



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	09-11-2021
2.	Classification of computer • Characteristics of Computers	3:00 - 04:30	11-11-2021
3.	What is Language? • Types of Languages and language translators	3:00 - 04:30	16-11-2021
4.	History and Generation of computers	3:00 - 04:30	18-11-2021
5.	Memory - Bits, Bytes, KB, MB, GB, TB, PB, EB, ZB, YB etc	3:00 - 04:30	23-11-2021
6.	Computer Software, Types of Software & Computer Hardware, Intro. to Hardware components of computer	3:00 - 04:30	25-11-2021
7.	Assembling and Disassembling PCs & Precautions to be taken while assembling the PC	3:00 - 04:30	30-11-2021
8.	Introduction to BIOS / CMOS Setup, POST (Power On Self Test)	3:00 - 04:30	02-12-2021
9.	Demonstration of BIOS/CMOS Configuration (Date, Time, Enable/Disable Devices).	3:00 - 04:30	07-12-2021
10.	Dual BIOS Feature • BIOS/CMOS Setup, Booting Sequence/Boot Order	3:00 - 04:30	09-12-2021
11.	Introduction to Operating System & Definition and types of Operating Systems	3:00 - 04:30	14-12-2021
12.	MS Dos & Windows 9x & Android	3:00 - 04:30	16-12-2021
13.	XP/Vista , Linux , MAC OS	3:00 - 04:30	21-12-2021
14.	Process of Booting the Operating System	3:00 - 04:30	23-12-2021
15.	Win XP/Win 7	3:00 - 04:30	28-12-2021



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16.	Activation and Automatic Updating procedures	3:00 - 04:30	30-12-2021
17.	Linux	3:00 - 04:30	4-1-2022
18.	Practical Demonstration of Computer Assembling	3:00 - 04:30	6-1-2022
19.	Practical Demonstration of Computer Assembling	3:00 - 04:30	11-1-2022
20.	Revision	3:00 - 04:30	13-1-2022



	Report
Name of Activity	Ad-on Course on Hardware and Networking
Date	09 th November 2021 to 13 th January 2022
Venue	BCA Classroom and Computer Lab 1
Organized by	Computer Applications Department
Name of Expert	Ms. Nisha , Assistant Professor, MIMT
Participated by	BCA Ist year Sec-B (41 students)
Coordinator	Mr. Himanshu Rastogi , Assistant Professor, MIMT
Objective	<p>The objective is:</p> <ul style="list-style-type: none">• To give students a competitive edge in the IT world.• Students should possess technical skills that include the ability to construct a computer from scratch as well as the implementation, management, maintenance• Provide a network configurations training in labs with proper practice session.
Content	<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 reassemble the PCs and the precautions to be taken while assembling</p>



	<p>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>
Outcome of Activity	<p>After completion of this course,</p> <ul style="list-style-type: none">• Learner should get a clear understanding of PC Assembling, hardware technologies and networking.• Students will acquire the essential skills and information you will need to install, upgrade, repair, configure, troubleshoot, optimize, and perform preventative maintenance of basic computer hardware, operating systems and Network.



List of Beneficiaries

Section-B

Sr. No.	Roll No.	Student Name
1	R210992106004	Abhinav Dhoopar
2	R210992106011	Ajeet Chandela
3	R210992106013	Ajeet Tiwari
4	R210992106022	Ankit Singh
5	R210992106024	Anurag
6	R210992106026	Arjun Kumar Gupta
7	R210992106028	Arvind
8	R210992106030	Ashutosh Pandey
9	R210992106033	Atul Rai
10	R210992106038	Chandrekes Upadhaya
11	R210992106041	Deepanshu
12	R210992106046	Divyashu Srivastava
13	R210992106047	Gaurav Sharma
14	R210992106049	Harshit Jain
15	R210992106051	Ishu Saini
16	R210992106054	Jaihind Kumar Bind
17	R210992106056	Jony
18	R210992106061	Kunwar Pal
19	R210992106066	Manish Puri
20	R210992106071	Mohd Rizwan
21	R210992106074	Mohit Pandit
22	R210992106075	Nabanita Paul
23	R210992106077	Nikita Kumari
24	R210992106079	Nilesh Kumar
25	R210992106082	Pradeep
26	R210992106084	Prashansa Kumari
27	R210992106091	Rajeev
28	R210992106093	Rishabh Kumar
29	R210992106095	Ritvik Pathak
30	R2109921060101	Sagar Chauhan
31	R2109921060103	Saurabh Nandi
32	R2109921060108	Sharvan Chauhan



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33	R2109921060109	Shashank Upadhyay
34	R2109921060112	Shivam Dubey
35	R2109921060115	Shivani
36	R2109921060116	Shubham
37	R2109921060118	Subham Kumar
38	R2109921060120	Sudeep
39	R2109921060124	Tanvi Singh
40	R2109921060125	Tushar Tyagi
41	R2109921060129	Vaishnavi Jha



RESOURCE PERSON PROFILE

Name: Ms. Nisha Bansal, Assistant Professor

Org: MIMT, Greater Noida

Area of Expertise: Cloud Computing, Networking

An 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.