



**Aeronautical Development Agency
(Ministry of Defence, Govt. of India)
Bangalore - 560 017**

Advt Ref No.:ADA:ADM:EST:ADV-084:2012

15 February 2012

ADA is an Autonomous Organization under the Department of Defence Research & Development, Ministry of Defence (MOD), Government of India. ADA is entrusted with Design & Development of Air Force and Naval versions of Light Combat Aircraft (LCA) and other programmes. LCA programme is a prestigious National Programme with more than 100 major work centres contributing towards this programme and is in the advanced stage.

ADA provides challenging and excellent working environment. ADA has advanced and sophisticated facilities for Aircraft Design activities and provides excellent growth potential. ADA requires Scientific Manpower towards Design, Development, Testing & Evaluation of various Systems / Sub-systems and Project Management in the levels of Scientist/Engineer 'C' to Scientist/Engineer 'F'.

ADA INVITES APPLICATIONS FOR THE FOLLOWING POSTS

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

(Minimum Pay in the Pay Band + Grade Pay : Rs 49,100/-)

SI No.	Post Code	No. of Post(s)	Minimum Educational Qualification required	Nature of Experience Essential
1	4.3F	1	BE / B.Tech in Electronics & Communication (M.Tech in Digital Electronics preferred)	Avionics System design, VHDL circuit analysis, design and synthesis. Hands on experience in microcontrollers, DSP's, FPGA's, CPLD's and systems on chips (SOC). Experience in Project Management, Vendor Management, Project proposal, costing etc. Familiarisation with programming languages like C, C++ & Assembly; Familiarisation with Airworthy Certification Process and Development tools.
2	18.6F	1	BE / B.Tech in Mechanical Engineering	(a) Design & Development of Hydraulic system and its associated Mechanical LRUs of Combat Aircraft. (b) Design components meeting the requirements of Military, Aerospace and Naval standards. (c) Mechanical aircraft components and systems with sound knowledge of Hydraulic systems and Design of Hydraulic-LRUs. (d) Indepth knowledge of design,

				<p>Engineering principles, product development and type testing in the field of aircraft hydraulics. Familiarity with design and development process, type testing and executing the job in collaboration with various Government agencies</p> <p>Preferred : Knowledge in Advanced combat Aircraft Hydraulic systems. Knowledge of Reliability, Maintainability and safety is an added advantage.</p>
3	25.10F	1	BE / B.Tech in Mechanical Engineering / Industrial / Production Engineering	<p>Relevant experience in atleast two of the following attributes :-</p> <p>(a) Methods Engineering activities involving process planning, production control, scheduling involved in manufacture and assembly of aircraft or similar industry</p> <p>(b) Conversant with various special process requirements involved in manufacture of components / parts.</p> <p>(c) Working knowledge of CATIA / INVOIA and PLM.</p> <p>(d) Thorough knowledge of Aircraft systems and equipping techniques. Conversant with lifting policies, Storage & handling procedures and traceability procedures of airborne components and assemblies.</p> <p>Desirable: (a) Capable of working in cross functional teams of manufacture shop, tool engineering, quality and design for resolving manufacture problems in design, productionisation issues and design for manufacture.</p> <p>(b) Good knowledge of military aircraft structural and system features, types of components used, their manufacture and tooling concepts (machined components, sheet metal parts and carbon fibre composites).</p> <p>(c) Experience in design and development activities.</p>
4	27.11F	1	BE / B.Tech in Mechanical / Industrial / Production Engineering	<p>Management of Projects in Aeronautical Industry with skills in Project planning and scheduling. Experience in management of outsourced projects will be an added advantage.</p>

Scientist/Engineer 'E' (Pay Band - 4 Rs.37,400 – 67,000/- & Grade Pay Rs.8,700/-)
(Minimum Pay in the Pay Band + Grade Pay : Rs 46,100/-)

