



**K.S. Institute of Technology, Bangalore**  
**DEPARTMENT OF**  
**COMPUTER SCIENCE AND ENGINEERING**

**NBA Criteria-6 Website Details**

**Computer Science and Engineering Department has fully furnished State of Art laboratories which are well-equipped to run the academic lab courses. It also has dedicated Research and Development lab and a Project lab for all semester students interested to carry out academic projects, projects for various competitions like Smart India Hackathon, or any other organizational events, assignment projects, mini projects, Hobby projects etc.**

**1.**

**NAME OF THE LAB:** MACHINE LEARNING LABORATORY , DBMS LABORATORY AND PROJECT WORK

**LOCATION:** 108-OB I FLOOR

**DESCRIPTION:** This lab has a **total area of 108 sq ft**. It is utilized by 7<sup>th</sup> semester students for Machine Learning, along with 5<sup>th</sup> semester students for DBMS Lab work during the Odd semester of the academic calendar. Interesting Mini Projects (which are part of the curriculum) are also done by making use of this lab. During Even semester the lab is used by 8<sup>th</sup> semester students to work on their final year project work phase II.

**Ambiance:** This lab has projector for aid of presentations and program logic explanations. It is provided with uninterrupted power supply with aid of UPS capacity of 25KVA. White/black board, Notice boards, Display boards, Instruction Boards (Do's and Dont's), Experiment charts, Lab programs lists, Lab Layouts, Vision and Mission board, PEOs and PSOs board are displayed in laboratory. Laboratory manuals are maintained for reference. The lab also contain Shoe Racks and Bag Racks for student convenience.

**Safety:** General Rules of Conduct in Laboratories are displayed. Electrical maintenance such as electrical ports, switches, network cables, lights and fans are serviced. Any failure in components is timely serviced. **e-Waste** is periodically handed over to "E-Parisaraa Pvt Ltd", which is a government authorized electronic waste recycler. Safety aids available in the laboratory are

- Firewall
- First aid box
- Fire extinguisher

**No. of Systems and their specification:** HP Computers- 25, Processor- Core i5, Hard Disk - 500GB, RAM- 4 GB

**Software Used:** ORACLE 11 G, ANACONDA 3

**Additional Software available:** MongoDB, Oracle and Wireshark

**OS Version:** UBANTU 18.4

**FACULTY IN-CHARGE:** Mrs. Sougandhika Narayan

**NON- TEACHING STAFF IN-CHARGE:** Mrs.Vimala Kumari V

**2.**

**NAME OF THE LAB:** COMPUTER NETWORK LABORATORY AND PROJECT WORK

**LOCATION:** 109-OB I FLOOR

**DESCRIPTION:** This lab has a **total area of 108 sq ft**. It is utilized by 5<sup>th</sup> semester students for learning computer network and programming during the Odd semester of the academic calendar. During Even semester the lab is used by 8<sup>th</sup> semester students to work on their final year project work phase II.

**Ambiance:** This lab has **mounted projector** for aid of presentations and program logic explanations. It is provided with uninterrupted power supply with aid of UPS capacity of 25KVA. White/black board, Notice boards, Display boards, Instruction Boards (Do's and Dont's), Experiment charts, Lab programs lists, Lab Layouts, Vision and Mission board, PEO and PSO board are displayed in laboratory. Laboratory manuals are maintained for reference. The lab also contain Shoe Racks and Bag Racks for student convenience.

**Safety:** General Rules of Conduct in Laboratories are displayed. Electrical maintenance such as electrical ports, switches, network cables, lights and fans are serviced. Any failure in components is timely serviced. **e-Waste** is periodically handed over to "E-Parisaraa Pvt Ltd", which is a government authorized electronic waste recycler. Safety aids available in the laboratory are

- Firewall
- First aid box
- Fire extinguisher

**No. of Systems and their specification:** Lenovo Computers- 25, Processor- Core i5, Hard Disk - 320GB , RAM- 4 GB

**Software Used:** NS2 (Network Simulator)

**Additional Software available:** Flex , Bison, NS2 simulator, Wireshark, NetSim and Anaconda

**OS Version:** Ubuntu 18.04.2 LTS

**FACULTY IN-CHARGE:** Mr. Krishna Gudi

**NON- TEACHING STAFF IN-CHARGE:** Mrs. Rekha Nagaraj

3.

