

Government of India Department of Space Indian Space Research Organisation VIKRAM SARABHAI SPACE CENTRE

Thiruvananthapuram - 695 022

ADVERTISEMENT NO. VSSC-313 DATED 14.12.2019 **INVITES ONLINE APPLICATIONS FOR THE FOLLOWING POSTS**

POST :	POST : SCIENTIST / ENGINEER-SD [LEVEL 11(₹67,700 - ₹2,08,700)]					
Post Code	No. of posts	Essential qualifications	Physical Requirements	Nature of job		
1436	01	 Ph.D in Physics with specialisation in Atmospheric / Space Science with M.Sc. or equivalent in Physics. 	S, ST, W, BN, L, MF, RW, SE, H, C	R&D in Atmospheric and Space Science involving experimental developments including handling of chemicals and delicate instruments.		
1437	05	 Ph.D in Physics/ Atmospheric Science/ Meteorology / Space Science / Planetary Science with Post-Graduation in Physics/Atmospheric Science/Space Science OR Graduation/Post Graduation in Engineering. 	S, ST, W, BN, L, MF, RW, SE, H, C	Research and Development in the area of Atmospheric /Space/Planetary Sciences. The work will focus on theoretical studies/ modelling/ experiment development and exploration (including ground-based and space borne systems)/ development of remote sensing inversion techniques. Specific areas of research cover the following topics: aerosols; atmospheric physics and chemistry; meteorology; atmospheric spectroscopy; radiation transfer; numerical atmospheric modelling; boundary layer physics; clouds; atmospheric dynamics; LIDAR and radar based atmospheric probing; development of inversion techniques for satellite remote sensing in visible, IR and microwave domains for retrieval of atmospheric parameters and constituents; ionospheric and magnetospheric physics; space weather and modelling; plasma physics; energetic particles and radiation; planetary and cometary observations and modelling; development of satellite payloads for direct observations and remote sensing; atmospheric measurement techniques. The activities involve strong inter-disciplinary research.		
1438	03 (VH-01 Low Vision)	 Ph.D in Aerospace with M.E / M.Tech or equivalent in Aerospace / Aeronautical / Mechanical Engineering and B.E / B.Tech or equivalent in Aerospace / Aeronautical / Mechanical Engineering. 	BLA, C, CL, CRL, HH,LV, MF, RW, S, SE, ST, W	Computational Methods for aeroacoustics with experience in Large Eddy Simulation/ Direct Numerical simulation. Experience in experimental aerodynamics in high enthalpy/hyper velocity testing techniques. Expected to develop/work in stress wave balance/free piston shock tunnel/ hypervelocity impact		
1439	01	 Ph.D in Microelectronics with M.E / M.Tech or equivalent in Microelectronics and B.E / B.Tech or equivalent in Electrical & Electronics / Applied Electronics & Instrumentation / Instrumentation Engineering 	BLOA, C, CL, CRL, H, JU, KC, L, MF, PP, RW, S, SE, ST, W	Design & Development of Embedded Systems (Microelectronics)		

