

# ROYAL UNIVERSITY OF BHUTAN

## POSITION PROFILE

### 1. JOB IDENTIFICATION

1.1 Position Title: Assistant ICT Officer

1.2 Position Level: 8

1.3 College/OVC: Gyalpozhing College of Information Technology

### 2. PURPOSE, DUTIES AND RESPONSIBILITIES

Purpose: The ICT Officer (IO) shall assist the Senior ICT Officer in undertaking research work and providing technical support in coordinating and implementing projects and/or programmes.

#### Duties & Responsibilities

##### A. Policy

- Know and apply fundamental concepts, practices, procedures and existing policies and guidelines in specialized areas of information technology.

##### B. Managerial

- Facilitate the implementation of regional projects and work plans;
- Assist in the writing of research papers, briefs and reports, and discussion materials;
- Assist in negotiations for software purchases with vendors.

##### C. Administrative

- Maintain detailed documentation of all work performed, sufficient to allow independent generation of the same process and the results.
- With the following technical skills will be added advantage:
  - Operation and management of cloud server technology (Proxmox)
  - Install, configure and manage the following Open Source systems:
    - Moodle VLE system
    - KOHA library system
    - DNS server
    - Web server (WordPress)
    - File server
    - Database server
    - PF sense security system
    - Design and implement a network

#### Systems Analyst

- Plan, design, develop and launch effective information systems and operating systems in support of core organizational functions;
- Assist in research and development of new approaches to database design and analytic methods;
- Formulate new or revise existing systems;
- Prepare flowcharts of procedures and block diagrams;
- Analyze program requirements for a specified task and develop the methods to provide the appropriate solutions;
- Consult with division representatives on objectives, requirements and effectiveness of proposed and existing computer systems.

### **System Administrator**

- Ensures the stable operation of the in-house computer software systems;
- Secure system by developing system access, monitoring control, and evaluation; establish and test disaster recovery policies and procedures; complete back-ups;
- Analyze and resolve end-user software program connectivity issues in a timely and accurate fashion and provide end-user training where required;
- Upgrade system by developing, testing, evaluating, and installing enhancements and new software;
- Evaluate and /or recommends purchases and have a strong influence on the purchasing process;
- Administer a mid-sized site or assist in the administration of a larger site.

### **Network Administrator**

- Assist in designing and maintaining physical network architecture and infrastructure;

- Ensure the stable operation of the in-house computer network. This includes planning, developing, installing, configuring, maintaining, supporting and optimizing all network hardware, software and communication links.
- Assist in analyzing and resolving end-user hardware and software computer problems in a timely and accurate fashion and provide end-user training where required;
- Assist in developing and implementing network system and user security requirements;
- Assist in analyzing network workload, monitoring performance and diagnosing problems;
- Assist in evaluating the productivity implications of upgraded servers and analyze the computer and information needs of the organization.

### **Database Administrator**

- Work with application development staff to develop database architectures, coding standards, and quality assurance policies and procedures;
- Create models for new database development and/or changes to existing ones;
- Monitor database system details within the database, including stored procedures and execution time, and implement efficiency improvements;
- Assist in designing and implementing redundant systems, policies, and procedures for disaster recovery and data archiving to ensure effective protection and integrity of data assets;
- Develop, implement, and maintain change control and testing processes for modifications to databases;
- Conduct research and make recommendations on database products, services, protocols, and standards in support of procurement and development efforts.

### **Computer Programmer**

- Assist in planning, designing, developing and launching Learning Management Systems (LMS);
- Translate system specifications and requirements into program code and database structures, implements designed functionality;
- Analyze output products and debug source code to isolate and correct errors in program logic, syntax, and data entry, and to ensure accuracy and efficiency.

- Conduct code reviews and unit-level testing. Develop and maintain unit-level test plans;
- Modify existing programs to correct program errors or modify existing functionality or interface;
- Implement security techniques designed to preclude unauthorized access to computer data and to reduce computing resource misuse;
- Design, develop, maintain, and execute test plans for formal qualification testing, system integration testing, regression testing and verification, validation and acceptance testing.

### **Web Developer**

- Build the operations end of the organization's website and keep them functioning smoothly;
- Design, build and implement new web pages and sites;
- Coordinate the planning, maintenance and accessibility of the website content in a way that ensures consistency of the website's look and feels;
- Integrate sites with back-end applications, migrating legacy applications to the web;
- Perform day-to-day administration of the organization's web portfolio;
- Meet with IT staff to design the home page, address and resolve technical problems, and discuss new directions and technology.

## **3. KNOWLEDGE & SKILLS REQUIREMENTS**

**3.1 Education:** Bachelor in Computer Science/ Bachelor in Computer Application/ Bachelor in Information Technology

### **3.2 Knowledge of language(s) and other specialized requirements:**

- Knowledge of different operating systems and all related utilities;
- Knowledge of relational databases, database management and software engineering;
- Good knowledge of programming languages, web development software and networking tools;
- Ability to analyze unfamiliar data structure;

- Ability to think logically and to solve problems analytically;
- Strong interpersonal and communication skills.