Message from the Director

It gives me immense pleasure in presenting this prospectus cum course brochure to provide information about our Education and Professional programmes. It gives the details of the various programmes, eligibility norms, application and admission process, the rules and regulations of the academic and personal conduct of the students.

NIELIT, Kolkata (formerly DOEACC Society/RCC, Kolkata Centre), an autonomous scientific society under the administrative control of Ministry of Electronics & Information Technology (MeitY), Govt. of India was set up to carry out human resources development and related activities to make independent competent professionals in the field of Information Electronics & Communication Technology (IECT).

Our Vision is -"to be the leader in the development of industry oriented quality education and training and be the country's premier Institution for examination and certification in the field of Information, Electronics and Communications Technology (IECT)".

Our aim is to provide quality computer training & services that exceed the expectation of our students. We offer various courses starting from Digital Literacy courses (ACC, BCC, CCC, CCC Plus, ECC, etc.) to specialized courses Multimedia & Animation Technology (MAT-O Level), ESDM, etc. as per industry demand leading to skill development in the area of IECT. Our Centre is also reaching out in rural areas by implementing the Capacity Building initiative of NIELIT for weaker section of the society, funded by Govt. of India. We are running a capacity development program for 54000 local youths at 6 districts (Bolpur, Kharagpur, Asansol, Purulia, Barjora and Siliguri) of West Bengal with 75% fees waived (50% sponsored by GoWB and 25% sponsored by NIELIT Kolkata). There are 34 Accredited Centres,403 Facilitation Centres and 23 Training Partners of ESDM Programme in different districts of West Bengal. NIELIT Kolkata has trained and certified above 40,000+ students and is targeting to increase the outreach.

We are working on new areas like Data Analytics, Cyber Securities, Multimedia & Animation Technologies and Block Chain technologies. Several collaborative research activities, case studies, and Turnkey Consultancy projects are executed. We aim to impart R&D activities to the youths in the mentioned areas. We are providing earn& learn facility to selected candidates. Our Model Career Centre (MCC) is arranging several job fairs and career guidance for the candidates. NIELIT Kolkata is also running several Summer Training courses for engineers as Employability Enhancement Training approved by AICTE. We have executed several software development projects- Agricensus 2010-11& Input Survey2011-12:Data preparation, processing & tabulation, NPR, Livestock, ERP(SAIL) , DoE. Selected students are involved in live projects.

We focus on providing excellence in training, by conducting research and development activities & consultancies. In all training courses, our goal is to maintain a learner-centric focus towards producing **competent professionals in Computer Science, Electronics and Communication Technologies** contributing towards the development of new technologies to achieve our Vision of supporting the welfare of entire mankind.

I sincerely hope that this prospectus including the Course Brochure would help in building career and skill development of our students.

(Dr. Yumnam Jayanta Singh)
Director, NIELIT KOLKATA

Table of Contents

1. Introduction to NIELIT Kolkata

NIELIT Kolkata(formerly DOEACC Society Kolkata Centre since 14.12.2002 and prior to that Regional Computer Centre (RCC), Calcutta) is one of the oldest IT houses in eastern region imparting IT Education and Training for more than 40 years. The Centre was established in 1976 as a Registered Scientific Society (Autonomous Body) by the Central and West Bengal Governments.

In December 2002, RCC, Calcutta was merged with DOEACC Society — An Autonomous Scientific Society of Department of Electronics &Information Technology under Ministry of Communications& Information Technology, Govt. of India. The Society has its Headquarters at CGO Complex, New Delhi and Pan India presence of forty(40) offices .It is also well networked throughout India with the presence of about 700+ institutes.

NIELIT is making efforts to bridge the 'digital divide' through skill development leading to the employability of youth. We also provide betterment schemes for the marginalized sections of the society. Accreditation and Registration processes have been simplified by self-certification of documents, which has considerably reduced the processing time.

Model Career Centre (MCC) has been set up at NIELIT Kolkata under the National Career Service Scheme of the Directorate General of Employment. It is a historic step which would facilitate the youth from all sections of the society to take advantage of career guidance ,counseling services and also conducting several job fairs.

The basic objective of NIELIT Kolkata are described below:
  i. To carry out human resource development related activities in the area of Information Electronics and Communication Technology (IECT) which would enable employment generation and IT-Led Economic Growth.
  ii. Capacity building in recent trends –such as Big Data, Blockchain, Cyber Security, Solar Technology, Multimedia etc.
  iii. Capacity building through e-governance to enable Citizen Centric Services, empowering through Digital Education by using the services of the Centre, accredited Institutes and CSC's.
  iv. Development of several software for National level projects-Agricultural Census, NPR, Livestock etc.
  v. Assist the aspiring youth for their career either by assisting job plan or grooming to be future entrepreneur

2. Location

NIELIT Kolkata has at present two operational units.
Unit 1: Jadavpur University Campus, Kolkata – 700032.
        +91-33-2414-6081/6054, Fax: +91-33-2414-6549

Unit 1 of NIELIT Kolkata Centre is located in a lush green environment inside Jadavpur University Campus being connected with bus and train services from different corners of the city.

