

**Vacancy Circular**

**Advertisement No. CORP/GR.A/02/2025**

**Filling up of various Group A S&T posts in C-DAC on Deputation**

Centre for Development of Advanced Computing (C-DAC) is the premier R&D organization of the Ministry of Electronics and Information Technology (MeitY) for carrying out R&D in IT, Electronics and associated areas.

C-DAC has today emerged as a premier R&D organization in IT&E (Information Technologies and Electronics) in the country working on strengthening national technological capabilities in the context of global developments in the field and responding to change in the social need in selected areas. C-DAC represents a unique facet, working in close junction with MeitY to realize nation's policy and pragmatic interventions and initiatives in Information Technology. As an institution for high-end Research and Development (R&D), C-DAC has been at the forefront of the Information Technology (IT) revolution, constantly building capacities in emerging/enabling technologies and innovating and leveraging its expertise, calibre, skill sets to develop and deploy IT products and solutions for different sectors of the economy, as per the mandate of its parent, the Ministry of Electronics and Information Technology, Government of India and other stakeholders including funding agencies, collaborators, users and the market-place.

C-DAC's areas of expertise range from R&D work in ICT&E Technologies to Product Development, IP Generation, Technology Transfer and Deployment of Solutions.

**Primary Thematic or Thrust Areas addressed by C-DAC are:**

- High Performance Computing
- Quantum Computing
- AI & Multilingual Computing
- Strategic Electronics
- Software Technologies
- Cyber Security & Forensics
- Health Informatics
- Education & Training

C-DAC proposes to fill up various Group A S&T posts across its centre on deputation, initially for a period of 3 years, from S&T officers of the Central Government / State Government / PSUs / Autonomous Bodies.

### 1. Vacancy Details:

Post	Scientist D	Scientist E	Scientist F
<b>Pay Scale</b>	Level 12 (78800 - 209200)	Level 13 (123100 - 215900)	Level 13A (131100 - 216600)
<b>No. of Posts</b>	47	11	5
<b>Eligibility Criteria</b>	(i) Holding analogous post on regular basis <b>or</b> having 4 years of regular service in Level 11 of the pay matrix <b>AND</b> (ii) Possessing the qualification prescribed below	(i) Holding analogous post on regular basis <b>or</b> having 4 years of regular service in Level 12 of the pay matrix <b>AND</b> (ii) Possessing the qualification prescribed below	(i) Holding analogous post on regular basis <b>or</b> having 5 years of regular service in Level 13 of the pay matrix <b>AND</b> (ii) Possessing the qualification prescribed below
<b>Posting Centre</b>	Bengaluru, Chennai, Delhi, Hyderabad, Kolkata, Mohali, Mumbai, Pune, TVM, Noida	Bengaluru, Delhi, Kolkata, Pune, TVM	Delhi, Hyderabad, Kolkata, TVM
<b>Educational Qualification</b>	(a) First class BE/BTech/MCA or equivalent degree in relevant discipline <b>OR</b> (b) Postgraduate in Engineering / Technology in relevant discipline <b>OR</b> (c) First Class Postgraduate Degree in relevant discipline <b>OR</b> (d) Ph.D in relevant discipline		
<b>Experience required</b>	<ul style="list-style-type: none"> <li>• For BE/BTech/MCA or equivalent – 7 yrs</li> <li>• For PG in Engg/ Tech – 5 yrs</li> <li>• For PG in relevant domain – 7 yrs</li> <li>• For Ph.D – 4 yrs</li> </ul>	<ul style="list-style-type: none"> <li>• For BE/BTech/MCA or equivalent – 11 yrs</li> <li>• For PG in Engg/ Tech – 9 yrs</li> <li>• For PG in relevant domain – 11 yrs</li> <li>• For Ph.D – 8 yrs</li> </ul>	<ul style="list-style-type: none"> <li>• For BE/BTech/MCA or equivalent – 16 yrs</li> <li>• For PG in Engg/ Tech – 14 yrs</li> <li>• For PG in relevant domain – 16 yrs</li> <li>• For Ph.D – 13 yrs</li> </ul>

**2. Work Domain:** The applicant must have experience in and shall be working in any of the following work domains:

AI/ML/DL Technologies; Applied AI and Data Analytics; Applied Computing (Health Informatics); Applied Computing (e-Gov); Communications; Cyber Security; Cyber Forensics; Dependable and secure computing - OT / IT security; Enterprise App Development; Embedded system design and development; Hardware System Design; Hardware – VLSI /FGPA Design; HPC Hardware; HPC System software development; IoT; Medical device development, Image processing related to MR, CT or USG; Web application software; Cyber Physical systems; Power electronics converters, PE applications in Power systems, Electric machines and drives; HPC Application Software Development; Product Development & large scale deployment and proliferation; Professional Electronics; Power electronics; Network and communications; Enterprise App Development, Image processing, GIS Map programming, Drones; Project Management & Development support; Quantum Computing

**Note:** Decision to accept any or all experience claimed by the Candidate with respect to a specific domain lies solely with C-DAC.

**[THE DETAILS OF JOB PROFILE AND SKILL SETS REQUIRED FOR VARIOUS POSTS IN DIFFERENT DOMAINS ACROSS C-DAC CENTRES ARE PROVIDED HERE](#)**

**General Terms and Conditions**

**1. Terms and Conditions for Deputation:**

The deputation will be governed by the instructions issued by DoPT OM no. 6/8/2009-Estt.(Pay II) dated 17.06.2010, as amended from time to time.

**2. Period of Appointment:**

The appointment on deputation shall be for a period of 3 (Three) years from the date of joining which is extendable for further two years on sole discretion of C-DAC or upto the date of superannuation or until further orders, whichever is earlier.

**3. Age for application:**

The maximum age for appointment on deputation shall in no case exceed 56 years on the last date of submission of application in C-DAC.

#### 4. Fees:

- (i) A non-refundable application fee of Rs. 1000/- is payable for applying for the posts through online payment mode using internet banking or debit/credit cards during the online application process at C-DAC website.
- (ii) Fee Exemption is available for candidates belonging to SC, ST, PWD category and Female applicants
- (iii) Candidates may take note that no cheque, DD or cash will be accepted towards payment of application fees.
- (iv) C-DAC will not be responsible in case of incomplete transactions during the online payment process. Only those applications in respect of which fee payment is made shall be taken into consideration.
- (v) Application fee once paid shall not be refunded under any circumstances.

