

# THE UNITED REPUBLIC OF TANZANIA



## PRESIDENT'S OFFICE

### PUBLIC SERVICE RECRUITMENT SECRETARIAT

Ref.No.JA.9/259/01/B/1

7<sup>th</sup> June, 2024

#### VACANCY ANNOUNCEMENT

On behalf of Tanzania Communications Regulatory Authority (TCRA), Public Service Recruitment Secretariat (PSRS) invites high caliber, results oriented, self-driven professionals with integrity, dynamic and suitable qualified Tanzanians to fill **thirty-eight** (38) vacant posts as mentioned below.

#### 1.0 TANZANIA COMMUNICATIONS REGULATORY AUTHORITY (TCRA)

The Tanzania Communications Regulatory Authority (TCRA) is a government body responsible for regulating the telecommunications, broadcasting (in Tanzania mainland only) and postal services in the United Republic of Tanzania. It was established under the Tanzania Communications Regulatory Act **No.12 of 2003**. The Authority became operational on **1<sup>st</sup> November 2003** and effectively took over the functions of the now defunct Tanzania Communications Commission (TCC) and Tanzania Broadcasting Commission (TBC) respectively.

TCRA is an equal opportunity employer and it intends to recruit qualified, competent, dynamic and self-motivated Tanzanians to fill the vacant position. The position is for Engineers, ICT Officers, Data Scientist and Data Analyst

## **1.1 ENGINEER II (TELECOMMUNICATIONS AND INTERNET ENGINEERING) – 14 POSTS**

### **1.1.1 DUTIES AND RESPONSIBILITIES:**

- i. To analyze network traffic, capacity and overall performance of the communication sector to identify and advise the mechanism to address the potential issues;
- ii. To monitor the provision and performance of telecom and internet infrastructure (data centers, fiber optic cable, Internet Exchange Points, telecommunication towers, satellite networks etc.);
- iii. To manage national and international traffic routing for internet services;
- iv. To establish mechanism for effective network security and resilience;
- v. To regularly monitor the performance of communication networks to ensure compliance with industry standards and regulations;
- vi. To develop and implement measures to improve quality of communication service provided by communication service providers and resolve any identified deficiencies;
- vii. To collaborate with communication service providers, government institutions and other stakeholders to address, share information and coordinate efforts in resolving communication services issues at hand;
- viii. To prepare regular reports on the performance of the communication sector, detailing network performance, compliance and any significant incidents or improvements;
- ix. To assess the feasibility and potential impact of adopting new technologies to enhance communication sector services;
- x. To facilitate and oversee interconnection agreements between communication service providers to ensure smooth provision of communication services;
- xi. To conduct market studies and analysis to assess the competitiveness of the communication sector;
- xii. To prepare recommendations for promoting fair competition and preventing anti-competitive practices;
- xiii. To develop mathematical models to represent the cost structure of various communication services accurately;

- xiv. To formulate mechanisms on regulating different communication services, technologies and infrastructure;
- xv. To perform any other official duties as may be assigned by immediate supervisor;
- xvi. To conduct review of policy and regulations for communication sector;
- xvii. To develop rules and guidelines for communication sector;
- xviii. To participate on issues pertaining study and research for telecommunications and internet services;
- xix. To perform any other official duties as may be assigned by the immediate supervisor.

### **1.1.2 QUALIFICATIONS AND EXPERIENCE**

Holder of Bachelor Degree in one of the following fields: Telecommunications, Electronics, Computer Engineering or equivalent qualifications from recognized institutions and registered by the Engineers Registration Board as Graduate Engineer.

### **1.1.3 DESIRED SKILLS/ABILITIES:**

- i. Knowledge of the principles of telecommunications including Signal processing, modulation techniques and proficiency in using laboratory tools.
- ii. Knowledge of different wireless technologies such as GSM, UMTS, LTE, 5G NR, Bluetooth, WLAN etc.,
- iii. Knowledge in telecom and internet measurement, modelling and analysis;
- iv. Understanding of emerging technologies such as Internet of things, sensor networking and 5G mobile networks and its use cases;
- v. Ability to unpack cross border telecom and internet connectivity;
- vi. Ability to forecast and recognize potential disruption in the telecom and internet eco system and formulate mitigation measures;
- vii. Ability to use various software tools and platforms for data analysis, document creation, and communication;