Unit 2: Salt Lake Campus, Block - BF 267, Sector-I, Salt Lake, Kolkata – 700064
+91-33-4602-2246/0938

Unit 2 is a new building of NIELIT Kolkata at Sector-I, Salt Lake which has also started its operation. The Building has 20000 sq.ft. in the area (B+G+3) storied and is well equipped with modern technological facilities needed for training in selected domains.

3. Centre's Thrust Areas

➢ NIELIT IT('O', 'A' & 'B' Level) ,CHM ('O' and 'A' Level) Hardware & Networking Courses and Multimedia and Animation Technology ('O' / 'A' Level) courses
➢ AICTE approved summer training programmes.
➢ Recent trends such as Big Data , Blockchain ,Cyber Security etc
➢ 'CCC' &'BCC' Online examination
➢ Corporate Courses as per requirement
➢ ITeS BPO & Call Centre Training Programme
➢ Several Short Term Courses as per Market demand
➢ Directorate General of Employment (DGE) Training
➢ Execution of National Level Software Development Projects- Agricultural Census, NPR, Livestock, DoE etc.
➢ Model Career Centre (MCC) under National Career Service

4. The Courses —an Overview

NIELIT Kolkata Centre offers Long-term and Short-term Courses as detailed in the following pages:

National Schemes

NIELIT (DOEACC) Scheme provided by NIELIT plays a pivotal role in generating competent manpower by utilizing the resources available in the non-formal sector for education in the area of Information Technology and few allied areas.

NIELIT (DOEACC) Information Technology (IT) Scheme had been formulated by All India Council for Technical Education [AICTE], a Statutory Body under Ministry of Human Resource Development [MHRD] and Department of Electronics and is being implemented by NIELIT, an Autonomous Scientific Society under Department of Electronics& Information Technology, Ministry of Electronics and Information Technology (MeitY), Govt.of India.

(The National Skills Qualifications Framework (NSQF) is a competency-based framework that organizes all qualifications according to a series of levels of knowledge, skills and aptitude. These levels, graded from one to ten, are defined in terms of learning outcomes which the learner must possess regardless of whether they are obtained through formal, non-formal or informal learning.)

5. Information Technology (IT) 'O'/'A'/'B' Level Courses:

Level	Equivalency	
'O' Level	Equivalent to Foundation Level Course	**NSQF Compliant Courses** (The National Skills Qualifications Framework (NSQF))
'A' Level	Equivalent to Advanced Diploma in Computer Applications	
'B' Level	Equivalent to MCA Level Course	

NIELIT (DOEACC) Computer Hardware Maintenance (CHM) Scheme: Manufacturer's Association for Information Technology (MAIT) set up in 1982 for purposes of scientific, educational and IT Industry promotion has emerged as an effective, influential and dynamic organization. MAIT represents actively Hardware, Training, Design/R&D and the associated service sectors of the Indian Industry.

MAIT is represented on all concerned Govt. of India forums and works in close association with the Dept. of Electronics, Ministry of Electronics and Information Technology (MeitY), Govt.of India

The conception of a new scheme under NIELIT (DOEACC)for Hardware courses is a result of the amalgamation of experience of running of existing NIELIT (DOEACC)scheme in Computers and of CEDTI Franchisee Scheme. The Scheme has

been launched with MAIT.The NIELIT (DOEACC) Scheme on Hardware Courses has been worked out jointly with MAIT, initially at two levels:

Level	Equivalency	
CHM 'O' Level	Diploma in Computer Hardware Maintenance	NSQF Compliant Courses (The National Skills Qualifications Framework (NSQF))
CHM 'A' Level	Advanced Diploma in Computer Hardware Maintenance and Networking	

NIELIT (DOEACC) Multimedia and Animation Technology (MAT) Scheme has been designed by NIELIT through experts from concerned industry and academia with an objective to generate human resource in the areas of Multimedia and Animation Technology including Computer Graphics Design, Media Development, Web Development, Animation, Gaming etc. for catering to the fast-growing Digital Multimedia and Animation Industry. The MAT-O Level course is being offered from selected NIELIT Centres across the country.