#### 5. General Terms and Conditions:

- (i) While applying for the post, the applicant must ensure that he/she fulfils the eligibility criteria and other norms as mentioned in the Advertisement and the particulars furnished are correct in all respects. In case it is detected at any stage of recruitment that a candidate does not fulfil the eligibility criteria and /or that he/she has furnished any incorrect/false information or has suppressed any material fact(s), his/her candidature will stand automatically cancelled. If any of the above shortcoming(s) is/ are detected even after appointment, his/her services are liable to be terminated without any notice. Canvassing in any form shall disqualify the candidate.
- (ii) All computations of Age, Qualification, Experience etc., shall be as on the last date of application.
- (iii) C-DAC reserves the right to cancel/ restrict/ enlarge/ modify/ alter the recruitment/selection process, if need so arises, without issuing any further notice or assigning any reason thereof.
- (iv) Any subsequent amendment/notice/corrigendum etc., if any, shall be made available on the C-DAC website only. As such, applicants are advised to keep visiting [www.cdac.in](http://www.cdac.in) regularly for important updates till the completion of the recruitment process for the posts on deputation

## 6. How to apply online:

- (i) The candidates are required to apply through ONLINE process only by visiting the website [www.cdac.in](http://www.cdac.in). from **24<sup>th</sup> May 2025 to 23<sup>rd</sup> June 2025 till 18.00 Hrs.**
- (ii) Before filling the online application form, Candidates should read '**General Terms and Conditions**' carefully.
- (iii) Candidate should read all the eligibility parameters and ensure that he/she is eligible for the post before starting to apply online.
- (iv) Candidate should have a valid email id and mobile no. which should remain valid & active till the completion of selection process.
- (v) Candidates can click on the '**Apply**' button provided against each position for which he/she wishes to apply.
- (vi) Fill all the details in the application form at the appropriate places.
- (vii) After filling all the details in online application form click on '**Submit**' button.
- (viii) Candidates should scan their passport size photograph in .jpg format (not more than 400 KB) and keep it ready before starting to apply online for uploading.
- (ix) Candidates are required to upload their updated Resume/Curriculum Vitae (PDF only, not more than 1 MB) and brief write up of the project undertaken ((PDF only, not more than 1 MB)) with the online application.
- (x) The required Application fee is to be paid by the candidates through online payment mode only. It is advised to print and keep the transaction details for own records.
- (xi) A unique application number will be generated by the system, please note this application number for future reference and use. Candidates can take a print of the application form and keep it with them for their own records.
- (xii) The applicants are advised to submit the online Recruitment application well in advance without waiting for the closing date and also ensure that the Print out of the online application form along with requisite documents, is forwarded through their Parent Departments within the stipulated time.

**7. Submission of Application through Parent Department / organization:**

Duly filled -in printout of the online application, forwarded by parent department of the applicant along with Vigilance clearance certificate, Disciplinary clearance certificate and Attested copies of ACR of last five years and a certificate from the parent department/organization (**Certificate Format provided on next page**), should reach C-DAC within 7 days of closing of online application, at the following address:

**Director (HRD),  
Centre For Development of Advanced Computing (C-DAC)  
C-DAC Innovation Park, Panchvati, Pashan, Pune 411008**

**8. Important Dates:**

Start date of online application	<b>24.05.2025</b>
Closing date of online application <b>Extended closing date of online application</b>	<b>23.06.2025 till 1800 Hrs 08.07.2025 till 1800 Hrs</b>
Last date for submitting duly filled -in printout of the online application, forwarded by parent department of the applicant to C-DAC.  <b>Extended date</b>	<b>30.06.2025  15.07.2025</b>
Cut-off date for determining eligibility	<b>Initial Closing date of online application i.e. 23.06.2025</b>

**Note:**

- The candidates are advised to visit C-DAC website regularly for notices/ information. Corrigendum/Extension etc., if any, shall be published in our website [www.cdac.in](http://www.cdac.in) only.
- For any query or clarification, candidates can write to [recruitment@cdac.in](mailto:recruitment@cdac.in) or call on Phone No.020-25503627/765

(Ref. C-DAC Advertisement No. CORP/GR.A/02/2025 for filling up of various Group A S&T posts on deputation)

**Certificate to be furnished by the Employer / Head of Office/ Forwarding Authority**

Certified that the information / details provided in the above application by the applicant namely \_\_\_\_\_ are true and correct as per the facts available on records. He / She possesses educational qualifications and experience mentioned in the vacancy circular. If selected, he / she will be relieved immediately.

It is also certified that:

- (i) There is no vigilance or disciplinary case pending / contemplated against Shri/Ms. \_\_\_\_\_.
- (ii) His / Her integrity is certified.
- (iii) Photocopies of the ACRs/APARs for the last 5 years (for the year ---- to ----) duly attested by an officer of the rank of Under Secretary to the Govt. of India or above, are enclosed.
- (iv) No major/minor penalty has been imposed on him/her during the last 10 years.\*
- (v) A list of major/minor penalties imposed on him/her during the last 10 years is enclosed.\*

(\*Strike out which is not applicable)

Place:

Date:

Signature:

Name & Designation:

Tel. No.:

Office Seal:

**List of enclosures:**

- 1.
- 2.

- 3.
- 4.
- 5.

### DETAILS OF JOB PROFILE AND SKILL SETS REQUIRED FOR VARIOUS DOMAINS

Post - Scientist F (Level 13A of the Pay Matrix)			
Centre	Domain	Job Profile	Requisite Skills
Delhi	Applied AI & Data Analytics	<p>Lead and manage multidisciplinary teams of engineers, data scientists, and domain experts to develop AI-driven solutions for data oriented applications.</p> <p>Define project goals, scope, timelines, and deliverables while ensuring alignment with the organization's strategic objectives.</p> <p>Identify opportunities where AI can enhance medical diagnosis, treatment, accessibility, education, e-governance, other aligned processes.</p> <p>Explore strategies for integrating diverse data sources to improve model performance and robustness.</p> <p>Train and fine-tune AI models using appropriate tools and frameworks, validating their performance through rigorous testing and cross-validation techniques.</p> <p>Integration of Trained AI models with Server based and Native applications</p>	<p>Expert in applying AI, ML, DL techniques for data analytics.</p> <p>Proficiency in programming languages such as Python and relevant libraries (TensorFlow, PyTorch, scikit-learn, etc.).</p> <p>Strong understanding of medical imaging, healthcare data, and relevant regulatory requirements.</p> <p>Familiarities with advanced techniques like HPC, Gen-AI and Quantum Computing will be a plus point.</p> <p>Excellent problem-solving skills and the ability to work in a fast-paced, collaborative environment.</p> <p>Leadership skills, including project management, team coordination, and effective communication.</p>

Post - Scientist F (Level 13A of the Pay Matrix)			
Centre	Domain	Job Profile	Requisite Skills
Hyderabad	Product development and large Scale Deployment & Proliferation Experience	<ol style="list-style-type: none"> <li>1. Lead the Centre's activities in Positioning, branding, outreach and communications of its products, services and programmes.</li> <li>2. Formulate strategies and drive activities for business development, product positioning and proliferation based on market research and dynamics.</li> <li>3. Network and liaison with Industry, government academic and research institutions and other stakeholders to foster collaboration and fruitful partnerships in line with organisational objectives.</li> <li>4. Draft commercial proposals based on client requirements and negotiate business deals.</li> <li>5. Coordinate with product development teams to pitch products with prospective clients, articulate client requirements /feedback and handhold product delivery.</li> <li>6. Track and monitor progress of business targets and after sales maintenance.</li> </ol>	<ol style="list-style-type: none"> <li>1. 15+ years of experience in ICT&amp;E Product lifecycle management, sales and marketing.</li> <li>2. Conversant with market research tools and techniques.</li> <li>3. Excellent interpersonal, analytical and communication skills (written and verbal).</li> <li>4. Ability to lead, influence and collaborate with multiple clients, proven delivery, remediation and incident response background</li> <li>5. Proven negotiation and persuasion skills.</li> <li>6. Strong leadership and team management skills, with the ability to motivate and guide a diverse team to achieve desired outcomes.</li> <li>7. Ability to multi-task, work and deliver under strict deadlines.</li> </ol> <p>Desirable: Certifications relevant to job profile</p>
Kolkata	Applied AI/Data Analytics Cyber Security/Cyber Forensics	Provide strategic technical leadership for national supercomputing and quantum initiatives; secure funding, architect next-generation HPC accelerators; oversee silicon-IP development and fabrication partnerships; represent organisation in international forums and standard-setting bodies.	HPC cluster architecture and optimisation, accelerator programming (CUDA/OpenCL), RTL design (Verilog/VHDL), SoC prototyping, cryogenic control electronics, quantum algorithm development (Qiskit/QuEST), Quantum communication, end-to-end design and field deployment of entanglement-based and continuous-variable QKD (BB84, E91, CV-QKD), project management, leadership