SI No.	Post Code	No. of Post(s)	Minimum Educational Qualification required	Nature of Experience Essential
5	10.4E	1	ME/ M.Tech in Electronics & Communication	<p>8 years experience in Design and development of processor based airborne and ground based systems, Design, Development and testing of signal conditioning hardware, On-board data recording systems and Qualification / Certification of airborne & ground based Systems. Exposure to software development cycle and experience in project planning.</p> <p>Desirable : Exposure in telemetry Standards and COTS based systems with real time OS is desirable.</p>
6	19.6E	1	BE / B.Tech in Mechanical Engineering	<p>Design and development and testing of High temperature Pneumatic valves of ECS and valves of Hydraulic and Fuel system for Combat Aircraft. Familiarity with (a) 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; Practical experience in re-evaluation, testing and delivery of Aircraft components.</p> <p>(b) Requirements of Military, Aerospace and Naval standards. Familiarity with the design and development process, type testing and executing the job collaboratively with various Government Agencies.</p> <p>Desirable: Knowledge of electromechanical systems and simulation techniques is an added advantage.</p> <p>Preferred : Experience in CAD (CATIA V.5) with analysis background.</p>
7	30.12E	1	BE / B.Tech in Aeronautical / Aerospace / Mechanical / Electrical / Electronics / Instrumentation Engineering	<p>(a) Sound experience in Aviation maintenance and product support activities : Tools and testers, ground support equipment, ground handling equipment, trolleys, maintenance training aids /simulators etc.</p> <p>(b) Strong exposure with operation and maintenance related aspects of any of the following Aircraft :</p>

				<p>(i) Mirage-2000 (ii) Jaguar (iii) SU-30 or equivalent (iv) Civil / Transport Aircraft or equivalent in Naval Aviation.</p> <p>(c) Experience in Training, teaching and education in Aerospace / Squadron.</p>
8	32.13E	1	BE / B.Tech in Mechanical / Production / Industrial Production Engineering	<p>Experience in (a) CAD modelling in CATIA V4/V5, UG-NX. Pro-E or any other CAD packages</p> <p>(b) Assembly modelling, Standard parts and instance management, creation of tubing catalogues, establishing tubing methodology, 3D wire harness routing and form board drawing generation with routing standards (for end connectors, break connectors, back shells, cleats, supports) in CATIA V5/V4 or any other CAD packages.</p> <p>(c) Build up of Digital Mockup/Digital Prototype Assembly, validation of pipelines / tube routings in DMU, tubing piping standards, design for manufacture and assembly (DFMA) considerations in assembly modelling and DMU validation etc.</p> <p>Preferred : CAD modelling using Aircraft outer Master Geometry, Development of macros / utility programs for routine CAD modelling tasks, Model Based Design(MBD) concepts, PLM environment such as Enovia VPM, Teamcenter, Windchill etc.</p>

Scientist/Engineer 'D' (Pay Band 3 Rs.15,600 – 39,100/- & Grade Pay Rs.7,600/-)
(Minimum Pay in the Pay Band + Grade Pay : Rs 29,500/-)

SI No.	Post Code	No. of Post(s)	Minimum Educational Qualification required	Nature of Experience Essential
9	5.3D	1	BE / B.Tech in Computer Science / Electronics / Aerospace / Avionics	(a) Exposure to navigation sensors like INS-GPS,VOR-ILS and TACAN. (b) Developing algorithms for Navigation & Guidance in Fighter Aircraft and Autopilot (c) Development of weapon trajectory algorithm and analysis is desirable.
10	6.3D	1	BE / B.Tech in Computer Science / Electronics/Aerospace/Avionics	(a) Development of Test Rigs and Simulators. (b) Developing / assembling and using Avionics Test Engineers System. (c) Knowledge in the Sensor System Simulation and Flight models integration for Avionics systems.
11	11.4D	1	BE / B.Tech in Electronics/ Electrical / Instrumentation/ Aeronautical Engineering	Experience should be in the field of Flight control systems / Hardware in loop simulation.
12	12.4D	1	ME/ M.Tech in Electronics / Electrical / Mechanical / Instrumentation/ Aeronautical Engineering Desirable : Ph.D in Flight Mechanics / Control Systems / Simulation	5 years experience in Flight Mechanics / Control Systems / Simulation. For Ph.D 4 Years experience.
13	13.4D	1	ME/ M.Tech in Electronics & Communication	5 years experience in Design and Development of processor based Airborne and Ground based systems, Development; Qualification of Automated test Equipment for Aerospace Sub-System, certification of airborne & ground based Systems. Experience in software development. Desirable : Exposure to software development process.
14	20.6D	1	BE / B.Tech in Mechanical Engineering	Design and Development of Landing gear and brake management Systems for combat Aircraft. Familiarity with (a) Design and development of "Carbon-Carbon" Brake Discs and aircraft materials used in aerospace

