



ISO 9001 Certified  
Advt. No. 139

DEFENCE RESEARCH AND DEVELOPMENT ORGANISATION (DRDO)  
RECRUITMENT & ASSESSMENT CENTRE (RAC)  
LUCKNOW ROAD, TIMARPUR, DELHI – 110054



RECRUITMENT OF SCIENTISTS IN DRDO

Closing date: 28<sup>th</sup> June 2022 (12 Midnight)

In pursuit of self-reliance in critical technologies relevant to national security, DRDO formulates and executes programmes of scientific research, design, development, testing and evaluation of various systems, subsystems, devices and products required for defence of the nation. DRDO employs highly qualified and competent Scientists and Technologists in Group 'A' Technical Service known as Defence Research & Development Service (DRDS).

RAC invites online recruitment applications through RAC website (<https://rac.gov.in>) for the following posts in the DRDS cadre of DRDO:

Scientist 'F' (Basic Pay: Rs. 1,31,100/- , Level 13A as per 7<sup>th</sup> CPC) – 03 Vacancies

Item No.	No. of Vacancies	Subject/ Discipline	Qualifications & Experience	Equivalent acceptable subjects of Essential Qualification
1	01	Mechanical/ Aeronautical Engineering	<p><b>Qualification:</b></p> <p><b>Essential:</b></p> <p>(i) At least First Class Bachelor's Degree in Engineering or Technology in <b>Mechanical/Aeronautical Engineering</b> from a recognized university or equivalent.</p> <p>(ii) <b>Min 13 Years'</b> of practical experience in research or design or development or production of aircraft/aero engine maintenance/life extension/ airworthiness certification.</p> <p><b>Desirable:</b></p> <p>(i) Master's degree in Engineering or Technology in the relevant field as mentioned in essential qualification.</p> <p>(ii) Knowledge of German, French, Russian, Japanese or Chinese foreign language</p>	Mechanical & Automation Engg Mechanical & Production Engg Aerospace Engg. Aerospace Engg.(Avionics)
2	01*	Applied Optics/ Photonics/Optical Engg.	<p><b>Qualification:</b></p> <p><b>Essential:</b></p> <p>(i) At least First Class Bachelor's Degree in Engineering or Technology in <b>Applied Optics/Optical Engineering</b> from a recognized university or equivalent.</p> <p>OR</p> <p>First Class M.Sc./M.Sc. (Tech) in <b>Applied Optics/Photonics</b> from a recognized university or equivalent.</p> <p>(ii) Min 13 Years' of practical experience in one or more of the following areas :-</p> <ul style="list-style-type: none"> <li>• Design or development and production of Optics/Thin films Electro-optical devices.</li> <li>• Thin film design and development of reflective and anti-reflection coating.</li> <li>• Precision Optics fabrication, testing and integration of optical systems.</li> <li>• Experience in Quality management systems.</li> </ul> <p><b>Desirable:</b></p> <p>(i) Experience of developing at least one product/process cycle in Optics/optoelectronics/Thin film technology.</p> <p>(ii) Master's degree in Engineering or Technology in the relevant field as mentioned in essential qualification.</p> <p>(iii) PhD for M. Sc candidates as defined above in the areas of precision optics or Thin Films for Electro Optical Instruments.</p> <p>(iv) Knowledge of German, French, Russian, Japanese or Chinese foreign language.</p>	Applied Optics Optical Engineering Photonics

3	01	Mechanical Engineering	<p><b>Qualification:</b></p> <p><b>Essential:</b></p> <p>(i) At least First Class Bachelor's Degree in Engineering or Technology in <b>Mechanical Engineering</b> from a recognized university or equivalent.</p> <p>(ii) <b>Min 13 Years'</b> experience in one or more of the following areas:</p> <ul style="list-style-type: none"> <li>• Marine stealth system design or development or production</li> <li>• Naval propulsion system integration</li> <li>• Condition Monitoring of Naval Systems</li> </ul> <p><b>Desirable:</b></p> <p>(i) Post graduate degree in mechanical Engineering</p> <p>(ii) Ph.D in Mechanical Engineering or in the relevant field as stated above</p> <p>(iii) Knowledge of stealth system design, integration with ship systems, performance measurement methodologies &amp; System Trials.</p> <p>(iv) Quality assurance Procedures (QAPs). Experience of Project management, Planning, Administration and Industry Operation.</p> <p>(v) Experience in documentation, procedures and preparation of operation/maintenance documents. Experience in post-delivery support and life cycle management.</p> <p>(v) Knowledge of German, French, Russian, Japanese or Chinese foreign language.</p>	Mechanical & Automation Engg Mechanical & Production Engg
<b>Scientist 'E' (Basic Pay: Rs. 1,23,100/- , Level 13 as per 7<sup>th</sup> CPC) – 06 Vacancies</b>				
Item No.	No. of Vacancies	Subject/ Discipline	Qualifications & Experience	Equivalent acceptable subjects of Essential Qualification
4	01	Mechanical/ Production/ Production & Industrial Engg/ Aeronautical/ Aerospace Engineering	<p><b>Qualification:</b></p> <p><b>Essential:</b></p> <p>(i) At least First Class Bachelor's Degree in Engineering or Technology in <b>Mechanical/Production/ Production &amp; Industrial Engg/ Aeronautical/ Aerospace Engineering</b> from a recognized university or equivalent.</p> <p>(ii) <b>Min 10 Years'</b> experience in the field of design or development or fabrication of Mechanical / Aero Systems.</p> <p><b>Desirable:</b></p> <p>(i) Master's degree in Engineering or Technology in the relevant field as mentioned in essential qualification.</p> <p>(i) Knowledge of German, French, Russian, Japanese or Chinese foreign language.</p>	Mechanical & Automation Engg Mechanical & Production Engg Industrial Production Engg. Aerospace Engg.(Avionics)
5	01*	Naval Architecture and Shipbuilding	<p><b>Qualification:</b></p> <p><b>Essential:</b></p> <p>(i) At least First Class Bachelor's Degree in Engineering or Technology in <b>Naval Architecture and Shipbuilding</b> from a recognized university or equivalent.</p> <p>(ii) <b>Min 10 Years'</b> experience in the field of design, construction or repair &amp; modernization of ship or Submarine / Design, Construction or model testing of Marine Vehicles / Stability analysis of Ships and Submarines.</p> <p><b>Desirable:</b></p> <p>(i) Knowledge of platform motions in underwater condition including manoeuvring and sea – keeping.</p> <p>(ii) Master's degree in Engineering or Technology in the relevant field as mentioned in essential qualification.</p> <p>(iii) Knowledge of German, French, Russian, Japanese or Chinese foreign language.</p>	Naval Architecture

6	01	Electrical Engineering/ Electronics Engineering/ Electronics and Communication Engineering	<p><b>Qualification:</b></p> <p><b>Essential:</b></p> <p>(i) At least First Class Bachelor's Degree in Engineering or Technology in <b>Electronics/Electrical/ Electrical &amp; Electronics / Electronics &amp; Communication / Electronics &amp; Telecommunication / Electronics &amp; Control / Electronics &amp; Instrumentation/ Instrumentation/ Instrumentation &amp; Control Engg.</b> from a recognized university or equivalent.</p> <p>(ii) <b>Min 10 Years'</b> experience in research or design or development or production or testing of electrical power generation / controls /Navigation / Sensor systems on Naval Ships / Ship building Yards / repair yards.</p> <p><b>Desirable:</b></p> <p>(i) Worked in some projects in R&amp;D organisation</p> <p>(ii) Master's degree in Engineering or Technology in the relevant field as mentioned in essential qualification.</p> <p>(iii) Knowledge of German, French, Russian, Japanese or Chinese foreign language.</p>	<p>Electronics &amp; Computer Engg Electronics &amp; Communication System Engg Electronics &amp; Telematics Engg Industrial Electronics Engg Tele Communication Engg Telecommunication &amp; Information Tech Applied Electronics &amp; Instrumentation Engg Electronics &amp; Electrical Communication Engg Electrical with Communication Engg Electronics &amp; Communication Engg.(Avionics) Radio Physics &amp; Electronics Electrical Power System Engg Electrical &amp; Renewable Energy Engg Power Engg Power Electronics Engg Power Electronics &amp; Instrumentation Engg. Electrical &amp; Instrumentation Engg. Electrical Instrumentation &amp; Control Engg. Electronics Instrumentation &amp; Control Engg. Electronics Communication &amp; Instrumentation Engg.</p>
7	01 *	Metallurgical Engg/ Technology/Materials Science and Engg/ Materials Engineering	<p><b>Qualification:</b></p> <p><b>Essential:</b></p> <p>(i) At least First Class Bachelor's Degree in Engineering or Technology in <b>Metallurgical Engg/Technology/Materials Science and Engg/Materials Engineering</b> from a recognized university or equivalent.</p> <p>(ii) <b>Min 10 Years'</b> experience in research or development on characterisation of materials including in the area of advanced materials characterization using conventional and high resolution transmission electron microscopy (TEM)/ Spectroscopy (EELS, EDS) or characterization of Ti/Al/ Ni-base alloys/ steel/ nano-materials or nano-structured materials/ magnetic materials/ electronic materials/mart materials.</p> <p><b>Desirable:</b></p> <p>(i) Master's degree in Engineering or Technology in the relevant field as mentioned in essential qualification.</p> <p>(ii) Ph D in Metallurgy/Materials Science and Engg/Materials Engineering or related fields.</p> <p>(iii) Knowledge of German, French, Russian, Japanese or Chinese foreign language.</p>	<p>Metallurgy &amp; Material Tech Metallurgy/Metallurgical Engg Material Science &amp; Metallurgical Engg</p>
8	01	Mechanical Engineering / Aeronautical Engineering	<p><b>Qualification:</b></p> <p><b>Essential:</b></p> <p>(i) At least First Class Bachelor's Degree in Engineering or Technology in <b>Mechanical Engineering / Aeronautical Engineering</b> from a recognized university or equivalent.</p> <p>(ii) <b>Min 10 Years'</b> experience in research or design or development or production of western type transport aircraft.</p> <p><b>Desirable:</b></p> <p>(i) Master's degree in <b>Mechanical Engineering / Aeronautical Engineering</b> or Technology from a recognized university or equivalent.</p> <p>(ii) Qualified on at least one type of Transport Class of aircraft with training from an Aircraft OEM.</p> <p>(iii) Experience in procurement procedures like technical evaluation, contract negotiations, aircraft factory acceptance, aircraft systems integration and flight clearance.</p> <p>(iv) Knowledge of German, French, Russian, Japanese or Chinese foreign language.</p>	<p>Mechanical &amp; Automation Engg Mechanical &amp; Production Engg Aerospace Engg. Aerospace Engg.(Avionics)</p>

