

STUDENT PORTAL – COMPLETE DETAILED WORKFLOW

2.1 Student Registration Module

2.1.1 Objective

The Student Registration module ensures that only legitimate university students can access the Internship Management System using institutional credentials.

2.1.2 Registration Requirements

Email Validation Rules

- Email must end strictly with:
@cuiatd.edu.pk
- No other domain is allowed.
- System must validate:
 - Case insensitive match
 - No whitespace
 - No subdomain misuse

Password Validation Rules

Password must:

- Minimum 8 characters
- At least:
 - One uppercase letter
 - One lowercase letter
 - One numeric digit
 - One special character (!@#\$%^&*)

System must enforce strong password validation before submission.

2.1.3 Registration Data Fields

Student must enter:

- Full Name
- Registration Number
- Semester
- CGPA (optional or verified later)
- Email
- Password

2.1.4 Backend Logic

When student clicks Register:

1. Validate email domain.
2. Check if email already exists.
3. Encrypt password using secure hashing (bcrypt).
4. Generate:
 - Verification Token (random secure string)
 - Token Expiry Time (Current Time + 10 minutes)
5. Save student record as:
 - Status = Unverified
6. Send verification email with secure link.

2.1.5 Email Verification Workflow

Email contains:

- Verification link with token
- Expiry message (10 minutes validity)

When student clicks:

Case 1 – Within 10 Minutes

- Token validated.
- Status updated to: Verified
- Account activated.
- Token deleted.
- Redirect to Login page.

Case 2 – After 10 Minutes

- Token expired.

- Show message:
“Verification link expired. Please request a new verification email.”
- Option: Resend Verification.

2.1.6 Security Measures

- Token stored securely.
- Token can be used only once.
- Rate limit resend requests.
- Temporary unverified accounts auto-cleaned after 24 hours (recommended).

2.2 First Login – Internship Approval Form

2.2.1 Objective

Student must submit internship request before accessing dashboard.

2.2.2 System Behavior After First Login

When student logs in:

System checks student status:

If status = Verified AND no internship request submitted:

- Hide dashboard.
- Hide reports.
- Hide results.
- Show only Internship Approval Form.

2.2.3 Internship Approval Form Fields

Student must enter:

- Internship Type (Self / University Assigned)
- Company Name (if self)
- Internship Duration
- Start Date
- End Date
- Mode (Onsite / Remote / Hybrid / Freelance)
- Description of Internship

2.2.4 Submission Logic

On Submit:

- Save data.
- Status → Internship Request Submitted
- Show confirmation message:
“Your internship form has been submitted successfully. Please wait for approval from the Internship Office.”

No redirection allowed.

2.3 Internship Office Approval

2.3.1 If Approved

Status → Internship Approved

Next login:

- Internship Approval Form hidden.
- Student Agreement Form displayed.

2.3.2 If Rejected

Status → Internship Rejected

Student sees:

- Rejection reason.
- Option to edit and resubmit.

2.4 Student Agreement Form (Detailed Logic)

2.4.1 Objective

To formally register internship details after approval.

2.4.2 Internship Type-Based Conditional Logic

Case A – Self Arranged Internship

Student must fill:

- Company Name
- Company Address
- Company Registration Number
- Company Scope
- Company HR Email
- Company Supervisor Name
- Company Supervisor Email
- WhatsApp Number

- Internship Duration

All fields mandatory.

System validates:

- Email format
- Required fields

Status → Agreement Submitted – Self

Case B – University Assigned Internship

Student fills:

- Personal details only.
- Company fields hidden or disabled.

Status → Agreement Submitted – University Assigned

2.4.3 Submission Behavior

- Save agreement.
- Lock editing.
- Show message:
“Agreement submitted. Waiting for Internship Office approval.”

2.5 Agreement Approval by Internship Office

2.5.1 If Approved

Status → Agreement Approved

Student Portal unlocks:

- Dashboard
- Reports
- Results

2.5.2 If Rejected

- Student sees comments.
- Can edit and resubmit.

2.6 Student Dashboard

2.6.1 Default View

Dashboard loads automatically after agreement approval.

Displays:

Academic Information:

- Name
- Registration Number
- Semester
- CGPA

Internship Information:

- Internship Type
- Internship Mode
- Company Name (or NA)
- Faculty Supervisor Name (or NA)
- Site Supervisor Name (or NA)
- Internship Duration
- Internship Status

2.6.2 Dynamic Updates

When Internship Office assigns:

- Company
- Faculty Supervisor
- Site Supervisor

Dashboard updates automatically.