				<p>industry and the advances in materials.</p> <p>(b) Requirements of Military, Aerospace and Naval standards.</p> <p>(c) Design and Development process, type testing and executing the job collaboratively with various Government Agencies.</p> <p>Desirable : Knowledge of electromechanical systems and simulation techniques is an added advantage.</p> <p>Preferred : Experience in CAD (CATIA V.5) with analysis background.</p>
15	23.9D	2	<p>BE / B.Tech in Electronics / Mechanical / Aeronautical Engineering</p> <p>Preferred Additional Qual : MBA or equivalent in Finance / Operations Management / Project Management</p>	<p>Project Management in large aeronautical projects in Govt. / Autonomous / Public/Private Sector Industry in the areas of Project Planning, Scheduling, Co-ordination, monitoring, reporting etc. using computer based project management tools; should have good analytical and Presentation skills.</p> <p>Preferred : Experience in Aeronautical Industry.</p>
16	26.10D	1	<p>BE / B.Tech in Mechanical Engineering.</p> <p>Desirable : ME / M.Tech in Mechanical Engineering with specialization in Machine Design / CAD / CAM / Manufacturing / Aero Structures</p>	<p>Experience in Structural Layout Design, Aero-structural feasibility studies and Stress Analysis</p> <p>Desirable : Working knowledge in (a) PLM / PDM / DMU with CATIA V5 / ENVOIA VPM / team center environment / Elfini / Nastran / Digital Manufacturing (b) Experience in co-ordinating with other allied agencies. (c) Experience in project management and outsourcing of projects.</p>
17	28.11D	2	<p>BE / B.Tech in Mechanical / Industrial / Production Engineering</p>	<p>Management of Projects in Aeronautical Industry with skills in Project planning and scheduling. Experience in management of outsourced projects will be an added advantage.</p>
18	31.12D	1	<p>BE / B.Tech in Computer Science / Electronics Engineering</p>	<p>(a) Proficient in Computer Graphics concepts & Graphics Programming: X Windows, Qt, GTK, Open GL, VRML, X3D and graphics based software.</p> <p>(b) Proficient in UNIX concepts and programming in UNIX / Linux environment, GNU tools, Scripting,</p>

				<p>Memory Management, Multithreading, Memory Profiler tools etc.</p> <p>(c) Sound Development skills : SRS, Development (C, C++, VC++), Version control, Test methodologies, source navigation tools etc.</p> <p>d) Strong command on atleast 2 databases</p> <p>Preferred : Exposure to Aerospace Industry.</p>
19	33.13D	1	BE / B.Tech in Mechanical / Production / Industrial Production Engineering	<p>Experience in (a) Reading of production drawings, manufacturing of machined sheet metal / composite components, process planning and tolerance stack up analysis, design of jigs and fixtures, heat treatment and finishing processes, inspection and acceptance procedures.</p> <p>(b) CAD/CAM, precision manufacturing, CNC programming and machining, high speed machining, CNC pipe bending program generation, manufacturing of pipelines/tubes with inspection procedures, design of jigs for assembly of pipelines with end connectors, lofting and forming of aero sheet metal components, data generation for surface contour inspection using coordinate measuring machine, assembly buildup procedures, digital manufacturing solutions viz., Delmia, Tecnomatix, Vericut, Virtual NC and Virtual inspection etc.</p> <p>Desirable : Exposure to laser based inspection/assembly techniques as well as other advanced manufacturing technologies, development of amalgamation jig. Aircraft industry experience in the above relevant topics is added advantage.</p>
20	34.14D	1	BE / B.Tech in Electronics & Communication/Telecommunication / Instrumentation Engineering	<p>Knowledge on Sensors ; Experience in design and Development of Data Acquisition System(DAS) ; Signal conditioners and automated control systems. Hands-on experience in development of test facilities with exposure to modular and distributed DAS, Calibration and closed loop control systems are essential and should have knowledge about the current DAS solutions.</p> <p>Desirable : Exposure to MIL-1553B, Linux, Real time operating systems</p>

				along with programming skills in Visual C++ and Lab View.
21	36.15D	1	<p>BE / B.Tech in Mechanical / Aeronautical Engineering</p> <p>Desirable : ME / M.Tech in Mechanical / Aeronautical Engineering with specialization in Reliability / Maintainability / Machine Design / Thermal Engineering / Structures</p>	<p>(a) Experience on Aircraft Maintenance is essential.</p> <p>(b) Well conversant with the application of latest trends and techniques on Maintainability and Maintenance operations of Fighter aircraft fleet, exposure of MIL / JSS Standard & HDBK.</p> <p>(c) Expertise includes :</p> <p>(i) Wide knowledge / exposure on operational aircraft and its maintenance.</p> <p>(ii) Implementation of MSG3.</p> <p>(iii) Maintenance Philosophy generation,</p> <p>(iv) Servicing Schedule generation and optimization.</p> <p>(v) Defect Investigation & Quality Audit.</p> <p>(vi) Conversant with reliability centered Maintenance / e-maintenance etc.</p>

