

## ABOUT THE INSTITUTE

**Government Polytechnic, Thane**, established in 1985, is one of Maharashtra's premier autonomous diploma engineering institutes. The institute is committed to delivering quality technical education through modern laboratories, experienced faculty, industry collaboration, research, innovation, and skill development. With an emphasis on outcome-based education and continuous improvement, the institute prepares technically competent professionals capable of contributing to the evolving needs of society and industry.

## ABOUT THE DEPARTMENT

The **NBA Accredited Department of Information Technology** is committed to academic excellence through modern laboratories, experienced faculty, and industry-oriented learning. The department regularly organizes FDPs, workshops, and hands-on training in emerging technologies.

### VENUE

Govt. Polytechnic, Thane

### REGISTRATION DEADLINE

05/08/2026

### REGISTRATION LINK

<https://curriculum.msbtte.edu.in/msbtteacmon/curdev/outer.php>

### CONTACT NUMBER

+91 9821257628

### EMAIL ADDRESS

sadafgpt@gmail.com

### WEBSITE

<https://gpthane.org.in/>

### FEES

Free for all Faculties



## APPROVED AND SPONSORED BY MAHARASHTRA STATE BOARD OF TECHNICAL EDUCATION, MUMBAI

### ORGANISED BY

Department of Information Technology  
GOVERNMENT POLYTECHNIC, THANE  
**NBA ACCREDITED**

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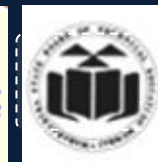
**Dr. J. R. Nikhade**

### PROGRAMME COORDINATOR

**Dr. S. R. Suryawanshi**

### ORGANISING COMMITTEE

**Dr. V. A. Khandekar**   **Prof. D. P. Sapkal**  
**Prof. J. A. Salunkhe**   **Prof. S. S. Mane**



## ONE WEEK FACULTY DEVELOPMENT TRAINING PROGRAMME

# Hands-on Cloud Computing and Data Analytics for Industry 5.0 Applications

10 – 14 AUGUST 2026



"From Cloud Deployment to Data-Driven  
Decision-Making"

Approved and Sponsored by: MSBTE, MUMBAI  
Organised by: Department of Information Technology,  
Government Polytechnic, Thane

## ABOUT THE PROGRAMME

Cloud computing and data analytics are core technologies in Industry 5.0, where human-centric decision-making depends on digital platforms, real-time data, automation, and intelligent services. MSBTE K-Scheme courses such as Cloud Computing, Cloud Computing for Data Science, Data Analytics, Internet of Things, Artificial Intelligence, and Emerging Trends require practical exposure beyond classroom theory. This FDTP will train faculty members through hands-on cloud deployment, data storage, analytics dashboards, and industry-linked case studies.

## PROGRAMME OBJECTIVES

- 1 To strengthen faculty understanding of cloud computing concepts, service & deployment models, storage services, and basic cloud security relevant to MSBTE K-Scheme courses.
- 2 To train faculty members to deploy simple cloud-based applications through practical, step-by-step hands-on activities.
- 3 To develop faculty skills in cloud-based data storage, data handling, basic data analytics, and dashboard creation for Industry 5.0 applications.
- 4 To expose faculty members to industry-linked cloud computing and data analytics case studies, including process monitoring, quality tracking, and decision-support applications.
- 5 To prepare faculty members to design classroom-ready practical assignments, laboratory activities, and mini-projects aligned with MSBTE K-Scheme subjects.

## DAY-WISE PROGRAMME SCHEDULE

### DAY 1 10 August 2026

#### Cloud Computing Fundamentals for Industry 5.0

- 10:00–11:30** Inauguration, FDTP orientation, Industry 5.0 overview, and role of cloud computing in industrial & educational applications.
- 11:45–1:15** Cloud fundamentals: IaaS, PaaS, SaaS, public/private/hybrid cloud, virtualization, and cloud architecture.
- 2:15–3:45** Cloud services for diploma-level practical teaching: compute, storage, database, networking, access control, basic security.
- 4:00–5:30** Hands-on: cloud account setup, console navigation, storage bucket creation, file upload, permissions, access testing.

### DAY 2 11 August 2026

#### Hands-on Cloud Deployment and Cloud Data Handling

- 10:00–11:30** Cloud deployment workflow: application hosting, server configuration, domain & access settings, database connectivity, deployment checklist.
- 11:45–1:15** Hands-on deployment of a simple web application or service on a cloud platform with basic configuration.
- 2:15–3:45** Cloud data handling: structured/unstructured data, cloud database services, backup, access permissions, data-security practices.
- 4:00–5:30** Hands-on: create a cloud database/table, upload a sample dataset, connect deployed application to cloud data storage.

### DAY 3 12 August 2026

#### Cloud-Based Data Analytics

- 10:00–11:30** Data analytics workflow: source identification, collection, cleaning, transformation, interpretation.
- 11:45–1:15** Hands-on preparation of an industrial sample dataset using spreadsheet.
- 2:15–3:45** Cloud analytics process: connecting a data source, basic analysis, interpreting results.
- 4:00–5:30** Hands-on cloud-based analytics using sample industrial data; preparation of output tables / visual summaries.

## DAY 4 & 5 — SCHEDULE

### DAY 4 13 August 2026

#### Dashboards, Industrial Analytics & Teaching Integration

- 10:00–11:30** Dashboard design: key performance indicators, real-time monitoring, process visualization, decision-support dashboards.
- 11:45–1:15** Hands-on creation of a basic analytics dashboard using cloud-based / open-source dashboarding tools.
- 2:15–3:45** Industry case studies: predictive maintenance, smart-factory monitoring, service analytics, quality tracking, cloud reporting.
- 4:00–5:30** Faculty activity: convert cloud analytics & dashboard examples into MSBTE K-Scheme lab activities and assignments.

### DAY 5 14 August 2026

#### Industry 5.0 Case Study & Faculty Mini-Project Development

- 10:00–11:30** Industry 5.0 case studies: process monitoring, service analytics, quality tracking, decision-support systems.
- 11:45–1:15** Demonstration: cloud-based data storage, analytics-output interpretation, dashboard review, industry-application workflow.
- 2:15–3:45** Group work to design a diploma-level mini-project integrating deployment, storage, analytics, dashboard reporting.
- 4:00–5:30** Group presentations, expert feedback, classroom implementation planning, online feedback & valedictory session.

## EXPECTED OUTCOMES

- ✓ Explain core cloud-computing concepts
- ✓ Manage cloud-based datasets
- ✓ Create an analytics dashboard
- ✓ Develop MSBTE-aligned lab activities
- ✓ Deploy a basic cloud application
- ✓ Perform basic data analysis
- ✓ Interpret industry-linked data
- ✓ Design a diploma-level mini-project