

Foreword

I am grateful that you are contemplating to do a course in NIELIT Chandigarh. You have definitely made the right decision to get the best education in the Electronics and IT field, which is beyond excellence.

Computer Science and Technology has been accelerating fast towards advancement and many new innovations are being made to achieve efficiency and improve cost-effectiveness by exploiting technical human resources. (Millennium 2000 is undoubtedly an era of Information Technology). It has become absolutely essential to be abreast with rapidly growing technological advancements in the application of Information Technology, which have been affecting every aspect of human life, in an unprecedented manner. This Centre has been making an earnest endeavour to promote this culture and to disseminate knowledge amongst Govt. Departments, Boards, Corporations, Technical Institutions and general public.

Besides, Electronics, IT industry is in dire need of professionally qualified and technically trained manpower. It is helping entrepreneurs and young students to adapt to this field by choosing it as their career prospective.

This Centre is an ISO 9001:2008 certified institute since Feb., 2002 and has been providing Quality Education in various streams of Electronics and IT.

The Centre is fully accredited to conduct NIELIT 'O' and 'A' Level courses. We also have accreditation for 'B' Level Course (which is equivalent to MCA) to impart education to the students who want to pursue their higher studies in IT. The Centre is the only Institute in the city for providing training in Hardware CHM 'O' - Level and 'A' -Level courses.

NIELIT Chandigarh's Extension Centre at Shimla is accredited for NIELIT 'O' & 'A' Level and PGDCA Course of Makhanlal Chaturvedi Rashtriya Patrakarita Vishwa Vidyalaya, Bhopal.

NIELIT Chandigarh started CISCO Local Academy in August 2006 to impart training in specialized CCNA course. The Centre has Oracle Certified trainers and has recently become Oracle Academy for conduct of various Oracle Courses.

It has introduced various specialized courses in technologies like Big Data, Cloud Computing, VB.NET, ASP.NET, C#, PHP, J2EE, Linux, Oracle, SQL Server, Mobile Communication and Network Security, Embedded System, Android, MATLAB, PhoneGAP etc. Keeping in view the current market trends in the field of IT. Intensive Industrial Training is provided to students in Electronics and IT. The Centre is engaged in conduct of various courses under Digital India Initiative in IT, Electronics sector like ESDM, NDLM.

NIELIT Chandigarh is constructing its campus on 12.5 acres of land, adjoining IIT Ropar, allotted free of cost to NIELIT Chandigarh by Govt. of Punjab for setting up of Centre of Excellence in Electronics Product Design & Technology. It would be equipped with State-of-Art Infrastructure with all modern amenities. A wide spectrum and nature of activities envisaged to be implemented at Ropar can be broadly classified into three major areas:-

- Manpower Development
- Entrepreneur Development
- Industry Oriented Services

The upcoming campus aims to promote indigenous Manufacturing and Development of Electronic Products by conducting formal courses from B.Tech. to Ph.D. Level in Electronics Product Design & Technology, M.Tech. to Ph.D. Level in IT Specialized Training Programmes of varying duration from 4/6 weeks to one year in ESDM and IT.

This Centre has been functioning with a missionary zeal and dedication to spread computer culture and always has been a front runner in fulfilling its commitment to the nation.

Director
NIELIT Chandigarh

1. NIELIT - CORPORATE PROFILE

1.1 THE BACKGROUND

National Institute of Electronics and Information Technology (NIELIT) is an Autonomous Scientific Society of the Department of Electronics and Information Technology, (DeitY) Ministry of Communications & Information Technology, Government of India. It was set up to carry out Human Resource Development and related activities in the area of Information, Electronics and Communication Technology (IECT).

NIELIT is functioning under the overall control and guidance of the Governing Council. Hon'ble Minister, for Communications and Information Technology, Govt. of India, is the Chairman of the Council. The members of the Council are from the varied field of academia, Govt. Organizations, industrial sectors and representatives from various professional bodies. The Society has a Management Board headed by Secretary, Department of Electronics and Information Technology, Govt. of India. It has a nationwide presence with Centres across the country. Each Centre, has an Executive Committee with representatives of respective State Governments and local industries, for effective implementation of the decisions of the decisions of the Council.

The Centre is engaged both in the formal and non formal education in the area of IECT besides development of industry oriented quality education and training in the state-of-the-art areas.

1.2 NIELIT Centres in the Country

At present NIELIT has Centres located at Chandigarh, Shimla, Delhi, Gorakhpur, Lucknow, Srinagar, Jammu, Leh, Patna, Agartala, Aizawl, Lunglei, Gangtok, Guwahati, Jorhat, Kokrajhar, Silchar, Tezpur, Itanagar, Imphal, Churachandpur, Senapati, Kohima, Chuchuyimlang, Shillong, Kolkata, Ranchi, Calicut, Chennai, Ajmer, Aurangabad and with its Head quarters at New Delhi.

1. Chandigarh

- Conducting courses in Electronics and Information Technology.
- Providing IT Training in more than 1328 Govt. Schools of H.P.
- Conducting one-year CABA-MDTP Course at nearly 300 Centres of National Council for Promotion of Urdu Language (NCPUL) under Ministry of HRD.
- Capacity Building Programs under NeGP for Punjab, Haryana, Himachal Pradesh and Chandigarh.
- Bimonthly Energy Billing for 1.25 Crore consumers of Panjab, Haryana and Chandigarh.
- Nodal Centre for National Population Register (NPR) Project.
- Managing Shikayat Nivarn Kendra under e-governance for Govt. Departments of Punjab, Haryana and Chandigarh.

2. Shimla

- Training Software Development and Facility Management.
- Office at Jakhu and Kasumpti.
- Extension Centres at Nahan, Dharmshala, Mandi and Chamba in association with Himachal Pardesh Institute of Public Administration (HIPA).

3. Delhi

- Customised training programmes for Government Officials of TRAI, Govt. of NCT of Delhi etc.
- Software Development for organizations like MAMC, NDMC, CRIS, CPCB.
- Conduct of Midwifery & Nursing exams on behalf of Hindu Rao Hospital.
- Training in high-end state-of-the-art courses such as MATLAB, Android, Embedded System, J2EE, .Net & Multimedia.

4. Gorakhpur

- National Level Certification Scheme in Information Security at three levels.
- M.Tech in Electronics Design and Technology.
- Advanced Virtual Environment based Interactive Information Security Training Kit.

5. Lucknow

- Long term training in NIELIT Courses and Short term training in niche-areas such as Java 2 Enterprise edition, Android System Development, Cloud Computing and MATLAB.
- Facility management and e-Governances support to State Departments.

6. Srinagar

- Real time monitoring of water quality of Dal Lake using wireless sensor network.
- IT advisors to the Government of Jammu and Kashmir for e-Governance projects like SWAN, SDC, CCSTNS, Computer Forensics and Cyber Crime etc.
- Remote Centre for IIT, Bombay under CDEEP Programme. MCA Programmes with Kashmir University.

7. Jammu

- Medical Equipment repair services to Government Hospital, Institutions and Testing Lab.
- PGDCA Courses in association with Jammu University.
- Capacity Building in e-Governance or IT infrastructure for Directorate of Government Agriculture Jammu and Civil Secretariat Jammu.
- CISCO Academy status for CCNA and CCNP programs.

8. Patna

- Training of women and rural candidates under women empowerment schemes and SJSRY scheme.
- Training of retiring JCOs and Jawans of India Army/Navy/Air-Force for their resettlement.
- Examination and Certification jointly with Bihar Knowledge Society (BKS).
- It has an extension centre at Ranchi.

9. Agartala

- Centre features Medical Electronics Lab.
- E-learning and Contents Development lab.
- E-learning contents of CCC available in Kokborok.
- Industrial Training for students from colleges that specialize in Engineering and Polytechnic as subjects.
- Govt. customized short term training programmes.

10. Aizawl

- Cyber Forensic Lab.
- Setting up of Medical Electronics Lab for repairing and maintenance of Electro-Medical equipments.
- Capacity building certificate programme in e-governance for the youth of North-Eastern states.
- BCA and MCA in association with Mizoram University.
- Aizawl also has its Extension Centre at Lunglei.

11. Gangtok

- Corporate Training Program on recent ICT development in day-to-day work for officials of Sikkim Government.
- Refresher Training Program for CSC Operator.
- Content development activities.
- Training of Women, under Women Digital Literacy Programme (WDLP).

12. Guwahati

- Certification of information science in colleges (CISC) course developed in association with IIT, Guwahati.
- Certificate course in Bioinformatics (CCBioinfo) in association with Gauhati University, Tezpur University and IIT, Guwahati at Digboi, Guwahati, Karimganj and Tinsukia.
- Guwahati also has its Extension Centre at **Jorhat, Kokrajhar, Silchar and Tezpur.**

13. Itanagar

- Free training of students belonging to scheduled tribes, scheduled castes under the SC/ST subplan scheme of Government of India.
- Catering of the training requirements of the rural population.
- Training students since inception in April, 2010.

14. Imphal

- Search Module in Manipuri & English language for Photo Electoral Rolls of Manipur.
- 2D Animation film titled Ucheck Langmeidong.
- Setting up of Cyber Forensic Lab and Training to Police Officers of Manipur.
- BCA, MCA & Diploma Courses affiliated to Manipur University.
- Imphal also has its Extension Centre at Churachanpur and Senapati

15. Kohima

- Well-equipped Cyber Forensics Lab used for solving real-life cases of cyber-crime in Nagaland.
- Smart-pension software for Comptroller Auditor General of India, Kohima.
- Declared as a Centre of Excellence by Government of Nagaland.

16. Chuchuyimlang

- Course in PC Assembly and Maintenance Basic, Multimedia, Visual Basic and C#.
- Workshops and Seminars on Usage of IT for School Teachers and Government Officials.
- E-learning contents for CCC Course in Local dialect called 'AO'.

17. Shillong

- Multimedia E-Learning content in Khasi Language for CCC.
- Online portal for North Eastern Regional Power Committee (NERPC).
- Corporate Training for Meghalaya Police.
- Training of CSC/VLE Operators in the state of Meghalaya.

18. Kolkata

- Nodal Centre for courses in animation and multimedia.
- Training in Electronics Equipment Repair and Maintenance for under privileged youths of Jharkhand.
- Agri-census 2010-11 and input-census 2011-2012 projects.
- NPR Project for Urban and Rural Population of Jharkhand.

19. Calicut

- Automation of temples in Malabar region.
- Multimedia contents for Niyamasabha Museum.
- Online course in .Net Technology.
- M.Tech in Embedded Systems, M.Tech in Electronics Design Technology and Master of Computer Applications in association with Calicut University.

20. Chennai

- Advanced Training and Development Centre.
- In-House State-of-the-art facilities.
- Thrust areas : VLSI & Embedded Systems, Information Security and IT Application.
- PG Diploma Courses, Short Term Courses and other value added Courses with special emphasis on immediate employability.

21. Ajmer

- Established in 2012.
- Catering to the training requirements of rural youth in Ajmer.
- Training under Ministry of Panchayati Raj Project and Rural Youth Skill Development Project in the state of Gujrat and Rajasthan.

22. Aurangabad

- Capacity building in Electronics Product Design and Production Technology
- M.Tech. (EDT) in association with Dr. B A M University, Aurangabad
- Recognised Research Centre of Dr. B A M University, Aurangabad for Ph.D. programmes.

2. NIELIT CHANDIGARH – IN BRIEF

Location

NIELIT Chandigarh is located at C-134, Phase 8, Industrial Area, Sector 72, S.A.S. Nagar, Mohali and is housed in a centrally air conditioned building. It is easily approachable from the local bus stand of Sector-43, Chandigarh. It is located in IT hub of Mohali.

Introduction to the Centre

The Centre is fully and electronically geared to meet the new challenges in IT and Electronics. A pool of committed talent is tirelessly working to achieve the specific benchmarks set in the IT & Electronics field to match speed at “**Business @ thought**”. The Centre’s strength lies in the dynamic and innovative leadership which is always in search of new ventures and challenges to work on. We have been successful in all major ventures undertaken by us, be it Training, Software Development or Electronic Data Processing. We have left an indelible mark on the minds of our clients.