- viii. Knowledge in communication network architecture and functioning of communication networks including mobile, fiber optic cables, fixed lines, satellite and broadband technologies;
- ix. Familiarity with spectrum allocation, communication services interference management and frequency coordination;
- x. Understanding of the competitive landscape of the communication industry;
- xi. Ability to address consumer complaints and disputes related to communication services;
- xii. Understanding of network security principles and practices to safeguard communication infrastructure and services;
- xiii. Knowledge of telecommunications standards ensuring compatibility and interoperability among different communication networks;
- xiv. Ability to analyze and interpret communication regulatory policies, laws, regulations, rules and guidelines;
- xv. Knowledge and understanding of the legal and regulatory frameworks governing the communication sector;
- xvi. Knowledge in key performance indicators related to the quality of communication services;
- xvii. Familiarity with tools for monitoring and analysing communication networks and services performance;
- xviii. Understanding of the principles and mechanisms of interconnection between communication service providers like mobile operators.
- xix. Ability to unpack communication services market structure and formulate mechanism to on-board and license new players;
- xx. Ability to conduct thorough research, including analysing industry trends, regulatory policies, and economic impacts.
- xxi. Analytical and problem-solving skills to complex issues in the communication sector;
- xxii. Effective communication, public speaking skills and excellent organization skills.

### **1.1.3 REMUNERATION:**

**Salary Scale: TCRAS 6**

## **1.2 ENGINEER II (FREQUENCY MANAGEMENT) - 3 POSTS**

### **1.2.1 DUTIES AND RESPONSIBILITIES:**

- i. To manage radio frequency spectrum and orbital satellite resources;
- ii. To operate and manage spectrum management software and equipment;
- iii. To conduct spectrum needs assessments and provide advice for future spectrum allocation;
- iv. To carry out radio frequency spectrum monitoring to assess spectrum usage and implementation of various cross border radio frequency coordination agreement;
- v. To develop radio frequency band plans for various wireless communication services in line with National Frequency Allocation Plan;
- vi. To prepare and review spectrum audit programs schedules;
- vii. To maintain accurate and update radio frequency spectrum database;
- viii. To develop and review periodically radio frequency interference detection and resolution manual;
- ix. To review periodically the assigned radio frequency spectrum in line with National Frequency Allocation Plan;
- x. To process license applications for the radio-communication operators in accordance with the licensing regulations;
- xi. To advise efficient radio frequency spectrum management principles based on the technology trends;
- xii. To advise the Supervisor in allocation and planning of radio frequency spectrum and satellite orbit resources;
- xiii. To perform any other official duties as may be assigned by immediate supervisor.

### **1.2.2 QUALIFICATIONS AND EXPERIENCE**

Holder of Bachelor Degree in one of the following fields: Telecommunications, Electronics, Computer Engineering or equivalent qualifications from recognized institutions and registered by the Engineers Registration Board at least as a Graduate Engineer.

### **1.2.3 DESIRED SKILLS/ABILITIES:**

- i. Strong understanding of Radio Frequency (RF) engineering principles and wireless communication systems;
- ii. Knowledge on terrestrial and non-terrestrial (satellite) communication networks;
- iii. Knowledge on the existing wireless technologies such as broadcasting (radio and television), Mobile Communications Services (2G, 3G, 4G and 5G);
- iv. Strong understanding of radio frequency spectrum and propagations;
- v. Understanding of radio frequency bands and their use;
- vi. Knowledge on emerging wireless technologies;
- vii. Excellent analytical skills;
- viii. Critical thinking and problem-solving abilities to address challenges and make data-driven recommendations for regulatory decisions on management of radio frequency spectrum and satellite orbital slots;
- ix. Strong knowledge in Excel and Basic knowledge on SQL;
- x. Strong organizational and project management skills is added advantage.

### **1.2.4 REMUNERATION:**

**Salary Scale: TCRAS 6**

## **1.3 ENGINEER II (BROADCASTING ENGINEERING) - 2 POSTS**

### **1.3.1 DUTIES AND RESPONSIBILITIES:**

- i. To monitor and assess performance of broadcasting sector;
- ii. To advise on technical issues pertaining broadcasting services and emerging broadcasting technologies;
- iii. To develop strategies for universal access for broadcasting services;
- iv. To monitor emerging broadcasting technologies and issue regulatory advisory for technology adoption in the country;
- v. To advise on issues pertaining Broadcasting technical standards;
- vi. To conduct regular analysis on the broadcasting media performance for content creation, content delivery and content consumption and advise accordingly;
- vii. To advise on strategies for increasing local content in Broadcasting media;

- viii. To develop mathematical models to represent the cost structure of various broadcasting services accurately;
- ix. To conduct review of broadcasting policy and regulations;
- x. To develop rules and guidelines for broadcasting sector;
- xi. To participate on issues pertaining study and research for broadcasting services;
- xii. To perform any other official duties as may be assigned by the immediate supervisor.

