



Rayat Shikshan Sanstha's  
**Dr. Patangrao Kadam Mahavidyalaya Ramanandnagar (Burli)**

**Department of BCA**  
**Report on Best Practice**  
**"PC Hardware and Networking"**  
**2025-26**  
**REPORT**

**Date: 07/01/2026**

Dr. Patangrao Kadam Mahavidyalaya, Ramanandnagar (Burli), Department of BCA, in collaboration with IQAC, organized a 90 Days Training Program on "PC Hardware and Networking" from 03 January 2025 to 28 February 2025. This training program was specially conducted for BCA I students to enhance their practical and technical skills.

The training was conducted continuously for 90 days under the guidance of Mrs. Borade N. S. (Faculty, Department of BCA), who ensured consistent learning and student engagement throughout the program. The program was inaugurated at the college level, highlighting its importance and value at the institutional level.

A total of 19 BCA I students actively participated in this training program, making it a successful and sustainable best practice for skill development and experiential learning.

**Programme Outcomes:**

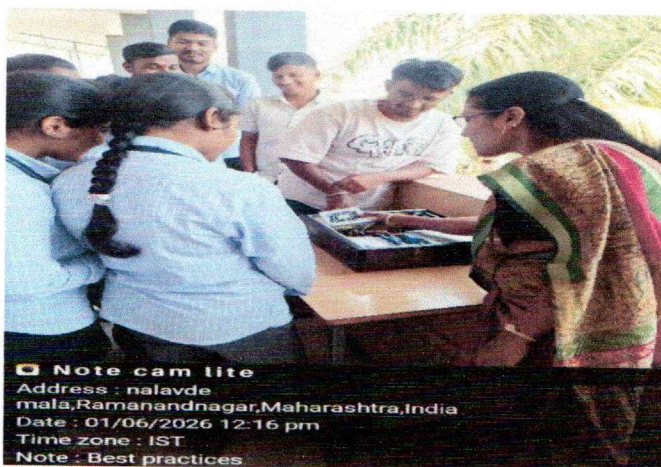
- ❖ Students get knowledge about Hardware's.
- ❖ Learn how to repair computer.

**Beneficiaries: 19 Students**



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Date : 01/06/2026 12:15 pm  
Time zone : IST  
Note : Best practices



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Time zone : IST  
Note : Best practices

**Mrs. Borade N.S. gave demo on Hardware Networking**

**Head of Dept.**  
**Department of BCA**  
**Dr. Patangrao Kadam Mahavidyalaya,**  
**Ramanandnagar (Burli)**

**Principal,**  
**Dr. Patangrao Kadam Mahavidyalaya,**  
**Ramanandnagar (Burli)**  
**Tal. Palus, Dist. Sangli.**



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**Department of BCA**

**Best Practice - 2025-26**

**"PC Hardware and Networking"**

### Faculty Notice

**Date: 28/11/2025**

The faculty members of the department are kindly informed that the departmental meeting will be held on 29/11/2025 at 11:30 AM in the department staff room. All members are requested to attend.

#### Agenda for Departmental Meeting

**Date:** 29/11/2025

**Time:** 11:30 AM

**Venue:** Department Computer Lab

1. Discussion on the Short Term Course starting from December.
2. Discussion regarding the notice to be issued to students.
3. Discussion on the intake capacity of the course.
4. Preparation of 90 hours timetable.
5. Distribution of syllabus.

#### Member:-

1. Prof Borade N.S. -
2. Prof. Kadam A.P. Kadam
3. Prof. Satape A.A. Satape
4. Prof. Shinde M.V. Shinde

Kadam.

Chairman  
(Miss Kadam A.P.)

Agorank  
Head of Dept.  
Department of BCA  
Dr. Patangrao Kadam Mahavidhyalaya,  
Ramanandnagar (Burli)





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**Best Practice 2025-26**

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### Notice

**Date: 29/11/2025**

All the students are hereby informed that the **BCA Department** is organizing a **Best Practice on "PC Hardware and networking"** from **01/12/2025** to **01/03/2026**. This course aims to enhance students' knowledge and practical skills in the emerging field of Artificial Intelligence.

All BCA students are advised to attend and make the most of this valuable opportunity.

**Head of Dept.**

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**Best Practice – 2025-26**

**“PC Hardware and Networking”**

### ❖ Learning Outcomes:-

Student will learn following topic with PC Hardware and Network:

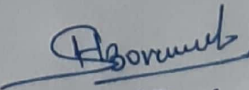
1. Lists the hardware components such as processor, memory, disk, main board, etc.
2. Explains the features (speed, capacity, etc.)Of the hardware components of a computer.
3. Explains the relationships between the components of a computer and how data are transferred among the components.
4. Identify the peripheral devices outside computer.
5. Uses computer using input devices, such as keyboard and mouse.
6. Transfers data outside the computer using output devices, such as screen and printer.
7. Saves files to removable devices and loads files from removable devices.

### ❖ Program Outcome:-

1. Students will understand the basics of computer systems along with peripherals.
2. Students will be able to do troubleshooting of different computer related issues.
3. Students will learn to determine and installing appropriate security measures.
4. Students will be able provide the technical support on-site.
5. Students will be able to troubleshoot software and hardware problems related to internet applications.