“Cost effective, Time-to Market Solutions” is our motto that we not only boast about, but actually put it into practice. Every member of our team is committed to work on these principles. We have paved way for many of the success stories that have been coined by our Centre’s most prized possessions - “**The Students.**”

Thrust Area

NIELIT Chandigarh strives to impart training on Electronics and IT.

Objectives

- Disseminate knowledge on all aspects of IT and allied subjects.
- Provide Quality Education and Training to prepare individuals for Technology driven business environment, effectively.
- Provide quality education to participants for upgrading their technical skills to meet the demand of rapid change in technology by skilled and dedicated IT faculty in an environment that is conducive to learning by providing good infrastructure.



INFRASTRUCTURE

The Centre has the following infrastructure to carry out Training activities.

Computing Facilities

The Centre has elaborated computing facilities accessible to the students. There are four modern state-of-the-art, computer laboratories comprising Hardware configuration powered by latest Processors which are all connected to a campus LAN. There are high end Servers, high quality laser printers, network printers, scanners. The organisation has more than 150 computers in six labs (IT and Electronics). The Campus LAN is connected to the Internet through a STPI 12 MBPS.

Specialized Labs

The CISCO lab consist of around 16 PCs with a high end server. The Lab has 1800 series routers, 2960 switches and 2 Wireless routers along with necessary cables and tools for carrying out the necessary practical's for CCNA courses.



Dedicated **Hardware** Lab is established in the Centre premises, so as to provide education to the students who want to build their careers in Hardware and Networking field. Smart Virtual Classroom is also there with high-end equipment. The Centre has a Video Conferencing Room and NIELIT Centre's all over India can be Connected through it. The Centre also has a well established lab for running Embedded System Design Courses for students aspiring to venture into Electronics

field. A fully equipped Electronics Lab for Electronic Product Design is also available for having an hands on experience of designing & developing Electronic products.

Lecture Halls

The Centre has 8 spacious and fully furnished Lecture halls, each with a sitting capacity of 30 to 40 students. The classrooms are equipped with synthetic white boards and state of art teaching aids. Overhead multimedia projectors are also installed in every lecture hall.



Library

The Institute's Library has a collection of essential books on Computers and IT related subjects, in English and Hindi. Manuals of different Software's and Operating Systems are also available for the benefits of both the students and the faculty. An ample number of related journals and magazines are subscribed regularly along with a number of national and local newspapers.

Staff / Faculty rooms

There is one faculty room and support staff room that has been interconnected with a set of intercom. Each staff member has a separate PC allocated to him/her which has Internet connection.

3. EXTENSION CENTRE SHIMLA - IN - BRIEF

Location

NIELIT Chandigarh Extension Centre Shimla is located right in the heart of the city at lower Jakhoo area and is above the very famous Mall road. The landmark near the Centre is Holy Lodge. Being in the centre heart of the city, it is easily approachable. We have another sub-centre at Kasumpti.

Introduction

NIELIT Chandigarh Extension Centre Shimla was inaugurated on April 10, 1995 by the then Chief Minister Sh. Virbhadra Singh with objective to spread IT culture in the state of Himachal Pradesh. The Centre has been functioning as a customer-centered IT organization with a sole objective in mind, to fully focus on customer's needs and expectations and fulfill them always.

NIELIT Chandigarh Extension Centre Shimla has opened its extension sub centre at Block No. 24, SDA Complex, Kasumpti in October, 2011 and has been imparting training to students and corporate batches.

Thrust Area

The Centre's onus in regard to the field of IT has been always in the varied areas comprising of Education & Training, Facility Management, Software Development and Total IT Solutions on turnkey basis.

Infrastructure

The Extension Centre has five fully furnished Classrooms. Three classrooms are equipped with multimedia projectors and 2 dedicated laboratories for the students to carry out their practical assignments.

A library comprising more than 500 books with latest journals and magazines exists for the students to use. Kasumpti office has two classrooms and two laboratories. The laboratories are equipped with computers and all the systems are connected through LAN and UPS and have internet connections.

Achievements

- Trained over 12846 students since inception through various IT long terms and short term courses.
- Trained over 16948 participants from various government departments to develop basic and specialized IT skills.
- Conducted training programs in joint association with deptt. of HP Govt. Most prominent names in this category are:
 - Himachal Institute of Public Administration (HIPA), H.P. Govt. for running various student and corporate level training programs. We have set up Centres at Mandi, Dharamshala, Nahan and Chamba in joint association with HIPA.
 - Institute of Management Studies for providing IT Education to students pursuing Management Education.
 - State Agriculture Management Training Institute (SAMETI) for conducting corporate training programs in joint association.
 - National Academy of Audit and Accounts for conducting IT Programs for participants from Audit Services.

Centre enjoys iconic reputation all over the state for IT linked activities. The projects which brought flying colors to our name include:

- Provided computer education in all 687 Govt. Schools of Himachal Pradesh for six years in continuation from 2002-2008.
- Undertaken Software Development Projects for Banks, Civil Supplies Corpn, Town & Country Planning, HPSEB, Disaster Management Authority etc.
- Conducting PG Diploma and Diploma level courses throughout the state for the candidates sponsored by Dept. of SC, OBC and Minority Affairs since 2007. Presently, around 550 students are enrolled in PGDCA & DCA-DTP.
- Facilitating H.P. State Government depts. for running their IT services by providing technical and operational manpower.

4. TRAINING COURSES

NIELIT Chandigarh is providing the quality education in the IT, Electronics and ITES industry. Our students have been selected and successfully placed in multinational companies.

Courses in Electronics and Hardware

Demand for highly skilled, imaginative product design engineers continues to rise and career opportunities are varied, challenging and rewarding. Courses on Electronic Product Design and Embedded System Design are beneficial for those candidates who want to focus a career in electronics design or manufacturing or in the engineering industry or production of complex, modern electronic systems. Networking and Hardware is a great career field where one can easily get an entry to any company. Courses include :

- Electronic Product Design with live designing of a product
- Computer Hardware and Networking – Assembly and Troubleshooting
- Embedded System Design with a project
- Certificate Course in MATLAB
- Programming with Arduino

The following topics are covered in Electronics

- ✓ Fundamentals of design and technology of Electronic Products
- ✓ Embedded C Language
- ✓ Designing Microprocessor / Microcontroller based system – 8051/ARM
- ✓ VHDL
- ✓ Introduction to digital signal processors
- ✓ Designing Power Devices
- ✓ Electromagnetic compatibility, physical design of Electronic Products
- ✓ PCB design and layout
- ✓ Manufacturing technology, reliability, maintainability

Computer Science Courses

Apart from NIELIT 'O', 'A' and 'B' Level we impart training in Long Term, Short Term, Summer, Industrial Training Courses that i.e. DCA, ADCA and PGDCA. B Tech, Computer Science students can acquire expertise in various fields like designing, development and implementation using Java, .Net, PHP etc. through Industrial Training Programmes. It is one of fields where there are ample job opportunities. During the training we provide complete guidance in developing Projects, which are very helpful for the future prospects of the students. Training programs basically insist upon developing the student's ability of working in a team and company environment.

CCNA Courses

CCNA is the industry standard certification for building careers in networking. The Curriculum prepares students for CISCO Certified Network Associate Certification Exam. Students need to complete all four modules of CCNA V 5.0 (Routing and Switching) to fully prepare for the CCNA exam. CCNA Professionals can Design, Build, Maintain, Troubleshoot a Network and serve as Network Administrators.

Students who opt for only two modules can give Cisco Certified Entry Network Technician exam (CCENT). CCENT professionals who complete first two modules and then give this exam can work as :

- Network Installers
- Help Desk Technicians
- Network Technicians, in the industry.

Oracle Trainers

The Centre has Certified Oracle Academy Trainers to conduct Oracle and Database Courses. The courses would give various access to oracle resources also.

COURSES OFFERED BY NIELIT

4.1 Long Term Courses

1. NIELIT ‘O’ Level Course.
2. NIELIT ‘A’ Level Course.
3. NIELIT ‘B’ Level Course.
4. NIELIT MAT – ‘O’ Level Course.
5. NIELIT CHM ‘O’ Level on Hardware Maintenance.
6. NIELIT CHM ‘A’ Level on Hardware Maintenance.
7. Post Diploma in Electronic Product Design & Technology (PDEPDT) (Affiliated to PTU)
8. Diploma in Computer Applications
9. Advanced Diploma in Computer Applications
10. Post Graduate Diploma in Computer Applications (PGDCA).
11. Post Graduate Diploma in Information Security and System Administration
12. Post Graduate Diploma in Software Technologies
(Consists of Diploma in .Net and Diploma in JAVA)
13. Diploma in Computer Applications and Desktop Publishing.
14. Diploma in Computer Hardware and Networking.
15. Advanced Course in Multimedia and Animation.
16. PGDCA from MCRP University, Bhopal at Shimla.

4.2 Short Term Course

1. Programming with Arduino
2. Office Automation
3. Basic Concepts in IT Tools
4. DeskTop Publishing
5. Creative Graphic Design
6. Financial Accounting using Tally
7. AutoCAD
8. System Administration Under Linux
9. System Administration Under Unix
10. System Administration Under Windows 200x series
11. Certificate Course in Information Security – A practical approach
12. IT Essentials : PC Hardware and Software (v4) (CompTIA A + Certification)
13. Project Management
14. Data Entry on PC

4.3 Summer Training (6-8 Weeks)

1. Certificate Course in Embedded System Design
2. Raspberry Pi with Python
3. Certificate Course in MATLAB
4. Analytics with Big Data using Hadoop
5. Designing PCB and Circuit Simulation using OrCAD
6. Core JAVA
7. Advance JAVA (J2EE)
8. ASP.Net with C#
9. ASP.Net with VB.Net
10. Designing and Developing Web Application using .Net Technology
11. PHP with MySQL
12. Designing and Developing Web Applications using PHP
13. Certificate Course in Cloud Computing and Virtualization
14. Certificate Course in Mobile Application Development using Android
15. CCNA V 5.0 Routing & Switching (Module 1 & 2)
16. CCNA V 5.0 Routing & Switching (Module 3 & 4)
17. Web Designing
18. Skill Development Course in Web Designing
19. C/C++
20. AutoCAD
21. Multimedia Courses
22. Oracle DBA
23. SQL Server 2008

4.4 Industrial Training (6 Months)

1. Electronic Product Design (EPD)
2. Embedded System Design on ARM Microcontroller
3. Advance Diploma in Embedded System
4. Advance Diploma in Hardware and Networking
5. Advance Diploma in Software Development
6. JAVA 2 Enterprise Edition
7. ASP.Net with C#
8. ASP.Net with VB.Net
9. PHP with MySQL and CMS
10. Multimedia and Animation
11. CCNA V 5.0 Routing & Switching (4 Modules)
12. Certificate Course in Cloud Computing and Virtualization
13. Cloud Computing and Mobile Application Development
14. Advanced Course in Development of Mobile Application using Android
15. Analytics with Big Data using Hadoop
16. Oracle/SQL Server with front end (PHP/.NET/JAVA)

5. GENERAL INFORMATION

5.1 Eligibility for Admission

Admission in the courses is based on merit of the candidate's qualifying Degrees/ Diplomas.

5.2 Registration

The students seeking admission in the Postgraduate Diploma in Computer Applications (PGDCA), Diploma in Computer Applications, Advanced Diploma in Computer Applications, Diploma in Computer Applications and Desktop publishing, Diploma in Computer Hardware and Networking will have to deposit one time registration fee of Rs. 250/- to NIELIT Chandigarh. The registration is valid for 5 years.

The students seeking admission in NIELIT O/ A/ B Level Courses have to register online through www.student.nielit.in website with a one time registration fees of Rs. 500/-. The registration is valid for 5 years.