Post - Scientist F (Level 13A of the Pay Matrix)			
Centre	Domain	Job Profile	Requisite Skills
TVM	VLSI Design/Professional Electronics/Power Electronics	1) Project management for Defence and space applications 2) Design and development of products and systems 3) Embedded system hardware, firmware development 4) Mathematical modeling and simulation of systems 5) Application/product oriented R&D 6) Algorithm development 7) Field trials and testing	1. Design of modules and systems 2) Project Leader/Project Manager/Team Leader of projects 3) Customer interaction 4) Project proposal preparation, presentation, Implementation, & product certification 5) Field Trials 6) IPR Generation (Patents, Copyrights and Publications) 7) Embedded system hardware, firmware development 8) Mathematical modelling and simulation of systems 9) Application/product oriented R&D
TVM	Network and Communications, Enterprise App Development, IoT, Image Processing, GIS Map programming, Drones	Project Mgmt, Technological Mgmt	RDBMS, Big Data, Open source web development, Mobile App Development, Digital GIS Map, Networking, IoT, Wireless communications, data security, AI / ML / DL

Post - Scientist E (Level 13 of the Pay Matrix)			
Centre	Domain	Job Profile	Requisite Skills
Bengaluru	HPC Software	An engineer / scientist with of hands on expirience and demonstarted outcomes in the specific area . Be able to design / architect technical solutions as well as create white papers for the proposed designs and solutions. Expected to be a thought leader and device longterm road maps. Be able to technically review proposals and create R&D proposals for funding by various agencies. Strong coloboration within and across stakeholders will be required. Expected to publish patent and generate IPR. On board and mentor team members. Should be capable of independtly Coordinating and managing stake holder interactions	<ul style="list-style-type: none"> <li>a. Strong background and experience in HPC Software Architecture including System Architecture</li> <li>b. Excellent understanding and experience in one or more of the following specifiially with respect to HPC: Software Architecture/Benchmarking and Evaluation of software architecture/Technical Risk Assessment of from architecture and system perspective/Cost and Effort Estimates/any other relevant field</li> <li>c. Proficiency in atleast one programming / modeling language relevant to architecture</li> <li>d. Understanding and hands on experience with SDLC practices, software metrics and tools</li> </ul>
Bengaluru	Quantum Computing	An engineer / scientist with of hands on expirience and demonstarted outcomes in the specific area . Be able to design / architect technical solutions as well as create white papers for the proposed designs and solutions. Expected to be a thought leader and device longterm road maps. Be able to technically review proposals and create R&D proposals for funding by various agencies. Strong coloboration within and across stakeholders will be required. Expected to publish patent and generate IPR. On board and mentor team members. Should be capable of independtly Coordinating and managing stake holder interactions	<ul style="list-style-type: none"> <li>a. Strong background in one or more of Quantum technologies: computing, communication, cryptography, simulation, applications, hybrid computing.</li> <li>b. Excellent understanding and experience in one or more of the following: Quantum System Software/Firmware design and implementation for quantum control/Embedded programming/modeling and simulation of quantum entities/ Quantum-HPC-AI hybrid computing/Quantum applications/Quantum mechanics/Post Quantum Cryptography/Quantum Cryptography/Quantum algorithms/any other relevant field</li> <li>c. Proficiency in atleast one programming / modeling language relevant to quantum technology where experience is claimed</li> <li>d. Understanding and hands on experience with SDLC practices and tools</li> </ul>

Post - Scientist E (Level 13 of the Pay Matrix)			
Centre	Domain	Job Profile	Requisite Skills
Delhi	Applied AI & Data Analytics	<p>Lead and manage multidisciplinary teams of engineers, data scientists, and domain experts to develop AI-driven solutions for data oriented applications.</p> <ul style="list-style-type: none"> <li>• Define project goals, scope, timelines, and deliverables while ensuring alignment with the organization's strategic objectives.</li> <li>• Identify opportunities where AI can enhance medical diagnosis, treatment, accesibility, education, e-governance, other aligned processes.</li> <li>• Explore strategies for integrating diverse data sources to improve model performance and robustness.</li> <li>• Train and fine-tune AI models using appropriate tools and frameworks, validating their performance through rigorous testing and cross-validation techniques.</li> <li>• Integration of Trained AI models with Server based and Native applications</li> </ul>	<ul style="list-style-type: none"> <li>• Expert in applying AI, ML, DL techniqcs for data analytics.</li> <li>• Proficiency in programming languages such as Python and relevant libraries (TensorFlow, PyTorch, scikit-learn, etc.).</li> <li>• Strong understanding of medical imaging, healthcare data, and relevant regulatory requirements.</li> <li>• Familiarities with advanced techniques like HPC, Gen-AI and Quantum Computing will be a plus point.</li> <li>• Excellent problem-solving skills and the ability to work in a fast-paced, collaborative environment.</li> <li>• Leadership skills, including project management, team coordination, and effective communication.</li> </ul>
Pune	HPC Application Software Development	<p>Project Lead HPC Application Engineer:</p> <p>Parallelization of users' applications, on CPUs and GPUs, conducting of hackathons and bootcamps</p> <p>Porting, Optimization, Tuning, Scaling of HPC applications, libraries on different HPC architectures</p> <p>Performance evaluation of HPC architectures through benchmark suites/ programs/ kernels etc.</p> <p>Development of parallel codes, performance analysis through tools and techniques, code debugging.</p> <p>Exploration and use case development of performance tools, programming models etc.</p> <p>Delivering technology training.</p> <p>Providing user support</p>	<p>Working knowledge of Linux, C/C++, Fortran, Python</p> <p>Knowledge of Assembly level programming</p> <p>Expertise on of Parallel Computing, HPC architectures</p> <p>Knowledge of accelerator /GPGPU computing</p> <p>Knowledge of ML/DL, AI Frameworks</p> <p>Expertise on application benchmarks, micro-benchmarks, compilers, performance libraries, Optimization of codes, parallel programming; Scaling and benchmarking of applications;</p> <p>Development of parallel code using MPI/OpenMP etc.; Experience on scientific/engineering computational domains, mathematical/scientific libraries.</p> <p>Knowledge of code debugging; Technical Writing, Good Communication and interpersonal skills</p>

