

FACULTY RESEARCH PERFORMANCE MONITERING SYSTEM

A PROJECT REPORT

Submitted by

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ABSTRACT

Tracking academic research and fostering collaboration within departments can be challenging without a centralized system. This project presents a Faculty Research Performance Monitoring System, a web-based platform that enables faculty and Heads of Departments (HODs) to monitor research performance, manage publications, and facilitate collaboration securely.

The system provides HOD-level access to view the overall performance of the department, including faculty-wise citations, H-Index, i10-Index, and recent publications. Individual faculty members can add new publications, track citation trends, and visualize their research impact over time. A built-in access request system allows faculty to request access to another author's work, promoting secure knowledge sharing and enabling collaborations between faculties.

The backend is developed using Flask and Python, with Firebase for real-time storage of publications, requests, and chat history. The frontend leverages HTML, CSS, JavaScript, and Chart.js to provide interactive dashboards, citation graphs, and intuitive user interfaces. The platform also includes a chat feature to facilitate communication between faculty and HODs. Key features include department-level analytics for HODs, personalized dashboards for faculty, secure access requests for publications, publication management, real-time citation updates, and interactive visualizations.

In addition to enhancing transparency and efficiency, the Scholar Analytics Dashboard contributes to data-driven decision-making in academic departments. By visualizing key research metrics and enabling collaborative workflows, it helps institutions identify research strengths, monitor growth areas, and recognize high-performing faculty members. The integration of real-time analytics and communication tools ensures that academic data is always up to date, reducing administrative overhead and fostering a culture of collaboration and continuous improvement within the research ecosystem.

Overall, the system acts as a unified digital workspace that simplifies research management and encourages active academic engagement. Through its streamlined interface and secure data handling, it ensures that both faculty and department heads can focus more on innovation and scholarly progress rather than manual tracking and data compilation. This comprehensive approach makes the Scholar Analytics Dashboard a practical and impactful solution for modern academic environments.

TABLE OF CONTENTS

CHAPTER NO.	TITLE	PAGE NO.
	ABSTRACT	i
	LIST OF TABLES	v
	LIST OF FIGURES	vi
	LIST OF ABBREVIATIONS	vii
1.	INTRODUCTION	1
	1.1 EXISTING SYSTEM	2
	1.2 PROPOSED SYSTEM	3
	1.2.1 Advantages of the proposed system	4
2.	SYSTEM ANALYSIS	5
	2.1 FEASIBILITY STUDY	5
	2.1.1 Operational Feasibility	5
	2.1.2 Technical Feasibility	6
	2.1.3 Economical Feasibility	6
	2.2 USE CASE DIAGRAM	7
	2.3 FUNCTIONAL ANALYSIS	9
	2.4 NON FUNCTIONAL ANALYSIS	9
3.	SYSTEM REQUIREMENT SPECIFICATION	11
	3.1 SCOPE	11
	3.2 FUNCTIONAL REQUIREMENTS	12
	3.3 PERFORMANCE REQUIREMENTS	13
	3.4 SOFTWARE SPECIFICATION	14
	3.5 HARDWARE SPECIFICATION	14
	3.6 TECNOLOGIES USED	15

4.	SYSTEM DESIGN	16
	4.1 SYSTEM ARCHITECTURE DIAGRAM	16
	4.2 DATA FLOW DIAGRAM	17
	4.3 ER DIAGRAM	19
	4.4 PROCESS FLOW DIAGRAM	20
	4.5 LOGICAL DESIGN USING UML	21
	4.5.1 Class Diagram	21
	4.5.2 Activity Diagram	22
	4.6 MODULE DESCRIPTION	23
	4.6.1 Collaboration Access Module	23
	4.6.2 Notification And Alerts Module	23
	4.6.3 Reporting and Exporting Module	23
	4.6.4 Admin Control Panel	23
	4.6.5 HOD Support Module	24
5.	TESTING	25
	5.1 TESTING OBJECTIVE	25
	5.2 UNIT TESTING	26
	5.3 INTEGRATION TESTING	27
	5.4 USER INTERFACE TESTING	27
	5.5. PERFORMANCE TESTING	28
	5.6. SYSTEM TESTING	29
6	IMPLEMENTATION	30
	6.1. SYSTEM SETUP & ENVIRONMENT CONFIGURATION	30
	6.2. MODULE INTEGRATION	31

	6.3.DATABASE IMPLEMENTATION	32
	6.4.FETCHING ALGORITHM	33
	6.5. DEPLOYMENT	33
	6.6.ADVANTAGES OF IMPLEMENTATION APPROACH	34
7	CONCLUSION	35
	7.1.SUMMARY OF THE PROJECT	35
	7.2.ACHIEVEMENTS AND OUTCOMES	36
	7.3.BENEFITS OF THE SYSTEM	36
	7.4.CHALLENGES FACED	37
	7.5.FUTURE ENHANCEMENT	37
	7.6.CONCLUSION	38
8	BIBLIOGRAPHY	39
	8.1.BOOKS AND ACADEMIC REFERENCES	39
	8.2.RESEARCH PAPER AND JOURNALS	39
	8.3.ONLINE RESOURCE AND DOCUMENTATION	40
9	APPENDICES	41

LIST OF TABLES

TABLE INDEX	NAME OF THE TABLE	PAGE NO.
3.4.1	Server Software Configuration	12
3.4.2	Client Software Configuration	12
3.5.1	Server Units Hardware Configuration	12

LIST OF FIGURES

FIGURE INDEX	TITLE OF THE FIGURE	PAGE NO.
2.2.1	Use Case Diagram	8
4.1	System Architecture Diagram	16
4.2.1	Level 0 DFD	17
4.2.2	Level 1 DFD	18
4.3	ER Diagram	19
4.4	Process Flow Diagram	20
4.5.1	Class Diagram	21
4.5.2	Activity Diagram	22
9.1	Login Portal	41
9.2	Faculty Dashboard	42
9.3	New Publication Portal	43
9.4	All Publication Portal	44
9.5	Total Publication Portal	45
9.6	HOD Dashboard	46
9.7	Create new Faculty Portal	48
9.8	Database	49

LIST OF ABBREVIATIONS

S.No.	ABBREVIATION/ACRONYM	DESCRIPTION
1	AI	Artificial
2	API	Application Programming Interface
3	CSS	Cascading Style Sheets
4	HTML	Hyper text Markup Language
5	UI	User Interface
6	UX	User Experience
7	HTTP	Hyper text Transfer Protocol
8	SQL	Structured Query Language
9	UML	Unified Modelling Language
10	URL	Uniform Resource Locator
11	JSON	JavaScript Object Notation
12	Colab	Google Colaboratory
13	UI Testing	User Interface Testing