

# ABOUT BIET

Bapuji Institute of Engineering and Technology, Davanagere (BIET) an autonomous institute located in the city of Davanagere Karnataka India. The College houses around 18 different departments. It offers B.E in 13 Engineering Disciplines, 5 PG programmes, 13 of its departments have been recognized as research centers and 12 departments have been accredited by NBA, New Delhi. It began offering courses from the academic year 1979-1980 and is affiliated to Visvesvaraya Technological University (VTU) karnataka. The institute is NAAC accredited with 'A' Grade.

# ABOUT DEPARTMENT

The Department of Computer Science and Engineering was established in 1984 as an academic Centre for undergraduate studies in Computer Science and Engineering and currently offers undergraduate program with an intake of 510 and two post graduate programs on Cyber Security and AI & Data Science. Visvesvaraya Technological University recognized the R and D center in the year 2000. There are 10 research supervisors and a total of 20 scholars have been awarded with PhD degrees under VTU. 17 scholars are pursuing their PhD as of today. Very proud to say that, the undergraduate program has been accredited three times by NBA and is valid up to 2027. It is supported by well qualified faculty, non - teaching staff and best - in - class Infrastructure in imparting the quality technical education in the field of Computer Science and Engineering. The department strives hard to prepare the students to be industry ready along with motivating them towards higher studies as well as entrepreneurship qualities. It is the best opted department in the central part of Karnataka and is well known for its university results, placements, industry and Alumni tie ups. Department is proactive in hosting International and National Conferences, faculty development programs, FDPs, Learnathon, Hackathon and many more events regularly for the benefit of students and the faculty members

## CHIEF PATRONS:

**Dr. Shamanur Shivshankarappa**

Hon. Secretary, BEA  
MLA Davangere-South

**Sri. S S Mallikarjuna**

Joint Secretary, BEA  
Cabinet Minister of Mines and Geology and Horticulture  
Karnataka

**Dr. Prabha Mallikarjuna**

Member of Parliament Lok Sabha  
Davanagere Constituency

## ADVISORY COMMITTEE:

**Dr. Aravind H B,** **Prof. Y Vrushabhendruppa,**  
Principal, BIET Director, BIET

## Resource Persons:

**Usha Rengaraju** **Wasim Buden**  
Chief Data Scientist, Corporate Vice President  
Trainer Founder - NeuroAI AionNimbus Cloud Solutions

## COORDINATORS

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Associate Professor, Department of  
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## ORGANIZING COMMITTEE

**Dr. Nirmala C R,**  
HoD, CS & E, BIET

**Dr. Pradeep N,**  
HoD, CS & E (DS), BIET

**Dr. Poornima B,**  
HoD, IS & E, BIET

**Dr. S B Mallikarjuna,**  
HoD, AI & ML, BIET

**Dr. Chetana Prakash,**  
HoD, CS & Design, BIET

**Dr. Vinutha H P,**  
HoD, CSBS, BIET

## PRINCIPAL INVESTIGATOR

**Prof. Gaurav Trivedi,**

Department of Electronics & Electrical Engineering  
IIT Guwahati  
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## PROGRAM COORDINATOR

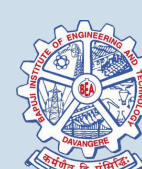
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## STAFF OF CS&E AND ALLIED BRANCHES

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Dr. Naveen H M  
Dr. Naresh Patel K M  
Dr. Anitha G

Dr. Varsha M  
Prof. Raghu B R  
Prof. Chandrashekhar M V  
Prof. Vishwanath V K  
Prof. Waseem Khan  
Prof. Puneeth B H  
Prof. Usha C



Bapuji Educational Association (Regd.)

**Bapuji Institute of Engineering and  
Technology, Davanagere-577004**

(AN AUTONOMOUS INSTITUTE AFFILIATED TO VTU BELAGAVI,  
APPROVED BY AICTE, NEW DELHI)  
ACCREDITED BY NBA & NAAC WITH 'A' GRADE

**One-week  
Faculty Development Program  
on  
"Generative AI and DevOps"  
17th to 22nd February 2025**

Organized by  
**Electronics & ICT Academy,  
IIT Guwahati**



**Venue**

*Department of Computer Science  
and Engineering*



# ABOUT E&ICT ACADEMY IIT GUWAHATI

Electronics and ICT Academy is an initiative of the Ministry of Electronics and Information Technology (MeitY), Government of India for conducting various faculty/Research Scholar Development Programme. Academy has planned short term training programmes on fundamental and advanced topics in IT, Electronics & Communication, Product Design, Manufacturing with hands-on training and project work using the latest software tools and systems. In addition, the Academy conducts specialized/ customized training programs on Research promotion workshops for corporate sector & educational institutions. The academy has trained 1,35,000 Faculty Members/Trainers in Engineering and non-engineering colleges, Polytechnic, ITI and PGT educators till date.