9	01	Electronics and Communication Engineering /Electrical Engg.	<b>Qualification:</b> <b>Essential:</b> <ul style="list-style-type: none"> <li>(i) At least First Class Bachelor's Degree in Engineering or Technology in <b>Electronics and Communication Engineering /Electrical Engg. from</b> a recognized university or equivalent.</li> <li>(ii) <b>Min 10</b> Years' experience in one or more of the following: <ul style="list-style-type: none"> <li>• Design, Simulation and Development of mmW and THz devices</li> <li>• Semiconductor Device Fabrication</li> <li>• Experience in epitaxial growth using MBE</li> </ul> </li> </ul> <b>Desirable:</b> <ul style="list-style-type: none"> <li>(i) PhD in mmW / THz Technology or MTech/ ME in related field.</li> <li>(ii) Knowledge of German, French, Russian, Japanese or Chinese foreign language.</li> </ul>	Electronics Engg. Electronics & Computer Engg Electronics & Control Engg. Electronics & Communication System Engg Electronics & Instrumentation Engg Electronics & Telematics Engg Industrial Electronics Engg Tele Communication Engg Telecommunication & Information Tech Applied Electronics & Instrumentation Engg Electronics & Electrical Communication Engg Electrical with Communication Engg Electronics & Communication Engg.(Avionics) Radio Physics & Electronics Electrical Engg. Electrical & Electronics Engg. Electronics & Tele Communication Engg. Power Engg. Power Electronics Engg. Electrical & Renewable Energy Engg. Electrical Power System Engg.
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Scientist 'D' (Basic Pay: Rs. 78,800/- , Level 12 as per 7<sup>th</sup> CPC) – 15 Vacancies

Item No.	No. Of Vacancies	Subject/ Discipline	Qualifications & Experience	Equivalent acceptable subjects of Essential Qualification
10	01	Mechanical Engineering	<b>Qualification:</b> <b>Essential:</b> <ul style="list-style-type: none"> <li>(iii) At least First Class Bachelor's Degree in Engineering or Technology in <b>Mechanical Engineering from</b> a recognized university or equivalent.</li> <li>(iv) <b>Min 7</b> Years' experience in Design of new products, detailed design and engineering analysis, evolving of Technical specification, review of manufacturing drawings and liaising with fabricators, field engineering during installation and trials.</li> </ul> <b>Desirable:</b> <ul style="list-style-type: none"> <li>(vi) Master's degree in Engineering or Technology in the relevant field as mentioned in essential qualification.</li> <li>(vii) Knowledge of German, French, Russian, Japanese or Chinese foreign language.</li> </ul>	Mechanical & Automation Engg Mechanical & Production Engg
11	01	Mechanical/ Production/ Production & Industrial Engg/ Aeronautical/ Aerospace Engineering	<b>Qualification:</b> <b>Essential:</b> <ul style="list-style-type: none"> <li>(i) At least First Class Bachelor's Degree in Engineering or Technology in <b>Mechanical/Production/ Production &amp; Industrial Engg/ Aeronautical/ Aerospace Engineering from</b> a recognized university or equivalent.</li> <li>(ii) <b>Min 7</b> Years' experience in the field of design or development of Mechanical / Aero Systems/ Integration / Assembly and servicing of Material Handling equipment/ Assembly, Integration and QA / QC of Mechanical systems / design and fabrication of mechanical system.</li> </ul> <b>Desirable:</b> <ul style="list-style-type: none"> <li>(i) Master's degree in Engineering or Technology in the relevant field as mentioned in essential qualification.</li> <li>(ii) Knowledge of German, French, Russian, Japanese or Chinese foreign language.</li> </ul>	Mechanical & Automation Engg Mechanical & Production Engg Industrial Production Engg. Aerospace Engg.(Avionics)
12	01	Mechanical Engg.	<b>Qualification:</b> <b>Essential:</b> <ul style="list-style-type: none"> <li>(i) At least First Class Bachelor's Degree in Engineering or Technology in <b>Mechanical Engg.</b> from a recognized university or equivalent.</li> <li>(ii) <b>Min 7</b> Years' experience in research or design or development or production in one or more of the following fields: Physical Metallurgy / Mechanical Metallurgy/ Mechanical Engineering /Materials Science / Advanced Micro structural characterization or techniques / Industrial production of advanced materials.</li> </ul> <b>Desirable:</b> <ul style="list-style-type: none"> <li>(i) Master's degree in Engineering or Technology in the relevant field as mentioned in essential qualification.</li> <li>(ii) Knowledge of German, French, Russian, Japanese or Chinese foreign language.</li> </ul>	Mechanical & Automation Engg Mechanical & Production Engg

13	01	Electronics Engg/ Electronics and Communications/ Electronic and Tele-communication	<p><b>Qualification:</b></p> <p><b>Essential:</b></p> <p>(i) At least First Class Bachelor's Degree in Engineering or Technology in <b>Electronics Engg/ Electronics and Communications/ Electronic and Tele-communication</b> from a recognized university or equivalent.</p> <p>(ii) <b>Min 7 Years'</b> experience in the area of Signal Conditioning Electronics and Signal Processing.</p> <p><b>Desirable:</b></p> <p>(i) Master's degree in Engineering or Technology in the relevant field as mentioned in essential qualification.</p> <p>(ii) Knowledge of German, French, Russian, Japanese or Chinese foreign language.</p>	Electronics & Computer Engg Electronics & Control Engg. Electronics & Communication System Engg Electronics & Instrumentation Engg Electronics & Telematics Engg Industrial Electronics Engg Tele Communication Engg Telecommunication & Information Tech Applied Electronics & Instrumentation Engg Electronics & Electrical Communication Engg Electrical with Communication Engg Electronics & Communication Engg.(Avionics) Radio Physics & Electronics Electrical Engg. Electrical & Electronics Engg.
14	01	Electronics and Telecommunication Engineering / Electronics and Communication Engineering / Electronics and Electrical Communication Engineering	<p><b>Qualification:</b></p> <p><b>Essential:</b></p> <p>(i) At least First Class Bachelor's Degree in Engineering or Technology in <b>Electronics and Telecommunication Engineering / Electronics and Communication Engineering / Electronics and Electrical Communication Engineering</b> from a recognized university or equivalent.</p> <p>(ii) Min 7 Years' experience in the area of design and development of communication systems/ Signal Conditioning Electronics and Signal Processing.</p> <p><b>Desirable:</b></p> <p>(i) Master's degree in Engineering or Technology in the relevant field as mentioned in essential qualification.</p> <p>(ii) Knowledge of German, French, Russian, Japanese or Chinese foreign language.</p>	Electronics Engg Electronics & Computer Engg Electronics & Control Engg. Electronics & Communication System Engg Electronics & Instrumentation Engg Electronics & Telematics Engg Industrial Electronics Engg Tele Communication Engg Telecommunication & Information Tech Applied Electronics & Instrumentation Engg Electrical with Communication Engg Electronics & Communication Engg.(Avionics) Radio Physics & Electronics Electrical Engg. Electrical & Electronics Engg.
15	01	Chemical Engineering	<p><b>Qualification:</b></p> <p><b>Essential:</b></p> <p>(i) At least First Class Bachelor's Degree in Engineering or Technology in <b>Chemical Engineering</b> from a recognized university or equivalent.</p> <p>(ii) <b>Min 7 Years'</b> experience in experimental research, design &amp; development of porous materials including carbonaceous materials for absorption technologies towards environmental application such as CO<sub>2</sub> and other pollutants capture/removal.</p> <p><b>Desirable:</b></p> <p>(i) Master's degree in Engineering or Technology in the relevant field as mentioned in essential qualification.</p> <p>(ii) Knowledge of German, French, Russian, Japanese or Chinese foreign language.</p>	Chemical Technology Chemical Plant Engg Applied Chemical & Polymer Technology Polymer Science & Chemical Technology Chemical Science & Technology
16	01	Chemical Engineering	<p><b>Qualification:</b></p> <p><b>Essential:</b></p> <p>(i) At least First Class Bachelor's Degree in Engineering or Technology in <b>Chemical Engineering</b> from a recognized university or equivalent.</p> <p>(ii) <b>Min 7 Years'</b> experience in the area of Synthesis and characterisation/ Scale up of materials / Design and development of process plant.</p> <p><b>Desirable:</b></p> <p>(i) Research in High Energy Materials.</p> <p>(ii) Master's degree in Engineering or Technology in the relevant field as mentioned in essential qualification.</p> <p>(iii) Knowledge of German, French, Russian, Japanese or Chinese foreign language.</p>	Chemical Technology Chemical Plant Engg Applied Chemical & Polymer Technology Polymer Science & Chemical Technology Chemical Science & Technology

