राइ.सू.प्रौ.सं
NIELIT

MeitY
Govt. of India

Information Brochure 2024-25

National Institute of Electronics and Information Technology, Chandigarh

Ministry of Electronics and Information Technology, Govt. of India

Permanent Campus: Birla Farms, Bada Phull, Rupnagar (Ropar)-140001, Punjab

Admission open

Azadi Ka Amrit Mahotsav

BCA and M.Sc. in CS with specialization in Data Science Affiliated to Punjabi University Patiala

Contents

From the Desk of Director General

The National Institute of Electronics and Information Technology (NIELIT), a body under the administrative control of the Ministry of Electronics and Information Technology (MeitY), Government of India, is today uniquely positioned in terms of its outreach to all corners of the country and all segments of the society. NIELIT is a professional examination body in India, which also accredits training programs in IT and Electronics, specializing in the non-formal sector of education and training. It is actively engaged in the development of qualified human resources in the areas of IT, Electronics, Communication Technologies, Hardware, Cyber Law, Cyber Security, IPR, GIS, Cloud Computing, ESDM, e-Governance and related verticals. This gives the Institute a distinct identity and character in the panorama of Skill Development and Capacity Building in India.

NIELIT has made efforts to establish standards in the areas of IECT and has developed market oriented courses in the emerging areas as per needs of the IT and the electronic industry. Besides, NIELIT is also a preferred agency for rolling out capacity building initiatives of State Governments and Central Ministries.

With emphasis on a strong Online presence, NIELIT in the recent times has embraced technology to facilitate stakeholders, particularly students, through portals that provide end-to-end solutions, including Registration to Courses – e-Learning – Online Examinations – Digital Certificates, supported by automatic SMS, e-Mail and Aadhaar enabled Direct Benefit Transfer (DBT) scheme.

I congratulate NIELT Chandigarh for starting next batch of Degree and Diploma courses affiliated to Punjabi University, Patiala from its Campus at Ropar and wish success in time to come.

Further I congratulate students for selecting NIELIT Chandigarh for acquiring Degree and post graduate Diploma and wish all of you the best learning in Campus.

Dr. Madan Mohan Tripathi
Director General, NIELIT

Oldest Centre of NIELIT established in 1978, with primary objective for starting automation and digitization of government organizations, boards & PSUs in the Northern Region and creating a highly skilled pool of human resources in the field of Information Technology. This Centre that was well known as the Regional Computer Centre (RCC) is a brand in itself; and many Systems designed and implemented by it have stood the test of time and are still in operation even after four decades. It has also provided Consultancy support, resolved real time issues faced by the industry and has taken up Turn-key Projects for organizations like PSPCL (erstwhile PSEB), UHBVN, PGI Chandigarh, SBI, CBSE, Council of Scientific and Industrial Research (CSIR) Delhi, CSO, Survey of India Dehradun, Registrar General of India under Ministry of Home Affairs to name a few.

This Centre was among the first centre to acquire Mainframe Computers, RF Link for Internet connectivity and other cutting-edge Hardware and Software Systems which brought RCC at the forefront of the digital revolution, enabling it to effectively drive innovation and implement turn-key projects in the region. This Centre successfully launched and executed several nation-wide projects like National Population Register (NPR), the National Council for Promotion of Urdu Language (NCPUL) Project, and CPI (Consumer Price Index) Generation for Labour Bureau, in addition to the ongoing legacy projects.

This Centre has always remained at the forefront of driving forward futuristic and disruptive technologies, such as Cyber Security, Artificial Intelligence (AI), Machine Learning (ML), Data Sciences, Internet of Things (IoT), BlockChain, Cloud & Edge Computing, AR/VR, Web and App Development and Robotics Process Automation. The distinguished alumni of NIELIT Chandigarh have secured prestigious positions in reputed organizations and multinational worldwide, many of them holding senior roles within major government departments and feel privileged to have studied from institute of national importance.

