

B.N.M. Institute of Technology

Approved by AICTE, Affiliated to VTU, Accredited as Grade A Institution by NAAC.

All UG branches – CSE, ECE, EEE, ISE & Mech.E Accredited by NBA for academic years 2018-19 to 2020-21 & valid upto 30.06.2021

Post box no. 7087, 27th cross, 12th Main, Banashankari 2nd Stage, Bengaluru- 560070, INDIA

Ph: 91-80- 26711780/81/82 Email: principal@bnmit.in, www. bnmit.org

Department of Computer Science & Engineering

Innovative Teaching Method

Academic Year 2020-21

| Sl. No | Semester | Course | Name of the Faculty | Innovative Method |
|--------|----------|--------------------------------------|-------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| 1. | 3 | Data Structure and Applications | Prof. Pathanjali C Prof. Kavyashree S | Data Structure and Applications |
| 2. | 4 | Microcontroller and Embedded Systems | Dr. Sneha K Prof. Prashanth J | Microcontroller and Embedded Systems based Projects |
| 3. | 4 | Data Communication | Dr.Niharika Kumar Prof.Manjushree K | Activity based on Cisco Packet Tracer |
| 4. | 6 | Computer Graphics and Visualization | Dr. Sreevidya R C Prof.Akshitha K | Virtual Lab (MHRD) |
| 5. | 6 | System Software and Compiler | Prof.Priyanka Padki, Prof.Mohanesh B M | Execution and Presentation on lexical analyzer in C |
| 6. | 6 | Data Mining & Data Warehousing | Prof. Kavya DN | Case study on various mining and Warehousing techniques |
| 7. | 6 | Cloud Computing | Prof. Preetham B | Create an application using any of the real time cloud platforms |
| 8. | 7 | Web Programming | Prof. Namitha S.J Prof. Priyanka Padki | Activity based on SEO tools |
| 9. | 8 | Internet of Things Technology | Dr. Sahana D Gowda Dr. Sheba S | Activity based on case study, a real-world application scenario of IoT with its societal and Economic impact. |
| 10. | 8 | Big Data Analytics | Prof. Kavyashree K R Prof. Preetham B | Posters on the course topic |
| 11. | 8 | User Interface Design | Prof. Karthik S Prof. Asha K | Develop a GUI for real time applications using UID Techniques. |

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Department of Computer Science & Engineering Innovative Teaching Method

Subject: Video recording of various courses by **VROOK**

Sem: I, III, V, VII sem CSE (Odd Sem 2020-21)

Title of Innovative Method/Activity: Virtual Class

List of Videos Recorded for VROOK

| Sl.No. | Subject Name with Code | Faculty Name | No. of Videos Recorded |
|-------------------------|--------------------------------------------|-----------------------|------------------------|
| I Sem Subjects | | | |
| 1 | C Programming for Problem Solving 18CPS13 | Prof.Raghavendra C K | 15 |
| | | Prof.Sajitha N | 6 |
| III Sem Subjects | | | |
| 1 | Analog and Digital Electronics 18CS33 | Dr.SnehaK | 20 |
| 2 | Analog and Digital Electronics Lab 18CSL37 | Prof.Prashanth | 5 |
| | | Dr.JalajaG | 3 |
| 3 | Computer Organization 18CS34 | Prof.ManjushreeK | 17 |
| 4 | Data Structures and Applications 18CS32 | Prof. Kavyashree | 12 |
| | | Prof. Pathanjali C | 3 |
| 5 | Discrete Mathematical Structures 18CS36 | Prof. Namitha S J | 21 |
| V Sem Subjects | | | |
| 1 | Computer Networks and Security 18CS52 | Dr. Niharika Kumar | 23 |
| 2 | Database Management System 18CS53 | Dr. Sejal Santosh | 25 |
| 3 | Automata theory and Computability 18CS54 | Prof. Susan | 19 |
| 4 | Unix Programming 18CS56 | Prof.Chandravathana I | 21 |
| VII Sem Subjects | | | |
| 1 | Advanced Computer Architectures 17CS72 | Dr.Sahana D Gowda | 22 |
| | | Prof.Manikantha K | 19 |
| 2 | Machine Learning 17CS73 | Prof. Jebha | 12 |
| Total | | | 243 |

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Department of Computer Science & Engineering

Innovative Teaching Method

Subject: Analog and Digital Electronics and Microcontroller and Embedded System Laboratories

Sem: III and IV sem CSE

Title of Innovative method/Activity: Virtual Laboratory Classes

Faculty: Dr. Jalaja G, Prof. Prashanth J & Patanjali C

Goals/Objective of Method:

To create virtual Lab for the students.

Description of method:

Video Recording of experiments was done and Uploaded in YouTube and link was shared with the students so that they can watch it anytime and anywhere and understand the concepts very well.

| Topic | YouTube Link |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Stepper Motor | https://youtu.be/zeOYd8_iNXc |
| DC Motor | https://youtu.be/nQiQDDsjYAAQ |
| LED Interrupt | https://youtu.be/LNxyafViBSQ |
| Keypad | https://youtu.be/M2ICmEFkLT0 |
| DAC | https://youtu.be/9dPvJfZ_OIY |
| ADC | https://youtu.be/cPrvzkLZ2_o |
| Seven Segment | https://youtu.be/IM9UhcW7S5s |
| Analog and Digital Electronics | <ol style="list-style-type: none">https://youtube.com/playlist?list=PLAI-8wTyXDW-4AfgR8cda3jwNeNjFKNmQhttps://youtube.com/playlist?list=PLAI-8wTyXDW_fn4JT0mdc4lQQ7BR4MO71 |

Benefits of method:

- Creation of technical awareness amongst the students.
- A permanent record of conduction of experiments

Effectiveness of method: Students' especially slow learners are able to understand the concepts in a much better way.

E-Mail address of faculty: prashanthj@bnmit.in, jalajag@bnmit.in