Post - Scientist E (Level 13 of the Pay Matrix)			
Centre	Domain	Job Profile	Requisite Skills
TVM	VLSI Design/Professional Electronics/Power Electronics	1) Project management for Defence and space applications 2) Design and development of products and systems 3) Embedded system hardware, firmware development 4) Mathematical modeling and simulation of systems 5) Application/product oriented R&D 6) Algorithm development 7) Field trials and testing	1. Design of modules and systems 2) Project Leader/Project Manager/Team Leader of projects 3) Customer interaction 4) Project proposal preparation, presentation, Implementation, & product certification 5) Field Trials 6) IPR Generation (Patents, Copyrights and Publications) 7) Embedded system hardware, firmware development 8) Mathematical modelling and simulation of systems 9) Application/product oriented R&D
TVM	Communications, Enterprise App Development, IoT	Project Management, Technological Management, Training	RDBMS, Big Data, Open source web development, Mobile App Development, Digital GIS Map, Networking, IoT, Wireless communications, data security, AI / ML / DL
TVM	Dependable & Secure Computing , Communication Technologies including 5G	System Analyst and System Architect for R&D activities in IoT and SDN Network Management and Orchestration	SDN& NFV, JAVA,C, C++
Kolkata	Applied AI/Data Analytics Cyber Security/Cyber Forensics	Serve as Principal Investigator for multi-institutional projects; craft research roadmaps, secure funding, mentor cross-functional teams, engage with government stakeholders, and deliver deployable solutions.	End-to-end AI/ML pipeline architecture, advanced statistical modelling, graph neural networks, edge-AI deployment, cloud-native microservices (Kubernetes/Docker), zero-trust security design, proposal writing, leadership, project management

**Post - Scientist D (Level 12 of the Pay Matrix)**

Centre	Domain	Job Profile	Requisite Skills
Bengaluru	Quantum Computing	<p>Design / architect technical solutions as well as create white papers for the proposed designs and solutions. Expected to be a thought leader and device longterm road maps.</p> <p>Be able to technically review proposals and create R&amp;D proposals for funding by various agencies. Strong coloboration within and across stakeholders will be required.</p> <p>Expected to publish patent and generate IPR. On board and mentor team members. Should be capable of independently Coordinating and managing stake holder interactions</p>	<p>a. Strong background in one or more of Quantum technologies: computing, communication, cryptography, simulation, applications, hybrid computing.</p> <p>b. Excellent understanding and experience in one or more of the following: Quantum System Software/Firmware design and implementation for quantum control/Embedded programming/modeling and simulation of quantum entities/ Quantum-HPC-AI hybrid computing/Quantum applications/Quantum mechanics/Post Quantum Cryptography/Quantum Cryptography/Quantum algorithms/any other relevant field</p> <p>c. Proficiency in atleast one programming / modeling language relevant to quantum technology where experience is claimed;</p> <p>d. Understanding and hands on experience with SDLC practices and tools</p>
Bengaluru	Cyber Security	<p>An engineer / scientist with hands on expirience and demonstarted outcomes in the specific area . Be able to design / architect technical solutions as well as create white papers for the proposed designs and solutions. Be able to technically review proposals and create R&amp;D proposala for funding by various agencies. Strong coloboration within and across stakeholders will be required. Expected to publish patent and generate IPR. On board and mentor team members. Be able to manage multiple teams indpendently .</p>	<p>a. Strong background and experience in developing solutions in Cybersecurity, IoT Security,</p> <p>b. Excellent understanding and hands on experience in or more of the following: Design and development of security solutions/security audit and consultancy services/cyber range/penetration testing/governance and compliance management/managed security services/any other similar field</p> <p>c. Proficiency in various protocols including TCP/IP, SCADA, CAN, etc.</p> <p>d. Understanding and hands on experience with SDLC/SOC practices and tools</p>

Post - Scientist D (Level 12 of the Pay Matrix)			
Centre	Domain	Job Profile	Requisite Skills
Bengaluru	Embedded Systems / IOT	An engineer / scientist with hands on experience and demonstrated outcomes in the specific area . Be able to design / architect technical solutions as well as create white papers for the proposed designs and solutions. Be able to technically review proposals and create R&D proposals for funding by various agencies. Strong collaboration within and across stakeholders will be required. Expected to publish patent and generate IPR. On board and mentor team members. Be able to manage multiple teams independently .	<p>a. Strong background and experience in Cyber Physical Systems theory and practices.</p> <p>b. Excellent understanding in one or more of the following: Firmware design and implementation/Operational Technologies (OT) protocols/Embedded programming/Multi-core programming / Embedded architecture/ formal methods/model based engineering/any other similar field</p> <p>c. Proficiency in atleast one programming language including domain specific languages applicable to IoT/Drones/Embedded Appliances/ Operating System Internals including RTOS</p> <p>d. Understanding and hands on experience with SDLC practices and tools</p>
Chennai	Dependable & Secure Computing	<ol style="list-style-type: none"> <li>1. Must have capability of handling teams individually</li> <li>2. Design Skills - Application of Design Patterns / UML</li> <li>3. Experience in Spring MVC &amp; Spring boot frameworks, Databases: MySQL, PostgreSQL.</li> <li>4. Proficient understanding of code versioning tools, such as Git</li> <li>5. Experience in Application servers deploying in Apache &amp; Tomcat.,</li> <li>6. Experience in CI/CD tools</li> <li>7. Must have strong debugging, problem solving / analytical skills,</li> <li>8. Good interpersonal &amp; communication skills</li> </ol>	<p>Experience in Linux, Server administration,Python,PHP,Java, Shell Scripting, DevOps tools-CICD, Django, Javascript, Devsecops,Angular JS, React JS , Javascript, Bootstrap, Springboot, CSS, HTML.CSS3, DevOpstools-CICD,Microservice, JIRA, Thymeleaf, EXTJS, React Native, PHP, AdobeXD, MERN stack/MEAN stack/ELK stack/Cyber security tools, Project Management</p>
Chennai	IoT/Embedded System/Robotics/FPGA/Hardware Design and Development	Embedded/FPGA Engineer	<ul style="list-style-type: none"> <li>▪ Programming experience in C/VHDL/Verilog</li> <li>▪ Knowledge of Cryptography.</li> <li>▪ Knowledge of FPGA implementation flow and Xilinx Vivado tools.</li> <li>▪ Hands-on experience in simulation using MATLAB/ModelSim and FPGA realization using VHDL/Verilog programming.</li> <li>▪ Exposure to formal methods, formal verification of software/hardware systems</li> <li>▪ Good debugging, problem solving / analytical skills</li> <li>▪ Good interpersonal skills and ability to work in a team</li> <li>▪ Good Communication skill</li> </ul>

**Post - Scientist D (Level 12 of the Pay Matrix)**

Centre	Domain	Job Profile	Requisite Skills
Delhi	Cyber Security	<ul style="list-style-type: none"> <li>• Conduct thorough vulnerability assessments and penetration testing on web applications, mobile applications, and web services to identify security weaknesses.</li> <li>• Perform network vulnerability assessments and penetration testing to detect and mitigate security threats.</li> <li>• Analyze system and network logs to identify suspicious activities and potential security incidents.</li> <li>• Conduct forensic investigations to determine the root cause of security breaches and develop incident response plans.</li> <li>• Implement ISMS, Risk Assessment, Incident Response, Disaster Recovery, Security awareness and Training</li> <li>• Effectively communicate security risks and strategies to both technical and non-technical stakeholders.</li> </ul>	<ul style="list-style-type: none"> <li>• Vulnerability assessment, penetration testing of web applications, mobile applications, web services.</li> <li>• Network security assessment, vulnerability assessment and penetration testing</li> <li>• Log analysis and incident analysis</li> <li>• Good knowledge of software development environment in PHP, Java, Python languages</li> <li>• Good knowledge of system and network infrastructure environment such as servers, workstations, Linux servers, Windows servers, routers, switches, firewall, web servers, application servers, database servers, etc.</li> <li>• Candidate with post qualification certification such as CEH, ISC2, etc. will be preferred.</li> <li>• Collaborate with cross-functional teams, including IT, software development, and business units, to ensure security is integrated into all aspects of operations.</li> </ul>