5.3 Identity / Registration Card

Each student is issued an Identity Card upon his admission. The students are instructed to bring their ID Card daily, failing which they are not allowed to enter the premises. A student who has lost his/her Identity/Registration Card, can obtain a duplicate one from the Centre by paying Rs.100.

5.4 Qualifying Percentage

In order to qualify in a promotional examination for each subject in NIELIT Courses (that is NIELIT 'O', 'A', 'B' level) a candidate must obtain at least 50% marks in theory and practical examination. For PGDCA, other Diploma and short term courses, the qualifying percentage is 40%.

5.5 ATTENDANCE

The students should have minimum 75% attendance in order to be eligible for appearing in the final examination.

5.6 Student Projects

For the project work, the students are required to submit the Project Evaluation Sheet which is scrutinized by the Project Appraisal Team. Students are to give the presentations of the project work done by them from time to time. Proper guidelines as per the course have to be properly followed including the scope, functionality, DFD etc. of the project. The projects are evaluated by Project Evaluation Team on regular basis.

5.7 Working Hours & Holidays

The Institution follows five-day week routine from Monday to Friday. In addition, it follows a schedule of holidays as per the rules of the Government of India. The classes starts at 7:00 in the morning and go upto 8:30 in the evening.

5.8 Leave Procedure

A leave application addressed to the Training Coordinator should be submitted for each day of leave to the concerned Subject-In-Charge. Leave up to 3 days, will be granted by concerned subject-In-Charge.

For leave lasting more than 3 days, prior permission has to be taken in writing. The leave application should be submitted on joining, with medical certificate in case of medical leaves or other supporting documents. Absence for 5 consecutive days, without proper intimation will be treated as discontinuation and would lead to strict action against the concerned student.

5.9 Examination & Promotion Rules

The Attendance and the performance in Term Exams of a student will be considered for the eligibility to appear in NIELIT examination. No Dues Certificate is to be submitted by the student for getting the final certificates.

5.10 NIELIT Examination ('O'/'A'/'B' Level)

The procedure of applying for exam has been changed to online mode since July, 2013. The online application of exam is now done through student.nielit.in. The fee of Rs. 500/- for each theory and Rs. 300/- for each practical of 'O', 'A' and 'B' level. NIELIT Chandigarh centralized courses Examination fees of Rs. 200/- for each theory and practical examination (undertaken by the candidate for each semester) and Re-checking fees of Rs. 100/- would be charged for the following courses :

- Post Graduate Diploma in Computer Applications (PGDCA).
- Diploma in Computer Applications.
- Advanced Diploma in computer Applications.
- Diploma in Computer Applications and Desktop Publishing.
- Diploma in Computer Hardware and Networking.

A student who has lost his/her certificate or registration card can obtain a duplicate one from the Centre by paying Rs. 100/- for courses offered by NIELIT Chandigarh.

5.11 LIBRARY RULES

- To borrow a book, the student must become the Library member.
- Students are allowed to borrow books as per availability and regulation.
- Students can avail Library facility during the working hours only.
- Reference books are accessible only in the Library and will not be issued.
- Delay in returning books will be fined at the rate of Rs.1 per day.

- Student shall be responsible for the loss of books, in kind or cash.
- Students are expected to maintain complete silence inside the Library.
- Handbags, rucksack, backpack, knapsack, are restricted inside the Library.
- Students have to pay library security deposit of Rs.500 to become the member of the library (which is refundable after the completion of the respective course).

5.12 LABORATORY RULES

- No student is allowed inside the laboratory except during their computer lab timing. For using the lab, beyond the allocated time, students must take permission from their concerned faculty member or Lab-Supervisors.
- No external storage devices like CD, DVD, Pen Drives etc. are allowed inside the laboratory and in case the requirement arises, the prior permission should be obtained from Lab Supervisors or concerned Faculty.
- For any offence committed by the students in the lab, including misuse of Internet, appropriate disciplinary action will be taken by the Institution.

5.13 DISCIPLINE

- Smoking, consumption of intoxicants, is strictly prohibited inside and around the campus.
- Students are expected to maintain proper discipline and decorum. They must maintain a good conduct in the class.
- Mobile Phones, MP3 players, iPods etc., should be switched off inside the class, laboratory and library.
- Strict disciplinary action will be taken against those students who do not follow the rules and regulations of the Centre.

5.14 WEBSITE

We have our Website Chandigarh.nielit.gov.in where students can get all the details about the Centre & various training courses.

Please Note : The prospectus is changed from time to time as per requirements of the Centre

6. ACHIEVEMENTS

6.1 Training Achievements :

Training Programmes on different subjects approved from time to time were organized by the Centre at Chandigarh and its Extension Centre at Shimla. 651 candidates in long term courses, 945 candidates in short term and 202 under corporate programme were trained during the financial year 2014-2015 at Chandigarh. 359 candidates were trained under SC/ST Job Seekers Scheme of DGE&T.

6.2 Recent Corporate Training Programmes

1. Border Security Force
2. CSIO
3. Zila Sainik Welfare Office
4. Municipal Corporations
5. Superintendent of Police Telecommunication, Haryana
6. State Aids Control Society
7. State Bank of India
8. ICWA
9. Labour Bureau
10. Directorate General of Resettlement, New Delhi
11. SAMETI, H. P.
12. Civil Supply
13. Central Potato Research Institute, H. P.
14. H. P. State Electricity Board
15. Information & Public Relation, H. P.
16. National Academy of Audit and Accounts
17. Haryana Secondary Education
18. ESO Punjab
19. Development of Panchayats, Haryana

6.3 Software Development and Total IT Solution

Software Development

1. Development of Web portal for State Pollution Control Board of Haryana.
2. IVRS for Public Health Department, Haryana, Rural Water Supply Department, Punjab, Aids Control Society, Chandigarh, NHRM, Punjab.
3. On line Energy Billing Software for Punjab State Electricity Board.
4. Successful Implementation of Online Cash Collection System for PSEB, HSEB and UT Electricity Department.
5. Developed websites for State Disaster Management Authority and employees Provi-dent fund Organization at Shimla.
6. IVRS for Irrigation & Public Health, Shimla.

Total IT Solution

- 1 Total IT solutions have been provided to three hospitals of New Delhi :-
 - √ Maulana Azad Medical College.
 - √ Ram Manohar Lohia Hospital.
2. Successfully Designed & Implemented IT based counselling system for admission to class XI for Govt. Schools Chandigarh U.T.

6.4 Recent Achievements

1. The following is the list of achievements/schemes under the Government of India's sponsored schemes
 - Tied up with Municipal Corporation Shimla for providing IT education to selected BPL candidates and SJSRY scheme of Government of India.
 - NIELIT Chandigarh has imparted training to 1629 representatives of Panchayati Raj Institutions.
 - NIELIT Chandigarh is imparting training to representatives of Panchayati Raj Institutions in Punjab, H.P. and Chandigarh.
 - Providing training to Graduates/undergraduate Women & SC/ST Candidates under monitoring and impact assessment for "IT for Masses Scheme".
 - Training weaker Sections of the Society since March, 2008 as per the notification of the SC/ST Commission so as to provide an opportunity for the potential candidates to build their future in the IT field.
 - The training of SC/ST Candidates sponsored by DGE&T for running Special O-Level batches has been taken up by the Centre at six locations in northern region since July 2009 under "SC/ST Job Seekers training".
 - The Training was also provided to Minority Candidates.
 - Training to Below Poverty Line Students through Municipal Corporation, Chandigarh.
2. Signed MOU with National Council for Promotion of Urdu Language (NCPUL) for conducting CABA-MDTP Course in around 400 Centres of NCPUL all over India. These students can then also take NIELIT 'O' Level as well as CCC exam.
3. Launched Diploma in Repair of Electronic Appliances and Maintenance (DREAM) under Skill Development in Electronics Hardware Project funded by DeitY at 50 NCPUL Centres in the state of Delhi, Bihar, Jharkhand, J&K and UP to train 10,000 students in repair of Electronic Home Appliances.
4. Imparting training to the dependents of Army personnels under Army Welfare Scheme.
5. Imparting Training to ICWA Students.
6. NIELIT is providing IT Education/Training to students enrolled for IT Education of Govt. Schools in the State of HP. At present approx 96,000 students are undergoing for IT Education / Training.

6.5 Success Stories

Since inception, the Centre has been providing quality education in Electronics and IT. It has been the industry's driving force to provide skilled manpower to various organizations. The Centre has been running various training courses at different proficiency levels for all types of participants. Centre has designed and provided various training courses for the corporate sector. Some of the organizations whose employees have benefited from our courses are:-

- Trained about 3339 Panchayati Raj Institution functionaries in Basic Course on 'Computer Concepts'.
- Successfully conducted one year CABA-MDTP Course for Urdu Centres of NCPUL (National Council to Promotion Urdu Language).
- Implementing the demographic data digitization in northern states of India under the National Population Register Project.
- Regular ISO Audit ensures the quality of training and other activities of our Centre.
- Faculty was given five day training in Big Data to enhance their knowledge and skills.
- Training Division faculty was nominated as Judges in 4th National Olympics, 2014 held at NITTTR, Chandigarh. The competitions were held for the medal winners of all the Regional Olympics held.

Training division conducts workshops / seminars to spread digital literacy and to aware students about the latest technologies as per industry requirements. The brief details of workshops conducted in 2014-2015 are mentioned below :

- Workshop on Android in Panjab University
- Workshop on PHP with MySQL and CMS in D.A.V. College, Sector-10, Chandigarh, Govt. College, Sector 42, Chandigarh and Engineering College at Tangori.
- Workshop on .Net Technology at MCM DAV College, Sector 36, Chandigarh.
- Zonal round of ROBOTRYST – 2014-2015 was organized at NIELIT. Final round was held at IIT Delhi.



Knowledge Based Programmes

Training division is regularly conducting expert lectures on latest technologies for the staff as well as for students to make them aware about the latest technologies. The brief details of lectures given in 2014 – 2015 are as follows:

Integrating Mail and SMS in .Net by Ms. Rashmi Aggarwal, CMS-Druppal/Joomla, J Query by Ms. Sonia Suri, JDBC Connectivity and Framework in Java by Ms. Indu Lata Gupta, AJAX in PHP by Ms. Meenu Dhir, HTML 5.0 by Ms. Satinder Kaur, CMS – Wordpress by Jyoti Sharma, Cyber Forensics by Mr. Amit Jain, Cyber Attacks in .Net by MS. Anita Budhiraja, Cloud Computing by Mr. Sarwan Singh, Building Scalable Networks by Mr. Raminder Singh, Big Data and Hadoop by Ms. Anita Budhiraja. Lectures on In Memory Data Grid (IMGD) by Dr. Manish Arora, Social Mobile Analytics Cloud (SMAC) by Mr. Sarwan Singh were imparted through Video Conferencing to all NIELIT Centres.

IT Fest

NIELIT Chandigarh conducted IT Fest 2015 – Dhanak at Mohali Campus on 11th April, 2015. Students of PGDCA, CCNA, NIELIT ‘O’ / ‘A’ level and industrial training programmes participated in the event. In the fest, various events like IT quiz, On the spot oration; Computer Skills and IT & Beti Bachao Beti Padao based Skits were organized. Equipped with subject related topics and dance performances, the event turned out to be a full package of entertainment with solo and group dance performance.



Digital India Week

NIELIT Chandigarh celebrated Digital India Week from 7th July, 2015 to 11th July, 2015. Workshop / Seminars were conducted at different Govt. schools of Chandigarh and NIELIT Chandigarh premises. Quiz contest, Oration Contest, Skit Competition were also held during this week. Certificates and Mementos were given to winners.

8. PLACEMENT

Job Opportunities

A brilliant career awaits the students who have qualified various courses provided by this Centre. We have been running various training courses at different proficiency levels for all types of participants.

The Centre imparts various long term courses like NIELIT 'O', 'A', 'B' Level that makes a candidate eligible for jobs in various Govt./Pvt. Organizations at the level of Asst. Programmers, Programmers, Software Engineers respectively.