### **1.3.2 QUALIFICATIONS AND EXPERIENCE**

Holder of Bachelor Degree in one of the following fields: Telecommunications, Electronics, Computer Engineering, Broadcasting Engineering or equivalent qualifications from recognized institutions and registered by the Engineers Registration Board as Graduate Engineer.

### **1.3.3 DESIRED SKILLS/ABILITIES:**

- i) Knowledge of technical aspects of broadcasting systems, including signal transmission, reception, processing and distribution;
- ii) Knowledge on technical standards and regulations that govern the broadcasting industry, such as signal quality standards, bandwidth allocation, and emission standards;
- iii) Knowledge on broadcasting technology, digital media platforms, and technical aspects of radio, television, and online broadcasting;
- iv) Knowledge on business and management aspects of media organizations, including financial, operational, and strategic management;
- v) Knowledge on role and impact of social media and other digital platforms in broadcasting and communication;
- vi) Knowledge on Broadcasting spectrum management;
- vii) Knowledge on emerging technologies in broadcasting including immersive technologies and
- viii) Ability to assess broadcasting networks performance.
- ix) Analytical and problem-solving skills to complex issues in the broadcasting sector;

- x) Effective communication, public speaking skills and excellent organization skills.

#### **1.3.4 REMUNERATION:**

**Salary Scale: TCRAS 6**

### **1.4 ENGINEER II (CONFORMITY AND INTEROPERABILITY) - 2 POSTS**

#### **1.4.1 DUTIES AND RESPONSIBILITIES:**

- i. To perform measurements and test of electronic communications equipment in the Type Approval Laboratory;
- ii. To assess applications for certification of electronic communication equipment;
- iii. To develop tests and approval procedures/processes of electronic communication equipment and broadcasting equipment;
- iv. To manage regulatory tools for measurement and monitoring of electronic communication and postal services and networks;
- v. To review and establish technical specifications/standards of the electronic communications networks and equipment;
- vi. To manage telecommunication numbering, identifiers, addressing and routing resources;
- vii. To assess and recommend on the regulatory impact of new trends in the sector in terms of new ICTs, innovation and service accessibility;
- viii. To monitor and ensure telecommunication tools used for regulatory services perform as required and
- ix. To perform any other official duties as may be assigned by immediate supervisor.

#### **1.4.2 QUALIFICATIONS AND EXPERIENCE**

Holder of Bachelor Degree in one of the following fields: Telecommunications, Electronics, Computer Engineering or equivalent qualifications from recognized institutions and registered by the Engineers Registration Board as Graduate Engineer.

#### **1.4.3 DESIRED SKILLS/ABILITIES**

- i. Knowledge of the principles of telecommunications including Signal processing, modulation techniques and proficiency in using laboratory tools;



- ii. Knowledge of different wireless technologies such as GSM, UMTS, LTE, 5G NR, Bluetooth, WLAN;
- iii. Ability to perform maintenance, troubleshooting of regulatory tools and laboratory equipment;
- iv. Knowledge of technical standards of the electronic communications networks and equipment;
- v. Ability to perform conformance and interoperability testing and measurement of electronic communications equipment;
- vi. Knowledge on the use of spectrum analyzers, base station simulators, vector network analyzers, and Specific Absorption Rate (SAR) Measurement System;
- vii. Understanding of emerging technologies such as Internet of things, and its use cases in promoting innovation;
- viii. Knowledge in telecom and internet measurement and analysis;
- ix. Familiarity with communication resources management in provision of communications services and interference management;
- x. Ability to use various software tools and platforms for data analysis and report creation.

#### **1.4.4 REMUNERATION:**

**Salary Scale: TCRAS 6**

### **1.5 ICT OFFICER II (DATA SCIENTIST) – 3 POSTS**

#### **1.5.1 DUTIES AND RESPONSIBILITIES:**

- i. To design, implement and manage big data collection and pre-processing of structured and unstructured data from various sources, such as databases, APIs, streaming platforms, and files;
- ii. To analyse and handle large volumes of data and utilize frameworks like Apache Hadoop and Apache Spark to distribute data processing tasks across multiple nodes;
- iii. Designing and maintaining robust Extract, Transform, Load (ETL) pipelines to ensure smooth data flow and integration from various sources;
- iv. To optimize data processing pipelines for performance and cost-effectiveness, utilizing technologies such as Hadoop, Spark and other Open Source technologies;