NIELIT is suitably poised to become eminent Institute of the importance in the country for both formal and non-formal mode of Education, Research, Examination and Certification in the field of Information, Electronics and Communications Technology (IECT). This Centre has shifted to present Ropar campus after a devastating fire incident that destroyed it Chandigarh campus building. Taking forward its legacy Centre is working towards starting of MTech programs in areas of Quantum Computing, Data Engineering and VLSI/Chip designing and other engineering/diploma programs in AIML and CyberSecurity & Digital Forensics besides playing a vital role as a major partner in the Government of India's FutureSkills Prime Programme, shaping the nation's skill development initiatives

Dr. Sanjeev Kumar Gupta
Executive Director, NIELIT

About NIELIT

NIELIT, Chandigarh was established in 1978 to provide professional services in the areas of Information, Electronics & Communication Technology (IECT).

It has been a constant endeavour of this Centre to develop excellence in various area of Information, Electronics & Communication Technology (IECT). The centre is ISO 9001-2008 certified. It is an IT and Electronics Organisation with clear cut strategies and its various operations are aimed at giving its customers a total package of IT Solutions and products.
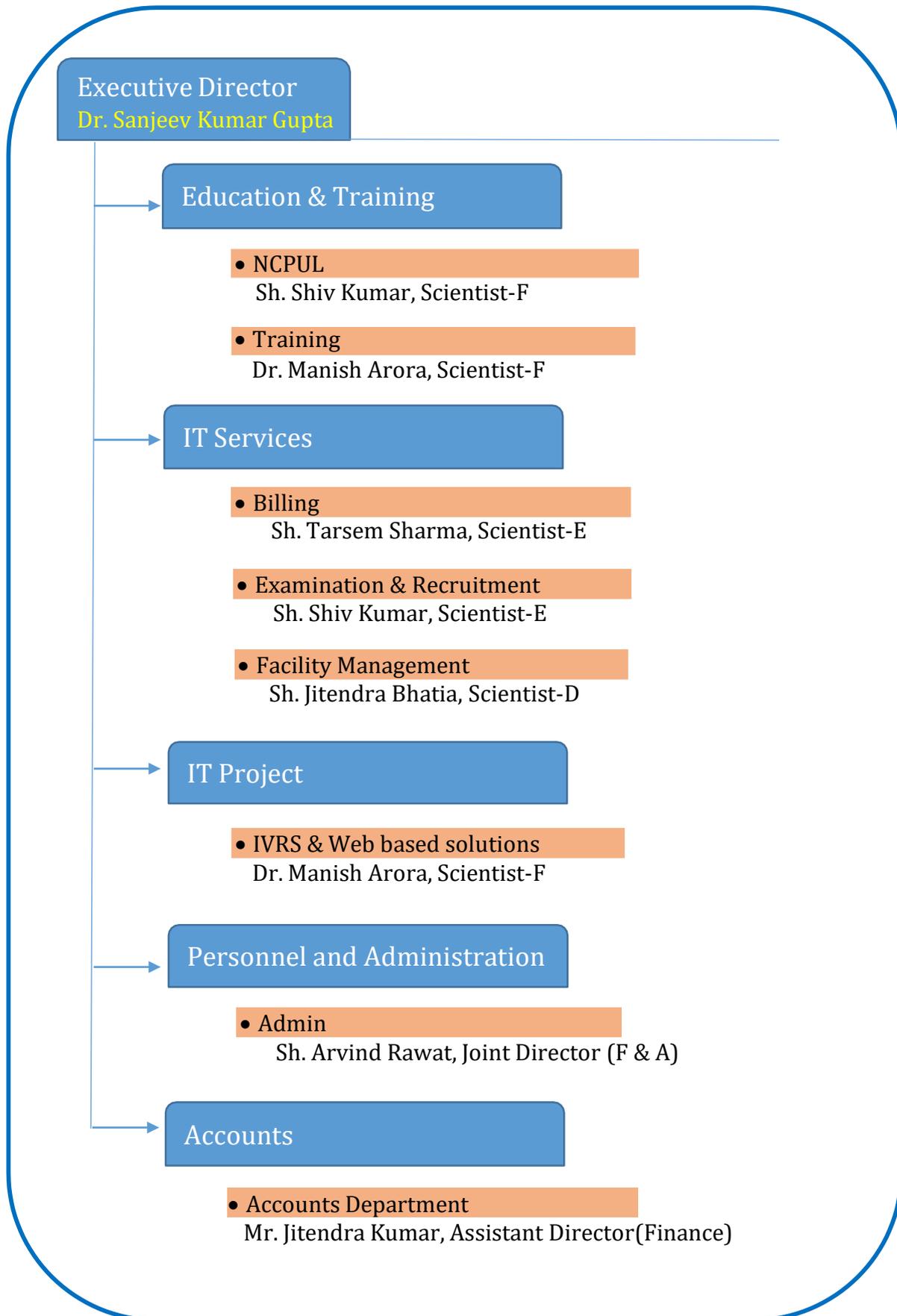
The Centre ensure cost effective, time to market solutions through a highly skilled work force driven by strong design principles, highest levels of qualities and ethical business practices and constantly strive to delight our customers through excellence in Service Delivery.

