

Centre for Continuing Education (CCE)

Rajiv Gandhi Institute of Technology Kottayam

Summer Vacation Computer Course:

‘COMPUTER ASSEMBLING AND OPERATING SYSTEM INSTALLATION’

Objective of the Course

This Course aims at providing knowledge in the “Computer Hardware Maintenance” field for the participants. The course provides in-depth theory and practical sessions in the subject at reduced fee structure, helping society at large.

Evaluation and Award of Certificate:

There will be an examination (Practical or otherwise) at the end of the course and the successful candidates will be awarded Course Certificate by the Principal, Rajiv Gandhi Institute of Technology Kottayam.



COURSE STRUCTURE

COMPUTER ASSEMBLING AND OPERATING SYSTEM INSTALLATION

Duration of Course:16Days (Total 110Hrs.)

Module- 1: Basic Electronics (10 Hrs)

Basic Electronics- Fundamentals,current, voltage, Passive components: resistors, capacitors, inductors, transformers. Active components: diodes, transistors. Rectifiers:Half-wave and Full-wave-Filters
Power supplies- Switch Mode Power supply- working, AT and ATX Power supply

Module- 2: Computer Fundamentals and Microprocessors (15 Hrs)

Microprocessor& Computer Organization: Introduction-personalcomputerbackground,characteristics ofcomputer, classification of computers.Computer organization- Basic structure- Bus concept, Intel processors-, Pentium Architecture. **Motherboard: Motherboard Form Factors:-** AT, ATX(Mini, Micro)**Expansion Bus:-** The ISA, PCI, AGP**Chipsets and controllers:-** Chipsets and their functions-Bus Architecture, Keyboard Controller, Super I/O controller,

Module- 3: PC Memory (10 Hrs)

PC Memory types- Internal Memory.Memory package types,Types of memoryBIOS Setup Utility.External Memory. Disk and Drives.

Module- 4: Input and Output Devices (5Hrs)

Input Devices:- Keyboard, Mouse, Web Camera:Output Devices:-Monitor, Printers

Module - 5: Computer Assembling (70 Hrs)

Card identification- Display, Network, Internal ModemHardwareinstallation-Assembling PCSoftware installation-Operating System**Windows I** Partitioning and Formatting a Hard Disk**I** Partitioning:- FDISK, DM **2** Formatting**II** Hard Drive Organization **1** Organize disk Area **2** FAT and Directory**3** Logical drive structure:- FAT32, NTFS**III** Operating System Installation- Win7, Win8,Win10

Linux Partitioning and Formatting, II OS installation
LinuxDual OS installation : Windows and GNU/Linux

Practical

1. Identification of internal components of PC
2. Study of Multimeter
3. Identification and voltage measurement of ATX SMPS.
4. Identification of different types of I/O cables.
5. Identification of different types of RAMs
6. Assembling of PC(Install the CPU, Install Memory module, Install the motherboard in a system chassis(Case), Connect any extension brackets or cables, Install Expansion cards, connect cabinet wires and power supply, HDD, CDD installation
7. Configuring the system BIOS
8. Familiarization of DOS commands
9. Partitioning a Hard Disk Drive using Disk Manager
10. Installation of Operating System-WINDOWS 7 ULTIMATE
11. Installation of Operating System-WINDOWS 10
12. Installation of Antivirus-
13. Application software installation-MS Office, Acrobat Reader, VLC player, Nero,
14. Installation of Printer, scanner, Webcam
15. Configuration of Outlook Express
16. Familiarization of Linux commands
17. Installation of Operating System-GNU/Linux
18. Dual OS installation:- Windows and GNU/Linux
19. Configuring the ADSL Router
20. Crimping
21. Setting Up the Browser Installation and Configuration

About the Department

The Department of Electronics and Communication Engineering was established in the year 1991 and is housed in an independent three storied building in the campus. The department offers 4 years Bachelors degree program [B.Tech] in Electronics and Communication Engineering, and 2 years

mastersdegree program [M. Tech.] in two specializations, affiliated to APJ Abdul Kalam Technological University. The first M. Tech programme in Advanced Communication and Information Systems started in the year 2011 and second M. Tech programme in Advanced Electronics and Communication Engineering started in the year 2013. The students for the B. Tech program are admitted based on the rank list prepared based on two scores, namely the score obtained in the entrance examination conducted by the Government of Kerala and the marks scored in the qualifying board examination. The annual intake is 60 students. An additional 6 students are admitted in the third semester through lateral entry. B. Tech in Electronics and Communication at RIT Kottayam is a sought after branch of study for the top ranked students in the State of Kerala.

Admission

The course is intended to High School & Higher Secondary Students. The total seats are restricted to Thirty Five for the course. The admission will be on first come first served basis. Application form for admission to the course can be had from college office on payment of Rs 25/- (Rupees Twenty Five) on all working days. The application forms filled in all respects should reach the Principal, Rajiv Gandhi Institute of Technology on or before **20th April 2018**. The course fee is Rs.3000/- (Rupees Three Thousand)only for the course

Co- ordinators:

Prof. Joseph Zacharias
Head of the Department
Electronics & Communication Engineering
Rajiv Gandhi Institute of Technology
Kottayam

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Summer Vacation Course
For High School & Higher Secondary
Students

Course:

**'COMPUTER ASSEMBLING AND
OPERATING SYSTEM INSTALLATION'**

Class Commence on **23rd April 2018**
Duration of Course: 16 Days (Total 110Hrs.)

Total Seats:35

Course organised by
Department of Electronics &
Communication Engineering
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