- v. To integrate disparate datasets from different sources, formats and schemas, maintaining data lineage and metadata management;
- vi. Apply the use of appropriate Machine Learning algorithms and models for extraction of useful information from large datasets to identify patterns, trends and relationships;
- vii. To collaborate with cross-functional teams including data analysts, and business stakeholders to understand data requirements and ensure data accessibility and usability;
- viii. To design and implement scalable data architectures and storage solutions to accommodate the volume, variety, and velocity of big data, leveraging technologies such as HDFS and OLAP (Online Analytical Processing) databases;
- ix. To define data partitioning, indexing, and compression strategies to optimize storage efficiency and query performance;
- x. To establish and enforce data governance policies, standards, and best practices to ensure data privacy, security, and compliance with Laws and regulations;
- xi. To implement access controls, encryption, and auditing mechanisms to protect sensitive data and mitigate risks of data breaches or unauthorized access;
- xii. To monitor data pipelines and systems for performance, availability, and reliability, proactively identifying and resolving issues to minimize downtime and data loss;
- xiii. To conduct regular maintenance tasks such as data backups, system upgrades, and capacity planning to ensure the stability and scalability of the infrastructure;
- xiv. To assist in developing and update technical documentation;
- xv. To perform other related duties as may be assigned by the Supervisor.

### **1.5.2 QUALIFICATIONS AND EXPERIENCE**

Holder of Bachelor's Degree in one of the following fields: Computer Science, Electronic Science, Computer Engineering, Information Technology, Information Systems, Data Science or equivalent qualifications from recognized institution

### **1.5.3 DESIRED SKILLS/ABILITIES**

- i. Programming Languages: Proficiency in Python, Micro Strategy for data analysis, machine learning, and scripting;
- ii. Statistical Analysis: Strong understanding of statistical methods and concepts (e.g., Hypothesis Testing, Regression, ANOVA) and application of statistical techniques in real-world data;
- iii. Data Manipulation: Proficiency with data manipulation tools and libraries such as pandas (Python) and dplyr package in R and experience with SQL for querying and managing databases;
- iv. Awareness in emerging technologies, tools, and trends in big data and data engineering, and evaluate their potential for enhancing existing systems or solving new challenges;
- v. Big Data Technologies: Understanding of big data tools and frameworks (e.g., Hadoop, Spark) and experience with data processing platforms for handling large datasets;
- vi. Database Management: Familiarity with relational databases (e.g., MySQL, PostgreSQL);
- vii. Data Visualization: Create visualizations to represent data insights using tools like Tableau, Power BI, or Matplotlib and other similar tools;
- viii. Problem-Solving: Strong analytical and critical thinking skills and ability to break down complex problems and identify effective solutions;
- ix. Tools and Technologies: Experience with version control tools like Git and platforms like GitHub or GitLab;
- x. Communication: Strong written and verbal communication skills for preparing reports and presenting data and analyses clearly and concisely;
- xi. Reporting: Ability to interpret and simplify complex datasets, turning raw data into clear, insightful visual stories;
- xii. Machine Learning and Modeling: Develop machine learning models for predictive and prescriptive analytics and use algorithms such as regression, classification, clustering, and neural networks;
- xiii. In-depth understanding of the communication industry, including regulatory frameworks, market dynamics and technical aspects of the communication sector;

- xiv. Professional Certifications: Added advantage of having a Certified Analytics Professional (CAP), SAS Certified Data Scientist, Tableau Desktop Specialist / Tableau Desktop Certified Associate and Certificate in Big Data Analysis and Artificial Intelligence.

#### **1.5.4 REMUNERATION:**

**Salary Scale: TCRAS 6**

### **1.6 ICT OFFICER II (DATA ANALYST) – 2 POSTS**

#### **1.6.1 DUTIES AND RESPONSIBILITIES:**

- i. To monitor communication services traffic, usage and other data streams and perform big data analytics to generate report that predict trend of communication sector;
- ii. To design and present infographics for periodic communication statistics and research reports.
- iii. To initiate formulation of standards for network virtualization and softwarization;
- iv. To analyse large datasets related to communication operations, market trends and consumer behaviour and provide meaningful insights and trends from data to inform regulatory decisions;
- v. To develop predictive models to forecast future trends in the communication sector;
- vi. To use statistical and machine learning techniques to anticipate potential issues or challenges in the communication sector;
- vii. To monitor and analyse communication services data to identify any deviations from established standards;
- viii. To keep track of market dynamics, competition and innovations in the communication industry;
- ix. To assess the impact of market changes on regulatory framework;
- x. To define and track key performance indicators (KPIs) for the communication service providers;
- xi. To evaluate the performance of communication services and identify areas for improvement;