If not assigned:

Show NA.

2.7 Reports Section (Detailed Workflow)

2.7.1 When Faculty Creates Report

Student sees:

- Report Title
- Description
- Start Date
- Deadline Date

- Countdown Timer

2.7.2 Upload Rules

- Only PDF allowed.
- File size limit (e.g., 10MB).
- Only one submission allowed.
- Before deadline → resubmit allowed.
- After deadline → upload disabled.

2.7.3 Status Types

- Not Submitted
- Submitted
- Late (if uploaded after deadline allowed within grace period)
- Locked

2.7.4 Receipt Generation

After submission:

System generates:

- Submission timestamp
- Downloadable receipt (optional)

2.8 Results Section (Final Stage)

2.8.1 Visibility Condition

Results visible only when:

Status = HOD Approved

2.8.2 Displayed Information

- Internship Type
- Faculty Marks
- Site Supervisor Marks
- Internship Office Marks
- Total Marks (Out of 100)
- Grade
- Pass / Fail
- Approval Date
- HOD Name

2.8.3 Downloadable Documents

Student can download:

- Final Result Sheet (Official PDF)
- Marks Breakdown Sheet
- Internship Completion Certificate

2.8.4 Restrictions

- Results are read-only.
- No editing allowed.
- Archived after semester end.

INTERNSHIP OFFICE PORTAL COMPLETE DETAILED WORKFLOW

3.1 Internship Requests Module

3.1.1 Objective

This module allows the Internship Office to review and approve initial internship requests submitted by students before allowing them to proceed to the agreement stage.

3.1.2 Data Source

Students who completed:

- Email verification
- Internship Approval Form submission

Status:

Internship Request Submitted

3.1.3 Interface View

Internship Office dashboard displays:

- Total Pending Requests
- Approved Requests
- Rejected Requests

Filter options:

- By Semester
- By Internship Type
- By Mode (Onsite / Remote / Freelance)
- By Date

3.1.4 Request Details View

When clicking a request, show:

- Student Name
- Registration Number
- Semester
- CGPA
- Internship Type
- Company Name (if self)
- Internship Duration
- Description

- Submission Date

3.1.5 Decision Actions

Approve

System logic:

- Update status → Internship Approved
- Unlock Student Agreement Form
- Log action with timestamp
- Send email notification to student

Reject

System requires:

- Mandatory rejection reason

Status → Internship Rejected

Student sees reason and can resubmit.

3.1.6 Security Controls

- Only Internship Office role can access.
- All actions logged.
- Cannot approve twice.
- Cannot modify student-submitted data.

3.2 Student Agreement Requests Module

3.2.1 Objective

To formally validate internship agreement details before allowing internship assignment.

3.2.2 Data Source

Students with status:

Agreement Submitted

3.2.3 View Details

Display:

- Student Information
- Internship Type (Self / University Assigned)
- Company Details (if self)
- Company Supervisor Details (if self)
- Internship Duration
- Agreement Submission Date

3.2.4 Decision Logic

Approve

Status → Agreement Approved

- Unlock Student Dashboard
- Allow assignment section access
- Log approval

Reject

- Require comment
- Status → Agreement Rejected
- Allow student to edit and resubmit

3.2.5 Validation

For Self Internship:

- Company details must be present.

For University Assigned:

- Company fields ignored.

3.3 Company Management Module

3.3.1 Objective

To manage university MOU-based companies and their site supervisors.

3.3.2 Add Company

Required Fields:

- Company Name
- Address
- Industry Scope
- Registration Number
- MOU Signed Date
- Contact Information

Validation:

- Company name must be unique.
- Registration number cannot duplicate.

Status → Active

3.3.3 Add Site Supervisors

Dynamic functionality:

- Default 1 supervisor field.
- Add multiple using "+ Add Supervisor" button.

Each supervisor includes:

- Name
- Official Email
- WhatsApp Number

Validation:

- Email format check
- Unique per company

3.3.4 Edit & Update

Internship Office can:

- Update company details
- Add new supervisors later
- Update supervisor info
- Deactivate company

All updates logged.

3.3.5 Security Rules

- Only Internship Office can modify.
- Cannot delete company if assigned to students.
- Use soft delete if required.