MULTIMEDIA AND ANIMATION TECHNOLOGY Scheme:

Level	Equivalency	
MAT 'O' Level	Diploma in Multimedia and Animation Technology	NSQF Compliant Courses (The National Skills Qualifications Framework (NSQF))
MAT 'A' Level	Advanced Diploma in Multimedia and Animation Technology	

NIELIT (DOEACC) schemes are recognized by the Govt. for the purpose of employment in Central/State Govt., PSUs, etc.

6. Digital Literary Courses

- ACC - Awareness in Computer Concepts   :   20 hours
- BCC - Basic Computer Course   :   36 hours
- CCC - Course on Computer Concepts   :   80 hours
- CCC Plus - Course on Computer Concept Plus   :   126 hours
- ECC - Expert Computer Course   :   200 hours
-

BCC course is recognized by Govt. of Sikkim, Chandigarh, Daman & Diu, Arunachal Pradesh , Bihar and Directorate General of Employment and Training of India, GoI.

'Course on Computer Concepts (CCC)' is aligned at Level-3 of National Skills Qualifications Framework (NSQF) defined by Ministry of Skill Development and Entrepreneurship, Government of India. CCC course is recognized by the

Government of Tripura, Mizoram, Rajasthan, Chandigarh, Daman & Diu, Arunachal Pradesh, Maharashtra ,Uttar Pradesh and Gujarat.

For details of the recognition of courses, please visit:
http://www.nielit.gov.in/content/recognition-0

For details of the courses, please visit:
http://www.nielit.gov.in/content/digital-literacy-courses

7. Short–term Courses

The Short-term courses may be utilized in a wide variety of ways. The approach may be to just gain a general knowledge of computers (which now a days, is essential for any type of job), or acquiring IT knowledge while already in some profession, or being eligible for IT profession by a judicious choice of series of such courses or upgrading knowledge and adapt to new technology by IT professionals, etc.

These courses are normally held during 8 AM to 10 AM, 4PM TO 6 PM and 6 PM to 8 PM enabling students and working people to participate.

There are 51 courses National Skill Qualification Framework (NSQF) (http://www.skilldevelopment.gov.in/nsqf.html**) compliant and the rest are likely to be aligned in due course.**

As the duration of the short-term courses vary widely and demands also change from time to time, we do not fix the course schedules in advance.

Normally, we give frequent Newspaper advertisements and also display in Centre's Website (www.nielit.gov.in/kolkata)in a year describing the next such available programmes.

8. Corporate Courses:

Apart from the courses open to the public as detailed in the following pages, we offer tailor-made courses for Government Departments, Industrial and Commercial Houses and Academic Bodies. In the year 2017-18, we have conducted such courses for -

1. Capacity Building Training on E-Waste Management for 2499 Govt. Officials of West Bengal and North Eastern states.
2. Training of NIELIT 'O' Level Course in IT and Computer Hardware Maintenance (CHM-O) for SC/ST Jobseekers sponsored by Directorate General of Employment & Training (DGET), Govt. of India in Kolkata & Odisha for a total 200 candidates.
3. Skill Development Training on Electricity & Safety Practices in collaboration with Jadavpur University for 73 participants.
4. Training on Installation & Maintenance of Electrical & Electronics System in collaboration with Jadavpur University for 42 candidates.

5. Training on Office Automation, Cyber Security, GeM & PFMS for the officials of SRFTI, Kolkata for 35 participants. .

6. Training on MS-Office for Officials of Irrigation & Waterways Department, Govt. of WB for 25 participants.

7. Training on AutoCAD for the Officers of Kolkata Municipal Corporation for 60 participants.

8. Training on MS-Office & E-Governance for Officials of SDO Office at Bolpur IT Park for 20 participants.

Admissions to courses are given as mentioned in the next pages. Generally, the time is as scheduled. However, the schedule gets changed due to unavoidable conditions (in rare cases).

9. General Terms &Conditions:

1. Shifting from one course to another is strictly not permissible.

2. In any circumstances, no candidate will be allowed to change a batch of a course (e.g. a student who has taken admission in 6-8 p.m. batch will not be allowed to shift another batch like 8-10 a.m. or vice-versa.)

3. Course Material for Courses offered under NIELIT (DOEACC) Scheme does not include textbooks.

4. New rates are applicable for existing students also.

5. No Course fee for SC/ST candidates will be charged till funding by Govt. is available subject to following:

   5 (a) The candidates belonging to SC or ST categories will be required to produce the Original Caste/Tribe Certificate issued by a Competent Authority in the prescribed format as given in Annexure-II.