- xii. To collaborate with policymakers and other communication sector stakeholders to formulate effective regulations;
- xiii. To evaluate the impact of existing policies and regulatory framework on the communication sector;
- xiv. To ensure the accuracy, reliability and security of data used for regulatory purposes in the communication sector;
- xv. To implement data governance frameworks and best practices in the communication sector;
- xvi. To implement measures to safeguard sensitive communication data and ensure compliance with data privacy regulations and standards;
- xvii. To analyze communication network capacity and performance to ensure quality of service in the communication sector; and
- xviii. To recommend capacity planning strategies based on data analysis in the communication sector.
- xix. To perform any other official duties as may be assigned by the immediate supervisor.

### **1.6.2 QUALIFICATIONS AND EXPERIENCE**

Holder of Bachelor Degree in one of the following fields: Computer Science, Electronic Science, Computer Engineering, Information Technology, Information Systems, Data Science or equivalent qualifications from recognized institution.

### **1.6.3 DESIRED SKILLS/ABILITIES**

- i. Ability to interpret and simplify complex datasets, turning raw data into clear, insightful visual stories;
- ii. Capability to create a narrative around the data, guiding the viewer through infographics logically and coherently;
- iii. Ability to meticulously check data for accuracy and consistency;
- iv. Strong written and verbal communication skills for preparing reports and presenting data and analyses clearly and concisely;
- v. Proficiency in statistical techniques and quantitative analysis to extract meaningful insights from communication data;

- vi. Ability to analyze technical information to determine regulatory challenges reporting in the sector;
- vii. Experience in building predictive models to forecast trends and potential issues;
- viii. Strong skills in data manipulation, cleansing and management;
- ix. Familiarity with machine learning algorithms and techniques for tasks like classification, regression and clustering;
- x. Ability to apply machine learning to solve complex problems in the communication sector;
- xi. In-depth understanding of the communication industry, including regulatory frameworks, market dynamics and technical aspects of communication sector;
- xii. Ability to create clear and concise reports and presentations of the communication sector data;
- xiii. Critical thinking and problem-solving abilities to address challenges and make data-driven recommendations for regulatory decisions;
- xiv. Awareness of ethical considerations related to data use, privacy and confidentiality;
- xv. Adhere to ethical standards in data collection, analysis and reporting;
- xvi. A mind set for continuous learning to stay updated on emerging technologies, industry trends and regulatory changes in the communication sector;
- xvii. Attention to details, thoroughness in examining and validating data sources to ensure accuracy and reliability in data analysis;
- xviii. Effective project management skills to handle multiple tasks and priorities;
- xix. Flexibility and adaptability to evolving technologies and changes in the communication sector landscape;
- xx. Thorough understanding of method of system analysis and big data analysis;
- xxi. Poses analytical techniques such as machine learning, deep learning and text analytic;
- xxii. Knowledge of computer programming languages and software tools such as SQL, Micro Strategy, Visual Basic, Python, or SPSS to construct, manage and manipulate datasets for statistical analysis;
- xxiii. Proficiency in graphic design software, specifically Adobe InDesign, Adobe Illustrator and Canva.

- xxiv. Ability to have effective communication skills to convey technical findings and insights to non-technical stakeholders through reports, presentations, and data visualizations;
- xxv. Ability to prioritize tasks, manage time effectively, and meet deadlines in a fast-paced and dynamic work environment;
- xxvi. Capacity to collaborate effectively with cross-functional teams, including data engineers, business analysts, and stakeholders, to understand requirements, gather insights, and drive data-driven decision-making;
- xxvii. Ability to identify issues and develop logical solutions, especially in regulatory and economic contexts;
- xxviii. Knowledge Artificial intelligence will be added advantage.