**Post - Scientist D (Level 12 of the Pay Matrix)**

Centre	Domain	Job Profile	Requisite Skills
Hyderabad	AI/ML Domain	<ul style="list-style-type: none"> <li>• Lead AI/ML research initiatives aimed at solving critical challenges and develop solutions and Drive the development of advanced AI/ML algorithms, models, and systems</li> <li>• Technical implementation of algorithms along with the contributions in Design &amp; Architecture and initiating new research areas</li> <li>• Documentation support in project proposals &amp; Concept notes</li> <li>• Effective Team management fostering a culture of innovation, collaboration, and continuous learning in the domain of AI</li> <li>• Effectively communication skills</li> <li>• Conduct original research and contribute to IPR generation</li> <li>• To understand requirements, architecture decisions, assess feasibility and provide time estimates on implementing new features and functionalities.</li> <li>• Training, testing and validation of developed algorithms for custom solutions.</li> <li>• Deployment of build models for real-time applications and deployment in production environment.</li> <li>• To be able to manage multiple concurrent customers facing engagements involving multidisciplinary teams.</li> <li>• Resource Planning, Developing Schedules, Time Estimating, Cost Estimating, Developing a Budget, Creating Charts and Schedules, Risk Analysis &amp; Managing Risks and Issues, Monitoring and Reporting Progress</li> <li>• Responsible for preparing reports and presentations, implementation plan document, etc., as needed for the project with ability to deliver timely and quality outcomes individually and also as a team player</li> </ul>	<ul style="list-style-type: none"> <li>• Strong knowledge in AI / ML / DL / Data Science.</li> <li>• Excellent knowledge and experience in development of AI and ML based applications.</li> <li>• Excellent understanding of natural language processing, computer vision and related technologies.</li> </ul> <p>Excellent understanding and expertise in data analysis, modelling, machine learning and deep learning concepts and state-of-art best practice in AI/ML/DL domain.</p> <ul style="list-style-type: none"> <li>• Proficiency in programming languages such as Python, R or Java and hands on experience with NumPy, Scikit-learn, Octave, MatLab, PyTorch, TensorFlow, Keras with designing detailed algorithms and data models.</li> <li>• Strong understanding of data security, privacy, and ethical considerations in AI/ML.</li> <li>• Programming experience in C, C++, Python, CUDA, OpenCL.</li> <li>• Excellent problem solving skills.</li> <li>• Experience in leading teams focused on Project execution starting from proposal formulation to project closure.</li> <li>• Research-minded, ability to run experiments independently, implement research papers, reproduce results and present results.</li> <li>• Exposure for working project documentations i.e. Proposals, Concept Note, SRS and reports.</li> <li>• Outstanding ability to think creatively, identify and resolve problems.</li> <li>• Excellent Communication, time management and multitasking skill</li> </ul> <p>Desirable: Certifications relevant to job profile</p>

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Centre	Domain	Job Profile	Requisite Skills
Kolkata	Cyber Security / Cyber Forensics / Applied AI / Data Analytics / HPC / Hardware / VLSI / IoT	Lead applied research in AI-driven cyber-defence and forensics; design and prototype threat-detection solutions; publish results, guide junior researchers, contribute to national mission projects, and liaise with user agencies.	Secure coding, vulnerability assessment, incident response, SIEM/SOAR platforms, machine-learning model development (Python, R, PyTorch/TensorFlow), big-data frameworks (Spark/Hadoop), Linux administration, DevSecOps.
Mohali	Applied Computing - Health Informatics	Software Development , Drafting Proposals, liaisoning with Stakeholders & Travel, Miscellaneous Tasks related to Projects	.NET Core 2.2 or later version with Dapper ORM or Entity Framework with basic ADO.NET <b>OR</b> Proficient in NoSQL and SQL databases (MySQL, MSSQL Server, BigData, DynamoDB, CosmosDB, ElasticSearch) Experience in data analytics tools (Microsoft Power BI for business data analytics)  Desirable: Understanding of WebSocket, WebRTC Experience with Microservice architecture Cloud services (Storage VM, API gateway, Kubernetes cluster) Understanding/worked in the Digital Health domain
Mumbai	Project Management and Development Support	Project coordination, stake holder interaction, design contribution OR research into a specific domain mentioned as the desirable skill set	1. Experience in IT system design and architecting , 2. Implementation and monitoring large-scale project(s) having multiple ecosystem partners, 3. Liasoning with stakeholders, experience in handling cross functional teams in different IT domains, financial planning, Exposure to IT procurement, tendering related work, understanding of Government processes is required. 4. Experience of working in latest technologies is required. 5.Experience in Project Management is required. 6. Knowledge of Java, Spring boot is essential. <b>Preferred / desirable Skill set or work experience in the domain :</b> Blockchain / Quantum Computing / Augmented Reality/ Metaverse/ Opensource Technology

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Centre	Domain	Job Profile	Requisite Skills
Noida	Applied Computing - Health Informatics	To drive an e-Governance initiative as a Level 12 officer in E-GOVERNANCE GROUP, a comprehensive set of technical and administrative skills is required. Below is a detailed outline of the skills, knowledge of e-governance standards, and goals awareness needed for this role:	<ul style="list-style-type: none"> <li>• Software Development: Experience with software development life cycles (SDLC), agile methodologies, and project management tools. Ability to oversee the development of web and mobile applications for e-Governance.</li> <li>• e-Governance Architecture: Knowledge of designing, developing, and implementing e-governance frameworks and platforms. Familiarity with the National e-Governance Plan (NeGP) and other relevant digital frameworks.</li> <li>• Data Management: Expertise in data governance, including data privacy, security, and data analytics. Understanding of data interoperability standards and data exchange frameworks.</li> <li>• Standards Compliance: Knowledge of e-Governance standards such as Open Data, Interoperability Framework for e-Governance (IFEG), and Digital Service Standards (DSS).</li> <li>• Cybersecurity: Understanding of cybersecurity principles, risk management, and the implementation of secure systems and protocols.</li> <li>• ICT Infrastructure: Proficiency in ICT infrastructure, including cloud computing, cybersecurity, data centers, and networking. Understanding of technologies such as Software Development, AI/ML, blockchain, IoT, and big data analytics.</li> </ul> <p>Also, n-depth knowledge and experience in end-to-end Software lifecycle management in J2EE preferably Spring /Spring Boot/Struts and Hibernate and latest ORM frameworks. Database Oracle/Postgres/MySQL and WebSphere/JBOSS/Tomcat. Exposure of Agile Methodology is an added advantage. Having experience in implementation of DevOps/CiCD pipelines. Proficiency in Project Management tools like JIRA,MS Visio, MS-Project, Redmine and Bugzilla.</p> <ul style="list-style-type: none"> <li>• Have in depth knowledge and experience of Software Design and Development in J2EE, (MVC Architecture using spring boot and Hibernate frameworks, ELK, SOLAR Search, analytical tools etc. Knowledge of Database Oracle/ Postgres/ MySQL and WebSphere/JBOSS/Tomcat.</li> </ul>