   The Scheduled Caste/Tribe Certificate issued by the following Authorities in the prescribed form as given in Annexure-II for SC(s) / ST(s) will be accepted as proof in support of the candidate's claim as belonging to the Scheduled Caste or Scheduled Tribe.

   (i) District Magistrate/Additional District Magistrate/ Collector/ Deputy Commissioner/ Additional Deputy Commissioner / Deputy Collector/1stClass Stipendiary Magistrate/Sub-Divisional Magistrate/Taluka Magistrate/Executive Magistrate / Extra Assistant Commissioner;

   (ii) Chief Presidency Magistrate / Additional Chief Presidency Magistrate / Presidency Magistrate;

   (iii) Revenue Officer not below the rank of Tahasildar; and

   (iv) Sub-Divisional Officer of the area where the candidate and / or his family normally resides

   5 (b) The SC/ST Candidates have to attach a copy of Caste / Tribe Certificates duly self attested along with the Application Form and other documents.

5 (c)   The undertaking in Annexure-III is also to be attached by the SC/ST Candidates at the time of admission. Such undertaking will be countersigned by the parent / guardian if the student is below 18 years.

5 (d)   NIELIT Kolkata Centre may verify the Caste/Tribe Certificate submitted by a student through the proper channels and if such verification reveals that the claim to belong to Scheduled Caste or Scheduled Tribe, as the case may, is false, such student will be expelled forthwith without assigning any further reason and without prejudice to such further action as may be taken under the provisions of the Indian Penal Code for production of false certificates. The Director/Director-in-Charge, NIELIT Kolkata Centre shall be the final deciding authority for verification of a particular SC/ST Certificate upon specific recommendation of the concerned Admission Authorities.

5 (e)   **Caution Money: Caution Money as applicable to be collected and the same will be refundable after fulfilling the following conditions:**

  i. Within two years of collection or completion of classes at NIELIT Kolkata whichever is later.
  ii. Students will apply for a refund in the prescribed format available at Reception Counter and duly filled up form along with the original Money Receipt and his/her bank account details to be submitted to Centre's Library.
  iii. Same will be refunded through their bank account only. No application for refund of Caution Money will be accepted or entertained beyond the period mentioned in (i) above.

6.   Certificates have to be collected within 3 months from completion of the course.

7.   Discount available for down payment of fees for certain courses.

8.   Fees Installment facilities are available for a few courses.

9.   For Short Term Courses (for course duration maximum upto 200 hrs.), current Registration fees are Rs. 100/- plus Government Tax and Levies as applicable. Registration is valid for one year.

10.   Course Fee / Installment to be paid before the start of each course (Module/Semester/Year as applicable).

11.   Government Tax and Levies (as applicable) extra will apply to all courses except IT ('O'/'A'/'B' Level) courses only. Presently there are no Government Tax and Levies on NIELIT IT ('O'/'A'/'B' Level) courses, but any periodical amendment of rules will be applicable.

12.   Refund of the course fee will not be allowed unless the course is canceledby the Centre itself.

13.   Candidates withdrawing from a course before the start date of the batch will get 80% of the course fees refunded excluding Government tax and levis. .

14.   Course Fees given in this booklet are as per prevailing rate and may get changed anytime as per the decision of appropriate authorities and students should pay as per new fees.

15. Library caution deposit will be refunded against clearance from Library and producing related money receipts.
16. Resources like classroom, lab faculty, library books, etc. are available only to students attending regular theory or lab classes as per schedule of respective courses.
17. For Elective subjects, a batch of minimum 10 candidates may be considered.
18. 'O' Level qualified students taking admission in 'A' Level will get a relaxation of Rs 4000/- from course fees at the time of full and final payment.
19. For Non-formal Long term courses, minimum batch size will be of 20, and for short term courses, minimum batch size will be of 10 which may vary as per decision of the authority from time to time.

10. NIELIT (DOEACC) National Schemes

A) O/A/B Level courses in Information Technology (IT):

SNo	Course Name	Eligibility	Duration	Course Fees
01.	IT-O Level	10+2 / ITI	1 Year (480 hrs.)	Rs.11500/-*
02.	IT-A Level /B-I	'O' Level / Graduate/ Polytechnic Diploma	1 Year (1550 hrs.)	Rs.23000/-*
03.	IT-B Level (B-II & B-III)	'A' Level / B-I	2 Years (2400 hrs.)	Rs.22000/-* (Per year)

***Course fees are subject to change till the admission process of the candidate is completed.**
Admission opens throughout the year.