Further the candidates who have completed their basic qualification like graduation can hone their IT skills by undertaking various specialized courses like .NET Technologies, JAVA, PHP, Information Security, MATLAB, Cloud Computing, Embedded System, Mobile Application Development using Android & PhoneGAP, Multimedia etc. offered by this Centre.

Electronic Product Design, Development of Mobile Applications on Android Platform, Oracle DBA, Web Development with PHP Content Management System are some of the new avenues that would offer new job opportunities to the aspiring students.

The students aspiring to become Network Administrators can undergo a course of Cisco Certified Network Associate (CCNA) Certification run by the Centre (as Cisco's Local Academy).

Placement

Many of our students have brought laurels to the Centre, for they have been placed in every known sphere of the IT field. Our students have been moving in the following areas:

- Project Leaders in various Software Development Projects.
- Technical Writing.
- Database administration.
- Network administration.
- Software Testing.
- Desktop Publishing and Designing.
- Web Designing.
- Systems Analyst, Programmer, EDP Manager and Web Optimization etc.

As a result of their sincere and hard working efforts they have been placed in known MNCs with handsome salary packages. The partial list of the reputed companies where the students have been placed are as under :-

- Quark
- Accenture
- Infosys
- Tata Consultancy Services(TCS)
- DELL Systems
- Mahindra British Telecom
- WNS Gurgaon
- Cbiz.com
- Royal Bank of Scotland
- Satyam
- Daksh Infotech
- Inde Dutch Systems(IDS)
- PugMarks, UPSRTC
- Sonata Software
- Cellnext Solutions
- EDS, UP Electricity distribution Corp.
- Ganesh Insurance BPO.

We have a placement cell which helps the students to get placed in the Industry. Placement drives are conducted for our students and intimation about various jobs available is given to the students by our Centre. For 'O'/'A'/'B' level, there is a common portal on which students can register. We have conducted six placement drives by Fore Solutions, Chitkara University, Tata Business Services Ltd., Competent Synergy etc.



Recently NIELIT has conducted interviews of trainers for A2G Services Ltd.. Trainers of Android and Java were shortlisted by the Company. IDS InfoTech has also conducted interview for .Net Developers at NIELIT Premises.

9. COURSE DETAILS

NIELIT Chandigarh is offering following courses :

9.1 Long Term Courses

1. NIELIT ‘O’ Level Course

‘O’ level course of NIELIT Scheme is equivalent to a **Foundation Level Course in Computer Applications**. Students can acquire this qualification by undergoing this course and passing the examination conducted by the NIELIT. After completion of ‘O’ Level course, students can further enroll for NIELIT ‘A’ level course.

Various subjects for the programme are-

Module Code	Topic
M1-R4	IT Tools and Business System
M2-R4	Internet Technology and Web Design
M3-R4	Programming and Problem Solving through ‘C’
M4-R4	Elective (one module out of the following three modules to be chosen)
M4. 1-R4	Application of .Net Technology
M4. 2-R4	Introduction to Multimedia
M4. 3-R4	Introduction to ICT Resources
PR	Practical (Based on M1, M2, M3, M4 module syllabus)
PJ	Project

Eligibility

10+2 / ITI Certificate course (one year).

Practical

The students are required to devote half of the working hours allotted to each module for practical sessions. Practical assignments are worked out for each theory module. The practical examination is based on the syllabi of M1-R4, M2-R4, M3-R4 and M4-R4 modules.

Project

The project provides students an additional hands-on experience in solving a real life problem by applying knowledge and skills gained on completion of theory papers in a course at a given level. For the ‘O’ Level Computer Course, marks are not specifically assigned for the project assignment. However, it is compulsory to submit a project report to complete the course.

Validity of Registration

For completing the ‘O’ Level course, candidates are allowed to appear for a maximum number of ten consecutive examinations, starting from the examination the candidate is eligible to take, as indicated in the letter of allotment of registration number to the candidate.

Re-registration

The validity period of existing registration will be extended to a full term applicable to the respective levels i.e. ten consecutive examinations for O level. For availing this facility the candidate will have to apply for re-registration within 1 year of expiry of the validity period of existing registration. With re-registration the candidate will be granted the benefit of already cleared papers and will be required to clear only the left over papers.

Career Opportunities

The career options available to a NIELIT ‘O’ Level qualifiers are :

- _ Junior Programmer _ EDP Assistant
- _ Web Designer _ Lab Demonstrator

2. NIELIT ‘A’ Level Course

‘A’ level course of NIELIT Scheme is equivalent to **Advanced Diploma in Computer Applications**. Students can acquire this qualification by undergoing this course and passing the examination conducted by the NIELIT, New Delhi.

After completion of A level course students can further enroll in ‘B’ level course of NIELIT Scheme.

‘A’ Level Course consists of ten theory modules (nine compulsory modules & one elective module) and one project. The structure of the ‘A’ Level Syllabus is indicated as follows :

Paper Code	Topic
A1-R4	IT Tools and Business System
A2-R4	Internet Technology and Web Design
A3-R4	Programming and Problem Solving through ‘C’ Language
A4-R4	Computer System Architecture
A5-R4	Structural System Analysis and Design
A6-R4	Data Structure through ‘C++’
A7-R4	Introduction to Data Base Management System
A8-R4	Basic of OS, UNIX and Shell Programming
A9-R4	Data Communication and Network Technologies
A10-R4	Elective (one out of the following two subjects to be chosen)
A10.1-R4	Introduction to Object Oriented Programming through JAVA
A10.2-R4	Software Testing and Quality Management
PR-1	Practical-I (based on A1, A2, A3, A4 module syllabus)
PR-2	Practical-II (based on A5, A6, A7, A8, A9, A10 module syllabus)
PJ	Project

Eligibility

‘O’ Level or Government recognized Polytechnic Engineering Diploma after class 10, followed in each case, by an accredited ‘A’ level course (no concurrency) or a Govt. recognized Polytechnic Engineering Diploma after 10+2 / Graduate and an accredited ‘A’ level course in each case.

Validity of submission of Project

‘A’ Level student can submit their project only after clearing their five papers and appearing for the remaining papers in the next examination. Each ‘A’ Level project would be of approximately 350 man-hours carrying a total of 100 marks (80% for the project evaluation & 20% for the viva-voce).

Validity of Registration

Candidates are allowed to appear in maximum of **ten consecutive** examinations, reckoned from the examination which a candidate is eligible to take as indicated in the letter of allotment of registration number to the candidate, for completing successfully the ‘A’ Level examination.

Re-registration

The validity period of existing registration will be extended for a full term applicable to the respective levels i.e. ten consecutive examinations for O and A level. For availing this facility the candidate will have to apply re-registration within 1 year of expiry of the validity period of existing registration. With re-registration the candidate will be granted the benefit of already cleared common papers and will be required to clear only the left over papers to complete the particular qualification

Career opportunities

The career options available to a NIELIT ‘A’ Level qualifiers are:

- Programmer
- Web Administrator
- Training Faculty
- Web Content Developer
- Trouble Shooter

3. NIELIT B-Level Course

‘B’ Level Course of NIELIT Scheme has been recognized by Ministry of Human Resource Development, Govt. of India, as professionally equivalent to MCA Degree Course. Students can acquire this qualification by undergoing this course and passing the examination conducted by the NIELIT. Working professionals can also appear in this examination directly, provided they possess the requisite education qualification as indicated below.

Eligibility

1. For students appearing through an institute Level ‘A’ / Government recognized PPDCA / Government recognized PGDCA / Government recognized polytechnic engineering Diploma / Graduate, followed in each case by an accredited ‘B’ level course (First two semesters are exempted for those who have passed ‘A’ level in full. Candidates having Government recognized PPDCA / Government recognized PGDCA will also be eligible for exemption of some subjects depending on the courses they had undergone, on a case by case basis).
2. For students-at-large (Direct Applicants) Level ‘A’ / Government recognized PPDCA / Government recognized PGDCA, followed in each case by two years relevant experience.

*(First two semesters are exempted for those who have passed ‘A’ level in full. Candidates having Government recognized PPDCA / Government recognized PGDCA will also be eligible for exemption of some subjects depending on the courses they had undergone, on a case by case basis). Graduates / Government recognized Polytechnic Engineering Diploma, followed in each case by three years relevant experience.

*Relevant experience denotes job experience in IT field including teaching in a recognised Institution as faculty member, excludes coaching.

Syllabus

The papers for ‘B’ level are indicated below :

Course Code	Subject
Bridge Course	
B 0-R4	Basic Mathematics (Required for students who have not studied Mathematics upto class 12)
SEMESTER-I	
B 1.1-R4	IT Tools and Business Systems
B 1.2-R4	Internet Technology and Web Design
B 1.3-R4	Programming and Problem Solving through 'C' Language
B 1.4-R4	Computer System Architecture
B 1.5-R4	Structured System Analysis & Design
SEMESTER-II	
B 2.1-R4	Data Structure through C++
B 2.2-R4	Introduction to Database Management Systems
B 2.3-R4	Basics of OS, Unix and Shell Programming
B 2.4-R4	Data Communication and Network Technologies
B2.5 -R4	Elective (one of the following two subjects to be chosen)
B2.51-R4	Introduction to Object Oriented Programming through Java
B2.52-R4	Software Testing and Quality Management
PJ-1-R4	Project I

SEMESTER-III	
B 3.1-R4	Management Fundamentals and Information Systems
B 3.2-R4	Discrete Structures
B 3.3-R4	Software Engineering & CASE Tools
B 3.4-R4	Operating Systems
B 3.5-R4	Visual Programming
SEMESTER-IV	
B 4.1-R4	Computer Based Statistical & Numerical Methods
B 4.2-R4	Professional and Business Communications
B 4.3-R4	Object Oriented Database Management System
B 4.4-R4	Computer Graphics & Multimedia
B 4.5-R4	Internet Technologies and Web Services
SEMESTER-V	
Course Code	Subject
B 5.1-R4	Software Project Management
B 5.2-R4	Automata Theory & Compiler Design
B 5.3-R4	Network Management and Information Security
B 5.4-R4	Elective II (Two out of the following)
List of the Elective Subjects	
BE1-R4	Embedded Systems
BE2-R4	Artificial Intelligence & Neural Network
BE3-R4	E-Business
BE4-R4	System Modeling & Computer Simulation
BE5-R4	Parallel Computing
BE6-R4	Data Warehouse and Data Mining
BE7-R4	Software Testing and Quality Management
BE8-R4	Digital Image Processing
BE9-R4	Accounting & Financial Management System
BE10-R4	Applied Operations Research
BE11-R4	Wireless & Mobile Communication
BE12-R4	Information Storage & Management
PJ-2-R4	Mini Project / Seminar
SEMESTER-VI	
PJ-3-R4	PROJECT - III

Project

There are three projects at 'B' Level

1. 'B' Level First Project (PJ-1-R4)

Every candidate should do a project individually and no grouping is allowed. The project will be carried out under the guidance of the institute conducting an accredited course. The direct candidate will do the project in an organization where he/she is working. In that case, he/she will carry out the project under the guidance of expert/professionals from his organization. 'B' Level Project student can submit the project only after clearing 5 papers from the first two semesters and appearing in remaining papers of these two semesters in the next examinations.

The first project would be approximately 350 man-hours and carries a total of 100 marks (80% for the project evaluation and 20% for viva-voce).

2. Mini Project

NIELIT curriculum has a mini project as an important component of 'B' Level which is Seminar on any latest technology.

Time of Submission

The Project is carried out by the student under the guidance and support of faculty and management of the respective institute/organization.

This mini project/seminar would be approximately 350 man hours and carries a total of 100 marks.

3. 'B' Level Final Project

All 'B' level candidates are required to get the synopsis of the project and the brief bio-data of the supervisor / guide approved from the Society.

