CANDIDATE'S DECLARATION

I, hereby, declare that the work which is being presented in this dissertation, entitled "EduHub – BVICAM Website" for partial fulfilment of the requirements for the award of the degree of Master in Computer Applications (MCA), at Bharati Vidyapeeth's Institute of Computer Applications and Management (BVICAM), New Delhi, is an authentic record of my own work carried out during the period January 2024 to June 2024 under the supervision and guidance of Dr. Sunil Pratap Singh (Associate Professor, BVICAM).

I have not submitted the matter embodied in this dissertation anywhere for the award of any degree or diploma.

Nishika Kumar

Enroll. No. 02511604422

ACKNOWLEDGEMENT

It is my proud privilege to express my profound gratitude to the entire management and staff members of Bharati Vidyapeeth's Institute of Computer Applications and Management (BVICAM), New Delhi, for providing me with the opportunity to avail the excellent academic facilities and infrastructure. The knowledge and values inculcated have proved to be of immense help at the very start of my career. Special thanks to Hon'ble Founder, Bharati Vidyapeeth, Pune for having provided us an excellent infrastructure at BVICAM, New Delhi. I am also thankful to Prof. M. N. Hoda (Director, BVICAM) for his astute guidance, support and motivation during the academic period of MCA programme.

I would like to thank my dissertation guide Dr. Sunil Pratap Singh (Associate Professor, BVICAM) for his valuable support. He took interest in observing my progress throughout the training/internship span and studied all the monthly update I report to him. He came up with regular suggestion and encouragement.

I would like to thank Training and Placement Cell of BVICAM for providing me with an opportunity to pursue my internship/ training in the industry.

I am expressly grateful to all those names that have not appeared in this acknowledgement but have contributed in significant measure towards the completion of the dissertation.

Nishika Kumar

Enroll. No. 02511604422

ABSTRACT

This project details the development of a college website utilizing the MERN stack technology. The website aims to serve as a comprehensive information portal for prospective students, current students, faculty, staff, and the general public. It will showcase essential details about the college, including its academic programs, faculty profiles, campus facilities, admissions process, and contact information.

The MERN stack encompasses MongoDB, Express.js, a Node.js framework, React.js, a JavaScript library for front-end development, and Node.js, a JavaScript runtime environment. The development of website is carried out by following the agile model of software development.

This project report delves into the design and development process of the website, highlighting the functionalities of each MERN stack component. It explores the advantages of using MERN for this project, such as its scalability, flexibility, and open-source nature. Additionally, the report addresses security considerations and future enhancements envisioned for the website.

LIST OF FIGURES

Figure No.	Description	Page No.
A-1	Use Case Diagram	51
A-2.1	DFD Level 0 Diagram	52
A-2.2	DFD Level 1 Diagram	52
A-3	Entity-Relationship Diagram	53
A-4	Activity Diagram	54
A-5	Screenshots	55-70

LIST OF TABLES

Table No.	Description	Page No.
3.1	User Table	27
3.2	Contact Us Table	27
3.3	Courses Table	28
3.4	Images Table	28
3.5	Notices Table	29
3.6	Faculty Table	29
3.7	Events Table	30

TABLE OF CONTENTS

		Page No.
CHA	APTER 1: INTRODUCTION	
1.1	Problem Statement	2
1.2	Proposed Solution	3-4
1.3	My Roles	4-5
1.4	Deliverables	6
CHA	APTER 2: PROJECT DESCRIPTION	
2.1	System Interfaces	8-11
2.2	System Specifications	
	2.2.1 H/W Requirements	12
	2.2.2 S/W Requirements	12
	2.2.3 Technology Used	12
2.3	Methodology and Tools Used	12-13
	2.3.1 Requirement Phase	13-15
	2.3.2 Design Phase	16
	2.3.3 Development Phase	16-19
	2.3.4 Implementation Phase	19-21
	2.3.5 Testing Phase	21-22
2.4	Constraints	23-24
2.5	Assumptions & Dependencies	24
26	User Characteristics	25

CHAPTER 3: FUNCTIONALITIES

3.1	Logical Database Design	
	3.1.1 Table Structures	27-30
3.2	Input and Output Design	30-33
3.3	Use case Description	34-38
CHA	APTER 4: TESTING	
4.1	Test Activities	40-42
4.2	Unit Testing	42
4.3	System Testing	42
	4.3.1 Functional Testing	43
4.4	Test Reports and Debugging	43-44
CHA	APTER 5: CONCLUSION AND REFERENCES	
5.1	Conclusion	46
5.2	Limitations of the System	47
5.3	Future Scope	48
BIB	LIOGRAPHY	49
ANN	NEXURES	
A-1	Use case Diagram	51
A-2	Data flow Diagram	52
A-3	Entity relationship Diagram	53
A-4	Activity Diagram	54
A-5	Screenshots	55-70