The Centre aims to disseminate knowledge on all aspects of Information, Electronics & Communication Technology (IECT) to the utmost user satisfaction and has built up a formidable track record for the same. This Centre provides specialized services to different segments of clients based on requirements assessed from time to time

Our Strength

- Capacity Building in IECT Computer
- Education in Schools Corporate
- Training
- Turn key Projects in the field of IT
- Consultancy in selection of Hardware and Software

- Large scale data capturing & processing
- Software development Feasibility
- and System Studies Key Projects
- in the field of IT

Administration Structure

Executive Director
Dr. Sanjeev Kumar Gupta

Education & Training

- NCPUL
  Sh. Shiv Kumar, Scientist-F

- Training
  Dr. Manish Arora, Scientist-F

IT Services

- Billing
  Sh. Tarsem Sharma, Scientist-E

- Examination & Recruitment
  Sh. Shiv Kumar, Scientist-E

- Facility Management
  Sh. Jitendra Bhatia, Scientist-D

IT Project

- IVRS & Web based solutions
  Dr. Manish Arora, Scientist-F

Personnel and Administration

- Admin
  Sh. Arvind Rawat, Joint Director (F & A)

Accounts

- Accounts Department
  Mr. Jitendra Kumar, Assistant Director(Finance)

Faculty Details

S.No.	Name	Designation	Qualification
1.	Dr. Manish Arora	Scientist-F	PhD(COM.SC & APPL.)
2.	Ms. Anita Budhiraja	Scientist-E	B LEVEL , C LEVEL
3.	Ms. Meenu Mohindra	Scientist-E	M.SC.(COMP.)
4.	Ms. Sharmistha Bhattacharjee	Scientist-D	Ph.D(Computer Science & Engineering)
5.	Ms. Meenu Dhir	Scientist-E	B.E.(COMP)
6.	Sh. Amit Jain	Scientist-E	M.TECH (IT)
7.	Dr. Sunita Chib	Scientist-E	PhD(Computer Science & Applications)
8.	Sh. Sachin Chandla	Scientist-D	B.TECH (IT)
9.	Dr. Sarwan Singh	Scientist-D	PhD(Computer Science)
10.	Sh. Rakesh Bharti	Scientist-D	M.C.A.
11.	Sh. Jasbir Singh	Scientist-D	M.SC (IT)
12.	Ms. Jyoti Sharma	Principal Technical Officer	M.C.A.
13.	Sh. Akash Sharan	Scientist-B	B.TECH (IT)
14.	Ms. Suman	Senior Technical Officer	B.TECH (CSE)
15.	Sh. Akhil Arora	Senior Technical Officer	B.E (ECE)
16.	Sh. Jaspreet Singh	Sr. Technical Assistant	B.TECH (ELECT.& COMM.ENGG.)
17.	Sh. Prakash Pratik	Sr. Technical Assistant	M.Tech

Infrastructure Details

NIELIT Chandigarh, permanent campus, Ropar has state-of-the-art infrastructure, well-equipped and air conditioned labs & classrooms. The institute ensures a dynamic learning environment for students. Exclusive labs have been provided for learning skills on latest technologies such Augmented and Virtual Reality, Artificial Intelligence, Internet of Things, Blockchain, BigData Analytics etc.