Career Opportunities

The career options available to a NIELIT 'B' Level qualifiers are :

- Systems Analyst
- Software Engineer
- Training Faculty
- R & D Scientist
- EDP Manager

Government Recognition

The Ministry of Human Resource Development, Govt. of India vide their notification No. : F2/ 6/ 97-TS.IIIa (.) 54 dated 26th September 2000 has recognized the 'B' level computer examination being conducted by NIELIT for the purpose of employment under the Central Government employment schemes where MCA is the desired qualification. Panjab University has made it equivalent to its MCA for further studies in the university and most of the Banks have also recognized this qualification.

Registration Cut-offs : Registration is open throughout the year, however cut-off dates are there to process registration for any particular examination. The cut-off date for January Examination is preceding 30th June for 'O' Level and preceding 31st July for 'A' & 'B' Levels. For July Examination the cut-off dates are preceding 31st December for 'O' Level and preceding 31st January for 'A' & 'B' Levels.

Examination Cut-offs : Last date for filling up the Examination Forms for 'O', 'A' & 'B' Level January Examination is preceding 31st, October and if delayed it can be submitted with late fee till preceding 10th November. For July Examination, it is preceding 30th April and if delayed it can be submitted with late fee till preceding 10th May.

4. NIELIT MAT – 'O' Level Course

'O' Level course on Multimedia and Animation Technology (MAT) aims to give effective coverage on image, audio, video processing and editing including 2D/3D animation as well as web based multimedia as per the prevailing market trends.

Objective / Scope of the Course

- a) To acquire the basic knowledge to appreciate the basic Multimedia Systems, Tools and Techniques.
- b) To acquire the basic skills to implement components of Multimedia Productions and Web Designing.
- c) To acquire the basic knowledge for Animation Production Skills.

Learning Outcome : Develop understanding of the basic multimedia system, tools and techniques and acquire the basic skills to implement components of multimedia productions, web designing and gain basic knowledge on animation production skills.

Course Code	Subject
MAT.01.RO Module 1	Introduction to Information Technology
MAT.02.RO Module 2	Introduction to Multimedia
MAT.03.RO Module 3	Multimedia Processing Techniques
MAT.04.RO Module 4	Multimedia Design Principles and Applications

Minimum Eligibility : 10 + 2 (Any Discipline)

Likely Career Options : As per the recent market trend and the objective of the course as well as the projected skill sets of the ‘O’ Level qualifiers, it is envisaged that the likely career options will be as Multimedia Production Assistant, Multimedia Technician and as Web Developer.

5. NIELIT CHM ‘O’ Level Course on Hardware Maintenance

The course is designed to bring out standardization in the field of Hardware maintenance. The curriculum is designed for participants who want to take up the job of Installation, Maintenance, Troubleshooting and Networking of the Computer Systems and peripherals. Further, after completion of CHM ‘O’ Level, students can continue NIELIT CHM ‘A’ level course to gather advanced skills in this field.

Various subjects for the programme are:-

- Electronic Components & PC Hardware.
- PC Architecture.
- Computer Peripherals & Networking.
- System Software, Diagnostic & Debugging Tools.
- Personality Development and Communication Skills.

Eligibility

10+2(Science) / ITI (1Year after 10) in Electrical/ Electronics/ Computers/ Instrumentation Engineering

Non Science students can also join CHM ‘O’ Level course. The certificate will be issued after clearing bridge course (comprising of topics from Physics and Mathematics) which would be conducted in parallel with CHM ‘O’ Level course and fee would be Rs. 5000/-.

6. NIELIT CHM ‘A’ Level Course on Hardware Maintenance

The objective of CHM ‘A’ Level Course is to train Diploma or Graduates in Electronics/ Computers/ Electrical/ Instrumentations to acquire advanced skills in Computer Hardware & Networking for Network Management, Administration, Installation & Troubleshooting of Servers & System Softwares, besides development of Entrepreneurship skills. The structure of the Advanced Diploma in Computer Hardware Maintenance and Networking ‘A’ Level Syllabus is indicated as follows-

- Electronic Components and PC Hardware
- PC Architecture
- Computer Peripherals & Networking
- System Software, Diagnostic & Debugging Tools
- Personality Development and Communication Skills
- Advanced PC Hardware & Networking Components
- Data Communication and Computer Networks.
- Network Management and Administration.
- Linux Administration.
- Entrepreneurship Development.
- Networking with Advanced Components.

Eligibility

CHM-O Level Pass/ Diploma in Electronics/ Computers/ Electrical/ Instrumentation after 10 pass OR undergoing 2nd year B. Sc. with Physics/ Electronics/ Computers OR undergoing 2nd year B.E. (Electrical/ Electronics/ Computer/ IT) OR accredited 'A' Level Course (may be concurrent)

7. Post Diploma in Electronic Product Design and Technology (Affiliated to PTU)

The Post Diploma in Electronic Product Design and Technology is aimed at training engineers from the field of Electronics/Electrical/Computer Science/Instrumentation. **EPDT** will focus on circuit design, designing of power devices, microcontroller based design, measurement and display devices, real time embedded system, manufacturing technology, electronic product design, reliability of electronic equipments.

Eligibility

Three years Polytechnic Diploma in Electronics/ Instrumentation/ Electrical/Computer or equivalent/ B.Sc (Electronics/ Instrumentation/ Computer/ Physics) from recognized university.

Details of the Papers, Modules to be taught and Distribution of Marks in the module:**Semester I**

Course Code	Course Title	Teaching Schedule (hrs./week)			Marks Distribution		
		L	P	Total	E	S	P
PD-101	Analog Circuit Design	3	-	3	75	25	-
PD-102	Digital Circuit Design	3	-	3	75	25	-
PD-103	Designing with Power Devices	3	-	3	75	25	-
PD-104	Microcontroller Based Embedded System	3	-	3	75	25	-
PD-105	Measurement and Display Devices	3	-	3	75	25	-
PD-106	Laboratory - 1	-	6	6	-	25	75
PD-107	Laboratory - 2	-	6	6	-	25	75
TOTAL		15	12	27	375	175	150
					550		150
					700		

Semester II

Course Code	Course Title	Teaching Schedule (hrs./week)			Marks Distribution		
		L	P	Total	E	S	P
PD-201	Real Time Embedded System Design	3	-	3	75	25	-
PD-202	Manufacturing Technology	3	-	3	75	25	-
PD-203	Electronic Product Design	3	-	3	75	25	-
PD-204	Reliability of Electronic Equipments	3	-	3	75	25	-
PD-205	Laboratory – 3	-	4	4	-	25	75
PD-206	Laboratory – 4	-	4	4	-	25	75
PD-207	Project & Dissertation	-	8	8	-	100	100
TOTAL		12	16	28	300	250	250
					550		250
					800		

Abbreviation : L=Lecture; P=Practical; E=End Semester Examination; S= Sessional

8. Diploma in Computer Applications (Semester I)

This course is designed to primarily focus on the stream of students who wish to have Diploma in IT and good knowledge of Computer fundamentals and programming.

The first semester is Diploma in Computer Applications which is of six months duration.

Eligibility : 10+2 is required. No prior knowledge of Programming language is required.

Details of the Papers, Modules to be taught and Distribution of Marks in the module:

Sno	Paper Code	Modules	Marks Distribution	Max. Marks	Pass Marks	
1.	PGDCA 11	a) Computer Fundamentals & Windows b) Office Automation (MS Word, Excel, Power Point) c) Internet and E-mail d) Algorithm Design	25 100 25 50	200	80	
2.	PGDCA 12	Financial Accounting using Tally		200	80	
3.	PGDCA 13	a) C/C++ b) Data Communication (Basics)	50 150	200	80	
	Practical-1	Practical – 150	Viva – 25	Prac. File-25	200	80
	Internal Assessment	Attendance – 30		Quiz – 30	100	40
		Class Participation – 20		Discipline-20		

9. Advanced Diploma in Computer Applications (Semester II)

The second semester is Advanced Diploma in Computer Applications which is of six months duration.

Eligibility : Graduation is required as well as the student must have passed DCA.

Provisional Admission : Candidates who are pursuing final year of graduation are provisionally given admissions in this course after the student submits an undertaking for the same.

Details of the Papers, Modules to be taught and Distribution of Marks in the module:

Sno	Paper Code	Modules	Marks Distribution	Max. Marks	Pass Marks	
1.	PGDCA 21	Web Designing (HTML, DHTML, Java Script, Flash, Photoshop)		200	80	
2.	PGDCA 22	a) VB.Net with SQL Server b) System Analysis and Design	150 50	200	80	
3.	PGDCA 23	Linux, PHP, MYSQL		200	80	
	Practical-1	Practical – 150	Prac. File – 25	Viva – 25	200	80
	Internal Assessment	Attendance – 30		Quiz – 30	100	40
		Class Participation – 20		Discipline – 20		
6.	Project Work			200	80	

10. Post Graduate Diploma in Computer Applications (PGDCA)

This course is designed to primarily focus on the stream of students who wish to have ample amount of knowledge in the IT field. They can get good jobs in the Industry considering the varied knowledge base that they would develop through this course.

This course is a full one year Course and is a combination of DCA and ADCA mentioned above. The course would comprise of 2 Semesters in total and would have the course contents of both the semesters of DCA (Semester1) and ADCA (Semester-2)

Eligibility: Graduation is required. No prior knowledge of Programming language is required.

Provisional Admission : Candidates who are pursuing final year of graduation are provisionally given admission in this course after the student submits an undertaking for the same.

11. Post Graduate Diploma in Information Security and System Administration

The Course is a six months program aimed at moulding candidates to Skilled System Administrator to maintain the Systems & Networks in today's scenario. This skill-oriented course provides candidates with information required for maintenance and administration of Computer Network and also equips them with the skills required to protect & recover the computer systems & networks from various security threats.

Eligibility: Graduates with IT, Computer Science or Electronics as optional subjects, Graduate in Engineering, M.C.A, NIELIT 'A', 'B' Level and PGDCA can opt for this course.

Provisional Admission : Candidates who are pursuing final year of graduation are eligible provisionally given admission in this course after the student submits an undertaking for the same.

Details of the Papers, Modules to be taught and Distribution of Marks in the module:

Sno	Paper Code	Modules*	Marks Distribution	Max. Marks	Pass Marks
1.	PGDIS-1	Certificate Course in System and Network administration		150	60
2.	PGDIS-2	Advance Certificate Course in Networking		150	60
3.	PGDIS-3	Advance Certificate Course in Information System Security		150	60
4.	Project Work			400	160
5.	Internal Assessment	Attendance – 45	Quiz – 45	150	60
		Class Participation – 30	Discipline – 30		

***These three modules can be done separately also**

12. Post Graduate Diploma in Software Technologies

This hands on training course has been specifically designed to address the requirements of developers who want to become experts in .NET environment. Students will learn to develop applications using C# or VB.NET. They will also learn to apply these languages to develop server-side applications which make use of ADO.NET, ASP.NET, Web Services etc. The course contains a substantial amount of Hands-On work. The project work at the end of the course enables students to get an exposure to the latest industrial standards. This is a hand on course, which provides participants with the information and lab experience necessary to develop and deploy robust J2EE™ (Java 2 Enterprise Edition) framework applications. This course starts with core java and covers advanced Java and J2EE

Eligibility : Engineering/ NIELIT 'A' or 'B' Level / MSc.(IT)/ MCA, BCA / Diploma Computer Sc, Electronics, or others with relevant experience can opt for this course.

Provisional Admission : Candidates who are pursuing final year of graduation are eligible provisionally for this course. The student has to submit an undertaking for the same.

Details of the Papers, Modules to be taught and Distribution of Marks in the module:

Sno	Paper Code	Modules *	Marks Distribution	Max. Marks	Pass Marks
1.	PGDST-1	Diploma in .Net Technologies		300	120
2.	PGDST-2	Diploma in J2EE		300	120
3.	Project Work			300	120
	Internal Assessment	Attendance – 30	Quiz – 30	100	40
		Class Participation – 20	Discipline – 20		

*These two modules can be done separately also

13. Diploma in Computer Applications and Desktop Publishing (Semester I and II)

The course has been designed for the participants who want to build their careers in Desktop Publishing. After doing this course the student will be able to effectively and efficiently produce formatted text and graphics.

