



# KLS Vishwanathrao Deshpande Institute of Technology

(Accredited by NAAC with "A" Grade)

(Approved by AICTE, New Delhi. Affiliated to VTU, Belagavi)

(Recognized Under Section 2(f) by UGC, New Delhi)

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## DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Semester: VII

Year: 2025-2026

| Course Title              | Node.js Programming |                     |    |
|---------------------------|---------------------|---------------------|----|
| Total Teaching Hours      | 30                  | Teaching Hours/Week | 03 |
| Internal Assessment Marks | 10                  |                     |    |

### Course Learning Objectives:

1. To understand event-driven programming in JavaScript and Node.js.
2. To develop the ability to create and manage web servers, handle HTTP requests, and optimize data streaming.
3. To learn REST API design, HTTP object handling, and efficient file management.
4. To gain practical skills in database operations using MongoDB and CSV file handling

### Course Content (Syllabus)

| MODULE-1  |        |
|---|--------|
| <b>Introduction to Node World &amp; Web Server:</b> Web server basics Handling incoming requests in Node.js Serving static files/pages Content caching Streaming and optimization Handling file system.                       | 10 Hrs |
| MODULE-2  |        |
| <b>REST API &amp; HTTP Object :</b> REST API benefits Introduction to HTTP Object Processing POST Data Handling File uploads Using Node as HTTP Client Implementing download throttling Node.js way of calling another server | 10 Hrs |
| MODULE-3  |        |
| <b>Working with Databases and File Handling :</b> Writing to a CSV File in Database CRUD operations using MongoDB.  | 10 Hrs |

HOD

Computer Science & Engineering  
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