#### **1.6.4 REMUNERATION:**

**Salary Scale: TCRAS 6**

### **1.7 ICT OFFICER II (SYSTEM ADMINISTRATOR) – 2 POSTS**

#### **1.7.1 DUTIES AND RESPONSIBILITIES:**

- i. Implement and maintain monitoring tools to track system performance and uptime (e.g., Nagios, Zabbix, SolarWinds);
- ii. Management and administration of Microservices infrastructure such as containerization with Kubernetes;
- iii. Install, configure and manage operating systems (Windows, Linux, Unix) on different platforms;
- iv. Ensure systems are up-to-date and patched to protect against vulnerabilities and security loopholes;
- v. Support system Development through preparation of deployment environment, test environment and server infrastructure to support DevOps;
- vi. Implement, manage and perform regular backups solutions and disaster recovery tests as per the DRP plan to ensure data integrity and availability;
- vii. Set up and maintain physical, virtual servers (e.g VMware and HyperV) and Load Balancers;
- viii. Configure server user accounts, permissions, and access controls and features such as Active Directory, DNS, DHCP and Web Servers to ensure data security;

- ix. Manage, and monitor user accounts, group assignments, and group policy objects in regard to local computers and users in the active directory;
- x. Carryout systems backups and replications for high availability of Authority's Information Systems;
- xi. Maintain comprehensive documentation of system configurations, procedures, and changes;
- xii. Perform regular backup operations and implement appropriate processes for data protection, disaster recovery, and failover procedures;
- xiii. Provide 2nd level support to users on systems-related incidents;
- xiv. Maintain systems software asset register; and
- xv. Plan and manage ICT projects related to system upgrades, migrations, and new implementations;
- xvi. To perform any other official duties as may be assigned by the immediate supervisor.

### **1.7.2 QUALIFICATIONS AND EXPERIENCE**

Holder of a Bachelor's Degree in one of the following fields: Computer Science, Electronic Science, Computer Engineering, Information Technology, Information Systems, Data Science, or equivalent qualifications from a recognized institution.

### **1.7.3 DESIRED SKILLS/ABILITIES**

- i. Operating Systems Proficiency: Experience in managing various operating systems such as Windows Server, Linux (e.g., Ubuntu, CentOS), and Unix with the capability to perform installation, configuration, and troubleshooting of operating systems.
- ii. Networking Fundamentals: knowledge of network protocols (e.g., TCP/IP, DNS, DHCP).
- iii. Server Administration: Experience in setting up and managing servers (physical and virtual) for different purposes such as web hosting, file sharing, and database management and in-depth understanding of server roles and services (e.g., Active Directory, DNS, DHCP, FTP).



- iv. Storage Management: Knowledge of storage technologies (e.g., RAID, SAN, NAS) and ability to manage disk partitions, file systems, and storage arrays.
- v. Scripting and Automation: proficiency in scripting languages such as Bash, PowerShell, or Python with the Ability to automate routine tasks and system administration processes.
- vi. Virtualization platform: understanding of different virtualization technologies such as VMware, HyperV, and Microservices (Kubernetes and open-source container solutions)
- vii. Problem-Solving: Strong analytical and problem-solving skills to diagnose and resolve technical issues efficiently.
- viii. Backup and Recovery: Strong knowledge of backup solutions such as Vembu and backup appliances
- ix. System Security: Ensure Security implementation on operating systems, user reviews and patching of the operating systems and respective applications to mitigate vulnerabilities and loopholes
- x. Professional Certifications: Added advantage of having a CompTIA A+, Microsoft Certified: Windows Server Certification, Linux Professional Institute (LPI), ITIL Foundation, VMware Certified Professional.

#### **1.7.4 REMUNERATION:**

**Salary Scale: TCRAS 6**

### **1.8 ICT OFFICER II (CYBER SECURITY) – 5 POSTS**

#### **1.8.1 DUTIES AND RESPONSIBILITIES:**

- i. Perform Cybersecurity Risk assessment for Critical Information Infrastructure;
- ii. Conduct regular security audit for various platforms and applications such as USSD and Sim Tool Kit (STK);
- iii. Develop and implement the cyber security exercises (tabletop, operational, technical);
- iv. Develop and delivery (both online and physical) cyber security trainings targeting CERT constituencies;

- v. Develop security tools to gather and disseminate Cyber Threat Intelligence (CTI) information;
- vi. Perform Vulnerability Assessment and Penetration Testing for systems and network infrastructure;
- vii. Perform proactive all-source research to identify and characterize new threats and trends;
- viii. Prepare and disseminate security advisories and Alerts;
- ix. Prepare daily, monthly and quarterly reports on cybersecurity incidents and threats activity both locally, regionally and globally;
- x. Perform cyber security incident coordination, analysis and response;
- xi. Perform malware analysis and reverse engineering;
- xii. Perform digital forensic examination;
- xiii. Prepare and disseminate Cybersecurity Guidelines/playbook/ Cheat sheets;
- xiv. Perform any other official duties as may be assigned by immediate supervisor.