Eligibility : Graduation is required. No prior knowledge of Programming language is required.

Details of the Papers, Modules to be taught and Distribution of Marks in the module:

Semester - I

Sno	Paper Code	Modules	Marks Distribution	Max. Marks	Pass Marks	
1.	DCADTP-11	Computer Fundamentals and Office Automation		150	60	
2.	DCADTP-12	Introduction to DBMS using SQL Server		150	60	
3.	DCADTP-13	Programming Through VB.Net		150	60	
4.	Practical-1	Practical – 100	Viva – 25	Prac. File– 25	150	60
5.	Internal Assessment	Attendance – 30	Quiz – 30	100	40	
		Class Participation – 20	Discipline –20			

Semester - II

Sno	Paper Code	Modules	Marks Distribution	Max. Marks	Pass Marks	
1.	DCADTP-21	Financial Accounting using Tally		150	60	
2.	DCADTP-22	Desk Top Publication and Web Designing Part I and II		150	60	
3.	DCADTP-23	System Analysis & Design		150	60	
4.	Practical-II	Practical – 100	Viva – 25	Prac. File– 25	150	60
5.	Internal Assessment	Attendance – 30	Quiz – 30	100	40	
		Class Participation – 20	Discipline –20			

14. Diploma in Computer Hardware and Networking (Semester I and II)

This course would help the students to prepare for entry level Hardware job opportunities in the IT industry. The student's skill set in troubleshooting Hardware related problems, designing networks and trouble shooting the same will be enhanced to a considerable level to match the requirements of the Industry.

Eligibility : 10 + 2 in any stream. No prior knowledge of a Programming language is required.

Provisional Admission : Candidates who are pursuing 10+2 are eligible provisionally for this course. The student has to submit an undertaking for the same.

Details of the Papers, Modules to be taught and Distribution of Marks in the module:

Semester - I

Sno	Paper Code	Modules	Marks Distribution	Max. Marks	Pass Marks	
1.	DCHN-11	Electronic Components and PC Hardware		150	60	
2.	DCHN-12	PC Architecture		150	60	
3.	Practical-1	Practical – 150	Viva – 25	Prac. File – 25	200	80
4.	Internal Assessment	Attendance – 30		Quiz – 30	100	40
		Class Participation – 20		Discipline – 20		

Semester - II

Sno	Paper Code	Modules	Marks Distribution	Max. Marks	Pass Marks	
1.	DCHN-21	Networking Basics		150	60	
2.	DCHN-22	Operating Systems		150	60	
3.	Practical-II	Practical – 150	Viva – 25	Prac. File – 25	200	80
4.	Internal Assessment	Attendance – 30		Quiz – 30	100	40
		Class Participation – 20		Discipline – 20		

15. Advanced Course in Multimedia and Animation

The course has been designed keeping in view the students who want to build a career in Multimedia and Animation to cater to the needs of growing Animation and Multimedia industry of trained professionals for various areas such as Animated films & cartoon movies, Television/film special effects, Advertising, Architectural Modeling & Walkthroughs, Multimedia presentations and Web designing.

Modules :

- 2D Animation - Duration 8 Weeks
- Graphic Designing - Duration 8 Weeks
- After Effects and Editing - Duration 8 Weeks

Eligibility: Senior secondary /Graduates of any stream can opt for this course. They must have the basic knowledge of computers.

16. MAKHANLAL UNIVERSITY (MCRP), Bhopal PGDCA Course

The following course is run by our Extension Centre at Shimla :

- Extension Centre Shimla is providing a Post Graduate Diploma in Computer Applications (One Year) affiliated by MCRP University Bhopal.

For more details, the candidate may visit www.mcu.ac.in

9.2 Short Term Courses

1. Programming with Arduino

Course Contents	Arduino IDE & Interfacing LED, 7 Segment, Motor, LCD, RTC, EEPROM etc.
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Eligibility	The student preferably should be Matriculate
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2. Office Automation

Course Contents	Fundamentals, Windows, Word, Excel, Power Point, Internet Concepts.
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Eligibility	The student preferably should be Matriculate
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3. Basic Concepts in IT Tools

Course Contents	Fundamentals, Windows, Word, Excel, Power Point, Internet Concepts, DHTML, HTML, Photoshop.
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Eligibility	The student preferably should be Matriculate
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4. Desk Top Publishing

Course Contents	Introduction to Windows, Paint Brush, Corel Draw, Page Maker.
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Eligibility	The student must know Basic Computer Concepts.
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5. Creative Graphic Design

Course Contents	MS Paint, Photoshop, CorelDraw and Introduction to Flash
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Eligibility	The student must know Basic Computer Concepts.
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6. Financial Accounting using Tally

Course Contents	Accounting Basics, Voucher Types, Final Accounts, Backup & Security
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Eligibility	The student must know Basic Computer Concepts.
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7. AutoCAD

Course Contents	2D and 3D Drawing & Editing, Layers, Blocks, XREF, Rendering
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Eligibility	Student must hold a Diploma/Degree in Engg./Arch or be a Graduate
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8. System Administration under Linux

Course Contents	Linux Commands, Shell & AWK Programming, User administration, File system administration, Disk Quota administration, Network administration, different servers like mail server, file server.
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Eligibility	Student must have knowledge of any Operating System
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9. System Administration under Unix

Course Contents	Unix Commands, Shell & AWK Programming, User and File System administration, Network administration, mail server, file server.
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Eligibility	Student must have knowledge of any Operating System
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10. System Administration Windows 200x Server

Course Contents	Installation and user Administration, MMC, IIS, Active Directory Services.
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Eligibility	Student must have knowledge of any Operating System
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11. Certificate Course in Information Security - A Practical Approach

Course Contents	Concepts, Physical & Logical Security, Securing OS & Devices, Safeguarding E-mails, Internet Security, Banking Frauds & Basic concepts of Hacking
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Eligibility	The student must know Basic Computer & Internet Concepts.
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12. IT Essentials : PC Hardware and Software (v4) (CompTIA A+Certification)

Course Contents	Basic Identification of basic Hardware Components, Step by Step Computer Assembly, Operating System, Laptop & Portable Devices, Printers & Scanners, Networks, Security, Communication Skills
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Eligibility	The student must be matriculate.
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13. Project Management

Course Contents	Introduction to Project Management and Microsoft Project, Creating Tasks and Task Management, Listing Resources and Task Allocation, Project Costs, Tracking and monitoring , Reporting Options
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Eligibility	The student must be familiar with any programming language
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14. Data Entry on PC	: Candidate must have good English typing speed.
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9.3 Summer Training	
1. Certificate Course in Embedded System Design	
Course Contents	: Microcontroller 8051, Architecture, Port Organization, Embedded C, Programming Tools and Techniques, Writing program using the Keil IDE. Interfacing LED, Seven Segment Display, Relays, Piezo buzzer (Alarm unit), Matrix-Keypad, LCD interfacing, Stepper motor, ADC (LM35), Project work
Eligibility	: Engineering/NIELIT ‘A’ or ‘B’ Level/Msc(IT)/MCA, BSc/BCA/Diploma Computer Sc., Electronics, or others with relevant experience.
2. Raspberry Pi with Python	
Course Contents	: Raspberry Pi & its uses, Basic Electronics, GPIO, Porting OS – NOOBS, Raspbian, Basic Linux Commands, Introduction to Python, Data Type, Control Statement, Interfacing various I/O Raspberry Pi as “Desktop”, “Web Server”
Eligibility	: 10+2, Working Knowledge of Computers
3. Certificate Course in MATLAB	
Course Contents	: Introduction to MATLAB, Programming in MATLAB- Script Files, Functions, Loops, Branches & Control flow, MATLAB Graphics, Numerical Analysis, Introduction to SIMULINK- Creating Models, Blocks, SIMULINK & GUIs and MATLAB Toolboxes Training–Signal Processing, Image Processing.
Eligibility	: B.E/B.Tech/AMIE/M .Sc in Electronics/Comm/Comp Sc. /IT
4. Analytics with Big Data using Hadoop	
Course Contents	: Java Programming, Basics of Linux Operating System, Introduction to Big Data and SMAC, Hadoop and MapReduce Programming, Advanced Analytics using PIG, HIVE, HBASE and IBM Biginsights
Eligibility	: Knowledge of any Programming Language
5. Designing PCB and Circuit Simulation using OrCAD	
Course Contents	: PCB manufacturing, Base Material, Component Identification, Types of PCBs, Making design in Capture CIS, Netlisting, Analog and digital simulation using PSPICE OrCAD Layout Plus, Routing Technologies, multilayered PCB design, using and creating library-footprint of components, Fabrication of PCB.
Eligibility	: 10+2, B.Tech(ECE, EE, EEE, EIE, CSE), Dip. in (ECE, EE, EEE, EIE, CSE)
6. Core JAVA	
Course Contents	: Introduction to JAVA, OOP Concepts, Data Types, Variables, Operators, Control Statements, Arrays, Objects & Classes, Methods & Classes, Inheritance, Packages & Interfaces, Interface & Access Specifiers, Exception Handling, Multithreading Programming, Autoboxing, Annotations, Generics, String Handling, More Utility Classes, Collection framework, Applets, Swings, Event Handling, JDBC, Project
Eligibility	: The student must be familiar with any Programming Language.
7. Advance JAVA (J2EE)	
Course Contents	: J2EE Overview, Architecture, HTML, Form Processing, Servlets, JSP, Struts, RMI, AJAX, JDBC, Project Work.
Eligibility	: The student must be familiar with Core JAVA.
8. ASP. Net with C#	
Course Contents	: Web server controls, HTML, classes and objects, Server objects, sessions, cookies, ASP Objects, User Sessions and Applications, Data Interface, C# Coding, Classes, Publishing a Web Application.
Eligibility	: The student must be familiar with any Programming Language.
9. ASP.Net with VB.Net	
Course Contents	: Web server controls, HTML, classes and objects, Server objects, sessions, cookies, ASP Objects, User Sessions and Applications, Data Interface, VB.Net Coding, Classes, Publishing a Web Application.
Eligibility	: The student must know Basic Computer Concepts.

10. Designing and Developing Web Application using .Net Technology	
Course Contents	: OOP using C# .Net, Creating DLL, Personalized Web Page, Application Security, Data Access using ADO.Net, Publishing a Web Application.
Eligibility	: The student must be familiar with any Programming Language.
11. PHP with MYSQL	
Course Contents	: HTML, CSS, PHP Language basics, Arrays, Functions, Form Handling, Sessions, Cookies, MySql, PhpMyAdmin, Database Connectivity.
Eligibility	: The student must be familiar with any Programming Language.
12. Designing and Developing Web Applications using PHP	
Course Contents	: HTML, CSS, Java Script, OOPs Concepts, Basic of PHP Language, MySQL, Ajax, Sessions & Cookies, Query String, CMS.
Eligibility	: The student must be familiar with any Programming Language.
13. Certificate Course in Cloud Computing and Virtualization	
Course Contents	: Introduction- concepts of Cloud Computing, Virtualization & Hypervisor. IAAS-Setting up Active Directory. VMware Workstation, vSphere. Server Virtualization, vMotion, clustering, High Availability and Distributed Resource scheduling. SAAS-Virtualization using CITRIX XenApp
Eligibility	: Undergoing engineering and engineering graduates.
14. Certificate Course in Mobile Applications Development using Android	
Course Modules	: Android Features, Architecture, Application Framework, Libraries, Runtime, Application Fundamentals, Setting up development Environment, Open Source Tools, Development, Databases, Graphics, Publishing Applications.
Eligibility	: Knowledge of Java
15. CCNA V 5.0 Routing & Switching (Module 1 & 2) for CCENT Certification	
Course Modules	: 1. Introduction to Networks 2. Routing and Switching Essentials
Eligibility	: Basic Knowledge of Computers (Prior knowledge of Networking not essential)
16. CCNA V 5.0 Routing & Switching (Module 3 & 4)	
Course Modules	: 3. Scaling Networks 4. Connecting Networks
Eligibility	: Engineering/‘A’ / ‘B’ Level/ BSc/ MSc (IT)/ MCA (candidates who have completed Module (1 & 2))
17. Web Designing	
Course Contents	: Internet Concepts, HTML, DHTML, JAVA Script, Flash, Photoshop.
Eligibility	: The student must know Basic Computer Concepts.
18. Skill Development Course in Web Designing	
Course Contents	: HTML, Tags, Table, Frames, DHTML, Java Script, Graphics, Validating Text, Flash, Photoshop.
Eligibility	: The student must know Basic Computer Concepts.
19. C/C++	
Course Contents	: Data type, Operators, Control Statements, Structures, Pointers, File handling, Classes, Objects, Inheritance, Overloading, Virtual function, static function, friend function, templates, exception handling
Eligibility	: The student must be Matriculate.
20. AutoCAD	
Course Contents	: 2D drawing & editing, 3D drawing & editing, layers, blocks, Xrefs, rendering.
Eligibility	: Student must hold a Diploma / Degree in Engg. / Arch. or be a Graduate
21. Multimedia Courses	
2D Animation	
Course Contents	: Simple Animation, Reusable objects, Movie clip symbols, Sounds, Action, scripting, Controlling a timeline, Frame labels, Button symbols, Animated buttons, Publishing options.