B) 'O'/ 'A' Level Course in Hardware (DOEACC and Manufacturers Association for Information Technology (MAIT) Approved):

SNo	Course Name	Eligibility	Duration	Course Fees
01.	CHM 'O' Level	10+2 (preferably Science)/ITI (Electrical / Electronics/ Instrumentation)	1 Year (400 hrs.)	Rs. 13200/- **
02.	CHM 'A' Level	CHM 'O' pass / Diploma in Electrical / Electronics/ Instrumentation/ 2nd Year B.Sc. with Physics / Electronics /IT	1 Year (470 hrs.)	Rs. 15500/- **

C) O/A Level Courses in Multimedia and Animation Technology:

S.No.	Course Name	Eligibility	Duration	Course Fees
01.	MAT-O Level	10+2 in any Discipline	1 Year (600 hrs.)	Rs. 24,000/-**
02.	MAT-A Level	Graduate in any discipline	1 Year (1200 hrs.)	To be announced

****Course fees are subject to change till the admission process of the candidate is completed. Government Tax and Levies as applicable is additional. For installment facilities or discount available the last page may please be seen.**

11. Short-term Courses (STC):

A) Basic Courses

Sl. No	Course Name	Course Contents	NSQF Compliant (Y/N)	Eligibility	Duration (in hours)	Course Fees+ applicable taxes is additional
01.	Certificate Course in Office Automation	Basics of Computer, Windows, MS-Office Communicating using the Internet, Browsers, Communication & Collaboration, Making Small Presentation	Y	10+2 pass	80 hrs.	Rs. 3500/-
02.	CCC(Course on Computer Concepts)	Introduction to computer , Introduction to GUI Based Operating System , Elements of Word Processing , Spreadsheets, Introduction to Internet, WWW and web browsers, Communication and Collaboration , Application of presentations, Application of Digital Financial Services	Y	Atleast 10th Pass	80 hrs.	Rs. 3500/-
03.	Certificate Course in Web Designing	Introduction to Internet & Web, HTML, DHTML, JAVA Script, Flash PhotoShop, CSS Project on Website Development	Y	Knowledge in Basic Computer Concept	80 hrs.	Rs.5000/-

Course fees are subject to change till the admission process of the candidate is completed.

B) Advanced Level Courses

Sl. No	Course Name	Course Contents	NSQF Compliant (Y/N)	Eligibility	Duration (in hours)	Course Fees+ applicable taxes is additional
01.	Certificate Course in PC Assembly & Maintenance	Computer & I/O devices, Monitors, Memory, Hard Disk & Mother Board I/O ports, Graphic Card, Installation of Printers, Modem, OS & Scanner, Networking fundamentals	Y	10th Pass	80 hrs.	Rs.2640/-
02	Certificate Course in Assembly and Maintenance of Personal Computer	I/O devices, Monitors, Memory, Hard Disk, Mother Board, Buses, I/O Ports, graphic cards, Installation of OS /printer/ modem / scanner, BIOS set up, Recovery & Trouble shooting, Networking Fundamentals, Preventive maintenance & Anti-Virus,Power supply, Printer, UPS	Y	ITI/10th/10+2 Pass	240 hrs	Rs 8640/-
03.	Diploma in Multimedia and Animation Technology	Introduction to Multimedia, Image Editing & Graphic Designing, Audio Editing, 2D Animation, Video Editing , Special Effects, 3D Animation, Introduction to webpage Development Project Work	Y	10+2 pass & above	200 hrs.	Rs. 10000/-

04.	Certificate Course in programming through C Language	Intro. to C, Data types & operators, Looping, Functions, Arrays & Pointer, Structures & Union, Header files, File handling	N	Basic knowledge of Computer & at least 10+2 pass	80 hrs.	Rs.4000/-
05	Certificate Course in Programming thru C/ C++	Programming Concepts, problem solving thru C language, OOP using C++	N	Basic knowledge of Computer & at least 10+2 pass	120 hrs.	Rs. 5000/-
06.	Certificate Course in Advanced Financial Accounting & GST using TALLY	Advance Financial Accounting, Tally ERP 9 with GST, TDS/TCS/Prof. Tax, Payroll, Inventory etc.	N	10+2 pass preferably with commerce background	80 hrs.	Rs.8500/-