**NAME OF THE LAB:** DATA STRUCTURES LABORATORY AND DESIGN AND ANALYSIS OF ALGORITHM LABORATORY AND SYSTEM SOFTWARE AND OPERATING SYSTEM LABORATORY

**LOCATION:** 301-OB III FLOOR

**DESCRIPTION:** This lab has a **total area of 83 sq ft**. It is utilized by 3<sup>rd</sup> semester students for leaning concepts of data structure and programming during the Odd semester of the academic calender. During Even semester the lab is used by 4<sup>th</sup> semester students to understand design and analysis of different algorithms, along with 6<sup>th</sup> semester students to learn system software and operating systems.

**Ambiance:** This lab has projector for aid of presentations and program logic explanations. It is provided with uninterrupted power supply with aid of UPS capacity of 25KVA. White/black board, Notice boards, Display boards, Instruction Boards (Do's and Dont's), Experiment charts, Lab programs lists, Lab Layouts, Vision and Mission board, PEO and PSO board are displayed in laboratory. Laboratory manuals are maintained for reference. The lab also contain Shoe Racks and Bag Racks for student convenience.

**Safety:** General Rules of Conduct in Laboratories are displayed. Electrical maintenance such as electrical ports, switches, network cables, lights and fans are serviced. Any failure in components is timely serviced. **e-Waste** is periodically handed over to "E-Parisaraa Pvt Ltd", which is a government authorized electronic waste recycler. Safety aids available in the laboratory are

- Firewall
- First aid box
- Fire extinguisher

**No. of Systems and their specification:**

i) HP Computers-22, Processor - Core 2 DUO, Hard Disk -160GB, RAM -2 GB

ii) Lenovo Computers -02, Processor - Core i5, Hard Disk -320 GB, RAM -4 GB

iii) HP Computers - 02, Processor - Core i5, Hard Disk - 500GB, RAM- 4 GB

**Software Used:** For 3<sup>rd</sup> sem Editor, for 4<sup>th</sup> sem JDK 1.8 Eclipse and for 6<sup>th</sup> sem Flex & Bison

**Additional Software available:** JAVA and Anaconda

**OS Version:** UBUNTU 12.4 & 16.4

**FACULTY IN-CHARGE:** Mr. K Venkata Rao

**NON- TEACHING STAFF IN-CHARGE:** Mrs. K.Sujatha

4.

**NAME OF THE LAB:** WEB TECHNOLOGY LABORATORY, DBMS LABORATORY AND COMPUTER GRAPHICS LABORATORY

**LOCATION:** 303-OB III FLOOR

**DESCRIPTION:** This lab has a **total area of 113 sq ft.** It is utilized by 5<sup>th</sup> semester students for learning concepts of Database Management, along with 7<sup>th</sup> semester students for understanding Web Technology during the Odd semester of the academic calendar. During Even semester the lab is used by 6<sup>th</sup> semester students to understand concepts of Computer Graphics. Mini Projects (which are part of the curriculum) are also done by making use of this lab.

**Ambiance:** This lab has **projector** for aid of presentations and program logic explanations. It is provided with uninterrupted power supply with aid of UPS capacity of 25KVA. White/black board, Notice boards, Display boards, Instruction Boards (Do's and Dont's), Experiment charts, Lab programs lists, Lab Layouts, Vision and Mission board, PEO and PSO board are displayed in laboratory. Laboratory manuals are maintained for reference. The lab also contain Shoe Racks and Bag Racks for student convenience.

**Safety:** General Rules of Conduct in Laboratories are displayed. Electrical maintenance such as electrical ports, switches, network cables, lights and fans are serviced. Any failure in components is timely serviced. **e-Waste** is periodically handed over to "E-Parisaraa Pvt Ltd", which is a government authorized electronic waste recycler. Safety aids available in the laboratory are

- Firewall
- First aid box
- Fire extinguisher

**No. of Systems and their specification:** HP Computers - 28, Processor - Core i5, Hard Disk - 500GB, RAM - 4 GB

**Software Used:** CODEBLOCKS, GLUT

**Additional Software available:** MongoDB, Oracle and Anaconda

**OS Version:** UBNTU 18.04 & WINDOWS 8.1

**FACULTY IN-CHARGE:** Mr Harshvardhan J R

**NON- TEACHING STAFF IN-CHARGE:** Ms. Asha

5.

**NAME OF THE LAB:** ANALOG AND DIGITAL ELECTRONICS LABORATORY, MICROCONTROLLER AND EMBEDDED SYSTEMS LABORATORY AND SYSTEM SOFTWARE AND OPERATING SYSTEM LABORATORY

**LOCATION:** 304-OB III FLOOR

**DESCRIPTION:** This lab has a **total area of 136 sq ft.** It is utilized by 3<sup>rd</sup> semester students for learning concepts of Analog and Digital Electronics during the Odd semester of the academic calendar. During Even semester the lab is used by 4<sup>th</sup> semester students to understand concepts of Microcontroller and Embedded Systems, along with 6<sup>th</sup> semester students for System Software and Operating System lab.