Graphic Designing		
Course Contents	:	Graphics & Digital image editing, Color & tonal adjustment, Layers, Channels & mask, Transforming & retouching, Graphics, Effects, Logo, Logo review and redesign, Page banner and Advertising.
After Effects and Editing		
Course Contents	:	After effects and Animating compositions, Scaling, Motion paths, Synchronizing motion, Adding effects, Creating titles and animations, Exporting a movie to QuickTime, Animation and Keyframe, Compositing video & Digital audio editing.
Eligibility	:	The student must be 10+2 with at least 50 % marks
22. Oracle DBA		
Course Contents	:	Oracle Database Architecture, Memory & Process Structures, Instance Management, Server Process, Tablespace, Schema, Structural Components.
Eligibility	:	Knowledge of Database Concepts
23. SQL Server 2008		
Course Contents	:	SQL Server, Database Design, T-SQL, Queries, Stored Procedures, Functions Views, Triggers, SQL Server 2008 & Reporting Services.
Eligibility:	:	DCA/NIELIT 'O'/'A'/'B' / MSc IT/ MCA/ BCA or equivalent.

9.4 Industrial Training

1. Electronic Product Design (EPD)

Course Contents	:	Fundamentals of design & technology of Electronic Products, Basic electronic components identification and measuring tools, Embedded C Language, Algorithm design, Designing Microcontroller/microprocessor based systems-8051/ARM7, MATLAB IDE, MATLAB-Arduino Interfacing, VHDL, Designing with digital signal processors, Designing Power Devices, Electromagnetic compatibility, physical design of Electronic Products, PCB design and layout, Manufacturing technology, reliability, maintainability, Project work
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Eligibility	:	Undergoing engineering graduates in Electronics/Electrical
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2. Embedded System Design on ARM Microcontroller

Course Contents	:	ARM Microcontroller, C, Embedded C, ARM Software Development Tools, Exceptions, Interfacing Peripherals LED Interfacing Relays, DC Motor, On Chip Counter, Interrupts, Interfacing ADC, LCD Interfacing.
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Eligibility	:	Engineering/DOEACC 'A' or 'B' Level/Msc(IT)/MCA, BSc/ BCA/ Diploma Computer Sc., Electronics, or others with relevant experience.
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3. Advance Diploma in Embedded System

Course Contents	:	Designing ES, C Language using Keil, Microcontroller 8051, PIC, ARMs, Arduino, PCB Design.
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Eligibility	:	Diploma in Electrical/Electronics
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4. Advance Diploma in Hardware and Networking

Course Contents	:	Introduction to Computers & Windows and MS Office, Electronic Components & PC Hardware Basics, PC Architecture, Networking Basics, Wireless Networking, Operating Systems, Internet Connectivity & Configuration, Installation of Anti Virus.
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Eligibility	:	Diploma in Electrical, Electronics, Instr. Or higher
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5. Advance Diploma in Software Development

Course Contents	:	C#, SQL Server, ASP.Net, Core Java, GUI Dev., J2EE
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Eligibility	:	BE/B.Tech/MCA/BCA/MSc./PGDCA/'O' & 'A' Level
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6. JAVA 2 Enterprises Edition

Course Contents	:	Core Java, GUI Development using Applet & Swings, Database Concepts & JDBC Connectivity, Introduction to IDE, J2EE, RMI, JSP, Servlets, Beans, Struts Frame work, Hibernate and Project Work including SDLC, ER Diagram DFD and Data Dictionary.
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Eligibility	:	The student must be familiar with any Programming Language.
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7. ASP.Net with C#

Course Contents	:	Web server controls, HTML, classes & objects, Server objects, sessions, cookies, ASP Objects, User Sessions & Applications, Data Interface, C# Coding and Project Work including SDLC, ER Diagram DFD and Data Dictionary.
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Eligibility	:	The student must be familiar with any Programming Language.
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8. ASP.Net with VB.Net

Course Contents	:	Web server controls, HTML, classes & objects, Server objects, sessions, cookies, ASP Objects, User Sessions & Applications, Data Interface, VB.Net Coding and Project Work including SDLC, ER Diagram DFD and Data Dictionary.
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Eligibility	:	The student must Know Basic Computer Concepts.
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9. PHP with MYSQL and CMS	
Course Contents	: HTML, Constructs, Functions, UDF, Database Connectivity, MySQL, User management, stored procedures. PHP, MySQL, PHP OOPs, PhpMyAdmin, Drupal, Content Management, User Roles and permissions, JOOMLA, Web Hosting, Developing a Website using Drupal and Project Work including SDLC, ER Diagram DFD and Data Dictionary.
Eligibility	: The student must be familiar with any Programming Language. Object oriented programming concepts, HTML, CSS
10. Multimedia and Animation	
Eligibility	: The student must be 10+2 with at least 50% marks.
2D Animation	
Course Modules	: Simple Animation, Reusable objects, Movie clip symbols, Sounds, Action scripting, controlling a timeline, Frame labels, Button symbols, animated buttons, publishing options.
Graphic Designing	
Course Contents	: Graphics editing, Digital image editing, Colour & tonal adjustment, Layers, Channels & mask, Transforming & retouching, Graphics, Effects, Logo, Logo review and redesign, Page banner and Advertising.
After Effects and Editing	
Course Contents	: After effects composition, Animating compositions, Scaling, Motion paths, Synchronizing motion, Adding effects, Creating titles and animations, exporting a movie to QuickTime, Animation and Key frame technique, Compositing video and Digital audio editing
11. CCNA V 5.0 Routing and Switching	
Course Contents	: 1. Introduction to Networks. 2. Routing and Switching Essentials 3. Scaling Networks. 4. Connecting Networks.
Eligibility	: Engineering/‘A’/‘B’ Level/BSc/MSc(IT)/MCA
12. Certificate Course in Cloud Computing and Virtualization	
Course Contents	: Introduction- concepts of Cloud Computing, Virtualization & Hypervisor. IAAS-Setting up Active Directory. VMware Workstation, vSphere. Server Virtualization, vMotion, clustering, High Availability and Distributed Resource scheduling. SAAS-Virtualization using CITRIX XenApp
Eligibility	: Undergoing engineering and engineering graduates.
13. Cloud Computing and Mobile Application Development	
Course Contents	: Cloud Computing & Virtualization, Java Programming, Mobile Application Development using Android & Project.
Eligibility	: BE/B.Tech/MCA/BCA/MSc./PGDCA/’O’ & ‘A’ Level
14. Advanced Course in Development of Mobile Application using Android	
Course Contents	: Android Features, Architecture, Application Framework & Fundamentals, Libraries, Runtime, Setting up development Environment, Open Source Tools, Development, Databases, Graphics, Publishing Applications, Project Work.
Eligibility	: Knowledge of Java

15. Analytics with Big Data using Hadoop		
Course Contents	:	Java Programming, Basics of Linux Operating System, Introduction to Big Data and SMAC, Hadoop and Map Reduce Programming, Advanced Analytics using PIG, HIVE, HBASE and IBM Big insights
Eligibility	:	Knowledge of any Programming Language
16. Oracle/SQL Server with front end (PHP/.NET/JAVA)		
Course Contents	:	Basics of front end PHP/JAVA/.Net with Database Connectivity, Oracle Database Management, Backups & Restoration of Database, Basics of Database Management, Data migration, User management etc.
Eligibility	:	Knowledge of any Programming Language

10. FEES DETAILS

9.1 LONG TERM COURSES

Sno	Course Name	Duration	Total Fee	Installments Payment Detail			
				At the time of Admission	Within 2 Months	Within 4 Months	Within 6 Months
1.	NIELIT 'O' Level Computer Course	1 Year Part time	15,000/-	5000/-	4000/-	3000/-	3000/-
2.	NIELIT 'A' Level Computer Course	1 Year Full Day	30,000/-	10,000/-	8000/-	6000/-	6000/-
3.	NIELIT 'B' Level Computer Course	1-1/2 Year Full Day	50,000/-	Payable in 6 installments a) During first year (Rs. 10,000/-, 10,000/-, 8,000/-, 8,000/-) b) During second year Rs. 7,000/-, 7,000/- To be paid within interval of every 2 months			
4.	NIELIT 'O' Level on Hardware Maintenance	1 Year Part time			4,000/-	3000/-	3,000/-
5.	NIELIT 'A' Level on Hardware Maintenance	1 Year Full Day			8,000/-	6000/-	6,000/-
6.	Post Diploma in Electronic Product Design & Technology	1 Year Full Day	60,000/-	30,000/- 1 st Semester		30,000/- 2 nd Semester	
7.	Post Graduate Diploma in Computer Applications	1 Year Part time	20,000/-	6,000/-	6,000/-	4000/-	4,000/-
8.	Diploma in Computer Applications	6 months Part time	12,000/-	6,000/-	6000/-	-	-
9.	Advanced Diploma in Computer Applications.	6 months Part time	12,000/-	6,000/-	6000/-	-	-
10.	Post Graduate Diploma in Information Security & Administration	6 months Full Day	35,000/-	20,000/-	15,000/-	-	-
11.	Post Graduate Diploma in Software Technologies	6 months Full Day	35,000/-	20,000/-	15,000/-	-	-

9.1 LONG TERM COURSES

12.	Diploma In computer Applications and Desktop publishing	1 Year Part time	12,000/-	4,000/-	3000/-	3,000/-	2,000/-	
13.	Diploma in Computer Hardware & Networking	1 Year Part time	15,000/-	5,000/-	4000/-	3,000/-	3,000/-	
14.	Advance Course in Multimedia & Animation	6 months Part time	25,000/-	16,000/-	9,000/-	-	-	
15.	PGDCA from MCRP University, Bhopal at Shimla	3 & 1 Year	Fee : as per University norms					
16.	Advance Course in Information System Security	6 months Part time	20,000/-	12,000/-	8,000/-	-	-	
17.	Diploma in .Net Technologies	6 months Part time	20,000/-	12,000/-	8,000/-	-	-	
18.	Diploma in J2EE	6 months Part time	20,000/-	12,000/-	8,000/-	-	-	