C) **Courses for Professionals**

Sl. No	Course Name	Course Contents	NSQF Compliant (Y/N)	Eligibility	Duration (in hours)	Course Fees+ applicable taxes
01.	Certificate Course in Core JAVA	Introduction to OOPs classes & objects, Packages & Interfaces, Exception handling, Multithreading, Applets & AWT Controls & Swing, SQL & JDBC, JAVA I/O	N	Basic Knowledge of Computers	80 hrs.	Rs.4000/-
02.	Certificate Course in Advanced JAVA (J2EE)	Introduction to Core JAVA & J2EE, SQL & JDBC, Beans in Servlets, Introduction to Struts framework, JSP, Hibernation	N	Basic Knowledge of programming Language	80 hrs.	Rs. 4000/-
03.	Certificate Course in Oracle SQL and PL/SQL	Intro. of RDBMS & ORDBMS, Basic PL/SQL, Control Structures & Procedures & Functions, Cursors, Triggers, Exception handling	N	10+2 pass & Basic knowledge of DBMS	80 hrs.	Rs. 5000/-
04.	Certificate Course in Information Security & Cyber LAW	Info. Security, Security Services, Mechanisms & attack, Physical & System Security, the Internet & Web parity, N/W Security fund. IT Acts & Cyber LAW, Case Study	N	10th pass with basic computer & networking knowledge	80 hrs.	Rs. 5000/-
05.	Electrical Installation & Safety Practices	Electricity: Introduction, definition of voltage, current, power, energy, units & symbols.Fuse, switch & circuit breakers code of practices and selection Ohm's law & other relevant laws, heating effect of electricity resistance, inductance, capacitance,DC series &	N	10th pass or equivalent	164 hrs.	✞ Rs. 8000/- **including Taxes) for General Candidates and Rs. 16000/- for**

		parallel circuitConductor, insulator, swg wire gauge, cable testing of line, house wiring connection & diagram of distribution & fuse board Staircase lighting, fluorescent tube, electric bell, bed switch connection etc.transformer – principle, construction, material,Storage device – battery,Electric motor – DC & AC motor (introduction),Electric generator – DC & AC generator (introduction) Method of laying wire over short distances,Overhead and underground line (ac) distribution solar electricity elevator,Fuel, explosives, sources of fire automatic smoke detection, heat detector, fire extinguishment mechanism, extinguishing agent, electrical accident, mechanism of electrical injury			**Sponsored candidates**
06.	Certificate Course on MATLAB	Introduction to MATLAB, Graph Plots, Mathematical Toolbox ,·Control Statements,Procedures and Functions, Statistical Toolbox & Numerical analysis, Optimization, Manipulating Text ,GUI Interface, Introduction to Simulink, Import & Export. Introduction to Digital Image Processing Toolbox.	N	ME/M.Tech MCA/BCA / BSc/M Sc, Diploma & Engineering graduates (Pursuing also)	36 hrs.	Rs. 6000/-
07.	Elements of Machine Learning, Statistics, Optimization Techniques and Digital Image Processing using MATLAB	Introduction to Machine Learning, Classification algorithms such as Neural Network ,K-Nearest Neighbor, Discriminant Analysis, Decision Trees, Support Vector Machines, Ensembles, ·Building Classification Models, Performance Measurement of a Classifier, Improving Predictive Models Statistics , Optimization Techniques ,Image Processing Fundamentals ,Image Digitization, Image Enhancement & Restoration, Image Compression, Edge and Boundary Detection, Image Filter, Image Registration , Dilation and Erosion, Feature Detection, Segmentation, Fourier Transform	N	ME/ M.Tech, BE/B. Tech. (Pursuing also) or MCA/ BCA/M.Sc/ B.Sc(on going)/ Research Scholars	36 hrs.	Rs. 6000/-
08.	Certificate Course in AutoCAD	Introduction to Coordinate Systems, 2D&3D Drawing & Editing, Layers, blocks, X-refs, rendering solid modeling	N	Engg. Diploma / Degree / ITI trained	80 hrs.	Rs. 5000/-
09.	Certified Course in Linux, Apache,	Introduction to Linux, PHP, Introduction to Ajax, Apache configuration, HTML, Java Script, Validations OOPs concept in PHP,	Y	Basic programming knowledge	80 hrs.	Rs. 5000/-

