

# Student Mobile Application Requirements

## Internship Management System

Industrial Liaison Office – Takoradi Technical University (TTU)

### 1. Introduction

#### 1.1 Purpose

This document defines the functional and non-functional requirements for the **Student Mobile Application** of the Internship Management System for the Industrial Liaison Office of Takoradi Technical University (TTU).

The application will be developed using **React Native** and will serve as the official platform for students to register for internship (Assumption of Duty), manage their onboarding, and view assigned supervisors and zones.

#### 1.2 Scope

The Student Mobile Application will enable TTU students to:

- Create and verify accounts using their university email
- Complete a one-time student profile onboarding
- Register for Assumption of Duty during internship periods
- Submit company and location details during internship registration
- View assigned supervisors and zones
- Track internship status through clear system feedback

### 2. System Overview

- Platform: Mobile (Android & iOS)

- Framework: React Native
- Users: TTU Students
- Backend Integration: REST API
- API Documentation:  
<https://industrial-liason-api.onrender.com/docs>

## 3. Functional Requirements

### 3.1 Authentication and Account Management

#### 3.1.1 Student Registration

Students shall be able to create an account using their TTU university email.

##### Required Fields:

```
{  
  "email": "student@ttu.edu.gh",  
  "password": "StrongPassword123!",  
  "firstName": "John",  
  "lastName": "Doe"  
}
```

##### Rules:

- Only valid TTU university emails are allowed.
- Password must meet security requirements defined by the backend.

#### 3.1.2 OTP Verification

- Upon successful registration, the system shall send a **6-digit OTP** to the student's university email.
- Students must verify their account before they can log in.
- Unverified accounts shall be restricted from accessing the application.

### **3.1.3 Login**

- Students shall log in using their registered email and password.
- Only verified accounts are allowed to log in.

### **3.1.4 Password Reset**

- Students shall be able to reset their password if forgotten.
- Password reset instructions (OTP or link) shall be sent to the registered email.

## **4. Student Profile Creation and Onboarding**

### **4.1 Profile Creation**

- Profile creation is **mandatory** after first login.
- Profile creation is a **one-time process**.
- Students are required to enter accurate information.

#### **Required Profile Fields:**

```
{  
  "indexNumber": "TTU/2024/001234",  
  "faculty": "Faculty of Engineering",  
  "department": "Computer Science",  
  "programme": "BSc. Computer Science",  
  "level": "300",  
  "session": "Regular",  
  "certificateType": "BACHELOR of TECHNOLOGY",  
  "gender": "MALE",  
  "dateOfBirth": "2000-01-15",  
  "phoneNumber": "+233501234567"  
}
```

## 4.2 Profile Update Rules

- Students **cannot edit profile details** after submission.
- The **only editable field** after onboarding is the **profile image**.
- Any correction to profile data must be handled by the **Industrial Liaison Office (Admin)**.
- The app shall display a confirmation warning before final profile submission.

## 5. Assumption of Duty (Internship Registration)

### 5.1 Registration Requirement

- Students shall register for an **ongoing internship period**.
- Registration for Assumption of Duty is **mandatory**.
- Failure to register may result in penalties determined by the Industrial Liaison Office.

### 5.2 Location Requirement

- Students must be **physically present at their workplace** during registration.
- The app shall collect **GPS coordinates** (longitude and latitude).
- Location permission is required to proceed.

### 5.3 Required Assumption of Duty Fields

```
{  
  "periodId": "550e8400-e29b-41d4-a716-446655440000",  
  "companyName": "Tech Solutions Ltd",  
  "companyPhone": "+233501234567",  
  "companyEmail": "info@techsolutions.com",  
  "companyAddress": "123 Main St, Accra",
```

```
"companySupervisor": "John Doe",
"supervisorPhone": "+233501234567",
"companyCity": "Accra",
"commencementDate": "2026-06-01T00:00:00Z",
"longitude": -0.186964,
"latitude": 5.603717
}
```

## 5.4 Validation Rules

- Location permission must be granted.
- Submission shall be blocked if GPS coordinates are missing.
- Clear error messages shall be displayed for denied permissions or invalid input.

# 6. Supervisor and Zone Information

## 6.1 Assignment Visibility

- After Assumption of Duty registration, supervisors and zones are assigned asynchronously.
- Students shall be able to view:
  - Assigned supervisor details
  - Assigned zone information

## 6.2 Pending Assignment Handling

If a supervisor or zone has not yet been assigned:

- The system shall display a **user-friendly status page**.
- The app shall not show empty screens or technical errors.

**Example Message:**

“Your supervisor and zone are being assigned. Please check back later.”

## 7. User Experience (UX) Requirements

- Clean and guided onboarding flow
- Clear confirmation dialogs for irreversible actions
- Friendly empty states and error pages
- Clear internship status indicators:
  - Not Registered
  - Registered (Pending Assignment)
  - Assigned
- Mobile-first and intuitive UI design

## 8. Non-Functional Requirements

- Secure handling of authentication data
- Responsive performance on low to mid-range mobile devices
- Reliable GPS data capture
- Proper error handling and graceful failures
- Maintainable and scalable codebase