rs 60,650/-)

Post Code	No. of Post(s)		Nature and area of Experience required
9.3C	1	Essential: Bachelor's Degree in Engineering in Aeronautical / Aerospace / Mechanical Engineering	<b>Essential :</b> Experience in Aircraft Design, Aerodynamic analysis and multi-disciplinary design optimization.
		<b>Desirable</b> : ME/ M.Tech or equivalent in Aeronautical or Aerospace Engineering	Desirable: Experience in one or more of the following a) Standard MDO frameworks such as iSIGHT and Mode Frontier
		or PhD in Aeronautical or Aerospace Engineering	b) CFD codes, including post-processing and preprocessing
			c) Aircraft Preliminary Design packages such as RDS, FLOPS and ACSYNTH.
10.3C	1	Essential: Bachelor's Degree in Engineering in Aeronautical / Aerospace Engineering	Essential: Experience in one or more of the following areas:
		<b>Desirable</b> : ME/ M.Tech or equivalent in Aeronautical / Aerospace Engineering	<ul><li>(a) Aerodynamic design</li><li>(b) Aerodynamic analysis</li><li>(c) Grid generation and</li></ul>
		<b>or</b> Bachelor's Degree in	CFD studies.
		Engineering in Mechanical Engineering <b>with</b> ME/M.Tech or equivalent in Aeronautical / Aerospace Engineering	(d) Wind tunnel testing  (e) Aircraft performance analysis and flight performance evaluation.
		or	
		PhD in Aeronautical / Aerospace Engineering	
11.4C	1	Essential: Bachelor's Degree in Engineering in Computer Science / Electronics &	<b>Essential</b> : Experience in one or more of the following areas:
		Communication /Aerospace Engineering	(a) Development of Test Rigs and Simulators.
			(b) Developing / assembling and using Avionics Test Engineers System.
			(c) Sensor System Simulation

Post Code	No. of Post(s)	Educational Qualification required	Nature and area of Experience required
			and Flight models integration for Avionics systems.
12.6C	1	<b>Essential</b> : Bachelor's Degree in Engineering in Computer Science	<b>Essential</b> : Experience in one or more of the following areas:
			(a) System Administration of Enterprise Servers / Storage/ HPC Cluster Systems.
			(b) AIX/LINUX/ Windows Server OS.
			<b>Desirable</b> : Implementation of visualization/ private cloud in a large data centre environment.
13.7C	2	Essential: Bachelor's Degree in Engineering in Electronics & Communication / Electrical and Electronics / Mechanical / Instrumentation / Aeronautical / Aerospace Engineering  Desirable: ME/M.Tech or equivalent / PhD in the above disciplines.	Essential: Experience in Flight Mechanics or Control Systems.
14.9C	1	Essential: Bachelor's Degree in Engineering in Electrical / Electronics / Electronics & Communication Engineering	Essential: Experience in Embedded software Development, Test & Evaluation of Embedded software.  Desirable: Experience in MATLAB & 'C', IV&V and SQA.
15.12C	1	Essential: Bachelor's Degree in Engineering in Mechanical  Desirable: ME/M.Tech or	Essential: Experience in one or more of the following areas:
		equivalent with specialization in Mechanical system	(a) Mechanical system product development activities.
			(b) Programme management tools, software tools like CAD / CAE, system simulation tools in Hydraulics, Pneumatics and Fuel system.

Post	No. of	Educational	Nature and area of
Code	Post(s)	Qualification required	Experience required
16.13C	1	Essential: Bachelor's Degree in Engineering in Electronics / Electronics & Communication / Instrumentation Engineering  Candidates with M.Sc in Electronics/ Electronics & Communication / Instrumentation / Computer Science with ME / M.Tech in Electronics / Electronics & Communication / Instrumentation / Computer Science may also apply.	Essential: Experience in one or more of the following areas: Telemetry systems-Auto track system, PCM systems, High speed data recorders and acquisition system.

#### (I) Allowances:

In addition to Basic Pay (Pay in Pay Band plus Grade Pay), ADA scientists are entitled for Dearness Allowance, House Rent Allowance upto 30% of Basic Pay in lieu of Government accommodation, Transport Allowance with DA thereon, Children Education Allowance, etc. as admissible to Central Government employees.

Perquisites like Leave Travel Concession, Medical facilities, Advances for PCs/Conveyance are also admissible. In addition, ADA Scientists are also eligible for Incentives equal to two increments in the grades of Scientist/Engineer `C' to Scientist/Engineer `F'.

#### (II) Essential / Desirable Eligibility Conditions:

- (a) Full time First class Bachelor's Degree in Engineering, Full time First class M Sc from a recognized university with specialization as mentioned for all Posts.
- (b) Full time First class Master's Degree in Engineering, Full time First class M Sc from a recognized university with specialization as prescribed for the respective Post(s).

**Desirable Qualification & Experience**: As mentioned against the respective post.

#### (III) Minimum Essential Experience

Scientist / Engineer `F'	13 years in the relevant field
Scientist / Engineer `E'	10 years in the relevant field
Scientist/ Engineer `D'	7 years in the relevant field
Scientist / Engineer `C'	3 years in the relevant field

(IV) **Weightage**: Candidates will be given weightage in the required experience as given below on account of possessing the following higher qualifications.