**Ambiance:** This lab has **projector** for aid of presentations and program logic explanations. It is provided with uninterrupted power supply with aid of UPS capacity of 25KVA. White/black board, Notice boards, Display boards, Instruction Boards (Do's and Dont's), Experiment charts, Lab programs lists, Lab Layouts, Vision and Mission board, PEO and PSO board are displayed in laboratory. Laboratory manuals are maintained for reference. The lab also contain Shoe Racks and Bag Racks for student convenience.

**Safety:** General Rules of Conduct in Laboratories are displayed. Electrical maintenance such as electrical ports, switches, network cables, lights and fans are serviced. Any failure in components is timely serviced. **e-Waste** is periodically handed over to "E-Parisaraa Pvt Ltd", which is a government authorized electronic waste recycler. Safety aids available in the laboratory are

- Firewall
- First aid box
- Fire extinguisher

**No. of Systems and their specification:** HP Computers - 28, Processor - Core i5, Hard Disk - 500GB, RAM - 4 GB

**Software Used:** XILINX, ORCAD, PSPICE, MODEL SIM, KEIL, GLUT, ORACLE 11G

**Major Equipments:** Digital IC trainer Kits, FALCON CROs, APLAB CROs, Microcontroller Kits (ALS – SDA –ARM7, ARM7 2148)

**OS Version:** WINDOWS 8.1 & UBUNTU 18.04

**FACULTY IN-CHARGE:** Mr. Sanjoy Das

**NON- TEACHING STAFF IN-CHARGE:** Mr. Shankara K Kenche

6.

**NAME OF THE LAB:** COMPUTER PROGRAMMING LABORATORY

**LOCATION:** 309-NB III Floor

**DESCRIPTION:** This lab has a **total area of 848.25 sq ft.** It is utilized by 1<sup>st</sup> semester students for leaning concepts of Computer Programming during the Odd semester of the academic calender. During Even semester the lab is used by 1<sup>st</sup> semester students to understand concepts of Computer Programming.

**Ambiance:** This lab has projector for aid of presentations and program logic explanations. It is provided with uninterrupted power supply with aid of UPS capacity of 30KVA. White/black board, Notice boards, Display boards, Instruction Boards (Do's and Dont's), Experiment charts, Lab programs lists, Lab Layouts, Vision and Mission board, PEO and PSO board are displayed in laboratory. Laboratory manuals are maintained for reference. The lab also contain Shoe Racks and Bag Racks for student convenience.

**Safety:** General Rules of Conduct in Laboratories are displayed. Electrical maintenance such as electrical ports, switches, network cables, lights and fans are serviced. Any failure in components is timely serviced. **e-Waste** is periodically handed over to "E-Parisaraa Pvt Ltd", which is a government authorized electronic waste recycler. Safety aids available in the laboratory are

- Firewall
- First aid box
- Fire extinguisher

**No. of Systems and their specification:** Lenovo Computers -30, Processor- Core i5, RAM- 4GB, Hard Disk - 320GB

**Software Used:** For C Programming Lab: Codeblocks

**Additional Software available:** Flex, Bison, MongoDB, Anaconda and Oracle

**OS Version:** Ubuntu 18.4

**FACULTY IN-CHARGE:** Mrs. Deepa S R

**NON- TEACHING STAFF IN-CHARGE:** Mrs. Anita B

7.

**NAME OF THE LAB:** MOBILE ALLPLICATION DEVELOPMENT LABORATORY

**LOCATION:** 105-NB I FLOOR

**DESCRIPTION:** This lab has a **total area of 82 sq ft.** It is utilized by 6<sup>th</sup> semester students for leaning concepts of Mobile Application Development concepts during even semester of the academics. During Odd semester the lab is used by all semester students to work on the conecepts of Web Application development, Application development etc.

**Ambiance:** This lab has **projector** for aid of presentations and program logic explanations. It is provided with uninterrupted power supply with aid of UPS capacity of 30KVA. White/black board, Notice boards, Display boards, Instruction Boards (Do's and Dont's), Experiment charts, Lab programs

lists, Lab Layouts, Vision and Mission board, PEO and PSO board are displayed in laboratory. Laboratory manuals are maintained for reference. The lab also contain Shoe Racks and Bag Racks for student convenience.