Scientist/Engineer 'C' (Pay Band - 3 Rs.15,600 – 39,100/- & Grade Pay Rs.6,600/-)
(Minimum Pay in the Pay Band + Grade Pay : Rs.25,350/-)

	Post Code	No. of Post(s)	Minimum Educational Qualification required	Nature of Experience Essential
22	1.1C	2	BE / B.Tech in Aeronautical or Aerospace Engineering Desirable : ME/ M.Tech in Aeronautical or Aerospace Engineering (with dissertation project in Aerodynamics / Performance)	Experience should be in the area of Aerodynamics or Performance
23	2.2C	1	BE / B.Tech in Metallurgy & Materials Engineering /	Experience should be in the area of aircraft structural materials, processes and testing.
24	3.2C	3	BE / B.Tech in Mechanical / Aeronautical Engineering	Experience should be in the area of Aircraft Structures, Fatigue, Mathematical Modelling & Finite Element Analysis
25	7.3C	1	BE / B.Tech in Electronics & Communication	Hardware/Software Development with exposure to real time simulators.
26	8.3C	2	BE / B.Tech in Electronics & Communication	Communications / Radar Integration / RF & Microwave, Antenna / EMI / EMC
27	9.3C	1	BE / B.Tech in Computer Science	Software life cycle management, programming, certification and IV&V methods. Sound knowledge of embedded systems & Avionics buses like 1553B, RS422, ARINC 429 etc. Experience in DO 178 B certification process.
28	14.4C	1	BE / B.Tech in Electronics / Electrical / Instrumentation/ Aeronautical Engineering	Design & Development of Aircraft systems / Integration & Testing of Electronic LRUs and systems.
29	15.4C	1	ME/ M.Tech in Electronics / Electrical / Mechanical / Instrumentation/ Aeronautical Engineering. Desirable : Ph.D in Flight Mechanics / Control Systems / Simulation	One Year Experience in the field of Flight Mechanics / Control Systems / Simulation. (for Ph.D in relevant area : Nil Experience)

30	16.4C	1	BE / B.Tech in Electronics/ Electrical / Instrumentation/ Mechanical / Computer Science / Aeronautical / Production / Industrial Engineering Desirable Additional Qual : MBA or equivalent in Finance / Operations Management / Project Management	Project planning and budget preparation in reputed organisation with exposure to modern project management techniques.
31	17.5C	2	BE / B.Tech in Electronics / Communication / Instrumentation Candidates with M.Sc in Electronics / Communication / Instrumentation / Computer Science with ME / M.Tech in Electronics / Communication / Instrumentation / Computer Science may also apply.	Experience in the area of telemetry systems-Auto track system, PCM systems, High speed data recorders and acquisition system.
32	21.7C	1	BE / B.Tech in Electronics & Communication / Computer Science	Experience in System Administration / Network Administration / Information Systems Development
33	22.8C	1	BE / B.Tech in Electrical & Electronics / Electronics & Communication	Experience in Embedded software Development, Test & Evaluation of embedded software. Preferred : Experience in MATLAB & 'C', IV&V and SQA.
34	24.9C	2	BE / B.Tech in Electronics / Mechanical / Aeronautical Engineering Desirable Additional Qual : MBA or equivalent in Finance / Operations Management / Project Management	Project Management in large Aeronautical projects in Govt./ Autonomous / Public/Private Sector Industry in the areas of Project Planning, Scheduling, Co- ordination, monitoring, reporting etc. using computer based project management tools; should have good analytical and Presentation skills. Preferred : Experience in Aeronautical Industry.
35	29.11C	2	BE / B.Tech in Mechanical / Industrial / Production Engineering	Methods / Production / Project Planning. Knowledge of CAD/CAM software and Programme Management software
36	35.14C	1	BE / B.Tech in Mechanical / Aeronautical Engineering	Experience in Aero Gas Turbine engine performance analysis, engine maintenance and engine testing. The candidate should be familiar with ground support equipment to carry out on-wing maintenance activities. Exposure to CAD and solid modelling is an added advantage. Desirable : Experience in Flight test support