17	01*	Physics/ Radiation Physics	<p><b>Qualification:</b></p> <p><b>Essential:</b></p> <p>(i) At least First Class Master's Degree in <b>Physics/ Radiation Physics</b> from a recognized university or equivalent.</p> <p>(ii) Min 7 Years' experience in scientific work in one or more of the following :-</p> <p>(a) Experience in operation and maintenance of radiation safety related sensors and equipment.</p> <p>(b) Experience as health physicist in production or control and monitoring in radiation safety aspects with license as RSO for at least one year.</p> <p>(c) Statistical analysis, administration and training.</p> <p>(d) Installation and commissioning of radiation monitoring systems in a Power generation Plant.</p> <p>(e) Experience at projects / Power Generation Plant / Shipyard or associated facilities in Waste Management Facility, handling of Radioactive sources, Management of refuelling facilities, Handling of radiation monitoring equipment.</p> <p><b>Desirable:</b></p> <p>(i) Master's degree in Engineering or Technology in Radiological Safety Engineering.</p> <p>(ii) Knowledge of German, French, Russian, Japanese or Chinese foreign language.</p>	Physics (Electronics) Applied Physics Solid State Physics Computational Physics Engineering Physics Physics & Electronics Medical Physics Radiological Physics Medical Radiation Physics
18	01	Electronics & Communication Engg.(ECE) /Electronics Engineering	<p><b>Qualification:</b></p> <p><b>Essential:</b></p> <p>(i) At least First Class Bachelor's Degree in Engineering or Technology in <b>ECE / Electronics</b> from a recognized University or equivalent.</p> <p>(ii) <b>Min 07</b> Years of practical experience in one or more of the following areas :</p> <ul style="list-style-type: none"> <li>• Analog/digital electronic circuit design</li> <li>• Electronic instrumentation related to Sensors.</li> <li>• Embedded System design.</li> </ul> <p><b>Desirable :</b></p> <p>(i) Master's degree in Engineering or Technology in the relevant field as mentioned in essential qualification.</p> <p>(ii) Ph.D in Engg / Engg Science</p> <p><b>(iii) Experience in any one or more of the following :</b></p> <ul style="list-style-type: none"> <li>• Analog/digital electronic circuit design for quantum technologies</li> <li>• Electronic instrumentation related to quantum technologies like cold atom/ion generation, manipulation and detection, atomic clocks, magnetometers etc.</li> <li>• Embedded System design for quantum technologies.</li> </ul> <p>(iv) Knowledge of German, French, Russian, Japanese or Chinese Foreign language.</p>	Electronics & Computer Engg Electronics & Control Engg. Electronics & Communication System Engg Electronics & Instrumentation Engg Electronics & Tele- Communication Engg Electronics & Telematics Engg Industrial Electronics Engg Tele Communication Engg Telecommunication & Information Tech Engg Applied Electronics & Instrumentation Engg Electronics & Electrical Communication Engg Electrical with Communication Engg Electronics & Communication Engg.(Avionics) Radio Physics & Electronics Electrical Engg. Electrical & Electronics Engg.
19	01*	Computer Science & Engg.	<p><b>Qualification:</b></p> <p><b>Essential:</b></p> <p>(i) At least First Class Bachelor's Degree in Engineering or Technology in Computer Science &amp; Engg. from a recognized university or equivalent.</p> <p>(ii) Min 07 Years' of practical experience in one or more of the following areas:</p> <ul style="list-style-type: none"> <li>• Knowledge of DSP processor architectures (like Analog Devices TigerSHARC&amp; Texas Instruments C6678).</li> <li>• Embedded Software development and optimization using C, C++ and Assembly language.</li> <li>• Parallel implementation of imaging algorithms for multiprocessor and multicore hardware platforms.</li> <li>• Matlab embedded platform interface with IDEs like VisualDSP++ and Code Composer Studio for testing and validation of embedded software.</li> </ul> <p><b>Desirable:</b></p> <p>(i) Master's degree in Engineering or Technology in the relevant field as mentioned in essential qualification.</p> <p>(ii) Knowledge of German, French, Russian, Japanese or Chinese foreign language.</p>	Computer Science/ Engg/ Technology Computer Science and Engg./ Technology Computer Science/Engg.& Info Tech Computer Science & System Engg Software Engg/ Technology Computer Science & Automation Engg/ Tech. Information Technology Computer Science/Technology & Informatics Engg/Tech Information Science & Engg/Technology Computer & Communication Engg Computer Networking

20	02	Electronics & Comm Engg.(ECE)	<p><b>Qualification:</b></p> <p><b>Essential:</b></p> <p>(i) At least First Class Bachelor's Degree in Engineering or Technology in <b>Electronics and Communication Engineering/Electronics/Communication Engineering</b> from a recognized university or equivalent.</p> <p>(ii) <b>Min 07</b> Years of practical experience in one or more of the following areas:</p> <ul style="list-style-type: none"> <li>• Design and development of RF systems operating in the frequency range of 0.5 GHz to 18 GHz range.</li> <li>• Development of RF front-end for digital receivers, Modulators, Power Amplifiers, Frequency Synthesizers etc., for the communication systems.</li> <li>• RF circuit design, simulation, prototyping and testing for systems in the frequency range 0.5 to 18 GHz.</li> <li>• Simulation using EDA tools like ADS, HFSS and AWR.</li> <li>• Development of signal processing algorithms for communication receiver operating in any of the bands from 0.5 GHz to 18 GHz.</li> <li>• Development of FPGA IP cores for RF Signal processing using Matlab/simulink.</li> <li>• Antenna design, simulation, analysis and realisation using CST or HSFF tools.</li> <li>• Implementation of the signal processing algorithms on software defined radios or high performance embedded systems.</li> <li>• Hands on experience in system level modelling and analysis of RF front-ends for communication and radar systems using ADS and AWR Microwave office suites.</li> <li>• Experience in handling test &amp; measurement equipment like signal generators, Spectrum Analysers &amp; Network Analysers.</li> <li>• Deep knowledge &amp; strong experience with signal processing algorithm development using MATLAB/SIMULINK.</li> </ul> <p><b>Desirable:</b></p> <p>(i) Master's degree in Engineering or Technology in the relevant field as mentioned in essential qualification.</p> <p>(ii) PhD in the relevant field.</p> <p>(iii) Knowledge of German, French, Russian, Japanese or Chinese foreign language.</p>	<p>Electronics &amp; Computer Engg          Electronics &amp; Control Engg.          Electronics &amp; Communication System Engg          Electronics &amp; Instrumentation Engg          Electronics &amp; Tele- Communication Engg          Electronics &amp; Telematics Engg          Industrial Electronics Engg          Tele Communication Engg          Telecommunication &amp; Information Tech          Applied Electronics &amp; Instrumentation Engg          Electronics &amp; Electrical Communication Engg          Electrical with Communication Engg          Electronics &amp; Communication Engg.(Avionics)          Radio Physics &amp; Electronics          Electrical Engg.          Electrical &amp; Electronics Engg.</p>
21	01*	Chemistry	<p><b>Qualification:</b></p> <p><b>Essential:</b></p> <p>(i) At least First Class Master's Degree in <b>Chemistry</b> from a recognized university or equivalent.</p> <p>(ii) <b>Min 7</b> Years' experience in Research / Synthesis of Energetic Materials/Analytical Chemistry / Polymer Chemistry.</p> <p><b>Desirable:</b></p> <p>(i) Doctorate Degree in Chemistry/Organic Chemistry.</p> <p>(ii) Knowledge of German, French, Russian, Japanese or Chinese foreign language.</p>	<p>Organic Chemistry          Inorganic Chemistry          Physical Chemistry          Analytical Chemistry          Applied Chemistry</p>
22	01	Chemical Engineering/ Chemical Technology	<p><b>Qualification:</b></p> <p><b>Essential:</b></p> <p>(i) At least First Class Bachelor's Degree in Engineering or Technology in Chemical Engineering / Chemical Technology from a recognized university or equivalent.</p> <p>(ii) Min 7 Years' experience in scale up of Organic / Inorganic Materials/Process Development &amp; Operation/ Modelling and Process Simulation of Chemical Plants</p> <p><b>Desirable:</b></p> <p>(i) Master's degree in Engineering or Technology in the relevant field as mentioned in essential qualification.</p> <p>(ii) Knowledge of German, French, Russian, Japanese or Chinese foreign language</p>	<p>Chemical Plant Engg          Applied Chemical &amp; Polymer Technology          Polymer Science &amp; Chemical Technology          Chemical Science &amp; Technology</p>