3.4 Faculty Supervisor Management

3.4.1 Objective

To onboard faculty members into the internship supervision system.

3.4.2 Add Faculty Supervisor

Required:

- Name
- Official Email
- WhatsApp Number

3.4.3 Email Workflow

Upon Save:

System generates:

- Secure activation token
- Expiry time (e.g., 30 minutes)

Email contains:

- Official nomination message
- Password setup link
- Expiry notice

3.4.4 Activation Flow

Supervisor clicks link:

- Sets password
- Account status → Active
- Token invalidated

3.4.5 Security

- Token one-time use
- Expiry enforced
- Rate limit resend option

3.5 Internship Assignment Module

3.5.1 Objective

To assign companies and supervisors after agreement approval.

3.5.2 Assignment Rules

Only for students with status:

Agreement Approved

3.5.3 Case 1 – Self Internship

System allows:

- Assign Faculty Supervisor only

System prevents:

- Changing company
- Changing company supervisor

3.5.4 Case 2 – University Assigned Internship

Internship Office must:

1. Select Company
2. Select Site Supervisor (filtered by company)
3. Select Faculty Supervisor

All three mandatory.

3.5.5 Email Notifications

After assignment:

Emails sent to:

- Student
- Faculty Supervisor
- Site Supervisor

Email includes:

- Student details
- Internship duration
- Assigned roles

3.5.6 Status Transition

Status → Internship Assigned

Dashboard updated automatically.

3.5.7 Reassignment Logic

Allowed for:

- University Assigned students only.

Not allowed for:

- Self-arranged company details.

All reassignment logged.

3.6 Internship Office Evaluation Module

3.6.1 Objective

To contribute official evaluation marks.

3.6.2 Onsite / Remote Model

Office contributes:

20 Marks

Criteria (example):

- Documentation
- Report Quality
- Compliance
- Overall Impact

3.6.3 Freelancing Model

Office contributes:

40 Marks

Criteria:

- Earnings verification
- Client rating
- Portfolio proof
- Report quality

3.6.4 Deadline Logic

Each evaluation includes:

- Start Date
- Deadline Date

Before deadline:

- Editable unlimited times

After deadline:

- Automatically locked

3.6.5 Submission

Once submitted:

- Status → Office Evaluation Submitted
- Forward to HOD queue

3.7 Final Review Before HOD Submission

3.7.1 Review Stage

Internship Office can:

- Review faculty marks
- Review site supervisor marks
- Review total calculation

Cannot edit faculty or site marks directly.

3.7.2 Send to HOD

When ready:

Click:

“Forward to HOD”

System:

- Locks Office evaluation
- Status → Pending HOD Approval
- HOD notified

3.7.3 Restrictions

After forwarding:

- Internship Office cannot edit any marks.
- Only HOD can approve or return.

HOD PORTAL COMPLETE DETAILED WORKFLOW

6.1 HOD Dashboard Module

6.1.1 Objective

The HOD Portal acts as the **final academic approval authority** in the internship lifecycle. No internship result becomes official until approved by the Head of Department (HOD).

6.1.2 Dashboard Overview

Upon login, the HOD sees a structured dashboard showing:

Summary Statistics:

- Total Evaluations Pending Approval
- Total Approved Results
- Returned for Correction
- Internship Type Distribution:
 - Onsite
 - Remote
 - Freelance
- Supervisor-wise Pending Evaluations

6.1.3 Filtering & Search Options

HOD can filter evaluations by:

- Faculty Supervisor
- Internship Type (Onsite / Remote / Freelance)
- Semester
- Submission Date
- Student Registration Number
- Status:
 - Pending
 - Approved
 - Returned

6.1.4 Data Integrity Rules

- Only evaluations that are:
 - Completed by Faculty
 - Completed by Internship Office
 - Deadline locked
 - Marked as "Ready for HOD"

are visible in this dashboard.

6.2 Final Evaluation Review Module

6.2.1 Evaluation Listing

Table view includes:

- Student Registration Number
- Student Name
- Internship Type
- Faculty Supervisor
- Company Name
- Total Marks (Out of 100)
- Status (Pending Approval)

6.2.2 Detailed Evaluation View

When HOD clicks a student:

System displays full academic breakdown:

Student Information Section

- Name
- Registration Number
- Semester
- CGPA
- Internship Duration
- Internship Type

Internship Details

- Company Name
- Site Supervisor (if applicable)
- Faculty Supervisor

◆ Marks Breakdown

For Onsite Model:

Evaluator	Max Marks	Obtained
Faculty Supervisor	40	XX
Site Supervisor	40	XX
Internship Office	20	XX
Total	100	XX

For Freelance Model:

Evaluator	Max Marks	Obtained
Faculty Supervisor	60	XX
Internship Office	40	XX
Total	100	XX

System auto-calculates total.

