

Software Engineering Final Project

AIcademia

Academic Paper Management System

“Revolutionizing Academic Publishing Through AI”

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OVERVIEW



- Introduction
- Problem Statement
- Objective
- Scope
- Significance
- Users
- Features
- Approach
- Architecture
- Requirments
- Expected Results
- Conclusion

INTRODUCTION



Our system (Alcademia) automates and streamlines the workflow of research paper submission, review, and status tracking within academic institutions.

- Replaces manual, paper-based processes
- Centralizes, web-based platform
- Enhances efficiency, transparency, and collaboration

PROBLEM STATEMENT



- Paper or email-based submissions
- Manual document storage and organization
- Offline review coordination
- Delays and errors in status updates

Impact :

Inefficiencies, lack of real-time tracking, and increased administrative overhead.

OBJECTIVES



- Develop a user-friendly, web-based system
- Automate metadata extraction and handling
- Provide role-based access for users
- Automate review assignments and feedback
- Offer real-time dashboards and reports
- Implement notification mechanisms

Project Scope

- **Initial Features**

- Researcher registration and login
- Paper submission (PDF/DOCX)
- Metadata extraction and correction
- Admin dashboard for monitoring
- Reviewer assignment and feedback
- Status tracking
- Report export

- **Future Enhancements**

- Plagiarism detection integration
- Enhanced analytics
- Broader notification channels

SIGNIFICANCE



Key Benefits:

- Reduces administrative burden
- Increases processing speed and accuracy
- Enhances transparency for researchers
- Strengthens security and auditability
- Provides data-driven insights

**Digitized
Workflow**



USER PROFILES



- **Researchers:** Submit and manage papers
- **Admins:** Workflow management
- **Students:** Discover and organize papers

FEATURES & BENEFITS



- **Efficient Workflow:** Streamlined submission and review
- **Role-Based Access:** Secure access for researchers, reviewers, admins
- **Real-Time Monitoring:** Live dashboards for system activity
- **Automated Notifications:** Instant updates on submission status
- **Audit Logs:** Track security events
- **Report Generation:** Exportable analytics
- **Digital Storage:** Minimizes physical storage needs

PROCESS MODEL & SCHEDULE



- Incremental Development Model
- Modules delivered in phases
- Phases:
Identification → Design →
Implementation → Testing →
Feedback

SYSTEM ARCHITECTURE (3-TIER)



- **Presentation:** React.js + Bootstrap
- **Application:** Flask/Django (Python)
- **Data Layer:** PostgreSQL/MongoDB + AI modules

Hardware & Software Requirements

Hardware:

Item	Specification	Quantity
Server	2 GHz Processor, 256 MB RAM, 80 GB HDD	1
Clients	1.7 GHz Processor, 128 MB RAM, 40 GB HDD	3
LAN	10/100 Mbps	1
Printer	Laser printer	1

Software:

- **Server:** Windows 2000, Microsoft SQL Server 2000, Java 2 SDK
- **Client:** Windows XP, Microsoft Office 2003, SDK/JDK

Software Engineering Final Project

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Alcademia Admin

Dashboard

Paper Management

User Management

Analytics

Review System

Security Monitor

System Settings

Paper Management

Export

Bulk Actions

Search papers by title, author, or keywords...

All Statuses

All Categories

All Time

Filter

2,847

Total Papers

189

Under Review

1,205

Published

67

Draft

1,486

AI Processed

Academic Papers Database

<input type="checkbox"/>	PAPER DETAILS	AUTHOR	STATUS	CATEGORY	SUBMITTED	VERSION	AI FEATURES	ACTIONS
<input type="checkbox"/>	<div>Deep Learning Approaches for Natural Language Processing</div> <div>A comprehensive study on transformer architectures and their applications in modern NLP tasks...</div>	<div>DR</div> <div>Dr. Sarah Chen</div> <div>AI Research Lab</div>	<div>UNDER REVIEW</div>	Artificial Intelligence	Jun 12, 2025 3 days ago	v2.1 3 versions	<div>AI Summary</div> <div>Auto Metadata</div>	⋮
<input type="checkbox"/>	<div>Quantum Computing Applications in Cryptography</div> <div>Exploring the potential impact of quantum algorithms on current encryption methods...</div>	<div>MK</div> <div>Prof. Michael Kim</div> <div>Quantum Lab</div>	<div>PUBLISHED</div>	Computer Science	Jun 10, 2025 5 days ago	v1.0 Final	<div>Recommendations</div> <div>Citations</div>	⋮
<input type="checkbox"/>	<div>Blockchain Technology in Healthcare Data Management</div> <div>A novel approach to securing patient data using distributed ledger technology...</div>	<div>AJ</div> <div>Dr. Ahmed Johnson</div> <div>Med-Tech Institute</div>	<div>DRAFT</div>	Data Science	Jun 14, 2025 1 day ago	v0.3 In progress	<div>AI Review</div> <div>Auto Tags</div>	⋮
<input type="checkbox"/>	<div>Machine Learning for Climate Change Prediction</div> <div>Using advanced ML models to predict climate patterns and environmental changes...</div>	<div>ES</div> <div>Dr. Emma Smith</div> <div>Climate Research</div>	<div>REJECTED</div>	Machine Learning	Jun 08, 2025 1 week ago	v1.2 Needs revision	<div>AI Feedback</div> <div>Suggestions</div>	⋮

EXPECTED OUTCOMES



- Seamless electronic submission and review
- Improved communication and transparency
- Minimized manual errors and delays
- Scalable platform for growing submissions
- Foundation for future enhancements

Impact :

A robust, user-friendly platform transforming academic paper management.

CONCLUSION



- Alcademia = Smart Academic Ecosystem
- Secure, scalable, and efficient
- Supports future AI integrations and global research access



Ready to transform academic research management!

THANK YOU

F O R T H E A T T E N T I O N

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