9.2 SHORT TERM COURSES (3 Hrs. Daily)					
Sno	Course Name	Duration (weeks)	Fee (Rs.)	Discount	Net Fee (Rs.)
1.	Programming with Arduino	4	3,000		3,000
2.	Office Automation	6	3,000		3,000
3.	Basic Concept in IT Tools	8	4,000		4,000
4.	Desk Top Publishing	4	3,000		3,000
5.	Creative Graphic Design	4	4,500		4,500
6.	Financial Accounting Using Tally	4	3,000		3,000
7.	AutoCAD	6	6,000		6,000
8.	System Administration under Linux	8	8,500	25%	6,500
9.	System Administration under Unix	8	8,500	25%	6,500
10.	System Administration under Windows 200x	4	3,000		3,000
11.	Certificate Course on Information Security - A Practical Approach	2	3,000		3,000
12.	IT Essentials : PC Hardware and Software (v4)	6	6,000		6,000
13.	Project Management	4	6,000		6,000
14.	Data Entry on PC	4	1,200		1,200
	Multimedia Courses				
1.	2D Animation	8	10,000		10,000
2.	Graphics Designing	8	10,000		10,000
3.	After Effects & Editing	8	10,000		10,000
9.3 SUMMER TRAINING (6 – 8 Weeks)					
1.	Certificate Course on Embedded Systems Design	8 Weeks	8,500	25%	6,500
2.	Raspberry Pi with Python				6,500
3.	Certificate Course on MATLAB		10,000	25%	7,500
4.	Analytics with Big Data using Hadoop				6,500
5.	Designing PCB and Circuit Simulation using OrCAD		8,500		8,500
6.	Core Java		8,500	25%	6,500
7.	Advance JAVA (J2EE)		8,500	25%	6,500
8.	ASP.Net with C#		8,500	25%	6,500
9.	ASP.Net with VB.Net		8,500	25%	6,500
10.	Design & Developing Web Application using .Net Tech				6,500
11.	PHP with MySQL		8,500	25%	6,500
12.	Designing & Developing Web Applications using PHP				6,500
13.	Certificate Course in Cloud Computing and Virtualization		10,000	25%	7,500
14.	Certificate Course in Mobile Application Development using Android				7,500
15.	CCNA V 5.0 Routing & Switching (Module 1& 2)		12,500	40%	7,500
16.	CCNA V 5.0 Routing & Switching (Module 3& 4)		12,500	40%	7,500
17.	Web Designing		6,000		6,000
18.	Skill Development Course in Web Designing				6,000
19.	C/C++		8,500	25%	6,500
20.	AutoCAD		6,000		6,000
21.	Multimedia and Animation		8,500	25%	6,500
22.	Oracle DBA		8,500	25%	6,500
23.	SQL Server 2008		8,500	25%	6,500

9.4 INDUSTRIAL TRAINING (6 Months)				
Sno.	Course Name	Duration	Fee (Rs.)	
1.	Electronic Product Design (EPD)	6 Months	15,000	15,000
2.	Embedded System Design on ARM Microcontroller		15,000	15,000
3.	Advance Diploma in Embedded System Design		15,000	15,000
4.	Advance Diploma in Hardware and Networking		15,000	15,000
5.	Advance Diploma in Software Development		15,000	15,000
6.	JAVA 2 Enterprise Edition		15,000	15,000
7.	ASP.Net with C#		15,000	15,000
8.	ASP.Net with VB.Net		15,000	15,000
9.	PHP with MY SQL and CMS		15,000	15,000
10.	Multimedia & Animation		30,000	30,000
11.	CCNA V 5.0 Routing & Switching		25,000	15,000 After 40% Discount
12.	Certificate Course in Cloud Computing and Virtualization		15,000	15,000
13.	Cloud Computing and Mobile Application Development			15,000
14.	Advanced Course in Development of Mobile Application using Android		15,000	15,000
15.	Analytics with Big Data using Hadoop		15,000	15,000
16.	Oracle/SQL Server with Front End (PHP/.Net/Java)			15,000

Note:

- 1. Service Tax and other levis as applicable from time to time as per government rules shall be extra.**
- 2. We offer a Special Discount of 10% for a group of 8 or more students in a course (Only for Summer Training and Industrial Training courses)**
- 3. Fees once paid cannot be refunded except in case of course cancellation.**
- 4. NIELIT Chandigarh reserves its right to cancel any course without assigning any reason.**

11. TRAINING CALENDER 2015-2016

Head Office Chandigarh

	Course Name	Duration	Start Date
Long Term Courses	NIELIT 'O' LEVEL	1 Year	6 th July, 2015, 12 th January, 2016
	NIELIT 'A' LEVEL	1 Year	6 th July, 2015, 12 th January, 2016
	NIELIT 'B' LEVEL	1.5 Years	6 th July, 2015, 12 th January, 2016
	NIELIT CHM 'O' Level	1 Year	6 th July, 2015, 12 th January, 2016
	NIELIT CHM 'A' Level	1 Year	6 th July, 2015, 12 th January, 2016
	DCA	6 Months	6 th July, 2015, 12 th January, 2016
	ADCA	6 Months	6 th July, 2015, 12 th January, 2016
	PGDCA	1 Year	6 th July, 2015, 12 th January, 2016
	Post Graduate Diploma in Information Security and System Administration	6 Months	6 th July, 2015, 12 th January, 2016
	Post Graduate Diploma in Software Technologies	1 Year	6 th July, 2015, 12 th January, 2016
	Advanced Diploma in Embedded System Design	6 Months	6 th July, 2015, 12 th January, 2016
	Diploma in Computer Hardware and Networking	6 Months	6 th July, 2015, 12 th January, 2016
	Advanced Course in Multimedia and Animation	6 Months	6 th July, 2015, 12 th January, 2016
	Advance Course in Information System Security	6 Months	6 th July, 2015, 12 th January, 2016
	Diploma in .NET	6 Months	1 st June, 12 th Oct., 12 th Jan., 2016
	Diploma in JAVA	6 Months	1 st June, 12 th Oct., 12 th Jan., 2016
Short Term Courses	Programming with Arduino	4 Weeks	6 th July, 21 st Sep., 14 th Dec., 2015, 5 th Jan., 2016
	Basic Concepts in IT Tools	8 Weeks	1 st Monday of every month
	Desk Top Publishing	4 Weeks	1 st Monday of every month
	Creative Graphic Design	6 Weeks	6 th July, 21 st Sep., 14 th Dec., 2015, 5 th Jan., 2016
	Financial Accounting using Tally	4 Weeks	11 th May, 4 th July, 10 th Oct. 2015
	AutoCAD	6 Weeks	6 th July, 21 st Sep., 14 th Dec., 2015, 5 th Jan., 2016
	System Administration Under Linux	6 Weeks	15 th Jun., 30 th Jun., 15 th Sep. 2015
	System Administration Under Unix	6 Weeks	18 th May, 22 nd June, 14 th Sep., 2015 & 23 rd March, 2016
	System Administration Under Windows 200x series	4 Weeks	18 th May, 22 nd June, 14 th Sep., 2015
	Certificate Course in Information Security - A Practical approach	2 Weeks	18 th May, 22 nd June, 14 th Sep., 2015
	IT Essentials : PC Hardware & Software (v4)	6 Weeks	18 th May, 22 nd June, 1 st June, 2015
	Project Management	4 Weeks	18 th May, 7 th Sep., 12 th Oct., 2015
	Data Entry on PC	4 Weeks	1 st Monday of every month

Head Office Chandigarh			
	Course Name	Duration	Start Date
Summer Training Courses	Certificate Course on Embedded Systems Design	8 Weeks	25 th May, 2015 1 st June, 2015 15 th June, 2015 29 th June, 2015
	Raspberry Pi with Python		
	Certificate Course in MATLAB	8 Weeks	
	Analytics with Big Data using Hadoop		
	Designing PCB and Circuit Simulation using OrCAD	8 Weeks	
	Core JAVA	8 weeks	
	Advance JAVA (J2EE)	8 weeks	
	ASP.Net with C#	6-8 Weeks	
	ASP.Net with VB.Net	6-8 Weeks	
	Designing & Developing Web Application using .Net		
	PHP with MySQL	6-8 Weeks	
	Designing & Developing Web Applications using PHP		
	Certificate Course in Cloud Computing & Virtualization		
	Certificate Course in Mobile Application Development using Android	6-8 Weeks	
	CCNA V 5.0 Routing & Switching (Module 1 & 2)	8 Weeks	
	CCNA V 5.0 Routing & Switching (Module 3 & 4)	8 Weeks	
	Web Designing	6 Weeks	
	Skill Development Course in Web Designing		
	C/C++	8 Weeks	
	AutoCAD	6 Weeks	
Multimedia Courses	8 Weeks		
Oracle DBA	8 Weeks		
SQL Server 2008	8 Weeks		
Industrial Training Courses	Electronics Product Design (EPD)	6 Months	15 th June, 2015, 28 th Dec., 2015, 11 th Jan., 2016
	Embedded System Design on ARM Microcontroller		
	Advance Diploma in Embedded System		
	Diploma in Energy Efficient Electronic Product (DEEEP)		
	Advance Diploma in Hardware & Networking		
	JAVA 2 Enterprise Edition		
	ASP.NET with C#		
	ASP.Net with VB.Net		
	PHP With MY SQL and CMS		
	Multimedia and Animation		
	CCNA V 5.0 Routing & Switching (4 Modules)		
	Certificate Course in Cloud Computing & Virtualization		
	Cloud Computing and Mobile Application Development		
	Advanced Course in Development of Mobile Application using Android		
	Analytic with Big Data using Hadoop		
Oracle/SQL Server with front end (PHP/.Net/Java)			

12. TRAINING CALENDER 2015-2016

Extension Centre - Shimla

	Course Name	Duration	Start Date
	MCRP PGDCA	1 Year	2 nd June / 15 th December
Long Term Courses	NIELIT 'O' LEVEL	1 Year	2 nd June / 15 th December
	NIELIT 'A' LEVEL	1 Year	2 nd June / 15 th December
	NIELIT 'B' LEVEL	1.5 Years	2 nd June / 15 th December
	NIELIT 'B' LEVEL	2.5 Years	2 nd June / 15 th December
	Social Welfare PGDCA	1 Year	7 th April
	Social Welfare DCA-DTP	1 Year	7 th April
	PGDCA	1 Year	2 nd June / 15 th December
	DCA	6 Months	2 nd June / 15 th December
	ADCA	6 Months	2 nd June / 15 th December
	Post Graduate Diploma in Software Technologies (PGDST)	6 Months	2 nd June / 15 th December
Certification	CCNA	4 Months	28 th Apr., 9 th June, 7 th Oct., 2015 10 th Feb., 2016
Short Term Courses	Tally	4 Weeks	21 st Apr., 9 th June, 7 th Oct., 2015 10 th Feb., 2016
	Office Automation/CCC	6 Weeks	7 th Apr., 1 st July, 3 rd Nov., 2015 6 th Jan., 2016, 3 rd Feb., 2016
	JAVA	4 Weeks	9 th June, 21 st July, 8 th Sep., 2015
	ASP.NET with C#	4/6 Weeks	21 st April, 23 rd June, 9 th Dec., 2015, 6 th Jan., 2016
	Embedded System	6 Weeks	21 st April, 9 th June, 1 st Dec.
	Hardware & Networking	4 Weeks	23 rd June, 1 st December
	C/C++	4/6 Weeks	21 st April, 26 th May, 1 st Dec., 2015, 5 th May, 2016
	Oracle DBA	6 Weeks	21 st April, 1 st Dec
	Web Development with PHP CMS (Drupal)	4/6 Weeks	21 st April, 23 rd June, 1 st Dec
	J2EE	4/6 Weeks	21 st April, 23 rd June, 1 st Dec
	PHP with MySQL	4/6 Weeks	21 st April, 23 rd June, 1 st Dec.
	AutoCAD	6 Weeks	26 th May, 1 st Dec
	Sql Server 2008	4/6 Weeks	26 th May, 1 st Dec
	Multimedia	16 Weeks	26 th May, 1 st Dec
	Linux Administration	6 Weeks	23 rd June, 1 st Dec., 2015 5 th May, 2016
	Web Development using LAMP	4/6 Weeks	23 rd June, 1 st Dec., 2015
	Certificate Course in Mobile Application Development in Android	6/8 Weeks	21 st April, 23 rd June, 1 st Dec., 2015