Supporting Documents

HOD can:

- Download weekly reports
- Download final report PDF
- Download evaluation sheets
- View comments from faculty & office

6.2.3 HOD Actions

HOD has two options:

Approve Final Result

OR

Return for Correction

6.2.4 Return for Correction Workflow

If HOD selects:

“Return for Correction”

System requires:

- Mandatory remarks
- Select correction target:
 - Internship Office
 - Faculty Supervisor

Status → Returned by HOD

Internship Office unlocks evaluation (controlled override).

After correction → Resubmit to HOD.

6.2.5 HOD Editing Restriction

HOD CANNOT:

- Directly edit marks
- Modify evaluator entries

This preserves academic integrity.

6.3 Final Approval Process

6.3.1 Approval Action

When HOD clicks:

“Approve & Finalize Result”

System performs:

1. Lock all marks permanently.
2. Generate Final Result PDF.
3. Update status → Officially Published
4. Record approval timestamp.
5. Store digital signature reference.
6. Send notification to:
 - Internship Office
 - Faculty Supervisor
 - Student

6.3.2 Post-Approval Restrictions

After HOD approval:

- No mark editing allowed.
- No evaluation changes allowed.
- No reassignment allowed.
- Record becomes archived after semester close.

FINAL RESULT STRUCTURE DETAILED

7.1 Onsite Internship Model

Evaluation Composition:

- Faculty Supervisor → 40 Marks
- Site Supervisor → 40 Marks
- Internship Office → 20 Marks

Total → 100 Marks

7.2 Freelance Internship Model

Evaluation Composition:

- Faculty Supervisor → 60 Marks
- Internship Office → 40 Marks

Total → 100 Marks

DOWNLOAD SYSTEM COMPLETE DOCUMENT ARCHITECTURE

8.1 Role-Based Document Access

Student Can Download:

- Final Result PDF
- Marks Breakdown
- Completion Certificate
- Report Submission Receipt

Faculty Can Download:

- Student Reports
- Evaluation Summary
- Assigned Student List

Internship Office Can Download:

- All Student Evaluations
- Semester Summary
- Company Assignment Report
- Supervisor Allocation Report

HOD Can Download:

- Supervisor-wise Evaluation Summary
- Semester Analytics Report
- Bulk Result Compilation

8.2 Professional PDF Structure

Each generated PDF must include:

- University Logo
- Department Name
- Academic Semester
- Student Details
- Marks Breakdown
- Evaluator Details
- Digital Signature Area
- Watermark: “Official Academic Record”
- Unique Verification ID
- QR Code (optional enhancement)
- Timestamp of generation

8.3 Bulk Download Features

Internship Office & HOD can:

- Download all results in ZIP format
- Export Excel (CSV) sheet
- Generate semester performance report
- Download grade distribution summary

SECURITY & CONTROL MECHANISMS FULL DETAIL

9.1 Role-Based Access Control (RBAC)

Roles:

- Student
- Site Supervisor
- Faculty Supervisor
- Internship Office
- HOD
- System Admin

Each role:

- Has defined permissions.
- Cannot access unauthorized modules.

9.2 Deadline Locking System

Every evaluation includes:

- Start Date
- Deadline Date

After deadline:

- Editing disabled automatically.
- Marks locked.
- Status changed.

9.3 Audit Logs

System logs:

- Who entered marks
- When marks edited
- When submitted
- When approved by HOD
- Who downloaded documents

Logs cannot be modified.

9.4 Token-Based Authentication

- JWT-based authentication.
- Role verification middleware.
- Session expiration control.
- Secure password hashing.
- Rate limiting on login.

9.5 Secure File Handling

- Files stored outside public directory.
- Access only through authenticated API.
- Temporary signed download URLs.
- No direct file path exposure.

9.6 Permanent Archival

After semester ends:

- Results archived.
- Mark editing disabled permanently.
- Data preserved for record.
- Only view & download allowed.