				and snag analysis is desirable.
37	37.15C	1	BE / B.Tech in Mechanical / Aeronautical Engineering Desirable : ME / M.Tech in Mechanical / Aeronautical Engineering with specialization in Reliability / Machine Design / Thermal Engineering / Structures	(a) Experience on Aircraft is essential. (b) Well conversant with the application of latest tools on Reliability and Safety analysis for Mechanical systems of Fighter aircraft, exposure of MIL / JSS Standard & HDBK. (c) Expertise includes (i) Reliability growth analysis. (ii) Reliability Demonstrations (iii) Life Data Analysis (iv) Markov Analysis (v) Quality Assurance & Quality Audit (vi) FMEA & FMECA / FTA, (vii) Reliability Prediction etc.
38	38.15C	1	BE / B.Tech in Electrical & Electronics / Electronics & Communication Desirable : ME / M.Tech in Electrical & Electronics / Electronics & Communication with specialization in Avionics / Electronics / Control Systems	Well conversant with the application of latest trends and techniques on Airworthiness / Qualification Aspects, Reliability Analysis, Failure Analysis, Testing Knowledge on MIL / DEF / JSS Standards and HDBK

A) 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 grant of amount equivalent to two increments in the grades of Scientist/Engineer `C' to Scientist/Engineer `F'.

B) Essential / Desirable Eligibility Conditions:

Minimum Essential Qualification

(a) First class BE / B.Tech from a recognized university with specialization as mentioned for all Posts.

(b) First class ME / M.Tech from a recognized university with specialization as prescribed for the respective Post.

(c) MBA or equivalent wherever prescribed, should be from a recognized University and approved by Govt.

Desirable Qualification & Experience : As mentioned against the respective post

C) 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

Weightage for higher qualification will be given as under –

(a) Post Graduate Degree in Engg. - Two Years.

(b) PhD in Engg. – Three Years.

D) AGE LIMITS (as on closing date of advertisement)

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

E) General Instructions

1. Only Indian Nationals need apply
2. The applicants should ensure that they satisfy the eligibility criteria as on the date of application. 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.**
3. Higher starting pay may be granted to the candidate with exceptionally brilliant professional achievements and performance in the interview.
4. The candidate should fulfill the requisite qualification as on the date of application. Applications/Registrations received after the last date or otherwise incomplete will not be considered. No correspondence in this regard will be entertained.
5. Educational qualifications and experience are two separate items of requirements. The prescribed experience should have been obtained after acquiring the prescribed educational qualifications.

6. ADA reserves the right to relax the qualifications and experience.
7. One set of copies of the self-attested certificates regarding essential qualifications and experience only 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.
8. 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.
9. The selected candidates will be required to resign from the previous organization and will not be permitted to join ADA on lien / deputation basis.
10. Candidates working in Government / Semi-Govt /Public Sector Undertakings, Autonomous Organisations in addition to registration on website, must forward a hard copy (downloaded from given website) of the application through proper channel to 'Sr. Admin Officer – I', Aeronautical Development Agency, P.B.1718, Vimanapura Post, Bangalore – 560 017. **THEY SHALL NOT BE INTERVIEWED IF THEY FAIL TO PRODUCE “NO OBJECTION CERTIFICATE” AT THE TIME OF INTERVIEW.**
11. 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).
12. If any information furnished online is found to be wrong, the candidates will not be interviewed and TA will not be paid.
13. Selected candidates may be posted anywhere in India if considered necessary.
14. Selected candidates will be governed by the 'New Pension Scheme' applicable to Central Govt. employees appointed on or after 01.01.2004.
15. Candidates applying for more than one post should submit separate online application form.
16. 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.
18. Genuine queries if any, regarding the advertisement, should be sent by e-Mail only on recruit@jetmail.ada.gov.in
19. 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.
20. Canvassing in any form will be treated as disqualification.
21. For further information please visit ADA web-site <http://www.ada.gov.in>.

22. Closing Date for Registration of Application is 15 days from the date of publication of the advertisement in Employment News.

F) **How to Apply :**

(a) Candidates are required to register their applications only through ADA website : **<http://www.ada.gov.in/recruit>**

(b) 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.

Commencement of on-line submission of applications : **1000 hrs on 22/02/2012**