

Basaveshwar Engineering College, Bagalkot

Department of Computer Applications (M.C.A)

Course: MCA

Semester: II

Seminar Topic : Introduction GIT and Version Control

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1. Introduction

GIT is a free and open-source version control system that helps developers track changes in their code over time. It allows multiple people to work on the same project without overwriting each other's work. Created by Linus Torvalds in 2005, GIT is now the most widely used version control tool in software development.

2. Seminar Topic Details

Title of the Seminar: Introduction to GIT and Version Control

Git is a distributed version control system that tracks changes to files over time, enabling collaboration and efficient development workflows. It allows developers to record every change to a codebase, revert to previous versions, and manage multiple branches of development simultaneously. Git is free, open-source, and widely adopted in the software development industry.

3. Topic Summary

The seminar will cover the following key points:

- What is version control and why it is important
- Introduction to GIT and its benefits
- Basic GIT commands (init, clone, add, commit, push, pull, etc.)
- GIT workflow and branching model
- Using platforms like GitHub for remote collaboration
- Common use cases and examples in software development

The seminar will include live demonstrations and Q&A for better understanding.

4. Relevance to MCA Curriculum

GIT is relevant to the MCA curriculum because:

- It is a core tool used in software engineering and development projects

- It supports practical learning in subjects like Software Project Management, DevOps, and Collaborative Development
- It enhances team collaboration and project documentation skills
- It is widely used in industry, making students job-ready

5. Learning Objectives

By the end of this seminar, participants will be able to:

- Understand what GIT is and how it works
- Use basic GIT commands to manage code changes
- Collaborate with others using GIT and GitHub
- Understand GIT workflows and version control strategies

6. Expected Outcome

Participants will gain:

- Practical knowledge of using GIT for version control
- Experience in creating and managing repositories
- Skills to work on group coding projects more efficiently
- Confidence to contribute to open-source or industry projects

7. References

- GIT Official Documentation: <https://git-scm.com/doc>
- GitHub Docs: <https://docs.github.com>
- Pro Git Book by Scott Chacon and Ben Straub: <https://git-scm.com/book/en/v2>
- FreeCodeCamp Git and GitHub Tutorials: <https://www.freecodecamp.org/news/tag/git/>
- YouTube Tutorials on GIT by The Net Ninja, Traversy Media, etc.

Coordinator Signature:

HOD Signature