

## REGISTRATION FORM

Name:.....

Highest Qualification:.....

Designation:.....

Organization:.....

Address:.....

Mobile:.....

Email:.....

### Declaration:

The information furnished in registration form is true to the best of my knowledge. I agree to abide by the rules and regulations governing by the course. If selected, I shall attend the course for entire duration, I also undertake the responsibility to inform the coordinator sufficiently in advance, in case I am unable to attend the course.

Place:

Date:

Signature of  
Faculty

Signature of  
Head of Institution

## CHIEF PATRONS

- Sri Praveen D Reddy, Chairman, CBSE
- Sri J Pratap Reddy, Secretary, CBES

## PATRONS

- Prof G ChandraMohan Reddy, Principal, MGIT
- Dr. K Sudhakar Reddy, Vice Principal & HoD MEC, MGIT

## Organizing Committee

- Dr. M Rama Bai, HoD ET, MGIT
- Ms. A. Swapna, Asst. Professor, ET, MGIT
- Dr. Jesalkumari Joshi, Asst. Professor, ET, MGIT

## REGISTRATION

**Registration Fee:** 500/- per Participant

**Name of the Account:** MGIT Conferences Seminars and Workshops

**Account Number:** 438501000066

**IFSC Code:** ICIC0004385

For participants from Mahatma Gandhi Institute of Technology no registration fee.

**Registration Link:** <https://forms.gle/62qsl9TAbxcZtGeG9>

**Last Date for Registration: 5<sup>th</sup> August 2024**

# One Week National Level Faculty Development Programme

On

**ETL-KAFKA**

6<sup>nd</sup> August 2024 – 10<sup>th</sup> August 2024

**Offline Mode**



Organized By

**Department of Emerging Technologies**



**MAHATMA GANDHI INSTITUTE OF TECHNOLOGY  
(AUTONOMOUS)**

Chaitanya Bharati (P.O), Gandipet, Hyderabad, Ranga  
Reddy District, Telangana – 500075, India

[www.mgit.ac.in](http://www.mgit.ac.in)

## About CBES

CBES was established in 1979 by an erudite and eminent group of trail blazers. The primary objective of this Educational Society is to create temples of knowledge. The atmosphere is conducive for imparting essential technical & wide gamut of requisite skills that groom students into responsible global citizens, ready for success. The institution named after the father of the nation lays great emphasis on value-based education. The campus is bustling with activities, assiduously supported by the management.

## About Institution

Mahatma Gandhi Institute of Technology is one of the premier Engineering Colleges in the self-financing category in the state of Telangana. MGIT is affiliated to Jawaharlal Nehru Technological University, Hyderabad. The institute has recently received accreditation for 3 years for all 8 B Tech Programs from National Board of Accreditation, New Delhi. The institute is also accredited by NAAC with an 'A++' grade. Mahatma Gandhi Institute of Technology (MGIT) was established by the Chaitanya Bharathi Educational Society (CBES) in a serene and tranquil atmosphere at Gandipet, Hyderabad and has grown rapidly since its inception in 1997. The lush green campus of MGIT is spread over 30 acres of pleasant landscape with a constructed area of 2,50,787 sq ft. In a recent development, MGIT is honoured to be conferred with the autonomous status by University Grants Commission (UGC), New Delhi. The college offers courses in 11 Undergraduate Programs (Computer Science and Engineering, Information Technology, Electronics and Communication Engineering, Mechatronics', Metallurgical & Materials Engineering, Civil Engineering and Mechanical Engineering, Computer Science and Business System, Computer Science and Engineering (Artificial Intelligence and Machine Learning) and Computer Science and Engineering (Data Science).

## About ET Department

MGIT's Emerging Technologies department is a center of scholarly excellence housing 20 dedicated faculty members at different stages of their research endeavor, with two focused branches – Computer Science and Engineering in Artificial Intelligence and Machine Learning, and Computer Science and Engineering in Data Science – we prioritize cutting-edge education. Our commitment to staying at the forefront is evident in our B.Tech programs launched in 2020, each with an intake of 60 students. These programs offer a robust foundation in Computer Science and hands-on experiences, preparing students for real-world challenges in the dynamic fields of AI&ML, and Data Science.

## About FDP

The ETL (Extract, Transform, Load) in the context of Kafka typically covers the integration of Kafka with various data sources and sinks, data transformation using Kafka Streams or other frameworks, and the process of loading transformed data into target systems. This FDP aims to provide a comprehensive understanding of Apache Kafka, covering both theoretical concepts and practical implementations, tailored for faculty development.

## Resource Persons

- MR. NETHAJI NIRMAL G , Lead Data Engineer, QUANTUMNIQUE
- MR. KASTHURI RAJA, Senior Technology Specialist, QUANTUMNIQUE

## Contact Details

- Ms. A. Swapna : +91 9491255955
- Dr. Jesalkumari Varolia: +91 9819774109

## ETL-KAFKA SCHEDULE

Day 1: Introduction, Docker Setup, Basic Kafka Operations.  
Hands-On Lab:

- Set up Docker on your machine.
- Pull Kafka and Zookeeper images and run containers.
- Create your first Kafka topic.
- Produce and consume messages using command-line tools within Docker containers

Day 2: Scaling Kafka, Java/Python Integration for Producers and Consumers.

Hands-On Lab:

- Set up a multi-broker Kafka cluster using Docker.
- Write and test Java and Python applications to produce and consume messages.

Day 3: Advanced Features in Java/Python, Topic Management, Fault Tolerance.

Hands-On Lab:

- Implement advanced producer features in Java and Python.
- Create and manage Kafka topics with custom settings using Docker.
- Simulate broker failures and observe the impact on message processing.

Day 4: Kafka Connect, Stream Processing with Kafka Streams in Java/Python.

Hands-On Lab:

- Set up Kafka Connect and use connectors to import/export data using Docker.
- Perform basic operations on Kafka topics using Docker.
- Develop and run a Kafka Streams application in Java and Python.

Day 5: Integration with Hadoop using Docker, Review, and Final Projects.

Hands-On Lab:

- Integrate Kafka with Hadoop using Docker.
- Complete the final project and present your solution.