23	01*	Physics/Chemistry/ Material Science	<b>Qualification:</b> <b>Essential:</b> (i) At least First Class M.Sc. in <b>Physics/Chemistry/Material Science</b> from a recognized university or equivalent.  (ii) <b>Min 7 Years'</b> experience in research of Semiconductor Material Growth .  <b>Desirable:</b> (i) Research experience in the field of III-V Moleculer Beam Epitaxial growth and Characterization (ii) Ph.D. in Physics/Chemistry/Material Science and/or (iii) M.Tech in Solid State Materials/Solid State Technology/ Solid State Electronics/Material Science/Material Engineering	Physics (Electronics) Applied Physics Solid State Physics Computational Physics Engineering Physics Physics & Electronics Organic Chemistry Inorganic Chemistry Physical Chemistry Analytical Chemistry Applied Chemistry Physics with specialisation In Material Science Material Science & Nanotechnology Material Engineering & Nanotechnology Nanosciences Nanotechnology Nanoscience & Technology Physics (Material Science)
<b>Scientist 'C' (Basic Pay: Rs. 67,700/- , Level 11 as per 7<sup>th</sup> CPC) – 34 Vacancies</b>				
<b>Item No.</b>	<b>No. of Vacancies</b>	<b>Subject/ Discipline</b>	<b>Qualifications &amp; Experience</b>	<b>Equivalent acceptable subjects of Essential Qualification</b>
24	04 *	Oceanography	<b>Qualification:</b> <b>Essential:</b> (i) At least First Class Master's Degree in <b>Oceanography</b> from a recognized University or Equivalent. (ii) <b>Min 03 Years'</b> research experience in the field of physical oceanography  <b>Desirable:</b> i. Doctorate Degree in Oceanography / Marine Sciences. ii. Experience in sea data collection using state of the art equipment. iii. Experience in Ocean modelling. iv. Experience in Data analysis and interpretation. v. Experience in Remote sensing of ocean features. vi. Knowledge of German, French, Russian, Japanese or Chinese foreign language.	Physical Oceanography
25	01 *	Marine Geology/ Marine Geophysics	<b>Qualification:</b> <b>Essential:</b> (i) At least First Class Master's Degree in <b>Marine Geology/Marine Geophysics</b> from a recognized University or Equivalent. (ii) <b>Min 03 Years'</b> research experience in the field of Marine Geology/Marine Geophysics.  <b>Desirable:</b> i. Doctorate Degree in Marine Geology/Marine Geophysics. ii. Experience in Marine geological / geophysical data collection at sea using state of the art equipment. iii. Experience in Data analysis and interpretation. iv. Experience in Geophysical prospecting and inversion techniques. v. Knowledge of German, French, Russian, Japanese or Chinese foreign language.	Applied Geophysics
26	01	Electronics Engg./ Electronics & Communication Engg.	<b>Qualification:</b> <b>Essential:</b> (i) At least First Class Bachelor's degree in Engineering or Technology in <b>Electronics Engg./Electronics &amp; Communication Engg.</b> from a recognized University or equivalent.  (ii) <b>Min 03 Years'</b> working experience in the field of software like CST®, MATLAB®, HFSS®, ADS® etc. with expertise in Cold/Hot Simulation & testing of microwave vacuum electron devices.  <b>Desirable:</b> (i) Master's degree in Engineering or Technology in the relevant field as mentioned in essential qualification. (ii) Doctorate Degree in the area of Microwave Tubes/Microwave Engg.from a recognized university or equivalent. (iii) Knowledge of German, French, Russian, Japanese or Chinese foreign language.	Electronics & Computer Engg Electronics & Control Engg. Electronics & Communication System Engg Electronics & Instrumentation Engg Electronics & Tele- Communication Engg Electronics & Telematics Engg Industrial Electronics Engg Tele Communication Engg Telecommunication & Information Tech Applied Electronics & Instrumentation Engg Electronics & Electrical Communication Engg Electrical with Communication Engg Electronics & Communication Engg.(Avionics) Radio Physics & Electronics Electrical Engg. Electrical & Electronics Engg.



27	01 *	Applied Physics/ Engineering Physics /Physics	<p><b>Qualification:</b></p> <p><b>Essential:</b></p> <p>(i) At least First Class Bachelor's degree in Engineering or Technology in <b>Applied Physics/Engg. Physics</b> from a recognized university or equivalent.</p> <p style="text-align: center;"><b>OR</b></p> <p>First Class Master's Degree in Science subject: <b>Physics / Applied Physics</b> from a recognized University or equivalent.</p> <p>(ii) <b>Min 03</b> Years' working experience in the field of Nanotechnology: Development &amp; Characterization of Nano materials for electron emitters used in microwave devices.</p> <p><b>Desirable:</b></p> <p>(i) Master's degree in Engineering or Technology in the relevant field as mentioned in essential qualification.</p> <p>(ii) Doctorate Degree in the area of Nano Technology for electron emitters from a recognized university or equivalent.</p> <p>(iii) Knowledge of German, French, Russian, Japanese or Chinese foreign language.</p>	Physics (Electronics) Applied Physics Solid State Physics Computational Physics Engineering Physics Physics & Electronics
28	01*	Physics	<p><b>Qualification:</b></p> <p><b>Essential:</b></p> <p>(i) At least First Class Master's Degree in <b>Physics</b> from a recognized university or equivalent.</p> <p>(ii) <b>Min 03 Years'</b> of practical/research experience in one or more of the following areas:</p> <ul style="list-style-type: none"> <li>• Cold atom generation/interferometer related science &amp; technologies and processes/LASER-matter interaction.</li> <li>• Modeling and simulation of Cold atom generation and manipulation.</li> <li>• Experimental Laser physics and Quantum optics</li> <li>• Quantum science and technologies</li> </ul> <p><b>Desirable:</b></p> <p>(i) Doctorate degree in the relevant field as mentioned in essential qualification.</p> <p>(ii) Knowledge of German, French, Russian, Japanese or Chinese foreign language</p>	Physics (Electronics) Applied Physics Solid State Physics Computational Physics Engineering Physics Physics & Electronics
29	01*	Computer Science & Engg.(CSE)	<p><b>Qualification:</b></p> <p><b>Essential:</b></p> <p>(i) At least First Class Bachelor's Degree in Engineering or Technology in <b>Computer Science &amp; Engg.</b> from a recognized university or equivalent.</p> <p>(ii) <b>Min 03</b> Years' of practical/research experience in one or more of the following areas:</p> <ul style="list-style-type: none"> <li>• Development and implementation of deep learning algorithms for object detection and computer vision.</li> <li>• Deep-net Training using python language and GPU Servers.</li> <li>• Installation and usage of major deep learning frameworks like Tensor Flow, Caffe, Matlab deep learning tool box.</li> <li>• Software development and implementation for NVIDIA GPU based development boards.</li> <li>• Embedded software development for ARM based SoCs.</li> </ul> <p><b>Desirable:</b></p> <p>(i) Master's degree in Engineering or Technology in the relevant field as mentioned in essential qualification.</p> <p>(ii) Knowledge of German, French, Russian, Japanese or Chinese foreign language</p>	Computer Science/ Engg/ Technology Computer Science and Engg./Technology Computer Science/Engg.& Info Tech Computer Science & System Engg Software Engg/ Technology Computer Science & Automation Engg/ Tech Information Technology Computer Science/Technology & Informatics Engg/Tech. Information Science & Engg/Technology Computer & Communication Engg Computer Networking