Networking and Security Lab

Big Data Analytics Lab

Augmented and Virtual Reality Lab

Artificial Intelligence and Machine Learning Lab

Blockchain Lab

Tally Lab
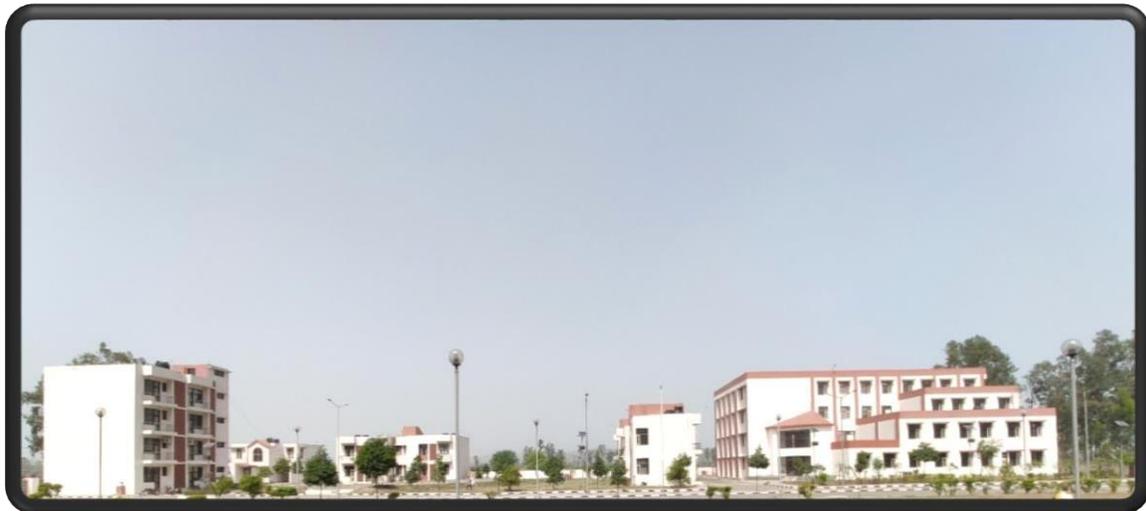
Social and Mobile Lab

Electronics (IoT) Lab

Web Development Lab

Infrastructure Details

Girls and Boys Hostel

NIELIT Chandigarh provides in-campus hostel accommodation with modern amenities. The hostels are secured by round-the-clock security guards at the entry gates. The students are encouraged to ride bicycles, play badminton and other games during their leisure time.

Multipurpose Hall

The institute has a spacious multipurpose hall with a seating capacity for more than 100 persons. Celebration of important days are hosted in the hall. The hall also serves as an open area where students can play badminton during their free time.

Infrastructure Details

Conference Room and Corporate Room

The institute has spacious and fully air-conditioned Conference Room and Corporate room, with state-of-the-art infrastructure which provides facilities for work meetings, workshops, seminars, guest lectures and faculty development programs.

Courses Offered

NIEIT Chandigarh offers courses in the area of Information, Electronics & Communications Technology (IECT) in the Formal (University affiliated) as well as the Non-Formal Sectors of Education. Courses offered are distinctive for their unique characteristics of being Industry Oriented and practice base.

Degree / Diploma Courses (University Affiliated)

Course	Duration	Eligibility	Total Seats
BCA	3 Years	10+2	50
M.Sc. in Computer Science with specialization in Data Science	2 Year	Graduation	40

Non-Formal Courses (NIELIT Skill Oriented)

NSQF Aligned Training Programmes		
Course	Duration	Eligibility
NIELIT 'O' Level (IT)*	1 Year	10+2/ ITI / Diploma or above
NIELIT CHM 'O' Level (Hardware)*	1 Year	10+2/ ITI / Diploma or above
NIELIT 'A' Level (IT)*	1.5 Years	Graduation
NIELIT 'A' Level (IT)*	1 Year	NIELIT 'O' Level
Certification Course in Data Entry and Office Automation*	135 Hours	10+2/ ITI
Advance Diploma in Computer Application Accounting & Publishing*	200 Hours	10+2
Solar-LED Lighting Product (Design and Manufacturing)*	350 Hours	10th/ ITI / 12th
PG Diploma in Data Science & Analytics*	840 hours	ME/M.Tech/BE/B.Tech/ MCA/MSc/B Level

