

# B.N.M. Institute of Technology

An Autonomous Institution under VTU

## Department of Computer Science and Engineering

### Activity / Innovative Method Used for Teaching Learning Process in 2025-26

| Academic Year: 2025-2026 |                         |                                                           |                                                                                                                                                                                 |                                                                                                                                                       |                                                                                                                                                            |
|--------------------------|-------------------------|-----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sl No                    | Course Name with Code   | Name of the Faculty                                       | Activity                                                                                                                                                                        | Description                                                                                                                                           | Impact Analysis                                                                                                                                            |
| 1.                       | DevOps (23CSE1663)      | Dr. Revanasiddappa<br>Prof. Manjushree K<br>Prof. Pramod  | Mini Project: Students implemented a real-time application by applying the complete DevOps lifecycle using tools such as Git, Jenkins, Docker, Kubernetes, and CI/CD pipelines. | Students developed a real-time application by implementing the complete DevOps lifecycle using Git, Jenkins, Docker, Kubernetes, and CI/CD pipelines. | Students gained practical experience with industry-standard DevOps tools, improved teamwork, and understood software development and deployment processes. |
| 2.                       | SS & CD (23CSE161)      | Dr. Anitha N<br>Prof. Priyanka Padki<br>Prof. Devi Naveen | SIC Tool, LEX/FLEX & YACC Tool with Project                                                                                                                                     | Students used SIC, LEX/FLEX, and YACC tools to design and implement basic compiler components through a mini project.                                 | Students strengthened their understanding of compiler design concepts and improved programming, debugging, and problem-solving skills.                     |
| 3.                       | Advanced AI (23CSE1651) | Dr.Chaitra M,<br>Prof.Sreeja AK                           | RolePlay-Missionaries and Cannibals Problem                                                                                                                                     | Students performed a role-play activity to demonstrate the Missionaries and Cannibals problem and explain AI search strategies.                       | The activity improved conceptual understanding, logical thinking, communication, and collaborative learning.                                               |
| 4.                       | GenAI                   | KJ                                                        | Seminar,flip class                                                                                                                                                              | Students prepared seminars and participated in flipped classroom sessions on Generative AI concepts, tools,                                           | Students enhanced their presentation skills, self-learning ability, confidence, and awareness of                                                           |

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|    |                                  |                                                                           |                                                                                                  | and applications.                                                                                                          | emerging AI technologies.                                                                                                                             |
| 5. | C programming                    | Prof.Kalyani,<br>Prof.Supriya,<br>Rose Priyanka,<br>Kavyashree,Sang eetha | Pythontutor.com                                                                                  | Students used PythonTutor.com to visualize the execution of C programs and understand memory allocation and program flow.  | Students developed a better understanding of programming logic, debugging techniques, and code execution, resulting in improved coding skills.        |
| 6. | No-SQL                           | Dr. Amith Shekhar C                                                       | SimpliLearn Skillup Certification Course on: Introduction to Big Data Hadoop and Spark Developer | Students completed an online certification course covering Big Data fundamentals, Hadoop, and Apache Spark.                | Students gained industry-relevant knowledge, earned certification, and became familiar with modern big data technologies.                             |
| 7. | Introduction to Machine Learning | Dr. Amith Shekhar C                                                       | Peer Teaching                                                                                    | Students explained machine learning concepts and algorithms to their classmates through peer teaching sessions.            | Students improved their conceptual clarity, communication, teamwork, and confidence while reinforcing their understanding of machine learning topics. |
| 8. | Cryptography and Cyber Security  | Dr. Deepak D J                                                            | Activity on Digital Forensics Tools                                                              | Students explored and demonstrated the use of digital forensic tools for evidence collection and cybercrime investigation. | Students gained practical exposure to digital forensics, strengthened cybersecurity awareness, and understood real-world investigation techniques.    |
| 9. | Data Analysis (24CSE135)         | Prof. Priyanka S<br>Prof. Mona K<br>Prof. Manjushree K                    | Quizzes                                                                                          | Regular quizzes were conducted to assess students' understanding of                                                        | Students improved their conceptual                                                                                                                    |

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|     |                                                 |                                                           |                                                                                                               | data analysis concepts, Python programming, and data visualization techniques.                                                              | knowledge, problem-solving skills, and exam preparedness through continuous assessment.                                           |
| 10. | Block chain and Technology                      | Dr. S. Geetha                                             | Framing Question by Students                                                                                  | Students prepared and presented thought-provoking questions on blockchain concepts, applications, and emerging trends.                      | The activity promoted critical thinking, active participation, and a deeper understanding of blockchain technology.               |
| 11. | Automata Theory & Computation (23CSE152)        | Dr. Anitha N<br>Prof. Priyanka Padki<br>Prof. Devi Naveen | JLAP Tool                                                                                                     | Students used the JFLAP tool to design and simulate finite automata, pushdown automata, and Turing machines.                                | Students gained better visualization of theoretical concepts, improving logical reasoning and problem-solving abilities.          |
| 12. | Software Project Management & Finance(23CSE151) | Dr.Chaitra M,<br>Dr.Swetha MD,<br>Prof.Sreeja AK          | Integration of Infosys Digital Learning Platform in the Teaching– Learning Process and Usage of Star UML Tool | Students completed learning modules on the Infosys Digital Learning Platform and used StarUML to create UML diagrams for software projects. | Students enhanced their software design, project planning, and modeling skills while gaining exposure to industry practices.      |
| 13. | Agentic AI                                      | KJ and ALS                                                | Kaggle course with Hackathon                                                                                  | Students completed a Kaggle course on AI and participated in a hackathon to solve real-world AI problems.                                   | Students gained practical AI experience, improved coding and teamwork skills, and developed innovative problem-solving abilities. |
| 14. | Python Programming                              | Prof.Kalyani,<br>Prof.Supriya                             | Quizzzes Draw.io and Project                                                                                  | Students participated in quizzes, designed                                                                                                  | Students strengthened programming                                                                                                 |

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|     |                                              |                                                                        |                                                                                                                                            | flowcharts using Draw.io, and implemented Python-based mini projects.                                                                               | fundamentals, logical thinking, visualization skills, and hands-on coding experience.                                                                                     |
| 15. | Cloud Computing & Applications               | Dr. Revanasiddappa<br>Dr. Kavita V Horadi<br>Prof. Sreekanth Hampiholi | Mini Project: Students developed and deployed a real-time cloud application using AWS services such as EC2, S3, IAM, DynamoDB, and Lambda. | Students developed and deployed a real-time cloud application using AWS services such as EC2, S3, IAM, DynamoDB, and Lambda.                        | Students gained practical knowledge of cloud computing, deployment, security, and modern cloud services, improving their industry readiness.                              |
| 16. | Data structures and its applications using C | V. Rose Priyanka<br>Dr. Amith Shekhar C<br>Menaka                      | Interactive Visualization tools                                                                                                            | Students used interactive visualization tools to understand the working of data structures such as stacks, queues, linked lists, trees, and graphs. | Students developed a stronger understanding of data structures, improved coding skills, and enhanced problem-solving abilities through visual learning.                   |
| 17. | Operating System                             | Dr. Amith Shekhar C<br>Ashwini R Malipatil<br>Kusuma                   | CPU Scheduling Simulator                                                                                                                   | Students used a CPU Scheduling Simulator to perform and analyze various scheduling algorithms such as FCFS, SJF, Priority, and Round Robin.         | Students gained a better understanding of CPU scheduling concepts, improved analytical skills, and learned to compare the performance of different scheduling algorithms. |