30	01	Electrical & Electronics Engg/Electrical & Power Engg/Power System Engg	<p><b>Qualification:</b></p> <p><b>Essential:</b></p> <p>(i) At least First Class Bachelor's Degree in Engineering or Technology in <b>Electrical &amp; Electronics Engg./ Electrical &amp; Power Engg/ Power Systems Engg.</b> from a recognized university or equivalent.</p> <p>(ii) <b>Min 03</b> Years' experience in the field of design and development of Electrical systems including Electrical Integration/ Testing and Handling of Electrical systems and equipment.</p> <p><b>Desirable:</b></p> <p>(i) Master's degree in Engineering or Technology in the relevant field as mentioned in essential qualification.</p> <p>(i) Knowledge of German, French, Russian, Japanese or Chinese foreign language.</p>	Electrical Power System Engg Electrical & Renewable Energy Engg Power Engg Power Electronics Engg Electronics & Electrical Communication Engg. Electrical with Communication Engg. Electrical Engg.
31	01	Mechanical Engineering	<p><b>Qualification:</b></p> <p><b>Essential:</b></p> <p>(i) At least First Class Bachelor's Degree in Engineering or Technology in <b>Mechanical Engineering</b> from a recognized university or equivalent.</p> <p>(ii) <b>Min 03</b> Years' experience in Design of new products, detailed design and engineering analysis, evolving of Technical specification, review of manufacturing drawings and liaising with fabricators, field engineering during installation and trials.</p> <p><b>Desirable:</b></p> <p>(i) Master's degree in Engineering or Technology in the relevant field as mentioned in essential qualification.</p> <p>(ii) Knowledge of German, French, Russian, Japanese or Chinese foreign language.</p>	Mechanical & Automation Engg. Mechanical & Production Engg.
32	01	Mechanical Engineering	<p><b>Qualification:</b></p> <p><b>Essential:</b></p> <p>(i) At least First Class Bachelor's Degree in Engineering or Technology in <b>Mechanical Engineering</b> from a recognized university or equivalent.</p> <p>(ii) <b>Min 03</b> Years' experience in the field of Design of Pressure Vessels / Marine Structures and structural analysis.</p> <p><b>Desirable:</b></p> <p>(i) Master's degree in Engineering or Technology in the relevant field as mentioned in essential qualification.</p> <p>(ii) Knowledge of German, French, Russian, Japanese or Chinese foreign language.</p>	Mechanical & Automation Engg. Mechanical & Production Engg.
33	01*	Chemistry	<p><b>Qualification:</b></p> <p><b>Essential:</b></p> <p>(i) At least First Class Master's Degree in <b>Chemistry</b> from a recognized university or equivalent.</p> <p>(ii) <b>Min 03</b> Years' experience in Research /Synthesis of Energetic Materials / Analytical Chemistry / Polymer Chemistry.</p> <p><b>Desirable:</b></p> <p>(i) Doctorate Degree in Chemistry / Organic Chemistry.</p> <p>(ii) Knowledge of German, French, Russian, Japanese or Chinese foreign language.</p>	Organic Chemistry Inorganic Chemistry Physical Chemistry Applied Chemistry Analytical Chemistry
34	01	Chemical Engineering/ Chemical Technology	<p><b>Qualification:</b></p> <p><b>Essential:</b></p> <p>(i) At least First Class Bachelor's Degree in Engineering or Technology in <b>Chemical Engineering/ Chemical Technology</b> from a recognized university or equivalent.</p> <p>(ii) <b>Min 03</b> Years' experience in scale up of Organic / Inorganic Materials / Process Development &amp; Operation / Modeling and Process Simulation of Chemical Plants.</p> <p><b>Desirable:</b></p> <p>(i) Master's degree in Engineering or Technology in the relevant field as mentioned in essential qualification.</p> <p>(ii) Knowledge of German, French, Russian, Japanese or Chinese foreign language.</p>	Chemical Plant Engg. Applied Chemical & Polymer Technology Polymer Science & Chemical Technology Chemical Science & Technology

35	01*	Mathematics	<p><b>Qualification:</b></p> <p><b>Essential:</b></p> <p>(i) At least First Class Master's Degree in <b>Mathematics</b> from a recognized university or equivalent.</p> <p>(ii) <b>Min 03</b> Years' experience in the field of Mathematical &amp; Numerical Simulation.</p> <p><b>Desirable:</b></p> <p>(i) Doctorate Degree in Applied Mathematics / Armaments.</p> <p>(ii) Knowledge of German, French, Russian, Japanese or Chinese foreign language.</p>	Applied Mathematics Mathematics & Computing
36	01	Electronics Engineering/ Electronics & Communication Engineering	<p><b>Qualification:</b></p> <p><b>Essential:</b></p> <p>(i) At least First Class Bachelor's Degree in Engineering or Technology in <b>Electronics Engineering/Electronics &amp; Communication Engineering</b> from a recognized university or equivalent.</p> <p>(ii) <b>Min 3</b> Years' experience in research or design or development or production in one or more of the following fields:</p> <p>a. RF and Microwave Technologies.</p> <p>b. RF Simulation &amp; modelling through the use of microwave software tools such as HFSS, CST, ADS, Microwave Office or equivalent and MATLAB.</p> <p>c. Design, development and testing of RF &amp; microwave circuits, radiating elements and antenna arrays.</p> <p><b>Desirable:</b></p> <p>(i) Master's degree in Engineering or Technology in the relevant field as mentioned in essential qualification with specialization in RF, Microwaves and/or antennas.</p> <p>(ii) Knowledge of German, French, Russian, Japanese or Chinese foreign language.</p>	Electronics & Computer Engg. Electronics & Control Engg. Electronics & Communication System Engg. Electronics & Instrumentation Engg. Electronics & Tele-Communication Engg. Electronics & Telematics Engg. Industrial Electronics Engg. Tele Communication Engg. Telecommunication & Information Tech Applied Electronics & Instrumentation Engg. Electronics & Electrical Communication Engg Electrical with Communication Engg. Electronics & Communication Engg.(Avionics) Radio Physics & Electronics Electrical Engg. Electrical & Electronics Engg.
37	01	Electronics	<p><b>Qualification:</b></p> <p><b>Essential:</b></p> <p>(i) At least First Class Bachelor's Degree in Engineering or Technology in <b>Electronics /Electronics &amp; Communication / Electrical and Electronics/ Electronics &amp; Instrumentation Engineering</b> from a recognized university or equivalent.</p> <p>(ii) <b>Min 3</b> Years' experience in research or design or development or production in the Radar Communication Embedded System</p> <p><b>Desirable:</b></p> <p>(i) Doctorate Degree in above of the areas or Master's degree in Engineering or Technology in the above areas</p> <p>(ii) Knowledge of German, French, Russian, Japanese or Chinese foreign language.</p>	Electronics & Computer Engg. Electronics & Control Engg. Electronics & Communication System Engg. Electronics & Instrumentation Engg. Electronics & Tele-Communication Engg. Electronics & Telematics Engg. Industrial Electronics Engg. Tele Communication Engg. Telecommunication & Information Tech Applied Electronics & Instrumentation Engg. Electronics & Electrical Communication Engg. Electrical with Communication Engg. Electronics & Communication Engg.(Avionics) Radio Physics & Electronics Electrical Engg. Electrical & Electronics Engg.
38	01*	Computer Science & Engg.(CSE) /Information Technology	<p><b>Qualification:</b></p> <p><b>Essential:</b></p> <p>(i) At least First Class Bachelor's Degree in Engineering or Technology in <b>Computer Science/ Information Technology</b> from a recognized university or equivalent.</p> <p>(ii) <b>Min 3</b> Years' experience in research or design or development or production in Software Engineering/Independent Verification and Validation (V &amp; V)/Artificial Intelligence/Object oriented design</p> <p><b>Desirable:</b></p> <p>(i) Doctorate Degree in above of the areas or Master's degree in Engineering or Technology in the above areas</p> <p>(ii) Knowledge of German, French, Russian, Japanese or Chinese foreign language.</p>	Computer Science/ Engg./ Technology Computer Science and Engg./Technology Computer Science/Engg.& Info Tech Computer Science & System Engg. Software Engg./ Technology Computer Science & Automation Engg. / Tech Information Technology Computer Science/Technology & Informatics Engg./Tech. Information Science & Engg./Technology Computer & Communication Engg. Computer Networking

