NESATHKA ACADEMY

CENTER FOR ADVANCED ACADEMIC EXCELLENCE

Systems Infrastructure & Technical Operations Manual

Assigned Role:	**IT & LMS Administrator**
Target User Group:	IT & LMS Administrators & Systems Engineers
Core Functional Scope:	Collision-Free IDs, User Permissions, Database Security & Automated Backups

ROLE MISSION & SYSTEM INTEGRITY

The IT Administrator guarantees system uptime, data security, user access permissions, disaster recovery, and hosting integrity for Nesathka Academy.

STEP 1: USER ACCOUNTS & ACCESS CONTROL (USERS.PHP)

* **Creating User Accounts:** Click '+ Add New User' -> enter Full Name, Username, Role, Email, and password.
* **Role Permissions:** Assign exact roles: owner, tutor, assistant_tutor, coordinator, support_staff, or admin.
* **Password Resets:** Instantly reset forgotten staff passwords in users.php.

STEP 2: COLLISION-PROOF STUDENT REGISTRATION ENGINE

* **Guaranteed Uniqueness:** The registration engine probes existing numbers across students and users tables.
* **Auto-Skip Logic:** Automatically skips occupied or orphaned usernames (stu_2026_xxx) to prevent 23000 SQL errors.
* **Orphan Cleanup Utility:** Run /database/fix_orphaned_users.php to clean test accounts safely.

STEP 3: DATABASE SECURITY & SMART .HTACCESS RULES

* **Targeted Protection:** database/.htaccess explicitly blocks .sqlite, .db, and .sql downloads while allowing PHP scripts to execute.
* **Production Security Toggle:** Set SHOW_DEMO_LOGINS = false in config.php on live servers.
* **10-Second SQLite Backup:** Copy 'database/tuition.sqlite' weekly for complete disaster recovery.

STEP 4: SCANNER HARDWARE & CAMERA CONFIGURATION

* **USB Barcode Scanners:** Plug-and-play USB optical scanners act as HID keyboard inputs.
* **Webcam QR Permissions:** Ensure HTTPS is active on live hosting so mobile browsers grant camera permissions.

Official Institutional Authorization:

Mr. Ravindra Wijerathna | B.Sc - University of Ruhuna

Managing Director & Biology Lead Tutor * Nesathka Academy