1440	01	 Ph.D in Dynamics modelling and control of aerospace vehicles with M.E / M.Tech or equivalent in Flight Mechanics / Systems & Control / Control Systems / Guidance & Control / Aerospace / Control Engineering & Instrumentation / System Science & Automation and B.E / B.Tech or equivalent in Electrical / Electronics / Electronics & Communication / Aerospace / Mechancial With Courses In Control Engg 	BLOA, C, CL, CRL, H, JU, KC, L, MF, PP, RW, S, SE, ST, W	Guidance and control algorithm design and analysis for launch vehicle and reusable/re-entry vehicles, Control of propulsion systems, autonomous robotic vehicles.
1441	01	 Ph.D in Structural Analysis of Composite Hardware with M.E / M.Tech or equivalent in Aerospace / Aeronautical / Mechanical Engineering and B.E / B.Tech or equivalent in Aerospace / Mechanical Engineering. 	BA, BL, BN, C, CL, CRL, H, JU, KC, L, MF, PP, RW, S, SE, ST, W	Structural analysis of filament wound products with and without metallic liners, cryo tankages etc
1442	01	 Ph.D in Metallurgy / Material Science with M.E / M.Tech or equivalent in Metallurgy / Material Science and B.E / B.Tech or equivalent in Metallurgy / Material Science / Mechanical / Production Engineering. OR M.Sc. or equivalent in Material Science 	BA, BL, BN, C, CL, CRL, H, JU, KC, L, MF, PP, RW, S, SE, ST, W	Mathematical Modelling, Simulations of Metallurgical and/or Metal Forming processes
1443	01	 Ph.D in Metallurgy / Material Science (Ceramic Technology) with M.E / M.Tech or equivalent in Metallurgy / Material Science and B.E / B.Tech or equivalent in Metallurgy / Material Science / Mechanical / Production Engineering. OR M.Sc. or equivalent in Material Science / Physics 	BA, BL, BN, C, CL, CRL, H, JU, KC, L, MF, PP, RW, S, SE, ST, W	Development of Glasses and Glass Ceramics
1444	02	 Ph.D in Chemical Engineering with M.E / M.Tech or equivalent in Chemical Engineering and B.E / B.Tech or equivalent in Chemical Engineering. 	BLA, S, ST, W, BN, CL, L, KC, MF,RW,PP, SE, H, C	Modeling of fuel cell stack and optimization of next generation stack components; Design and development of porous separator plates for non-flow through fuel cell stack; development of high power density electrodes. Process modelling & Simulation of Polymer Processes, Development of advanced thermal protection systems; Modelling, Simulation and Development of CNT/Nano materials based composites.
1445	01	 Ph.D in Polymer Technology with M.E / M.Tech or equivalent in Polymer Technology and / OR M.Sc. or equivalent in Chemistry / Polymer Chemistry. 	S, ST, W, BN,CL, L, KC, MF,RW, SE, H, C, BLA,PP	Processing of advanced polymers such as Ultrahigh Molecular Weight Polyethylene (UHMWPE), polyetherether ketone (PEEK), high density polyethylene (HDPE) etc and their composites & other polymer processing activities of launch vehicles and satellites.
1446	01	 Ph.D in Chemistry (Molecular Modelling) with M.Sc. or equivalent in Chemistry / Material Science. 	S, ST, W, BN, L, MF,RW, SE, H, C, BLA,	Molecular modelling & Molecular dynamics simulations

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			Nature of job	
Post Code	No. of posts	Essential qualifications	Physical Requirements	Nature of Job
1448	10	M.E / M.Tech or equivalent in Industrial Engineering and B.E / B.Tech OR equivalent in any Branch of Engineering	BLOA, C, CL, CRL, H, JU, KC, L, MF, PP, RW, S, SE, ST, W	Programme planning, Production planning and launch vehicle project management.
1449	07	 M.E / M.Tech or equivalent in Control Systems Engineering / Control & Instrumentation / Control & Guidance / Control & Computing / Control & Automation / Systems & Control Engineering and B.E / B.Tech or equivalent in any Branch of Engineering 	BLOA, C, CL, CRL, H, JU, KC, L, MF, PP, RW, S, SE, ST, W	Launch vehicle dynamics modelling and simulations, development of flight software in embedded systems with Real Time Operating System. Optimal & robust control and guidance algorithm development, trajectory analysis and analysis tool development, simulation package development & mathematical modelling of control power plant for launch vehicles
1450	02	M.E / M.Tech or equivalent in Industrial Safety Engineering B.E / B.Tech or equivalent in Mechanical Engineering / Industrial Engineering / Chemical Engineering / Electrical Engineering / Electrical & Electronics Engineering	S, ST, W, BN, L, KC, JU, CRL, CL, MF, RW, SE, H, C, PP, BLA	Safety inspection / audit of facilities and construction sites. Surveillance / supervision of hazardous activities. Risk assessment and Safety Studies for operations, process facilities. Analysis / Investigation of near miss incidents and accidents. Design of fire detection and protection systems for new facilities. Conducting safety training and motivational programmes. Preparation of safety guidelines for operations / processes / equipments.
1451	01	 M.E / M.Tech or equivalent in Material Science & Engineering / Material Engineering / Surface Engineering and B.E / B.Tech or equivalent in Mechanical Engineering. 	S, ST, BN, KC, W, MF, SE, PP, L, C, RW, H	Plan, design, analyze, develop and realize Tribological process and thin film coating for sensors and actuators.
1452	02	M.E / M.Tech or equivalent in Aerospace Engineering / Aeronautical Engineering and B.E / B.Tech or equivalent in Mechanical / Aerospace / Aeronautical Engineering.	BLOA, C, CL, CRL, H, JU, KC, L, MF, PP, RW, S, SE, ST, W	Computational and experimental fluid dynamics, aero-elastic analysis.