39	01	Electronics Engineering/ Electronics & Communication Engineering / Telecommunication	<p><b>Qualification:</b></p> <p><b>Essential:</b></p> <p>(i) At least First Class Bachelor's Degree in Engineering or Technology in <b>Electronics Engineering/Electronics &amp; Communication /Telecommunication</b> from a recognized university or equivalent.</p> <p>(ii) <b>Min 3</b> Years' experience in research or design or development in Avionics/Electronics and Communication</p> <p><b>Desirable:</b></p> <p>(i) Master's degree in Engineering or Technology in <b>Electronics Engineering/Electronics &amp; Communication /Telecommunication /Avionics/Computer Science/Computer Engineering/Information Technology</b></p> <p>(ii) Knowledge of German, French, Russian, Japanese or Chinese foreign language.</p>	<p>Electronics &amp; Computer Engg. Electronics &amp; Control Engg. Electronics &amp; Communication System Engg. Electronics &amp; Instrumentation Engg. Electronics &amp; Tele-Communication Engg. Electronics &amp; Telematics Engg. Industrial Electronics Engg. Tele Communication Engg. Telecommunication &amp; Information Tech Applied Electronics &amp; Instrumentation Engg. Electronics &amp; Electrical Communication Engg. Electrical with Communication Engg. Electronics &amp; Communication Engg.(Avionics) Radio Physics &amp; Electronics Electrical Engg. Electrical &amp; Electronics Engg.</p>
40	01	Aeronautical/ Aerospace Engineering	<p><b>Qualification:</b></p> <p><b>Essential:</b></p> <p>(i) At least First Class Bachelor's Degree in Engineering or Technology in <b>Aeronautical/ Aerospace Engineering</b> from a recognized university or equivalent.</p> <p>(ii) <b>Min 03</b> Years' experience in research or design or development in Aerodynamics/Flight Mechanics</p> <p><b>Desirable:</b></p> <p>(i) Master's degree in Engineering or Technology in <b>Aeronautical/ Aerospace/ Aerodynamics/Flight Mechanics</b></p> <p>(i) Knowledge of German, French, Russian, Japanese or Chinese foreign language.</p>	<p>Aerospace Engg.(Avionics)</p>
41	01	Aeronautical/ Aerospace Engineering	<p><b>Qualification:</b></p> <p><b>Essential:</b></p> <p>(i) At least First Class Bachelor's Degree in Engineering or Technology in <b>Aeronautical/ Aerospace Engineering</b> from a recognized university or equivalent.</p> <p>(ii) <b>Min 03</b> Years' experience in research or design or development in Aero structures/Aero Mechanical system of Aircraft</p> <p><b>Desirable:</b></p> <p>(i) Master's degree in Engineering or Technology in <b>Aeronautical/ Aerospace/ Mechanical/Aero Structures/Aero Mechanical Systems</b></p> <p>(i) Knowledge of German, French, Russian, Japanese or Chinese foreign language.</p>	<p>Aerospace Engg.(Avionics)</p>
42	01*	Physics/Chemistry/ Material Science	<p><b>Qualification:</b></p> <p><b>Essential:</b></p> <p>(i) At least First Class M.Sc. in <b>Physics/Chemistry/Material Science</b> from a recognized university or equivalent.</p> <p>(ii) <b>Min 3</b> Years' experience in research of Semiconductor Material Growth .</p> <p><b>Desirable:</b></p> <p>(i) Research experience in the field of MOVPE growth and Characterization of III-Nitrides</p> <p>(ii) Ph.D. in Physics/Chemistry/Material Science and/or</p> <p>(iii) M.Tech in Solid State Materials/Solid State Technology/ Solid State Electronics/Material Science/Material Engineering</p>	<p>Physics (Electronics) Applied Physics Solid State Physics Computational Physics Engineering Physics Physics &amp; Electronics Organic Chemistry Inorganic Chemistry Physical Chemistry Analytical Chemistry Applied Chemistry Physics with specialisation In Material Science Material Science &amp; Nanotechnology Material Engineering &amp; Nanotechnology Nanosciences Nanotechnology Nanoscience &amp; Technology Physics (Material Science)</p>

43	04*	Computer Science / Information Science / Information Technology	<p><b>Qualification:</b></p> <p><b>Essential:</b></p> <p>(i) At least First Class Bachelor's Degree in Engineering or Technology in <b>Computer Science/ Information Science / Information Technology</b> from a recognized university or equivalent.</p> <p>(ii) <b>Min 3 Years'</b> experience in design and development of embedded systems.</p> <p><b>Desirable:</b></p> <p>(i) Doctorate Degree or Master's degree in Engineering or Technology in <b>Computer Science/ Information Science / Information Technology</b></p> <p>(ii) Experience with model based tools such as Matlab/Simulink, SCADE, etc.</p> <p>(iii) Knowledge of German, French, Russian, Japanese or Chinese foreign language.</p>	Computer Science/ Engg./ Technology Computer Science and Engg./Technology Computer Science/Engg.& Info Tech Computer Science & System Engg. Software Engg./ Technology Computer Science & Automation Engg. / Tech Information Technology Computer Science/Technology & Informatics Engg./Tech. Information Science & Engg./Technology Computer & Communication Engg. Computer Networking
44	02	Electronics / Electronics & Communication Engineering / Electronics & Telecommunication or Electrical & Electronics Engineering	<p><b>Qualification:</b></p> <p><b>Essential:</b></p> <p>(i) At least First Class Bachelor's Degree in Engineering or Technology in Electronics / Electronics &amp; Communication Engineering / Electronics &amp; Telecommunication or Electrical &amp; Electronics Engineering from a recognized university or equivalent.</p> <p>(ii) <b>Min 3 Years'</b> experience in Design and Development of Microprocessor/Microcontroller based hardware for embedded system or FPGA/ASIC using hardware description languages for Avionics/Electronics and Communication</p> <p><b>Desirable:</b></p> <p>(i) Doctorate degree in Electronics &amp; Communication Engineering or Electrical &amp; Electronics / Electronics &amp; Computer / Microelectronics Engineering or Master's degree in Engineering or Technology in VLSI System Design/Microelectronics &amp; VLSI design/Electronic Design &amp; technology / Embedded System Design.</p> <p>(ii) Proficiency in C/C++/assembly language programming.</p> <p>(iii) Knowledge of German, French, Russian, Japanese or Chinese foreign language.</p>	Electronics & Computer Engg. Electronics & Control Engg. Electronics & Communication System Engg. Electronics & Instrumentation Engg. Electronics & Tele-Communication Engg. Electronics & Telematics Engg. Industrial Electronics Engg. Tele Communication Engg. Telecommunication & Information Tech Applied Electronics & Instrumentation Engg. Electronics & Electrical Communication Engg. Electrical with Communication Engg. Electronics & Communication Engg.(Avionics) Radio Physics & Electronics Electrical Engg. Electrical & Electronics Engg.
45	01	Mechanical Engineering	<p><b>Qualification:</b></p> <p><b>Essential:</b></p> <p>i. At least First Class Bachelor's Degree in Engineering or Technology in <b>Mechanical Engineering</b> from a recognized university or equivalent.</p> <p>ii. Min 03 Years' experience in research or design or development in the field of Vibration/Engineering mechanics/Machine design/Machine Dynamics/Design of mechanical structures</p> <p><b>Desirable:</b></p> <p>(i) Master's degree in Engineering or Technology in the the area of Vibration/Machine Design/Machine Dynamics/Engineering mechanics</p> <p>(ii) Knowledge of German, French, Russian, Japanese or Chinese foreign language.</p> <p>(iii) Publications in International peer reviewed journals.</p>	Mechanical & Automation Engg. Mechanical & Production Engg.
46	01*	Polymer Science/Polymer Science & Technology/Fibre and Textile ProcessingTechnology/Textile Chemistry	<p><b>Qualification:</b></p> <p><b>Essential:</b></p> <p>i. At least First Class Master's degree in <b>Polymer Science</b> or First Class Degree in Engineering / Technology in <b>Polymer Science/Polymer Science &amp; Technology/Fibre and Textile ProcessingTechnology/Textile Chemistry</b> from a recognized university or equivalent.</p> <p>ii. Min 03 Years' experience in research or design or development or production in High Performance Fibres/Polymer Synthesis/Textile Chemical Finishing,Textile Coating &amp; Lamination / Polymer Processing / Technical Textiles</p> <p><b>Desirable:</b></p> <p>i. Master's degree in Engineering or Technology in Fibre Science &amp; Technology/Polymer Technology</p> <p>ii. Knowledge of German, French, Russian, Japanese or Chinese foreign language.</p>	--