Sl. No	Course Name	Course Contents	NSQF Compliant (Y/N)	Eligibility	Duration (in hours)	Course Fees+ applicable taxes
	MySQL &PHP (LAMP)	Concept in MySQL Database, Database programming using PHP & MySQL, MVC Architecture				
10.	Certificate Course in Application Development using Java and Oracle	Introduction to OOPs classes & objects, Packages & Interfaces, Exception handling, Multithreading, JAVA I/O , JSP, Servlet ,JDBC, Oracle SQL,PL/SQL	N	Basic Knowledge of Programming	120 hrs.	Rs. 6000/-
11.	Certificate Course in Oracle DBA	SQL, oracle architecture, instance, creating database, data dictionary & views, control files, log files, table space, storage, structure, managing data, table & index, user & privilege, etc	N	Basic knowledge of DBMS	80 hrs.	Rs. 8500/-
12.	Certificate course in Network Administration	Computer Network, topology, protocol, Networking Hardware, Network configuration, addressing, routing and routed protocols, VLAN, ACL, troubleshoot, Server installation, etc	N	10+2 pass with computer background	80 hrs.	Rs. 4000/-
13.	Certificate Course in System Administration using Linux	commands, shell programming, managing files & services, user administration, file system administration, disk quota administration, network connectivity, KVM, remote administration, system resources, SELinux, etc	N	10+2 pass with knowledge of computer	80 hrs.	Rs.8000/-
14.	Certified ANDROID Application Developer	Intro. to Mobile Apps & Android, its Architecture, Components, Building UI with Activities, Notifications, Multithreading, Resources and Assets, Intent, Broadcast Receivers, Services, Location Based Services and Google Maps, Sensors, Wi-Fi, Camera, Bluetooth, Android Application Deployment, etc	Y	Graduate/ Under Graduate and Knowledge of JAVA, Internet Concepts, and Database	100 hrs.	Rs. 15000/-
15.	Diploma in Computer Application and Network Administration	Computer application, Computer Hardware, and Peripherals Networking	N	10+2 pass with basic computer knowledge	200 hrs.	Rs. 10000/-
16.	Certificate Course in 2D Animation using FLASH	Introduction to Multimedia, Introduction to Graphics, Image Format, Color Model, etc., Introduction to 2D, Adobe Photoshop, Flash, Project	Y	10+2 pass & above	80 hrs.	Rs. 10000/-

Sl. No	Course Name	Course Contents	NSQF Compliant (Y/N)	Eligibility	Duration (in hours)	Course Fees+ applicable taxes
17.	Introduction	Introduction to 3D, Auto CAD, Max,	N	10+2 pass &	144	Rs. 15000/-

	to 3D Creative Design	Maya, Complete Project		above	hrs.	
18.	Introduction to Internet Of Things (IoT) using Python	What is IoT - In-depth explanation, Elements, Sensors Arduino ,Circuit Design, Programming, Interfacing Python Programming, Function, Loop, Module, Conditioning, Classes etc., Matplotlib, Numpy, PIP, Opencv modules and programming using them Softwares, Libraries,V python Library, GSM Module, WiFi modules, GPS Module and Projects.	N	Graduate (Pursuing or completed) with programming knowledge	80 hrs.	Rs 6000 /-
19.	Certificate Course in Python with Introduction to Linux	Python & Linux Introduction , Introduction to Python Syntax, Looping, Strings, & Conditional Constructs, Usage of String operators, & Math Functions & other Functions, Detailed Usage of LIST, TUPLE , DICTIONARY, Classes and objects in Python	N	At least 10+2 passed with Computer Programming knowledge	80 hrs	Rs 6500/-

- *Course fees are subject to change till the admission process of the candidate is completed.*
- *Courses which are not presently NSQF-compliant are likely to be aligned in due course.*

12. Summer Training

Objective of Summer Training by a Candidate

- Industry oriented quality education leading to employment generation and IT-led economic growth
- They will get classroom teaching, tutorials, lab session and Mini projects
- Eligible to claim mandatory 2 credits for Engineering students after completion of the summer training

Regular Summer Training with Project Offered

1. Android Apps Developer
2. Big Data Analytics
3. IoT using Python
4. GIS using QGIS
5. MATLAB programming (including SIMULINK) with its application in Machine Learning & Digital Image Processing

Possible Course Timing
- 10:30 PM to 1:30 PM (Morning Session)

- 2:00 PM to 5:00 PM (Evening Session)
- Monday to Saturday- 1 Month

Course Fee   Rs. 6000/- + GST

Certificate
- NIELIT Kolkata will provide the certificates after successful completion of the training.