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Centre	Domain	Job Profile	Requisite Skills
			<ul style="list-style-type: none"> <li>• Deploy, maintain, and troubleshoot core business applications, including application servers, associated hardware, endpoints, and databases.</li> <li>• Develop, analyze, prioritize, and organize requirement specifications, data mapping, diagrams, and flowcharts for developers and testers to follow.</li> <li>• Possesses high level understanding in the areas of web application programming, content management systems, API, database and system design</li> <li>• Define and coordinate the execution of testing procedures, and develop test cases to serve the overall quality assurance process Provide documentation of all processes and training as needed</li> <li>• Develop and implement maintenance procedures, monitor systems health, gather system statistics, and troubleshoot reported errors and alarms.</li> <li>• Perform design, implementation, and upgrades of information systems to meet the business and user needs</li> <li>• Implement best practices for scalability, supportability, ease of maintenance, and system performance.</li> <li>• Project Management, project life cycle.</li> <li>• Leadership and Team Management, Process improvement recommendations based on best practices and industry standards</li> <li>• Excellent verbal and written communication skills, • Policy Formulation and Implementation, Procurement and Vendor Management:</li> <li>• Change Management, Training and capacity-building programs.</li> <li>• Regulatory Compliance of e-governance projects . Knowledge of designing, developing, and implementing Health Application , FHIR Frameworks. Familiarity with the Arogya Bharat Mission (ABDM) Mile Stones and other relevant digital frameworks</li> </ul>

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Centre	Domain	Job Profile	Requisite Skills
Noida	Applied Computing - eGov	<p>To drive an e-Governance initiative as a Level 12 officer in E-GOVERNANCE GROUP, a comprehensive set of technical and administrative skills is required. Below is a detailed outline of the skills, knowledge of e-governance standards, and goals awareness needed for this role:</p>	<ul style="list-style-type: none"> <li>• <b>Software Development:</b> Experience with software development life cycles (SDLC), agile methodologies, and project management tools. Ability to oversee the development of web and mobile applications for e-Governance.</li> <li>• <b>e-Governance Architecture:</b> Knowledge of designing, developing, and implementing e-governance frameworks and platforms. Familiarity with the National e-Governance Plan (NeGP) and other relevant digital frameworks.</li> <li>• <b>Data Management:</b> Expertise in data governance, including data privacy, security, and data analytics. Understanding of data interoperability standards and data exchange frameworks.</li> <li>• <b>Standards Compliance:</b> Knowledge of e-Governance standards such as Open Data, Interoperability Framework for e-Governance (IFEG), and Digital Service Standards (DSS).</li> <li>• <b>Cybersecurity:</b> Understanding of cybersecurity principles, risk management, and the implementation of secure systems and protocols.</li> <li>• <b>ICT Infrastructure:</b> Proficiency in ICT infrastructure, including cloud computing, cybersecurity, data centers, and networking. Understanding of technologies such as Software Development, AI/ML, blockchain, IoT, and big data analytics.</li> </ul> <p>Also, n-depth knowledge and experience in end-to-end Software lifecycle management in J2EE preferably Spring /Spring Boot/Struts and Hibernate and latest ORM frameworks. Database Oracle/Postgres/MySQL and WebSphere/JBOSS/Tomcat. Exposure of Agile Methodology is an added advantage. Having experience in implementation of DevOps/CiCD pipelines. Proficiency in Project Management tools like JIRA,MS Visio, MS-Project, Redmine and Bugzilla.</p> <ul style="list-style-type: none"> <li>• Have in depth knowledge and experience of Software Design and Development in J2EE, (MVC Architecture using spring boot and Hibernate frameworks, ELK, SOLAR Search, analytical tools etc. Knowledge of Database Oracle/ Postgres/ MySQL and WebSphere/JBOSS/Tomcat.</li> </ul>

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Centre	Domain	Job Profile	Requisite Skills
			<ul style="list-style-type: none"> <li>• Deploy, maintain, and troubleshoot core business applications, including application servers, associated hardware, endpoints, and databases.</li> <li>• Develop, analyze, prioritize, and organize requirement specifications, data mapping, diagrams, and flowcharts for developers and testers to follow.</li> <li>• Possesses high level understanding in the areas of web application programming, content management systems, API, database and system design</li> <li>• Define and coordinate the execution of testing procedures, and develop test cases to serve the overall quality assurance process Provide documentation of all processes and training as needed</li> <li>• Develop and implement maintenance procedures, monitor systems health, gather system statistics, and troubleshoot reported errors and alarms.</li> <li>• Perform design, implementation, and upgrades of information systems to meet the business and user needs</li> <li>• Implement best practices for scalability, supportability, ease of maintenance, and system performance.</li> </ul> <p>2. Administrative Skillset:</p> <ul style="list-style-type: none"> <li>• Project Management: Proficiency in managing large-scale projects, including planning, execution, monitoring, and evaluation of e-governance initiatives. Familiarity with project management frameworks like PMP.</li> <li>• Establishes, plans, and executes major milestone reviews to complete the project and project life cycle. Ensure project and reviewed, including the technical leadership of requirements management, design, implementation, system integration, verification, test, quality assurance, delivery, operations, and sustainment of the technical solution.</li> <li>• Meet and coordinate with internal and external stakeholders to establish project scope, system goals, and requirements.</li> <li>• Manage scope throughout the project duration. Maintains</li> </ul>

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Centre	Domain	Job Profile	Requisite Skills
			<p>accurate program estimates, timelines, project plans, status reports.</p> <ul style="list-style-type: none"> <li>• Manages and tracks team velocity, financials, and other KPIs in relation to the plan and published progress reports.</li> <li>• Leadership and Team Management: Strong leadership skills to guide and motivate cross-functional teams. Ability to collaborate with multiple stakeholders, including government departments, vendors, and the public.</li> <li>• Provide process improvement recommendations based on best practices and industry standards</li> <li>• Resolves conflicts by demonstrating leadership and appropriate decision-making competencies</li> <li>• Responsible for complex program management tasks and development of standards and processes for scheduling, administration, and accounting</li> <li>• Excellent verbal and written communication skills and the ability to interact professionally with a diverse group; developers, Stakeholders, and subject matter experts.</li> <li>• Policy Formulation and Implementation: Understanding of policy-making processes and the ability to draft, review, and implement policies related to e-governance.</li> <li>• Procurement and Vendor Management: Knowledge of government procurement processes, including GeM portal, RFP preparation, vendor selection, contract management, and SLA enforcement.</li> <li>• Change Management: Skills in managing change within government institutions, including stakeholder engagement, communication strategies, and training and capacity-building programs.</li> <li>• Regulatory Compliance: Ensuring that all e-governance projects comply with relevant laws, regulations, and standards, such as IT Act 2000, Personal Data Protection Bill, and other legal frameworks.</li> </ul>

