# VISVESWARAYA TECHNOLOGICAL UNIVERSITY
## Jnana Sangama, Belagavi-590018

## WEB TECHNOLOGY LABORATORY WITH MINI PROJECT REPORT ON

## "TITLE OF THE PROJECT"

***Submitted in partial fulfilment of the requirements for the III Semester degree of Bachelor of Engineering***

**In**
**COMPUTER SCIENCE & ENGINEERING**

**Submitted By**


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**UNDER THE GUIDANCE OF**


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## BMS INSTITUTE OF TECHNOLOGY AND MANAGEMENT
**(Autonomous Institute, Affiliated to VTU)**
**(Accredited By National Assessment & Accreditation Council (NAAC))**
**(Approved by AICTE, New Delhi & Affiliated to Visvesvaraya Technological University,Belagavi)**
**Doddaballapura Main Road, Avalahalli, Yelahanka, Bengaluru-560064.**


**2022-2023**

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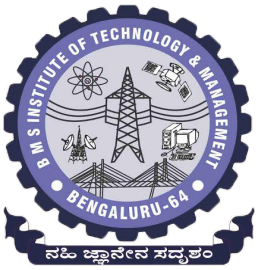
## COMPUTER SCIENCE & ENGINEERING




## CERTIFICATE

This is to certify that the Mini Project entitled "**title of your project**" has been carried out by **Mr LOKESH KUMAR(1BY21CS085) & Mr LOKESH KUMAR(1BY21CS085)** a bonafide student of BMS Institute of Technology and Management, Autonomous Institute, Affiliated to VTU, in fulfillment of the WEB TECHNOLOGY LABORATORY WITH MINI PROJECT for the award of Bachelor of Engineering degree in COMPUTER SCIENCE & ENGINEERING during the year 2022-2023. The report has been approved as it satisfies the academic requirements in respect of laboratory work prescribed.

| | |
|---|---|
| **Prof. Muneshwara M S / Prof. Jagadish P**<br>**Assistant Professor,**<br>**Department of CSE**<br>**BMSIT & M** | **Dr. Thippeswamy G**<br>**Professor & HOD**<br>**Department of CSE**<br>**BMSIT & M** |

**External VIVA-VOCE**

| **Name of the Examiners** | **Signature with Date** |
|---|---|

## INSTITUTE VISION

To emerge as one of the finest technical institutions of higher learning, to develop engineering professionals who are technically competent, ethical and environment friendly for betterment of the society.

## INSTITUTE MISSION

Accomplish stimulating learning environment through high quality academic instruction, innovation and industry-institute interface.

## DEPARTMENT VISION

To develop technical professionals acquainted with recent trends and technologies of computer science to serve as valuable resource for the nation/society.

## DEPARTMENT MISSION

Facilitating and exposing the students to various learning opportunities through dedicated academic teaching, guidance and monitoring.

## PROGRAM EDUCATIONAL OBJECTIVES

1. Lead a successful career by designing, analysing and solving various problems in the field of Computer Science & Engineering.
2. Pursue higher studies for enduring edification.
3. Exhibit professional and team building attitude along with effective communication.
4. Identify and provide solutions for sustainable environmental development.

## PROGRAM SPECIFIC OUTCOMES

1. **Analyze the problem and identify computing requirements appropriate to its solution.**

2. **Apply design and development principles in the construction of software systems of varying complexity.**

# ACKNOWLEDGEMENT

We are happy to present this Mini project after completing it successfully. This project would not have been possible without the guidance, assistance and suggestions of many individuals.

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DIVYASHREE G (1BY15CS025)
CHANDRASHEKAR S (1BY15CS020)

# ABSTRACT

Automatic Repeat request (ARQ), is an error-control method for data transmission that uses acknowledgements (messages sent by the receiver indicating that it has correctly received a data frame or packet) and timeouts (specified periods of time allowed to elapse before an acknowledgment is to be received) to achieve reliable data transmission over an unreliable service. If the sender does not receive an acknowledgment before the timeout, it usually re-transmits the frame/packet until the sender receives an acknowledgment or exceeds a predefined number of re-transmissions.

The types of ARQ protocols include Stop-and-wait ARQ, Go-Back-N ARQ, and Selective Repeat ARQ / Selective Reject.

- Stop-and-wait ARQ is a method in telecommunications to send information between two connected devices. It ensures that information is not lost due to dropped packets and that packets are received in the correct order. It is the simplest automatic repeat-request (ARQ) mechanism.
- Go-Back-N ARQ is a specific instance of the automatic repeat request (ARQ) protocol, in which the sending process continues to send a number of frames specified by a window size even without receiving an acknowledgement (ACK) packet from the receiver.
- Selective Repeat ARQ / Selective Reject ARQ is a specific instance of the Automatic Repeat-Request (ARQ) protocol used to solve sequence number dilemma in communications.

# TABLE OF CONTENTS


| | | |
|---|---|---|
| 1 | ACKNOWLEDGEMENT | I |
| 2 | ABSTRACT | II |


**TABLE OF CONTENTS** **III**


| CHAPTER NO. | TITLE | PAGE NO |
|---|---|---|
| CHAPTER 1 | INTRODUCTION | 1-2 |
| | 1.1 Brief Introduction | 3 |
| | 1.2 Motivation | 4 |
| | 1.3 Scope | 5 |
| | 1.4 Problem Statement | 6 |
| | 1.5 Proposed System | 7 |
| | 1.6 Limitations | 8 |
| CHAPTER 2 | LITERATURE SURVEY | 9 |
| CHAPTER 3 | SYSTEM REQUIREMENT SPECIFCATIONS | 11 |
| CHAPTER 4 | SYSTEM ANALYSIS | 13 |
| CHAPTER 5 | SYSTEM IMPLEMENTATION | 15 |
| CHAPTER 6 | INTERPRETATION OF RESULTS | 24 |
| CHAPTER 7 | CONCLUSION & FUTURE ENHANCEMENTS | 31 |
| | REFERENCES | 32 |