47	01	Electronics and Communication Engineering /Electrical Engg.	<p><b>Qualification:</b></p> <p><b>Essential:</b></p> <p>(i) First Class Bachelor's Degree in Engineering or Technology in <b>Electronics and Communication Engineering /Electrical Engg. from</b> a recognized university or equivalent.</p> <p>(ii) <b>Min 3 Years'</b> experience in one or more of the following:</p> <ul style="list-style-type: none"> <li>• Design, Simulation and Development of mmW and THz devices</li> <li>• Semiconductor Device Fabrication</li> <li>• Experience in epitaxial growth using MBE</li> </ul> <p><b>Desirable:</b></p> <p>(i) PhD in mmW / THz Technology or MTech/ ME in related field.</p> <p>(ii) Knowledge of German, French, Russian, Japanese or Chinese foreign language.</p>	<p>Electronics Engg.</p> <p>Electronics &amp; Computer Engg.</p> <p>Electronics &amp; Control Engg.</p> <p>Electronics &amp; Communication System Engg.</p> <p>Electronics &amp; Instrumentation Engg.</p> <p>Electronics &amp; Tele-Communication Engg.</p> <p>Electronics &amp; Telematics Engg.</p> <p>Industrial Electronics Engg.</p> <p>Tele Communication Engg.</p> <p>Telecommunication &amp; Information Tech Applied Electronics &amp; Instrumentation Engg.</p> <p>Electronics &amp; Electrical Communication Engg.</p> <p>Electrical with Communication Engg.</p> <p>Electronics &amp; Communication Engg.(Avionics)</p> <p>Radio Physics &amp; Electronics</p> <p>Electrical &amp; Electronics Engg.</p> <p>Power Engg.</p> <p>Power Electronics Engg.</p> <p>Electrical &amp; Renewable Energy Engg.</p> <p>Electrical Power System Engg.</p>
48	02	Electrical / Electronics & Communication	<p><b>Qualification:</b></p> <p><b>Essential:</b></p> <p>(i) First Class Bachelor's Degree in Engineering or Technology in <b>Electronics and Communication Engineering /Electrical Engg. from</b> a recognized university or equivalent.</p> <p>(ii) <b>Min 3 Years'</b> experience in research/design and implementation / production in any of the following areas:</p> <ul style="list-style-type: none"> <li>• Electric motors and associated drive electronics</li> <li>• High-power DC Converters, drive systems and its electronics</li> <li>• Servo control systems and its electronics for electrical actuations</li> <li>• Power converters and electrical vehicle power distribution systems</li> <li>• Experience in embedded systems development especially for electrical and electronic system applications</li> </ul> <p><b>Desirable:</b></p> <p>(i) Post graduate degree in Electrical / Electronics Engineering</p> <p>(ii) Ph.D in Electrical/Electronics Engineering or in the relevant field as stated above</p> <p>(iii) Experience or expertise in the area of project management of research projects, viz., preparation of technical proposals</p> <p>(vi) Knowledge of German, French, Russian, Japanese or Chinese foreign language.</p>	<p>Electronics Engg.</p> <p>Electronics &amp; Computer Engg.</p> <p>Electronics &amp; Control Engg.</p> <p>Electronics &amp; Communication System Engg.</p> <p>Electronics &amp; Instrumentation Engg.</p> <p>Electronics &amp; Tele-Communication Engg.</p> <p>Electronics &amp; Telematics Engg.</p> <p>Industrial Electronics Engg.</p> <p>Tele Communication Engg.</p> <p>Telecommunication &amp; Information Tech Applied Electronics &amp; Instrumentation Engg.</p> <p>Electronics &amp; Electrical Communication Engg.</p> <p>Electrical with Communication Engg.</p> <p>Electronics &amp; Communication Engg.(Avionics)</p> <p>Radio Physics &amp; Electronics</p> <p>Electrical &amp; Electronics Engg.</p> <p>Power Engg.</p> <p>Power Electronics Engg.</p> <p>Electrical &amp; Renewable Energy Engg.</p> <p>Electrical Power System Engg.</p>
49	01 *	Physics	<p><b>Qualification:</b></p> <p><b>Essential:</b></p> <p>(i) At least First Class Master's degree in <b>Physics</b> from a recognized university or equivalent.</p> <p>(ii) <b>Min 3 Years'</b> experience in research using high intensity ionizing radiation facilities (Telecobalt unit/Linear Accelerator) .</p> <p><b>Desirable:</b></p> <p>(i) Recognition from national Regulatory Body to work as radiological Safety officer (RSO) in Medical Institutions /Industries/research Institutions</p> <p>(ii) One year Post M.Sc. diploma in Radiological Physics or Equivalent</p>	<p>Physics (Electronics)</p> <p>Applied Physics</p> <p>Solid State Physics</p> <p>Computational Physics</p> <p>Engineering Physics</p> <p>Physics &amp; Electronics</p>

(\* ) marked posts are the ones in which candidates from all Divyang / PwD categories can apply. Remaining posts are the ones in which only specific categories of Divyang/PwD candidates viz., Acid Attack Victims and Dwarfism can apply.

## Eligibility For Recruitment To Posts

### 1.1. Academic Requirements

As described above for different posts, the applicants should ensure that they **satisfy the eligibility criteria as on the closing date of advertisement**. Candidates should be in possession of First Class degree certificate awarded by a recognised University. Candidates should possess the prescribed experience in the relevant field as mentioned under the column "**Qualifications & Experience**" and **must have documentary proof for establishing the fact**. The prescribed Essential Qualifications/experience is bare minimum and mere possession of same does not entitle candidate to be called for personal interview.

**Weightage for higher qualification will be given based on the following conditions:**

- (a) Weightage for higher qualification is equated to research experience and is given as:

(i) Post Graduate Qualification in Engineering: **2 years of weightage.**

(ii) Doctorate Degree in Engineering: **4 years of weightage.**

**Note : Dissertation of ME/M.Tech or Project/ Dissertation/ Thesis in case of Doctorate Degree in Engineering must be in the field relevant to the required area of experience for the given post.**

(b) In case of candidate(s) possessing both (i) & (ii) above, weightage of higher degree only will be given subject to the note above.

(c) **Maximum weightage upto 3 years only will be given for the work experience as Research Fellow / Research Associate / Project Assistant etc. (for every completed year of experience) and in case of such candidate(s) possessing ME/M.Tech degree, weightage of one year only will be given for experience subject to the note above.** The period of study should not overlap with work experience.

(However, the weightage is not automatic. It will depend on the relevance of the higher qualification and research carried out by the candidate with that required by DRDO).

#### 1.2. Age Limit For Candidates (as on closing date of advertisement)

- a. For Scientist 'F' : not exceeding 50 years.
- b. For Scientist 'D'/'E' : not exceeding 45 years.
- c. For Scientist 'C' : not exceeding 35 years.

##### Relaxation in upper age limit (As per Govt rules) :

- a. Upto 10 years for Divyang/PwD candidates (Maximum age shall not exceed 56 years including age relaxation)
- b. The upper age limit is relaxable up to 5 years for serving Civilian Central Govt. employees working in posts which are in the same line or allied cadres and where a relationship could be established that the service already rendered in a particular post will be useful for the efficient discharge of the duties of the advertised posts.
- c. The upper age limit is relaxable for Ex-servicemen including Ex SSCOs/ECOs as per rules in vogue.

#### 1.3. Nationality

Only Indian Nationals need apply.

## 2. How To Apply

- a. Candidates are required to register online at the RAC website (<https://rac.gov.in>).
- b. On successful registration, the candidates may login before the closing date of the advertisement to fill the application form online. The candidates are required to upload the requisite certificates and make payment of requisite fee and Lock the application.
- c. All serving candidates (whether in permanent or temporary capacity) working in Government or in Government owned organizations (PSU/Joint venture, Government promoted societies and Government / Non-Government companies / Agencies / Entities where Government or Government promoted companies/ Agencies/Entities have a combined controlling stake of 50% or more) **need to upload a signed declaration** as per format given on the web site (as Annexure-I) that they have informed in writing to their Cadre Controlling Authority (CCA) that they have applied for the post in RAC, DRDO **and in case of any objection, the employer may communicate with RAC (at email: [lateral1.recruitment@gov.in](mailto:lateral1.recruitment@gov.in)) directly within 15 days of the closing date of online registration. The candidates will be required to produce a copy of proof of their communication with their employer (intimation/acknowledgement) regarding their application for the desired post at the time of interview (if called for). Candidates should note that in case a communication from the employer is received by RAC withholding the permission to the candidate applying for the post, their candidature will be liable for cancellation.**
- d. Candidates also advised to retain a copy of the online recruitment application (pdf format) after submission.
- e. **Only locked/finalised applications in all respects shall be considered.**
- f. If any document is in any language other than English/Hindi, then its English/Hindi transcript should also be attached failing which the said document will be rejected.
- g. **Points to be considered while filling Application form:**  
Candidates are required to submit their applications online alongwith legible and lighter file containing scanned copies of certificates for Date of Birth (DOB), essential and higher educational qualification along with percentage of marks (duly supported by the mark sheets), experience claimed in the column pertaining to employment history of online application, document/certificate in support of all pay drawn, a recent passport size colour photograph (not exceeding 30 KB; 110 x 140 pixels) and the required fee through RAC website (<https://rac.gov.in>). The maximum file size of each attachment should not exceed 500 KB and it must be legible when a printout is taken. For that, the applicant may scan the certificate into 200 dpi grey scale.

## 3. Documents To Be Uploaded Online

- a. Self attested certificates/testimonials regarding Date of Birth, Essential and Higher qualification along with mark-sheets, caste, ex-servicemen, Disability certificate( wherever applicable), employment etc.
- b. Experience claimed in the column pertaining to employment history of online application, document/certificate in support of all pay drawn.
- c. A recent passport size colour photograph (size not exceeding 30 KB; resolution of 110 x 140 pixels).
- d. Scanned sample of candidate's signature.
- e. The candidates, whether in Govt Service or in Govt owned organisations, should upload a signed declaration (as per the proforma available at RAC website) that they have informed their Cadre Controlling Authority (CCA) in writing that they have applied for the post of Scientist in DRDO.
- f. In case of mismatch in name of the candidate(as mentioned in the application form) with any of the documents/certificates being uploaded, the relevant affidavit in support shall essentially be provided.
- g. In case of mismatch in parent(s) name(s) as submitted in the application form with Date of Birth proof or Caste certificate(if applicable), the relevant affidavit in support shall essentially be provided.

## 4. Application Fee & Mode Of Payment

General, OBC and EWS male candidates are required to pay a non-refundable non-transferable application fee of Rs. 100/- (Rs. One Hundred only) payable online only. **There is no application fee for SC/ST/Divyang and Women candidates.**

## 5. Screening/ Shortlisting

Eligible candidates will be shortlisted for further selection process by adopting any one or more of the following methods:

- a. On the basis of educational qualifications and / experience higher than the minimum prescribed in the advertisement duly supported by the Documentary evidence.
- b. Relevance of experience as filled in application by candidates.

- c. On the basis of Desirable Qualification (DQ), if more than one DQ is prescribed, on any one or all of the DQs.
- d. By holding a Screening Committee Meeting consisting of Technical Experts from Industry and Academia.