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Centre	Domain	Job Profile	Requisite Skills
Pune	Hardware System Design	<p>Team Lead System Design Engineer:</p> <ul style="list-style-type: none"> <li>• System design of Supercomputers/ HPC systems system</li> <li>• Design of Compute Servers, High speed Switches, Network Interface cards.</li> <li>• The design includes Latest Server class processors from Intel, ARM, etc. and Switch SOCs with Serial links of 200 Gbps (56 Gbps x 4) or more b/w, along with DDR4/5, PCIe4/5, Ethernet, NVMe drive interfaces, etc.</li> <li>• All phases of design (Schematic capture, Component engineering, Library creation, Place and route, Manufacturing data, Drawing) for Board designs, Simulation and Signal integrity applications on industry standard toolsets like Cadence Allegro, Mentor, etc. Multi –layer High Speed PCB Design DFM and DFT, EMI/ EMC etc.</li> <li>• Interaction with PCB and PCBA manufacturer to get the product manufactured as per requirement.</li> <li>• Interaction with component vendors for finalizing component selection.</li> <li>• Testing and Board bring up with hardware software co-design, taking the product through various cycles of development – EVT, DVT and PVT</li> <li>• Interaction with agencies for getting required Product certifications.;</li> <li>• Managing the team of young design engineers</li> </ul>	<ul style="list-style-type: none"> <li>• Excellent knowledge of digital and analog system designs, testing and Board bring up with hardware software co-design</li> <li>• Comprehensive knowledge of <ul style="list-style-type: none"> <li>o System Design with 32/64 bit microcontrollers/SOCs/ Processors, DDRx memories, PCIe, LVDS, SPI, I2C, Ethernet, USB etc.</li> <li>o High Speed Serial channel design for multi Gigabit(&gt;10Gpbs) Data rates</li> <li>o Comprehensive knowledge of all phases (Schematic capture, Component engineering, Library creation, Place and route, Manufacturing data, Drawing) for Board designs, Simulation and Signal integrity applications on industry standard toolsets like Cadence Allegro, Mentor, etc. Multi –layer High Speed PCB Design DFM and DFT, EMI/ EMC etc.</li> </ul> </li> <li>• Experience in High-Speed Hardware Design,</li> <li>• Leadership and Project Management qualities</li> <li>• Team player, co-ordinating between team members to complete the activity</li> <li>• Testing and Board bring up with hardware software co-design</li> </ul>

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Centre	Domain	Job Profile	Requisite Skills
Pune	System Administrator	<p>Team Lead System Administration Engineer:                      Project Management for design and deployment of largescale HPC Cluster                      Operations management for HPC systems in Production mode.                      Co-ordination with OEMs, Bidders and end users for successful deployment                      Scheduler and Resource manager policy configuration                      Implementation security in large scale HPC systems                      Development of of HPC Cluster provisioning tools and HPC software stack                      Petascale HPC system daily maintenance and management                      Benchmarking of HPC Systems                      HPC System support to end-users                      Exploration of performance of HPC architectures                      Conducting Linux HPC workshops &amp; hackathons, etc.                      Implementation of HPC in cloud, Docker, VM, etc                      Exploration of the performance of HPC architectures                      Conducting Linux HPC workshops &amp; hackathons, etc.                      Managing the team of system administrators                      Manage complex HPC issues and support system                      Project plan implementation                      Participate in the evaluation of emerging HPC technologies and explore new features that would create new capabilities and enhance system performance and usability.</p>	<p>System Administration and management of HPC cluster based on Opensource in large scale environment High level of Linux administration experience (RHEL7, RHEL8 or equivalent).                      Administration experience on GPFS/LUSTER/BeeGFS or any parallel file systems                      Performance monitoring and fine tuning on HPC cluster systems                      Supporting HPC clusters, including systems with accelerators, and high-performance file systems and storage Hardware installation, configuration, upgrades.                      Strong scripting skills (Bash, Perl, or Python) and an ability to program is an advantage.                      Cluster provisioning, systems management, resource management middleware                      Experience working with High Performance Computing Workload Managers (PBS Pro, Grid Engine, LSF, SLURM, etc.)                      Familiarity with UNIX/Linux internals (CentOS, Redhat. Ubuntu).                      Knowledge of modern HPC systems, CPU/GPU architectures and execution models                      Good understanding of Cloud Computing environments such as AWS, Azure, and containerization technologies such as Dockers, Singularity                      Experience of writing technical manuals, administration &amp; end-user guide.                      Good communication and interpersonal skills</p>

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Centre	Domain	Job Profile	Requisite Skills
Pune	Hardware - VLSI / FGPA Design	<p>Team Lead VLSI design and validation Engineer:                      Write specifications for the relevant block, micro-architecture of one or more block                      Implement a specification using RTL coding techniques and best practices                      Creating verification test plan, coverage analysis                      Responsible for whole FPGA design flow.                      Full-chip simulation plus debug                      System Level Validation                      Technical Documentation                      Responsible for product quality and on time delivery                      Support lab validation and take up interactions/support activities with various teams</p>	<p>Strong understanding of Hardware designs                      Strong knowledge of HDLs like Verilog, System Verilog                      Proficiency in developing SV/UVM based test environments                      Strong RTL debugging and analytical skills                      Knowledge of C, C++ programming is must. Knowledge of SystemC is a plus                      Knowledge of scripting languages such as Perl, Python, TCL is desirable.; Design knowledge of one/more industry-standard bus interfaces and networking protocols (PCIe, USB, Ethernet, Infiniband etc.) and memory interfaces (DDR2, DDR3, etc.) are a plus.; Experience in implementation/timing closure for high-speed design is beneficial.; Working knowledge of ASIC design flow                      Knowledge of project management tools, version control tools is desirable</p>
Pune	HPC System Software Development	<p>Team Lead System Software Engineer:                      Management Firmware development for server motherboard                      Server Board bring-up (including BMC, BIOS and OS booting), testing and validation of hardware interfaces.                      System software development for proprietary network protocol stack                      Development of device driver/library and supporting tools                      Profiling and benchmarking                      Adaptation of MPI                      Product deployment, maintenance and support</p>	<p>Should be strong in C, C++ and Linux kernel internals                      In depth knowledge of Linux System Programming and Embedded Programming                      Experience in Device Driver Development on Linux / Windows                      Experience to firmware design and development using Baseboard Management Controller (BMC)                      In depth knowledge of BMC firmware interactions with BIOS and host CPU                      Exposure to Board bring-up (including BMC, BIOS and OS booting)                      Experience in scripting languages                      Experience in RDMA/InfiniBand (IB) protocol, MPI programming                      Experience in managing, guiding and mentoring a small team</p>

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Centre	Domain	Job Profile	Requisite Skills
TVM	VLSI Design/ Professional Electronics/ Power Electronics	1) Project management for Defence and space applications 2) Design and development of products and systems 3) Embedded system hardware, firmware development 4) Mathematical modeling and simulation of systems 5) Application/product oriented R&D 6) Algorithm development 7) Field trials and testing	1. Design of modules and systems 2) Project Leader/Project Manager/Team Leader of projects 3) Customer interaction 4) Project proposal preparation, presentation, Implementation, and product certification 5) Field Trials 6) IPR Generation (Patents, Copyrights and Publications) 7) Embedded system hardware, firmware development 8) Mathematical modelling and simulation of systems 9) Application/product oriented R&D
TVM	Communicatio, Enterprise App Development, IoT	Customer Support, Data Centre Mgmt Technological Mgmt	RDBMS, Big Data, Open source web development, Mobile App Development, Digital GIS Map, Networking, wireless communications, data security, data analytics
TVM	VLSI Design/ Professional Electronics	Design engineer	HDL based design, verification and FPGA implementation. Digital IC Design. Embedded system design including circuit design, firmware development, OS porting and driver development. Microprocessor design
TVM	Embedded system Design & Development	Design and Development of hardware products in transportation domain	1. Familiarity and working experience in ARM, AVR, PIC, or other popular microcontrollers. 2. Experience in interfacing GPIO, UART, SPI, I2C, and ADC/DAC 3. Experience in circuit design, and PCB layout using orcad cadance, Altium, eagle etc 4. experience in interfacing with various sensors, motors, and other actuators using various protocols such as SPI, I2C 5. Experience with hardware debugging tools like oscilloscopes, logic analyzers, spectrum analyzer, protocol analyzer and software tools such as Keil, IAR Embedded Workbench, MPLAB, or similar