## ABOUT FDP

The "The Generative AI and DevOps" faculty development programme (FDP) is a comprehensive program designed to equip faculty members with the latest knowledge and skills in theoretical and practical aspects to understand the latest advancements and their applications in software development and IT operations. Participants will gain insights into Generative AI technologies and its tools, along with that participants gain insights about DevOps culture and its practices using advanced tools. This program aims to empower educators with contemporary teaching approaches and technological insights, enabling them to create a dynamic and competitive learning environment for students.

## OBJECTIVES OF FDP

- Understand the principles and concepts behind generative AI models
- Explain the knowledge gained to implement generative models using Prompt design frameworks.
- Apply various Generative AI applications for increasing productivity.
- Develop Large Language Model-based Apps.
- To introduce DevOps terminology, definition & concepts
- To understand the different Version control tools like Git, Mercurial
- To understand the concepts of Continuous Integration/ Continuous Testing/ Continuous Deployment)
- To understand Configuration management using Ansible
- To Illustrate the benefits and drive the adoption of cloud-based Devops tools to solve real world problems

# OUTCOMES OF FDP

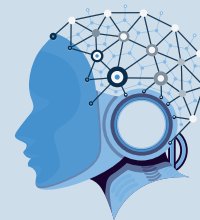
- Develop the ability to explore and analyze word embeddings, perform vector arithmetic to investigate word relationships, visualize embeddings using dimensionality reduction techniques
- Apply prompt engineering skills to real-world scenarios, such as information retrieval, text generation.
- Utilize pre-trained Hugging Face models for real-world applications, including sentiment analysis and text summarization.
- Apply different architectures used in large language models, such as transformers, and understand their advantages and limitations.
- Demonstrate different actions performed through Version control tools like Git.
- Perform Continuous Integration and Continuous Testing and Continuous Deployment using Jenkins by building and automating test cases using Maven & Gradle.
- Experiment with configuration management using Ansible.
- Demonstrate Cloud-based DevOps tools using Azure DevOps.

# CONTENTS OF FDP

- Introduction NLP, pre-trained models, word embeddings.
- Concepts of Generative AI models, implement models using prompt design framework.
- Implement large language model apps.
- Introduction to MAVEN and Gradle + Practical Hands-on.
- Jenkins, configuration of ansible + Practical Hands-on.
- Introduction to Azure DevOps, Build pipelines + Practical Hands-on.

## **Note:**

*As per VTU Syllabus BCSL657D, BAIL657C lab experiments will be covered*



# WHO CAN ATTEND?

Programme is open to Faculty Members and PhD Research Scholars from Universities and Colleges. The Faculty/Staff are requested to submit the NOC from respective department before attending the session. For details of the programme and course contents etc., please logon to Electronics and ICT Academy website:

<https://eict.iitg.ac.in>

## PLEASE NOTE:

- Registration fees is refundable if the registration cancellation request is submitted before the last date of registration.
- Registration fee includes E&ICT Academy kitbag stationaries, 5 days lunch and high tea, evaluation participation certificate and grade certificate. Participants have to submit UTR No. as the proof of payment while registering for the Faculty Development Programme.

## Registration Fees:

**Rs. 500/- (Inclusive of GST)**

**Mode of Payment: ONLINE  
only (NEFT/RTGS/IMPS)**

Scan to Register



## FOR ONLINE TRANSFER

**Bank Name: State Bank of India**  
**Account Name: IIT GUWAHATI (R & D)**  
**Account No.: 36071160089**  
**IFSC Code: SBIN0014262**

## REGISTRATION LINK

<https://forms.gle/vMucBrmfDyNuAWoH9>

## COURSE INFORMATION:

- Course date: 17 - 22 February, 2025
- Last date of registration: 15 February, 2025 (online registration link will open from 09 February, 2025)
- Per day course timings: 09.30 AM to 05.30 PM
- Contact hours for the course: 40 Hours (Theory, Activities, Case Studies & Evaluation)