Candidates will initially be short listed as per one or more of the above mentioned methods. In case, the no. of candidates shortlisted in accordance to any of above mentioned methods is large, then further shortlisting may be carried out by conducting a **Preliminary Online Interview** of short duration (10-15 minutes). The number of candidates to be shortlisted for **Preliminary Online Interview** is as under( subject to their availability):

(i)	For one Post	Upto 24 candidates
(ii)	For 2-3 Posts	Upto 48 candidates
(iii)	For 4-6 Posts	Upto 72 candidates

In case for any Item the initial screening (based on biodata only), does not result in sufficient number of administratively eligible candidates (as many as the maximum number required for the Final Personal Interview), then the number of posts for that item will be reduced to the number for which the number of administratively eligible candidates is found to be sufficient. If it is not sufficient for even one vacancy then the recruitment process for that item will be cancelled.

Based upon the performance in the **Preliminary Online Interview**, candidates will be shortlisted for the **Final Personal Interview** in the following ratio subject to their availability:

(i)	For one Post	Upto 12 candidates
(ii)	For 2-3 Posts	Upto 24 candidates
(iii)	For 4-6 Posts	Upto 36 candidates

Additionally, in case the second stage shortlisting i.e. after Preliminary Online Interview does not result in sufficient number of candidates (as many as half the maximum number required for the Final Personal Interview), then the number of vacancies will be reduced to the number for which the number of candidates is found to be sufficient for Final Interview. If it is not sufficient for even one vacancy then the recruitment process for that item will be cancelled.

In case of cancellation of recruitment process due to any of the above mentioned reasons, the respective posts may then be re-advertised.

The candidates should, therefore, mention all qualifications/ experience/ achievements/ specialisation in relevant fields including those over and above the minimum qualifications.

## 6. Selection Process

- (a) (i) The shortlisted candidates will be advised to appear for a **final personal interview** to be conducted as per rules at the venue and date, which will be intimated through the call letter.
- (ii) Candidates serving in Govt. or in Govt. owned organizations will be required to produce a copy of proof of their communication with their employer (intimation/acknowledgement if received from employer) regarding their application for the desired post
- (b) The final selection of candidates will be purely on the basis of merit of marks scored by a candidate in the final personal interview only. **The candidates must score a minimum of 75% marks (i.e. 75 out of 100) for all Vacancies in the Final Personal Interview for consideration for selection.**

## 7. Liability To Serve

As per the Central Government Rules, selected candidates will have the liability to serve anywhere in India including remote/ field area locations.

## 8. Closing Date

Online submission will remain available on RAC website during **1<sup>st</sup> June 2022 to 28th June 2022 (12 Midnight).**

## 9. General Instructions

- Online application submission link is available at RAC website (<https://rac.gov.in>)
- Those applications which are not locked/finalised by the candidates in accordance with the instructions will be automatically rejected by the computer system and no correspondence will be entertained in this regard. Therefore **candidates are advised to submit/Lock the application carefully and enclose all necessary documents as applicable as no further editing will be allowed after final submission.**
- The applicants should ensure their eligibility in respect of age, essential qualification, experience etc.
- No request with respect to the change in any data submitted by the candidates will be entertained once the Closing Date of online submission is over.
- The number of vacancies may vary.
- Applicants are advised not to change their registered mobile number as vital information regarding their shortlisting/selection status will be intimated through SMS.
- Detailed guidelines for submission of online application are available on RAC website (<https://rac.gov.in>).
- Candidates are advised to keep visiting RAC website (<https://rac.gov.in>) for updates issued from time to time.
- Translation ambiguity, if any, will be resolved to the English version of the advertisement published in the Employment News.
- Dispute, if any, will be subject to the Courts/Tribunals having jurisdiction over Delhi only.
- Candidates will have to produce all certificates, in original, for verification at the time of interview, if and when called.
- Applications received without scanned copies of certificates for the requisite essential educational qualification, experience and documents /certificate in support of Pay drawn or incomplete applications will be summarily rejected. No correspondence would be entertained in this regard.
- Candidates desirous of applying for more than one post, must apply separately for each post. In such case, please mention the item no. (nos.) of all other posts where you have applied/intend to apply.
- The period of experience rendered by a candidate on trainee, part time basis, daily wages, Visiting/Guest Faculty will not be counted while calculating the valid experience for short listing the eligibility of candidates for interview.**
- The required experience will be counted only after the date on which the essential qualification has been acquired. While counting the experience, the suitability of the level of experience possessed will also be considered. Attach all experience certificates indicating length and nature of experience. The experience below level of Scientist 'B' or equivalent will not be considered.
- Weightage of higher qualifications to be equated as experience only when the higher qualification is in the relevant discipline. **Candidates are therefore, advised to highlight the experience acquired (either through Higher Qualification or Job Experience) matching to requirements**



mentioned under Essential and/or Desirable Qualification while filling the Justification column under 'Other' Section in the online Application form.

- q. If any document/certificate furnished is in a language other than English or Hindi, a duly self attested transcript of the same should be attached.
- r. Candidates who have worked or are currently working in Private Sector and claiming experience must submit proof of Pay drawn/Cost to Company (CTC) during the period claimed as experience for the post. While determining the level of experience, the Pay drawn/CTC will only be the criteria.
- s. Candidates should attach all experience certificates and salary slips as proof of pay drawn for the experience claimed. The period of experience (date of joining/date of leaving/current job status) claimed should be easily verifiable from the salary slips/experience certificates/documents attached.
- t. Applicant must clearly mention details of relatives presently working in DRDO, if any.
- u. Date for determining the eligibility of all candidates in every respect shall be the prescribed Closing Date.
- v. The applicants are advised to fill in all their particulars carefully in the online recruitment application as submission of wrong / incomplete information may lead to rejection through computer based shortlisting.
- w. The applicants are advised to carefully attach all the certificates / documentary evidence of age, educational qualifications, experience etc. in the online recruitment application as no correspondence will be made with the candidate for submission of Non legible / incomplete attachments.
- x. Before submitting the online recruitment application, the candidates are requested to read carefully the details against vacancy and contents of the advertisement published as well as on the RAC website <https://rac.gov.in>.
- y. Candidates will be shortlisted for personal interview on the basis of the information provided by them in their online applications. They must ensure that information provided by them is correct. If at the time of interview or at any subsequent stage, any information given by them or any claim made by them in their online application is found to be false/ incorrect, their candidature will be rejected and they may also be debarred either permanently or for a specified period from appearing in any future selection activity conducted by RAC.
- z. **Date of Birth Proof:** Matriculation certificate/High School certificate/Birth Certificate issued by appropriate Local Authority.
- aa. **Proof of Experience:** The experience certificate issued by Admin/ HR Head / Director / Competent Authority of the Institution will only be acceptable.
- bb. For the purpose of considering the experience of the applicants working in Private Sector, the salary drawn by them in preceding years will be the sole criteria determining experience at suitable level. Generally, it should be at the same level as that of the post which is one level below the post applied for.
- cc. Experience certificate should contain name of individual, designation, salary drawn, date of joining/leaving and areas of work.
- dd. Candidates should attach all experience certificates and salary slips for the experience claimed. The length of experience i.e. date of joining and end point should be available to verify the period of experience. All information filled in online application should be verifiable from the documents attached.
- ee. All decisions 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. Incomplete applications will be summarily rejected.
- ff. Canvassing in any form will disqualify the candidate.

#### 10. Check List

Please ensure that you have:

- a. Attached a scanned copy (legible/readable) of each of the requisite certificates with online recruitment application. Attachments should not be password protected else the document will summarily be rejected.
- b. Rightly indicated the Item number, subject and the post applied for.
- c. Uploaded recent passport size colour photograph.
- d. Paid requisite fee through online mode, if you belong to UR/OBC/EWS Category (except Women candidates).
- e. Attached a requisite caste/ disability certificate, in case you belong to SC/ST/OBC (NCL)/Divyang category.
- f. Attached Release certificate in case you are a retired Armed Forces personnel.
- g. Previewed the application alongwith necessary attachments.
- h. Retained a printout of the finally submitted online application.

#### 11. Caution

Misrepresentation or falsification of facts detected at any stage of the selection process or instances of misconduct/misbehaviour at any stage during selection process shall result in cancellation of candidature without any notice and no correspondence in this regard shall be entertained. Please note that RAC does not request for any payment at any stage of recruitment process except the application fee as applicable (para 4). Candidates may note that no such demand, if any, should be entertained and the matter may be brought to the notice of the Chairman, RAC by e-mail, [chairman.rac@gov.in](mailto:chairman.rac@gov.in) or by post to The Chairman, RAC, DRDO, Lucknow Road, Timarpur, Delhi-110054. The identity of the candidate will be kept confidential.

#### 12. Contact Details

For queries related to submission of online application for this advertisement, please contact phone no. 011-23889528 or e-mail at [pro.recruitment@gov.in](mailto:pro.recruitment@gov.in) or [lateral1.recruitment@gov.in](mailto:lateral1.recruitment@gov.in)

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