1453	06 (OH- 01)	M.E / M.Tech or equivalent in Machine Design and B.E / B.Tech or equivalent in Mechanical / Aerospace / Aeronautical Engineering.	BLOA, C, CL, CRL, H, JU, KC, L, MF, PP, RW, S, SE, ST, W	Aerospace hardware design, including composite, finite element analysis, fracture analysis, aero-elastic analysis and structural dynamics.
1454	01	M.E / M.Tech or equivalent in Propulsion and B.E / B.Tech or equivalent in Mechanical / Aerospace / Aeronautical Engineering.	BA, BL, BN, C, CL, CRL, H, JU, KC, L, MF, PP, RW, S, SE, ST, W	Solid rocket motor design and performance analysis
1455	01	 M.E / M.Tech or equivalent in Manufacturing Engineering and B.E / B.Tech or equivalent in Mechanical / Production Engineering. 	BA, BL,BN, C, CL, CRL, H, JU, KC, L, MF, PP, RW, S, SE, ST, W	Metrology, CAM, facility management
1456	02	 M.E / M.Tech or equivalent in Non Destructive Testing and B.E / B.Tech or equivalent in Mechanical / Metallurgy / Aerospace / Aeronautical / Material Science / Production Engineering. 	BA, BL, BN, C, CL, CRL, H, JU, KC, L, MF, PP, RW, S, SE, ST, W	Radiographic analysis of aerospace components
1457	02	 M.E / M.Tech or equivalent in Metallurgy / Material Science and B.E / B.Tech or equivalent in Mechanical / Metallurgy / Material Science / Production Engineering. 	BA, BL, BN, C, CL, CRL, H, JU, KC, L, MF, PP, RW, S, SE, ST, W	Development of materials for aerospace application including ceramics, composites & optical glasses.
1458	01	M.E / M.Tech or equivalent in Computer Science and B.E / B.Tech or equivalent in Electronics & Communication Engineering / Computer Science & Engineering / Information Technology. OR M.Sc. or equivalent in Mathematics / Physics	BLOA, C, CL, CRL, H, JU, KC, L, MF, PP, RW, S, SE, ST, W	Development of all support software for launch vehicle applications
1459	01	 M.E / M.Tech or equivalent in Electrical Machines and B.E / B.Tech or equivalent in Electronics & Communication Engineering / Electrical Engineering. 	BA, BL, BN, C, CL, CRL, H, JU, KC, L, MF, PP, RW, S, SE, ST, W	Design and realisation of electric motors and components for aerospace applications
1460	02	M.E / M.Tech or equivalent in Digital Signal Processing / Image Processing / Computer Science and B.E / B.Tech or equivalent in Electronics & Communication / Computer Science / Applied Electronics / Electrical & Electronics Engineering or equivalent.	BLOA, C, CL, CRL, H, JU, KC, L, MF, PP, RW, S, SE, ST, W	Development of image processing functions, digital zoom algorithms, real time display software & image processing software

1461	01	 M.E / M.Tech or equivalent in VLSI and B.E / B.Tech or equivalent in Electronics & Communication Engineering. 	BLOA, C, CL, CRL, H, JU, KC, L, MF, PP, RW, S, SE, ST, W	Design & Verification of ASICs and FPGAs
1462	01	 M.E / M.Tech or equivalent in RF Engineering / Microwave Engineering / Radar Engineering and B.E / B.Tech or equivalent in Electronics & Communication Engineering. 	BLOA, C, CL, CRL, H, JU, KC, L, MF, PP, RW, S, SE, ST, W	Development of RF Systems
1463	01	 M.E / M.Tech or equivalent in Polymer Technology / Engineering and B.E / B.Tech or equivalent in Chemical Engineering / Polymer Technology. OR M.Sc. or equivalent in Chemistry / Polymer Chemistry. 	BA, BL, BN, C, CL, CRL, H, JU, KC, L, MF, PP, RW, S, SE, ST, W	Development of Cryogenic insulation systems, smart polymer & shape memory polymers.
1464	01	M.E / M.Tech or equivalent in Chemical Engineering and B.E / B.Tech or equivalent in Chemical Engineering.	BLA, S, ST, W, BN, CL, L, KC, MF,RW,PP, SE, H, C,	Chemical reaction engineering with expertise in modelling & simulation. Development of rocket propellant materials involving experiments, testing and analysis
1465	04 (VH-01-	M.Sc. or equivalent in Mathematics / Applied Mathematics.	S, ST, BN, KC, W, MF, SE, PP, L, C, RW, H	Plan, design, analyze, develop and realize mathematical models, algorithm and software for Navigation Systems.
1403	(Low Vision)	ONE out of the 04 vacancies is a backlog vacancy of PWI candidates will be considered for the post and the reservation		andicapped) category. If VH candidate is not available, UR (Un-reserved) ed forward.
1466	01	M.Sc. or equivalent in Chemistry with specialisation in Polymer Chemistry OR M.Sc. or equivalent in Polymer Chemistry	S, ST, W, BN,CL, L, KC, RW, MF, PP, SE, C, H	Development and production of polymers and ceramic matrix composites.
1467	06 (HH-	B.E / B.Tech or equivalent in Chemical Engineering.	S, ST, W, BN, CL, MF, PP, RW, SE, C, H, L, KC	Planning and supervision of chemical processes in laboratory level and pilot plants. Design of chemical process equipment, development and scale up of new processes for producing polymers and materials for space applications
1407	01)	ONE out of the 06 vacancies is a backlog vacancy of PWI candidates will be considered for the post and the reservation		Handicapped) category. If HH candidate is not available, UR (Un-reserved) ried forward.
1468	02	B.E / B.Tech or equivalent in Automobile Engineering.	S, ST, W, BN, L, KC, CRL, CL, MF, RW, SE, H, C	Responsible for supervision, maintenance and operation of a large fleet of heavy and light vehicles. Responsibility includes spare parts management, procurement and inspection.

