



## **SYLLABUS**

### **Hardware Assembly and Networking**

**Duration: 30 Hours**

#### **Module 1 :**

Computer Basics – Introduction and History , Introduction & Definition of Computer , Block Diagram of computer , Classification of computer , Characteristics of Computers ,What is Language? ,Types of Languages and language translators. ,History and Generation of computers, Memory - Bits, Bytes, KB, MB, GB,TB,PB,EB,ZB,YB etc , Computer Software, Types of Software with Ex. (System/Application/Utility S/W , Computer Hardware, Intro. to Hardware components of computer

#### **Module 2 :**

Assembling and Disassembling PCs - Assembling and Disassembling a PC , Precautions to be taken while assembling the PC Introduction to BIOS / CMOS Setup, POST (Power On Self Test) , Introduction to BIOS/CMOS Setup, POST (Power On Self-Test , Demonstration of BIOS/CMOS Configuration (Date, Time, Enable/Disable Devices). , Dual BIOS Feature , BIOS/CMOS Setup, Booting Sequence/Boot Order

#### **Module 3 :**

Introduction to Operating System , Definition and types of Operating Systems – MS Dos, Windows 9x/XP/Vista/7/8, Linux, MAC OS, Android etc. , Process of Booting the Operating System. ,Win XP/Win 7. Activation and Automatic Updating procedures.



## Schedule

### Hardware Assembly and Networking

Duration: 30 hours			
Session	Content	Time	Date
1.	Computer Basics – Introduction and History, block diagram of computer.	3:00 - 04:30	08-11-2021
2.	Classification of computer • Characteristics of Computers	3:00 - 04:30	10-11-2021
3.	What is Language? • Types of Languages and language translators	3:00 - 04:30	12-11-2021
4.	History and Generation of computers	3:00 - 04:30	15-11-2021
5.	Memory - Bits, Bytes, KB, MB, GB, TB, PB, EB, ZB, YB etc	3:00 - 04:30	17-11-2021
6.	Computer Software, Types of Software & Computer Hardware, Intro. to Hardware components of computer	3:00 - 04:30	19-11-2021
7.	Assembling and Disassembling PCs & Precautions to be taken while assembling the PC	3:00 - 04:30	22-11-2021
8.	Introduction to BIOS / CMOS Setup, POST (Power On Self Test)	3:00 - 04:30	24-11-2021
9.	Demonstration of BIOS/CMOS Configuration (Date, Time, Enable/Disable Devices).	3:00 - 04:30	26-11-2021
10.	Dual BIOS Feature • BIOS/CMOS Setup, Booting Sequence/Boot Order	3:00 - 04:30	29-11-2021
11.	Introduction to Operating System & Definition and types of Operating Systems	3:00 - 04:30	1-12-2021
12.	MS Dos & Windows 9x & Android	3:00 - 04:30	3-12-2021
13.	XP/Vista , Linux , MAC OS	3:00 - 04:30	6-12-2021
14.	Process of Booting the Operating System	3:00 - 04:30	8-12-2021
15.	Win XP/Win 7	3:00 - 04:30	10-12-2021



16.	Activation and Automatic Updating procedures	3:00 - 04:30	13-12-2021
17.	Linux	3:00 - 04:30	15-12-2021
18.	Practical Demonstration of Computer Assembling	3:00 - 04:30	17-12-2021
19.	Practical Demonstration of Computer Assembling	3:00 - 04:30	20-12-2021
20.	Revision	3:00 - 04:30	22-12-2021