Qualification	Weightage
Master's Degree in Engineering	2 years
Ph.D (in Engineering)	3 years

#### (V) Age Limits (as on closing date of advertisement)

- (a) For Scientist / Engineer 'F' not exceeding 50 years.
- (b) For Scientist / Engineer 'E' not exceeding 45 years
- (c) For Scientist / Engineer 'D' not exceeding 40 years and
- (d) For Scientist / Engineer 'C' not exceeding 35 years

#### (VI) General Instructions

- 1. Only Indian Nationals need apply
- 2. Obtaining First Class in Bachelor's Degree in Engineering and Master's Degree in Engineering is mandatory. No rounding off of marks is permitted. Candidates should be in possession of first class degree certificate awarded by the university at the time of submitting the application. Provisional Degree certificate will be accepted only from the candidates who have passed-out in the previous year.
- 3. The applicants should ensure that they satisfy the eligibility criteria as on the closing date of online registration. The prescribed Essential Qualifications and Essential Experience are bare minimum and mere possession of the same does not entitle candidates to be called for interview. The candidates should mention all qualifications / experience / achievements/specialization in relevant field including those over and above the minimum qualifications. The appointment will be subject to the completion of formalities like medical examination prescribed for Group 'A' technical posts of Government of India with field service liability and character verification etc. besides verification of SC/ST/OBC certificates wherever applicable.
- 4. Higher starting pay may be granted to the candidate with exceptionally brilliant professional achievements and performance in the interview.
- 5. The period of training/apprenticeship will not be counted as work experience. Maximum weightage of upto 2 years only will be given for the work experience as Research Fellow / Research Associate / Research Assistant / Project Assistant etc.
- 6. Educational qualifications and experience are two separate items of requirements. Candidates should possess the prescribed experience in the relevant fields as mentioned under the column 'Nature and area of experience'. The prescribed experience should have been obtained after acquiring the prescribed educational qualifications.
- 7. ADA reserves the right to relax the qualifications and experience.

- 8. One set of copies of the self-attested certificates in proof of qualifications and experience should be brought at the time of interview along with the application form; however, candidates will be required to produce all original certificates for verification.
- 9. The upper age limit as on closing date is relaxable upto 5 years for SC/ST, 3 years for Other Backward Communities (OBC) as per orders of Central Govt. issued from time to time. Age is relaxed upto 5 years for Central Govt employees as per rules.
- 10. The selected candidates will be required to resign from the previous organization and will not be permitted to join ADA on lien / deputation basis.
- 11. Candidates working in Government / Public Sector Undertakings, Autonomous organizations/ Armed forces must apply through proper channel. In addition to registration on website, such candidates must forward a hard copy (downloaded from given website) of the application through proper channel, addressed to 'Senior Administrative Officer I', Aeronautical Development Agency, Post Box No.1718, Vimanapura Post, Bangalore 560017. Candidates falling in this category, whose applications have not been received through proper channel within 20 days of the closing date of online registration will not be considered for the interview.
- 12. Candidates belonging to PH category will be considered if available vacancies are suitable to them.
- 13. Existing regular Scientist / Engineers employed in ADA need not apply.
- 14. Outstation candidates called for interview are eligible for reimbursement of Second Sleeper Class to-and-fro train fare by shortest route, from their normal place of residence or from the place of undertaking the journey, whichever is nearer to Bangalore, on producing documentary proof (tickets).
- 15. If any information furnished online is found to be wrong, the candidates will not be interviewed and TA will not be paid.
- 16. Selected candidates may be posted anywhere in India if considered necessary.
- 17. Selected candidates will be governed by the 'National Pension System' applicable to Central Govt. employees appointed on or after 01.01.2004.
- 18. Candidates applying for more than one post should submit separate online application form.
- 19. The number of vacancies indicated above may vary and ADA reserves the right not to fill up all or any of the posts, if it so decides.
- 20. The decision of ADA in all matters relating to eligibility, acceptance or rejection of application shall be final and no enquiry or correspondence will be entertained in this connection from any individual or his/her agency.
- 21. Canvassing in any form will be treated as disqualification.
- 22. Genuine queries if any, regarding the advertisement, should be sent by e-Mail only on <u>admin-hr@jetmail.ada.gov.in</u>. Candidates may also refer to FAQs under recruitment/ADV-091 on ADA web site.

- 23. Applications/Registrations received after the last date or otherwise incomplete will not be considered. No correspondence in this regard will be entertained.
- 24. For further information please visit ADA web-site www.ada.gov.in

#### $(\forall II)$ How to Apply:

- 1. Candidates are required to register their applications only on ADA website www.ada.gov.in
- 2. Upon successful submission of the application on-line, a system generated unique application number would be allotted which should be carefully preserved by the applicants for future reference.
- 3. Registration of applications on ADA website will commence from 0900 hrs on 05 August 2013 and close at 0900 hrs on 10 September 2013.
- 4. The candidates must submit the online application well in advance without waiting for the closing date.
- 5. The candidates are required to upload mandatorily the following:
  - (i) Scanned photo of size 110W x 140H px(Image JPG). (file size should not exceed 30KB).
  - (ii) Scanned legible copies of Degree Certificate and Experience Certificates in a single PDF file and the file size should not exceed 1 MB.

    (No marks sheet to be uploaded)
- 6. Application received through any other mode would not be accepted and will be summarily rejected.
- 7. Candidates are **not required** to send print out of the application by post. However, candidates working in Government / Public Sector Undertakings, Autonomous organizations/ Armed forces, including departmental candidates must apply through proper channel as mentioned in sub-para 11 of (VI) on General Instructions.

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