Digital Literacy Programmes		
Course	*Duration*	*Eligibility*
Awareness in Computer Concepts (ACC)*	20 Hours	-
Basic Computer Course (BCC)*	36 Hours	-
Course on Computer Concepts (CCC)*	80 Hours	-
Course on Computer Concepts Plus (CCC+)	126 Hours	10th pass
Expert Computer Course (ECC)	200 Hours	12th pass

* No Fee for SC/ST Candidates

Joint certification Training Programmes with IIT Ropar

NIELIT entered into an MoU with IIT Ropar in 2017 to foster collaboration, provide opportunity for global experience and to facilitate the advancement of knowledge on the basis of reciprocity, best effort, mutual benefit and frequent interactions

Courses Offered Under Joint Certification

- Summer Training (6/8 weeks)
- Industrial Training (6 months)
- Finishing School Programme (5 months)

Course Highlights

- *Joint assessment and certification*
- *Lectures by both NIELIT and IIT faculty*
- *Major thrust on Hands-on Training*
- *Course curriculum jointly designed by NIELIT and IIT*
- *Exposure & access to high standards of IIT & NIELIT's industry oriented*

NIELIT Short Term Courses in IT and Electronics (6-8 weeks)

Advanced Technologies

- Robotic Process Automation using UiPath and Automation Anywhere
- BigData Analytics
- Augmented and Virtual Reality
- Machine Learning and Deep Learning
- Python with Data Science and Machine Learning
- BlockChain Developer

Web Development

- PHP with MYSQL
- Web Designing & Publishing
- Mobile Application Development using Android
- ASP.NET with SQL Server
- Web Development using Java Framework
- AngularJS with MongoDB

Basic Courses

- Core Java
- Advance Java
- C/C++
- IT Tools & Network Basis
- Certificate course in Multimedia
- Advance Data Structure through C Language
- Certificate Course in Python

Information Security

- Cyber Security
- Ethical Hacking

Electronics

- Internet of Things
- IoT using Augmented Reality
- Raspberry Pi with Python
- Programming with Arduino
- Embedded System Design
- Mobile Handset Design and Maintenance
- PCB Design

Courses with Tally Academy

- Accounting Executive Certificate Program
- Fundamental Certificate Prog.
- Taxation Master Certificate Program
- Tally ERP Fundamental & Payroll Management Certificate Program

NIELIT Industrial Training Courses (6 Months)

- Artificial Intelligence & Machine Learning
- BigData Analytics using Hadoop
- Blockchain Certified Professional

- Web Application Development using PHP & MySQL
- Mobile Application Development using Android
- Cyber Security

- Cloud Computing and Virtualization
- Internet of Things (IoT)
- Electronic Product Design
- Augmented and Virtual Reality

Outline of University Affiliated Courses

B.C.A. (Bachelor of Computer Applications)

Eligibility: 10+2
Seats:50

Semester-I			
BCA-111	General English – I	BCA-114	Programming Fundamentals using C
BCA-112	Punjabi (Compulsory) or Punjabi Compulsory (Mudla Gyan)	BCA-115	Software Lab –I (Windows and Office Automation)
BCA-113	Fundamentals of Information Technology	BCA-116	Software Lab – II (Based on paper BCA-114: Programming Fundamentals using C)

	Semester-II		
BCA-121	General English – II	BCA-124	Data Structures
BCA-122	Punjabi (Compulsory) or Punjabi Compulsory (Mudla Gyan)	BCA-125	Basic Mathematics
BCA-123	Digital Electronics	BCA-126	Software Lab – III (based on BCA124: Data Structures)