	<b>Report</b>
<b>Name of Activity</b>	Ad-on Course on Hardware and Networking
<b>Date</b>	8 November 2021 to 22th December 2021
<b>Venue</b>	BCA Classroom and Computer Lab 1
<b>Organized by</b>	BCA Department
<b>Resource person</b>	Ms. Nisha Bansal ,Assistant Professor, MIMT
<b>Participated by</b>	BCA Ist year Sec-A students (37 students)
<b>Coordinator</b>	Mr. Himanshu Rastogi ,Assistant Professor, MIMT
<b>Objective</b>	<p>The objective is to:</p> <ul style="list-style-type: none"><li>• Provide in depth and thorough knowledge of the computers and its components, along with the complex science of their functions, connectivity and networking.</li><li>• Both the aspects of the course aim to build up expertise over computers.</li></ul>
<b>Content</b>	<p>With the initiative of IQAC, Mangalmai Institute of Management and Technology organized add on certification course on “hardware and networking”. The course enabled the students to acquire knowledge of hardware and internal knowledge of basic parts of computer.</p> <p>Day1: The session started with the discussion on basic parts of computer and what is the history of computer and also block diagram of computer</p> <p>Day 2: In this interactive session, students knew about the classification of computer and its characteristics.</p> <p>Day 3: The resource persons started the session with discussion on languages of computer and many translator used by them.</p> <p>Day 4: In this session, learnt about various generations of computer</p> <p>Day 5: The session was on memory.</p> <p>Day 6: This session was focused on computer software and its types of software and hardware</p> <p>Day 7: The resource persons discussed how to assemble and deassemble the PCs and the precautions to be taken while assembling the PCs.</p>



	<p>Day 8: This session discussed about the BIOS and CMOS setup. POST (power on self test).</p> <p>Day 9: The session starts with demonstration of BIOS and CMOS.</p> <p>Day 10: The resource persons discussed with students about the dual BIOS feature that is BIOS/CMOS setup and booting sequence also discussed.</p> <p>Day 11: The resource person now comes to in this session that operating system and various types of operating system. Operating plays a major role.</p> <p>Day 12: Resource person discussed about the command operating system that is MS-DOS and also windows OS.</p> <p>Day 13: The session was continuing with the windows operating system XP VISTA, Ubuntu Linux and MAC OS.</p> <p>Day 14: In this session Students learnt how to process of booting the operating system.</p> <p>Day 15: Students learnt about the win XP and Win 7.</p> <p>Day 16: This session discussed about the activation and automatic updating procedure</p> <p>Day 17: In this session, ubuntu linux were discussed.</p> <p>Day 18: The resource person starts with practical demonstration of computer assembling.</p> <p>Day 19: In this session, practical demonstration of computer assembling done.</p> <p>Day 20: The resource person revised or discussed the whole session Procedure.</p>
<b>Outcome of Activity</b>	Through Hardware and Networking Course students are capable of identifying, addressing and solving the problems of the computer systems and its connectivity.



### **List of Beneficiaries**

#### **Section- A**

<b>Sr. No.</b>	<b>Roll No.</b>	<b>Student Name</b>
1	R210992106005	Abhishek



		Chaudhary
2	R210992106006	Abhishek Mishra
3	R210992106008	Abhishek Raj
4	R210992106017	Aman Sharma
5	R210992106019	Amit Kumar
6	R210992106020	Anamika Kumari
7	R210992106021	Ankit Singh
8	R210992106023	Anshu Kumari
9	R210992106025	Anurag Kumar
10	R210992106027	Arun Bhati
11	R210992106032	Atul Chaudhary
12	R210992106034	Ayush Kumar
13	R210992106036	Bhupender
14	R210992106037	Chandan Kumar
15	R210992106043	Dhanu Manjhi
16	R210992106044	Diksha Yadav
17	R210992106045	Dipak Paul
18	R210992106050	Harshit Singhal
19	R210992106053	Jatin Upadhyay
20	R210992106057	Jyotish Ahirwar
21	R210992106060	Kunal Mishra
22	R210992106062	Lakshay Sharma
23	R210992106063	Lav Khari
24	R210992106065	Manish Pal
25	R210992106073	Mohit Kumar
26	R210992106078	Nikita Singh
27	R210992106085	Pratham Saxena
28	R210992106087	Priyanka Prasad
29	R210992106092	Ravi Kumar
30	R210992106096	Rohan
31	R210992106098	Rukhsar
32	R210992106104	Saurabh Swami
33	R210992106111	Shivam
34	R210992106114	Shivam Singh Rawat
35	R210992106117	Shubham Mishra
36	R210992106119	Subodh Shah
37	R210992106131	Vinayak Pallash



## **RESOURCE PERSON PROFILE**

**Name:** Ms. Nisha Bansal, Assistant Professor

**Org:** MIMT, Greater Noida

**Area of Expertise:** Cloud Computing, Networking





**Mangalmai Institute of Management Technology**  
**Greater Noida (U.P.)**



Assistant Professor of Mangalmai of Management and Technology in Greater Noida. She is Master of Computer Applications and Her expertise in the area of Cloud Computing and networking.