1469	04	B.E / B.Tech or equivalent in Metallurgy / Material Science or equivalent.	KC, JU, CRL,	Material processing, development and testing, quality control, characterisation, metallic working and indigenous realisation of metallic materials for launch vehicle programme.
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For Post Nos. 1448 to 1469, the qualifications of M.E / M.Tech or equivalent should be in First Class with an aggregate minimum of 60% marks (average of all semesters) or CGPA / CPI grading of a minimum of 6.5 on a 10 scale or equivalent and B.E / B.Tech / M.Sc or equivalent should be in First Class with an aggregate minimum of 65% marks (average of all semesters) or CGPA / CPI grading of a minimum of 6.84 on a 10 scale or equivalent. For candidates with AMIE / Grad IETE qualification, there should be an aggregate minimum of 65% marks or CGPA / CPI grading of 6.84 on a 10 scale in Section 'B' alone.

POST : MEDICAL OFFICER-SD [LEVEL 11 (₹ 67,700 - ₹ 2,08,700)]

Post Code	No. of posts	Essential qualifications	Physical Requirements	Nature of job
1470	01	 MD in General Medicine from a recognized university / Equivalent Post Graduate Degree in General Medicine. Registration of additional qualification (MD or Equivalent) with Medical Council of India / State Medical Council. 	3, 31, W, BN, L, KC ME DM	 (a) Attending to patients reporting to Department Clinics. (b) Pre employment and Periodic medical check ups (c) Handling medical emergencies (d) General administration of Medical unit. (e) Health education.

POST: MEDICAL OFFICER-SC [LEVEL 10 (₹ 56,100 - ₹ 1,77,500)]

Post Code	No. of posts	Essential qualifications	Physical Requirements	Nature of job
1471	01 (OH- 01)	 MBBS / equivalent from a recognized University Permanent Registration with Medical Council of India Minimum 2 years' clinical experience in a reputed hospital. Preferably with Diploma in Industrial Health OR Associate Fellow of Industrial Health (AFIH) This vacancy is a backlog vacancy of PWBD (OH - Orthopedibe considered for the post and the reservation for OH will be 		Attending to patients in Department Clinics & Occupational Health Unit. Handling medical and surgical emergencies. Pre-employment medical checkup. Periodic/Mandatory Medical checkup of employees. Providing medical cover during launch activities. Providing health education to employees and Staff family members. Administrative work of Medical Units. Epidemiological study with regard to vector borne diseases in the campus and ISRO Staff Colonies. Have to move in ambulances during evacuation of patients. Will have to do standby duties at launch sites which involve standing in areas where there is a potential risk or exposure to hazardous chemicals. Job involves extended working hours and extensive travelling to various ISRO centers and work centers.

Abbreviations

UR=Un-reserved, PWBD=Persons with Benchmark Disabilities, OH=Orthopaedically Handicapped, HH=Hearing Handicapped, S=Sitting, ST=Standing, W=Walking, BN=Bending, L=Lifting, RW=Reading & Writing, MF=Manipulation by Fingers, SE=Seeing, C=Communication, CRL=Crawling, CL=Climbing, PP=Pulling & Pushing, KC=Kneeling & Crouching, H=Hearing, BA=Both Arms, BLA=Both Legs Arms, BLOA – Both Leg and Arms