**Safety:** General Rules of Conduct in Laboratories are displayed. Electrical maintenance such as electrical ports, switches, network cables, lights and fans are serviced. Any failure in components is timely serviced. **e-Waste** is periodically handed over to “E-Parisaraa Pvt Ltd”, which is a government authorized electronic waste recycler. Safety aids available in the laboratory are

- Firewall
- First aid box
- Fire extinguisher

**No. of Systems and their specification:** DELL Computers - 25, Processor - Core i5, Hard Disk - 1TB, RAM - 8 GB

**NAME OF THE LAB:** RESEARCH CENTER

**LOCATION:** 305-NB III FLOOR

**DESCRIPTION:** This lab has a **total area of 82 sq ft.** is dedicated for all semester students interested to carry out academic projects, projects for various competitions like Smart India Hackathon, or any other organizational events, assignment projects, mini projects, hobby projects etc. Students will utilize the lab facility with the help of concerned guides, mentors and technical staff. It is open to all semester students for Researchers and students who can work on various technologies. R and D lab is utilized for Internship training conduction also. For the benefit of the students carrying out the project works, a small library **109 books, 461 reference journal** are made available. Further, project reports of few years (departmental copy) are also placed in this library. The lab is well equipped with LAN connectivity, WiFi and uninterrupted power supply. Dedicated projectors are available for use. With enough output power points, so that the students can bring their own computing devices to work hassle free. Facilities available are as follows,

**Server:** for Online submission of any programming assignment.

**Interactive panel:** Teaching Veracity

Sl. No.	Item	Description	Quantity
1.	Computers (Total 7)	HP DESKTOP 110 Series-core i3 3rd Gen/4GB RAM ram/500 GB HDD	4
		HP Desktop 450-011 in core I3 Processor/4GB Ram/500GB Hard Disk/Win8 OS	2
		HP 406 G1 MT core I7 4th Gen Processor 4GB DDR3 Ram/1TB Hard Disk DVD	1
2	Laptops (Total 3)	Dell Laptop Inspiron-CoreI5 5th Gen Processor14GB Ram 500GB Hard Disk	2
		Apple Mac Book Air MQd42hn/a 13 inch Laptop	1
3	Network Storage	Lenovo 1*4-300d Network Storage with 6TB Hard Disk	1
4	Workstation	HP Z230 MT Intel xeon E3-1226v3 3.38M GT2 4C CPU 4GB DDR3-1600 NECC (1*4GB) RAM 1TB 7200 RPM SATA 1st	1

		HDD No ODD Intel HD Graphics P4600	
5	Galileo Boards	Intel Galileo Boards	10
6	Barcode Scanner	Honeywell voyager 1452g(2d) Omnidirectional Barcode Scanner (Handled)	1
7	Printer	HP All in One Printer 1213NF	2
8	Interactive panel		1
9	Microcontroller Kits	ARM7 LPC 2148	10

Sl. No.	Software	Description
1	Wireshark	Packet analyzer, used for network troubleshooting
2	Oracle	It's a multi model database management system
3	MongoDB	Cross platform document oriented database program
4	JAVA	Object oriented programming language
5	Anaconda	Free and open source distribution of python and R programming languages for scientific computing
6	Code Block	Is a cross platform IDE built around wxWidgets , designed to be extensible and configurable

**NAME OF THE LAB: PROJECT WORK LABORATORY**

**LOCATION: 406 B-OB IV FLOOR**

**DESCRIPTION:** This lab has a **total area of 94.2 sq ft.** is dedicated for all semester students interested to carry out academic projects, projects for various competitions like Smart India Hackathon, or any other organizational events, assignment projects, mini projects, hobby projects etc. Students will utilize the lab facility with the help of concerned guides, mentors and technical staff. It is open to all semester students for Researchers and students who can work on various technologies. R and D lab is utilized for Internship training conduction also. The lab is well equipped with LAN connectivity, WiFi and uninterrupted power supply. Dedicated projectors are available for use. With enough output power points, so that the students can bring their own computing devices to work hassle free. Facilities available are as follows,

#### List of Software

Sl. No.	Software	Description
1	Wireshark	Packet analyzer, used for network troubleshooting

2	Oracle	It's a multi model database management system
3	MongoDB	Cross platform document oriented database program
4	JAVA	Object oriented programming language
5	Anaconda	Free and open source distribution of python and R programming languages for scientific computing
6	Code Block	Is a cross platform IDE built around wxWidgets , designed to be extensible and configurable