### ❖ Course Outcomes:-

1. Students will be able to identify the essential components of a computer.
2. Students will be able to describe the function of the essential components of a computer.
3. Students will be able to recommend hardware.
4. Students will be able to develop a computer system proposal/presentation for a client.
5. Students will be able to troubleshoot hardware components; 6. Students will be able to assemble a computer with essential components.

  
**Head of Dept.**

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## **Syllabus**

### **Unit 1: Introduction to Computer Hardware**

- Basics of computer systems
- Types of computers
- Boot process (POST – Power On Self Test)
- Computer firmware: BIOS / UEFI
- Hardware components overview
  - Input devices
  - Output devices
  - Storage devices

### **Unit 2: Motherboard and CPU**

- Types of motherboards
- Chipsets, buses and ports
- CPU components and working
- CPU socket types
- Heat sinks, cooling systems
- CMOS battery and settings

### **Unit 3: Memory and Storage Devices**

- RAM: SDRAM, DDR, DDR2/3/4/5
- ROM: EEPROM, Flash ROM
- Hard Disk Drive (HDD) – structure & working
- SSD – working and types
- Partitions, file systems (NTFS, FAT, EXT)

### **Unit 4: Power Supply and SMPS**

- Types of power supply
- SMPS working
- Connectors (ATX, SATA, PCIe)
- UPS – types and working

## **Unit 5: Assembling & Troubleshooting**

- Steps to assemble a PC
- Installing OS (Windows / Linux)
- Driver installation
- Common hardware issues and troubleshooting
- POST error codes and beep codes

## **Networking Syllabus**

### **Unit 6: Basics of Networking**

- Introduction to networks
- Types of networks: LAN, MAN, WAN, PAN
- Topologies: Bus, Star, Ring, Mesh, Hybrid
- Network devices: Hub, Switch, Router, Bridge, Repeater, Gateway

### **Unit 7: Network Cabling & Media**

- UTP, STP cables
- Coaxial, Fiber Optic
- Crimping RJ45 connectors
- Straight-through & Cross-over cable
- Wi-Fi basics

### **Unit 8: IP Addressing**

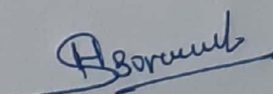
- IPv4, IPv6
- Classes of IP
- Private vs Public IP
- Subnetting (basic)
- DHCP, DNS, NAT concepts

### **Unit 9: Protocols and OSI Model**

- OSI 7-layer model
- TCP/IP model
- Protocols: HTTP, FTP, SMTP, TCP, UDP, ARP, ICMP
- MAC address concept

### **Unit 10: Network Configuration**

- LAN setup & configuration
- Router configuration basics
- Sharing files and printers
- Creating subnets



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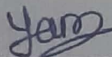

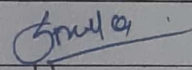
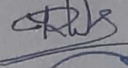
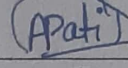
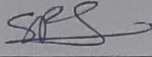
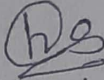
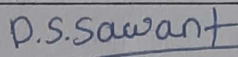

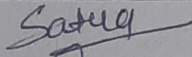
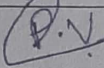
**Short Term Course**

**2024-25**

**"PC Hardware and Networking**

**Students List**

Sr.No	Roll No	Students Name	Signature
1.	2351	AUTADE KIRAN SHIVAJI	<u>Kiran</u>
2.	2352	AWAGHADE PRASIK DATTATRAY	<u>Pratik</u>
3.	2353	BAGAL CHAITANYA KISAN	<u>Chait</u>
4.	2354	DESAI ASHISH ANKUSH	<u>Ashish</u>
5.	2355	DHAVAN TANMAY PRALHAD	<u>Pralhad</u>
6.	2356	DHOKALE RIYA SANJAY	<u>Radhokale</u>
7.	2357	GALANDE SANKET MANIK	<u>Sanket</u>
8.	2358	GAVANDI SANIYA FARUKH	<u>Shamika</u>
9.	2359	JADHAV SHUBHAM SAMBHAJI	<u>SSJ</u>
10.	2360	JAGADALE OMKAR DILIP	<u>JomkarD</u>
11.	2361	KHOT KESHAR SANJAY	<u>Khot</u>
12.	2362	KOLI ONKAR RAMESH	<u>Onkar</u>
13.	2363	LAD OMKAR SUNIL	<u>Omkar</u>
14.	2364	MALI ANAGHA ASHOK	<u>Anagha</u>
15.	2365	MALI NANDINI NITIN	<u>Nandini</u>

Sr.No	Roll No	Students Name	Signature
16.	2366	MITHARI YASHASHREE AJINKYA	
17.	2367	MULANI REHAN ALTAFHUSEN	
18.	2368	MULLA SUMAIYYA TAUSIF	
19.	2369	NALAWADE YASH RAVINDRA	
20.	2370	PATIL ARATI AMOL	
21.	2371	SAWANT SUMIT PRATAP	
22.	2372	SAWANT HARASHAWARDHAN MILIND	
23.	2373	SAWANT SHRENIK DHANANJAY	
24.	2374	SUTAR NIKHIL HEMANT	
25.	2375	VADAR SATYAJIT SACHIN	
26.	2376	VHOTKAR PRAMOD NARAYAN	
27.	2377	WAGHMODE TUSHAR TANAJI	