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Centre	Domain	Job Profile	Requisite Skills
TVM	Dependable & Secure Computing; Communication Technologies including 5G	Software Developer – IoT and SDN Network Management and Orchestration	JAVA,C, C++
TVM	Professional Electronics / Cyber Physical Systems	Plan, conceptualize, design and develop mechanical designs for various products and systems. Interact with the project leaders / product design Engineers for data collection and obtain approval for the mechanical designs. Documentation and review of mechanical drawings, fabrication and assembly.	Experience in CAD software like SolidWorks, NX, PLM tools for creating 2D drawings and 3D models. Must have knowledge about design, manufacturing, fabrication and assembly. Should have skills in part design using sheet metal, plastic, die-cast, machining, 3D printing, finishes and design for manufacturability (DFM).
TVM	Applied Computing	Creation of custom GIS maps & 3D point cloud data. Working with APIs for Spatial Data Mining. Creation of different geospatial Indices like NDVI, SPI, PDSI, SVDI, Spatial Drought Risk assesment, etc. Assessment in synergy with spectral profile evaluated from Drone/UAV data, spatial data and ground truth data.	Experience in geospatial information, analysis, mapping data visualization, inundation mapping, information management or related area is required. Knowledge of GIS tools like QGIS, CloudCompare, MARS. ENVI, etc. Minimum of two years of proven experience in the analysis of high spatial resolution satellite data. Experience in satellite image labeling. Experience of Jupyter or ArcGIS Notebook development for geospatial analytics is desirable.
TVM	Dependable and secure computing	<ul style="list-style-type: none"> <li>Identifying and analyzing user requirements</li> <li>Collaborate with internal and external teams, communicate with users/auditee teams and other technical teams</li> <li>Prioritizing, assigning and executing tasks throughout application security/infrastructure audit life cycle.</li> <li>Perform security testing for identifying vulnerabilities</li> <li>Carry out periodic penetration testing, vulnerability assessment activities and other security testing activities on networks, systems and applications, using</li> </ul>	<ul style="list-style-type: none"> <li>Experience in penetration testing, web security assessment, load and performance testing</li> <li>Experience with Web application standards (OWASP/W3C/GIGW) and API (Web services, XML, JSON, HTTP, HTTPs)</li> <li>Strong knowledge of SaaS model/cloud-delivered application testing</li> <li>Experience with Application Security Testing tools like OWASP ZAP, Burp suite, Web Inspect, Sonar Cube, Fortify etc. (tools for SAST, DAST, SCA, IAST etc.)</li> <li>Experience in Secure Software code review</li> <li>Excellent analytical and problem-solving skills, excellent</li> </ul>

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Centre	Domain	Job Profile	Requisite Skills
		<p>open source and commercial tools.</p> <ul style="list-style-type: none"> <li>• Produce actionable, threat-based, reports on security testing results.</li> <li>• Demonstrate security testing results with the explanation of the threats in the results to the application developers/systems administrators for remediation.</li> <li>• Analyzes and recommends security controls and procedures in acquisition, development, and change management lifecycle of information systems, and monitors for compliance.</li> <li>• Analyzes and recommends security controls and procedures in business processes related to use of information systems and assets, and monitors for compliance.</li> <li>• Secure Network Architecture Review, Application Security Review, VA/PT, Configuration Audit, Process Review, Source Code Review, API Review, Assessment of Forensic Readiness, Compliance Review</li> </ul>	<p>written and oral communication, self-starter, and highly motivated.</p> <ul style="list-style-type: none"> <li>• Work in a dynamic environment and ability to adapt quickly to changes.</li> </ul>
TVM	Dependable & Secure Computing	OT Audit, audit report preparation, development of tools for OT Security Operations Center (SOC), OT security audit tools and preparation of OT security policies.	Experience in development of OT/IT security audit tools, OT/IT security policy formation, auditing and training is required. Certifications in OT Security/ IT Security and OT Audit tools is desirable.
TVM	Power Electronics Converter, Power Electronics applications in Power system, Electric machines and drives	Design, Development, Protomodel system development, testing, Technology transfer and technical support to Industries and user Agencies	Design and analysis of PE converter and applications, Simulation, Embedded realtime control development and testing

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Centre	Domain	Job Profile	Requisite Skills
TVM	Dependable and secure computing	<ul style="list-style-type: none"> <li>• Lead and manage Security Operations Centre</li> <li>• Must be hands on in terms of creating detection logic, monitoring alerts etc.</li> <li>• Primarily responsible for security event monitoring, management and response</li> <li>• Ensure incident identification, assessment, quantification, reporting, communication, mitigation and monitoring</li> <li>• Ensure compliance to SLA, process adherence and process improvisation to achieve operational objectives</li> <li>• Provide input/review and development of security and compliance controls and vulnerabilities against policies, standards, and frameworks</li> <li>• Conduct manual validation to confirm vulnerability closure</li> <li>• Revise and develop processes to strengthen the current Security Operations Framework</li> <li>• Regularly review standard operating procedures and protocols to ensure SOC continues to effectively meet operational requirements</li> <li>• Perform threat management, threat modelling, identify threat vectors and develop use cases for security monitoring</li> <li>• Continual process improvement in infrastructure security assessments, reporting and remediation to reduce risk.</li> <li>• Creation of reports, dashboards, metrics for SOC operations</li> <li>• Evaluate existing technical capabilities and systems and identify opportunities for improvement</li> <li>• Oversee training and exercises to ensure SOC team proficiency, conduct after action reviews to identify lessons learned and best practices</li> </ul>	<ul style="list-style-type: none"> <li>• Expertise in Cyber Defense, SOC, cloud/server and network infrastructure security</li> <li>• Experience in security operations and incident response</li> <li>• Excellent analytical thinking and problem-solving skills</li> <li>• Prior experience as a SOC analyst/ SOC Engineer/Cyber Security Analyst is of paramount importance, to demonstrate hands-on capabilities</li> <li>• Demonstrated experience in developing and implementing security policies, procedures, monitoring and incident response plans.</li> <li>• Experience with security tools such as SIEM, SOAR, UEBA &amp; NDR, intrusion detection systems, vulnerability scanners, etc.</li> <li>• Strong leadership and team management skills, with the ability to motivate and guide a diverse security team.</li> <li>• In-depth knowledge of security best practices, standards, and frameworks.</li> <li>• Must have excellent written, communication and verbal skills to assist with communications with clients</li> <li>• Ability to lead, influence and collaborate with multiple clients, proven delivery, remediation and incident response background</li> <li>• Solid background in security incident response and vulnerability management</li> </ul>

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Centre	Domain	Job Profile	Requisite Skills
		<ul style="list-style-type: none"><li>• Perform analysis to validate justifications for false positives, operational requirements, and risk adjustments</li><li>• Communicate vulnerabilities, solutions, and enterprise trends to all levels of an enterprise – both technical and non-technical resources</li><li>• Evaluate key threat intelligence feeds, assesses risk, and recommends actions for cybersecurity operations improvements</li><li>• Advise clients regarding patch notifications, initial risk assessment, eligible systems, and deployment requirements</li><li>• Perform assessment of internal and third-party cybersecurity risk</li></ul>	