### **1.8.2 QUALIFICATIONS AND EXPERIENCE**

Holder of Bachelor Degree in one of the following fields: Computer Science, Electronic Science, Computer Engineering, Information Technology, Information Systems, Information Security, Cybersecurity or equivalent qualifications from recognized institution.

### **1.8.3. DESIRED SKILLS/ABILITIES**

- i. Knowledge of Open-Source Intelligence (OSINT) techniques and common tool sets.
- ii. Knowledge of Public Key Infrastructure (PKI) techniques
- iii. Highly competent with OSINT tools (e.g., *Trace Labs OSINT VM, OSINT Framework, Maltego, Shodan, social media scraping tools, etc.*)
- iv. Knowledge of UNIX/ Linux distributions and Windows Operating systems.
- v. Knowledge of enterprise environments and teams, such as NOC, SOC, fraud, CTI, IT security; threat vectors and basic mitigating controls such as IPS, IDS, WAF, EDR, XDR etc.
- vi. Demonstrated ability to perform static and dynamic malware analysis through sandboxes, OSINT or other resources.

- vii. Operate a hands-on role involving penetration testing and vulnerability assessment activities of complex applications, operating systems, wired and wireless networks, and mobile applications/devices.
- viii. Knowledge and understanding of various computing concepts especially Internet technologies, TCP/IP protocols and general computer security concepts.
- ix. Familiarity with adversary techniques and attack lifecycles. (e.g.: adversary progression through techniques found in the MITRE ATT&CK® matrix).
- x. Experience with scripting or programming languages such as Bash, Python, Ruby, Java or Go, C &. Shell scripting.
- xi. Experience with GitHub and Git.
- xii. Knowledge of forensic analysis on all common operating system environments, including, but not limited to, Microsoft Windows, Mac OS, UNIX, Linux, Solaris, and embedded systems.
- xiii. Possession of related industry IT security certification such as CEH, CIH, GCIH, CHF, OSCP, OSWA and LPT will be an added advantage.

#### **1.8.4 REMUNERATION:**

**Salary Scale: TCRAS 6**

### **1.9 ICT OFFICER II (SYSTEM DEVELOPER) – 5 POSTS**

#### **1.9.1 DUTIES AND RESPONSIBILITIES**

- i. Design software architecture and create system models, diagrams, and documentation.
- ii. Write clean, maintainable, and efficient codes using programming languages such as Java, Python and JavaScript.
- iii. Conduct code reviews to ensure code quality and adherence to standards and refactor code to improve its readability, performance, and maintainability.
- iv. Implement software updates and upgrades to add new features and improve existing ones.
- v. Perform unit testing and integration testing to ensure system functionality, performance, and Quality Assurance.

- vi. Developing Web, Mobile, and embedded applications in accordance with the Authority requirements and standards and carry out basic installation and configuration of appropriate applications;
- vii. Support in the maintenance of source code and user documentation for various software functionalities;
- viii. Monitor system performance and optimize code for efficiency
- ix. Identify, troubleshoot, and fix bugs and issues in the developed systems.
- x. To integrate deployed software systems with other internal and/or external systems;
- xi. Develop and maintaining Spring Boot applications and Microservices architecture principles and best practices.
- xii. Provide support in applications maintenance and support; and
- xiii. To perform any other official duties as may be assigned by the immediate supervisor.

### **1.9.2 QUALIFICATIONS AND EXPERIENCE**

Holder of a Bachelor's Degree in one of the following fields: Computer Science, Electronic Science, Computer Engineering, Information Technology, Information Systems, Data Science, or equivalent qualifications from a recognized institution.

### **1.9.3 DESIRED SKILLS/ABILITIES**

- i. Programming Languages: Proficiency in one or more programming languages such as Python, Java, JavaScript, or Ruby.
- ii. Software Development Frameworks: Familiarity with software development frameworks such as Spring (Java), Django (Python), .NET (C#), or Angular/React/Vue.js (JavaScript).
- iii. Database Management: Knowledge of database systems and SQL for database design, querying, and management with experience in relational databases like MySQL, PostgreSQL, or SQL Server, as well as NoSQL databases like MongoDB or Cassandra
- iv. Version Control Systems: Proficiency in using version control systems like Git for collaborative development, code management, and version tracking.