Semester-III			
BCA-211	English Communication Skills-I	BCA-215	Fundamentals of Database Management System
BCA-212	Discrete Mathematics	BCA-216	Software Lab – IV (Object Oriented Programming using C++ Lab)
BCA-213	Computer System Organization and Architecture	BCA-217	Software Lab – V (DBMS using MS Access Lab)
BCA-214	Object Oriented Programming using C++	BCA-218	Environmental and Road Safety Awareness (Qualifying Exam)

Semester-IV			
BCA-221	English Communication Skills-II	BCA-225	Relational Database Management Systems with Oracle
BCA-222	Computer Networks	BCA-226	Software Lab – VI (Computer Oriented Numerical and Statistical Methods Lab)

BCA-223	Management Information Systems	BCA-227	Software Lab – VII (Oracle Lab)
BCA-224	Computer Oriented Numerical and Statistical Methods		

Semester-V			
BCA-311	English Literary Skills-I	BCA-315	Web Designing using HTML and DHTML
BCA-312	System Analysis and Design	BCA-316	Software Lab – IX (based on paper BCA-314: Java Programming)
BCA-313	System Software	BCA-317	Software Lab – X (based on paper BCA-315: Web Designing using HTML and DHTML)
BCA-314	Java Programming	BCA-318	Punjabi (Compulsory) or Punjabi Compulsory (Mudla Gyan)

Semester-VI			
BCA-321	English Literary Skills-II	BCA-325	Web Designing using ASP.Net
BCA-322	E-Commerce	BCA-326	Software Lab – XI (More on Java based on BCA-314: Java Programming)
BCA-323	Operating Systems	BCA-327	Software Lab – XII (based on BCA-325: Web Designing using ASP.Net)
BCA-324	Software Engineering	BCA-328	Punjabi (Compulsory) or Punjabi Compulsory (Mudla Gyan)

M.Sc. in Computer Science
(with Specialization in Data Science)

Eligibility: Graduation
Seat: 40

Semester-I

MDSM1101T:	Probability and Statistical Techniques	MDSM1104T:	Database Management Systems
MDSM1102T:	Introduction to Data Science and AI	MDSM1105P:	Software Lab – I
MDSM1103T:	Programming in Python	MDSM1106P:	Software Lab – II

Semester-II

MDSM1201T:	Mathematics for Machine Learning	MDSM1204T: Web	Development using Python and Django
MDSM1202T:	Advanced Statistical Techniques	MDSM1205P	Software Lab – III (Based on MDSM1203T)
MDSM1203T:	Data Analytics and Visualisation	MDSM1206P	Software Lab – IV (Based on MDSM1204T)

Semester-III

MDSM2101T	Soft Skills and Technical Communication	MDSM2104E	Elective – I*
MDSM2102T	Software Engineering for Data Scientists	MDSM2105P	Software Lab – V (Based on MDSM2103T)
MDSM2103T	Business Intelligence	MDSM2106P	Software Lab – VI (Based on MDSM2104E)

Semester-IV

MDSM2201T	Research and Publication Ethics	MDSM2203P	Software Lab – VII (Based on MDSM2202T)
MDSM2202T	Mobile Application Development	MDSM2204P	Major Project (Industry based)

Guidelines for Registration and AdmissionProcedure

1. The candidate should go through the prospectus carefully available online.
2. The candidates, on merit list, will be called for document verification. Once documents are verified, the course fee will be submitted online.
3. Admission to all the courses shall be made on the basis of merit of qualifying exam.
   In case of two or more candidates obtaining equal marks in qualifying exam, merit
   of those candidates shall be determined by age i.e. Candidates older in age would
   be preferred or as per University rules.
4. The admission of the student to any course will be cancelled if the documents submitted at the time of admission are found to be false or fake. Also, a disciplinary action can be initiated against the student.
5. The admission to any course shall be provisional subject to verification of documents at any stage as per requirement of University.
6. The students are supposed to visit institute's website regularly for any updates.
7. Admission will be provisional subject to verification of documents and other criteria fulfillment of Terms & conditions mentioned in University Calendar.

Fee Structure

S.No.	Name of the Course	Gen new Candidate Total fee per year	SC new Candidate Total fee per year
1	BCA	Rs. 39,440	Rs. 39,380
2	M.Sc in Computer Science (with specialization in Data Science)	Rs. 44,280	Rs. 44,220

Note:
1. Students are bond to pay any increase in fees by University, Govt and College during the session
2. Library security will be charged from new students at the entry level.