- v. Web Development: Understanding of web development concepts including HTML, CSS, and JavaScript with Experience with web frameworks and libraries such as Flask, Django, Express.js, or Spring Boot.
- vi. Experience with Vue.Js or React with Typescript, a knack for data visualizations, with some familiarity of its principles and best practices, knowledge about testing frameworks (like Jest) and an eye for design and experience with Figma, Adobe XD, Sketch, or similar.
- vii. In-depth knowledge of Microservices architecture principles and best practices.
- viii. Software Testing: Knowledge of software testing principles, techniques, and tools with experience with unit testing, integration testing, and automated testing frameworks (e.g., JUnit, Pytest, Selenium).
- ix. API Development: Ability to design, develop, and consume web APIs (RESTful or GraphQL) for communication between software components.
- x. System Architecture and Design Patterns: Understanding of software architecture principles and design patterns (e.g., MVC, MVVM, SOLID principles) with the Ability to design scalable, maintainable, and modular software systems.
- xi. Developing technical documentation to guide future software development projects.
- xii. Professional Certifications: Added advantage of having an Oracle Certified Professional, Java SE Developer, Certified Kubernetes Application Developer (CKAD), Certified Scrum Developer (CSD), ISTQB Certified Tester - Foundation Level and Cyber Security.

#### **1.9.4 REMUNERATION:**

**Salary Scale: TCRAS 6**

## **1.2 GENERAL ABILITIES**

- i. Excellent command of English and Kiswahili languages;
- ii. Demonstrate ability to work collaboratively as a team player;
- iii. Ability to plan, organize, prioritize and manage complex and delicate tasks;
- iv. Results and performance-driven with commitment to realization of the Authority's strategic objectives;
- v. Flexible, proactive and attentive to detail with ability to work under pressure;
- vi. Self confidence in work planning and decision making and;
- vii. A good feeling for confidentiality and working in a procedural matter.

## **1.3 GENERAL DESIRABLE**

- i. A person with good communication skills, orally articulate, written communication skills, good analyzer and listener with ability to draw reasonable, logical conclusions or assumptions from limited information;
- ii. A person who displays the features of creativity in problem solving;
- iii. Professional who turns data into information, who know algorithms and how and when to apply them;
- iv. A curious person who asks "why" and "how" with creative mind.

## **GENERAL CONDITIONS:**

- i. All applicants must be Citizens of Tanzania with an age not above 45 years except for those who are in Public Service;
- ii. People with disabilities are highly encouraged to apply and should indicate clearly in the portal for Public Service Recruitment Secretariat attention;
- iii. Applicants must attach an up-to-date Curriculum Vitae (CV) having reliable contacts; postal address/post code, e-mail and telephone numbers.
- iv. Applicants should apply on the strength of the information given in this advertisement.
- v. Applicants must attach their certified copies of the following certificates.
  - Postgraduate/Degree/Advanced Diploma/Diploma/Certificates.
  - Postgraduate/Degree/Advanced Diploma/Diploma transcripts.
  - Form IV and Form VI National Examination Certificates.
  - Professional Registration and Training Certificates from respective

- Registration or Regulatory Bodies, (where applicable).
  - Birth certificate.
- vi. Attaching copies of the following certificates is strictly not accepted: -
- Form IV and form VI results slips.
  - Testimonials and all Partial transcripts.
- vii. An applicant must upload recent Passport Size Photo in the Recruitment Portal.
- viii. An applicant employed in the Public Service should route his application letter through his respective employer.
- ix. An applicant who is retired from the Public Service for whatever reason should not apply.
- x. An applicant should indicate three reputable referees with their reliable contacts
- xi. Certificates from foreign examination bodies for Ordinary or Advanced level education should be verified by The National Examination Council of Tanzania (NECTA).
- xii. Professional certificates from foreign Universities and other training institutions should be verified by The Tanzania Commission for Universities (TCU) and National Council for Technical Education (NACTE).
- xiii. A signed application letter should be written either in Swahili or English and Addressed to Secretary, Presidents Office, and Public Service Recruitment Secretariat.
- P.O. Box 2320, Utumishi Building at University of Dodoma – Dr. Asha Rose Migiro Buildings - Dodoma.**
- xiii. Deadline for application is **20<sup>th</sup> June, 2024;**
- xiv. Only shortlisted candidates will be informed on a date for interview and;
- xv. Presentation of forged certificates and other information will necessitate to legal action;

**NOTE:** *All applications must be sent through Recruitment Portal by using the following address; <http://portal.ajira.go.tz/> and not otherwise. (This address also can be found at PSRS Website, Click '[Recruitment Portal](#)')*

**Released by:**

**ACTING SECRETARY**

**PUBLIC SERVICE RECRUITMENT SECRETARIAT**