Reservation of seats

Seats will be reserved in accordance with Punjab Govt. norms.

1.	Sc/ST	25%
2	Backward Class/OBC	10%
3	Border area/Backward area	02%(1% per)
4	Sports person	01%
5	Children and grandchildren of Punjab's freedom fighters	01%
6	Disability quota (deaf,dumb,blind etc)	05%
7	Soldiers and her children/ and their widows	01%
8	Neem soldiers chidren/widows	01%
9	Riots affected	01%
10	Terrorist affected (son/daughter/grand children)	01%

Hostel Charges

S.No	Hostel Accomodation	Rate per month	Security Deposit
1	Three bedded room	Rs. 880/-	Rs. 1760/-
2	Single occupancy	Rs. 1320/-	Rs. 2640/-

Note:

1. Accommodation in Hostel will be provided depending upon the availability of room.
2. All students are required to comply with all Hostel/Mess Rules which may be enforced by the In-charge Hostel/Mess from time to time as approved by the Head of the institute.
3. Hostel charges given above are subject to revision from time to time and students shall be required to deposit charges as applicable.
4. All the students staying in NIELIT Hostel should provide an undertaking

Mess/Canteen Charges

Mess/Canteen charges are as per actual charged by vendor.

Refund of fee

Application for refund of fee can be submitted on specified Performa in the institute within 30 days from the commencement of Academic session. Refund applications will be processed as per rules applicable:

S.No.	Fee Deducted	Date upto which application for refund of fee is received by the institute
1	Rs 2000/-	Prior to commencement of Academic session as notified by Punjabi University, Patiala
2	20%	Upto 15 days after commencement of Academic session as notified by Punjabi University, Patiala
3	50%	From 16th day to 30th day after commencement of Academic session as notified by Punjabi University, Patiala
4	No refund	30 days after commencement of Academic session as notified by Punjabi University, Patiala

Note:

➤ Fee deduction will be levied on first payable installment including all University charges & funds.
➤ Refund Policy is applicable only for entry level classes.
➤ Dates may be changed as per Government / University rules.

Warning Against Ragging

As per the directions of the Hon'ble Supreme Court of India, Ragging is the criminal offence and is totally banned and anyone found guilty of indulging in ragging and/or abetting ragging is liable to be severely punished

Women Cell

All the female students and staff members can approach this Cell for the early redressal of their grievances. It is constituted to ensure a safe environment for females in the institute.

Important

1. List of Fake Universities by UGC

   https://www.ugc.ac.in/page/Fake-Universities.aspx

2. The information provided in this prospectus is subject to change as per rules of NIELIT & University. You are advised to visit website regularly.

General rules and regulations

1. The students are required to maintain a minimum of 75% attendance in the classes during the semester.
2. No student with shortage in attendance will be allowed to appear in the University examination
3. In order to be eligible for the University examination, students of degree classes are supposed to secure 25% of the total marks of all subjects or 25% in each subject.
4. The name of the student who remains absent continuously for ten days will be struck off.
5. If a student wants to leave the institute, he/she shall write an application, as per norms, duly signed by parent/guardian.
6. Every student is supposed to keep their identity card with themselves and shall produce it if and when asked by the institute's officials.
7. The rules & regulations issued by University / NIELIT from time to time shall be applicable. Students are advised to check institute's website / notice boards regularly.
8. Library rules / Parking stand rules / Rules for fines shall be provided at the time of admission.

Contact persons for admission enquiry

Course	Name of Person	Contact
M.Sc. in CS with Specialization in Data Science and BCA	■ Ms Meenu Mohindra, Sc-'E'	9872211214 m.mohindra@nielit.gov.in
	■ Ms Suman, STO	8894014655 suman@nielit.gov.in
Website: www.nielit.gov.in/chandigarh/index.php		Email : training.chd@nielit.gov.in

Events at NIELIT Chandigarh, Ropar Campus

Student's Activities and Events