Outline Syllabus of Summer Training Programme

SNo	Course	Outcome	Outline Syllabus
1.	Android Apps Developer	The participants will be familiar with Mobile Application Development using Android, helping them to be more efficient in professional field.	Programming revision, Introduction to Mobile Apps & Android, Android Architecture Android Components, Building UI with Activities Notifications, Multithreading, Styles And Themes Intent, Intent Filters and Broadcast Receivers Services, Location Based Services Sensors, Wi-Fi, Telephony Services, Camera, Bluetooth, Android Application Deployment, Projects.
2.	IoT using Python	Understand and build IoT applications,Able to implement concepts of UI, data handling and control instructions, Able to use native android applications for device control	What is IoT - In-depth explanation, Elements, Sensors Arduino ,Circuit Design, Programming, Interfacing Python Programming,Function, Loop, Module, Conditioning, Classes etc.,Matplotlib, Numpy, PIP, Opencv modules and programming using the Softwares, Libraries,V python Library, Xbee Module, GSM Module, Projects.
3.	Big Data Analytics	The participants will be familiar with Big Data Analysis using Hadoop, helping them to be more efficient in professional field.	Introduction to BigData, Hadoop, Deep Drive in HDFS (for Storing the Data), MapReduce using Java (Processing the Data), PIG, SQOOP, HIVE, HBASE, MongoDB, Zookeeper, OOZIE, Flume, Case Study and Project
4.	GIS using QGIS	After completion of the course, the participants will be familiar with GIS using QGIS, helping them to be more efficient in professional field.	Introduction to Remote Sensing, Platform and Sensors, Visual Image Interpretation, Introduction to GNSS and its Application Overview of GIS, Spatial Data Models and Structures, Spatial Data Inputting, Editing and Topology ,Creation Data Quality and Errors, Non-spatial Data Models, Spatial Data Analysis (Vector Based and Raster Based), Spatial Data Visualization Network Analysis in GIS, Projects

| 5. | MATLAB programming (including SIMULINK) with its application in Machine Learning & Digital Image Processing | Able to use MATLAB for solving a wide range of engineering and scientific problems starting from generating graphs and plots to writing scripts and functions Able to formulate machine learning problems corresponding to different applications using MATLAB Able to design, code and test digital image processing applications using MATLAB | Basic Syntax, Variables, Commands, M-Files, Data Types, Operators, Vectors, Matrices Graph Plots, Arrays, Number, Strings Polynomials and Curve Fitting Mathematical Toolbox-Algebra, Calculus-Limits, Differentiation, Integration Control Statements, Procedures & Functions Optimization, Statistics, Numerical Analysis GUI Interface, Introduction to Simulink, Import & Export Introduction to Machine Learning, Classification algorithms such as Neural Network ,K-Nearest Neighbor, Discriminant Analysis, Decision Trees, Support Vector Machines, Ensembles Building Classification Models, Performance Measurement of a Classifier, Improving Predictive Models Image Processing Fundamentals ,Image Digitization, Image Enhancement & Restoration, Image Compression, Edge and Boundary Detection, Image Filter, Image Registration Dilation and Erosion, Feature Detection, Segmentation, Fourier Transform |

For Short Term Courses, Admission is open throughout the year and notified through press advertisements (Ananda Bazar Patrika) and Centre's Website (www.nielit.gov.in/kolkata)from time to time.

13. Job Assistance/Placement & Industry Interaction

- NIELIT Kolkata has been identified as a Model Career Centre under National Career (MCC) Service, a mission mode project under Ministry of Labour & Employment.
- MCC conducts several job fairs in the campus and off the campus.
- The candidates get an opportunity to attend seminars held by industry personnel. Special grooming sessions are conducted for the candidates. Placement drives and job fairs are held regularly.
- Till date, more than 120 candidates were shortlisted in different job fairs and placement drives. 33 Candidates got the final offer letter.
- Under NCS portal 742 job seekers have been enrolled till date.
- Total 76 SC Candidates of MeitY funded Capacity Building Project for Empowerment of SC Candidates at Cooch Behar District, West Bengal got placement in various Govt. and private houses especially in Multinational Company i.e. TCS (Tata Consultancy Service).

14. Seminars &Invited Lectures

To keep students and staff informed about latest happening in industry the Centre organizes regular Seminars, invited lecture from experts. Some of the lectures already organized/being organized are as follows:

	Topic	Speaker
1.	Data Analytics - Introduction to Hadoop &	**Sakil Barbhuiya,** PostDoc,

	Spark	School of Electronics, Electrical Engineering and Computer Science, Queen's University, Belfast, UK
2.	Cyber Security	**M. Zahid Latif** DEWA, Dubai UAE MCSE and CCNA Certification
3.	Interaction with students on 'Career options in Cloud Computing and Big data'	**Esha Barlaskar** PhD Candidate Queen's University Belfast, UK
4.	What is Blockchain Technology	**Mr. Kapil Sharma** TCS Senior Consultant at ASG Group, Hong Kong.
5.	Blockchain Technology Design and Application Domain of BCT. Real life security issues and challenges faced by Blockchain Technologies.	**Dr. Jims Mc Ningshen** PhD from Plymouth University, UK. Cyber security, Computing Department, SHU, UK.
6.	Advances in Cyber Securities	**Prof. Hasan Nassir** Professor of Cyber Security at British Institute of Technology England, UK
7.	Advances in AI and Machine learning	**Prof. Bijju Issac** School of Computing, Teesside University, England, UK Formally with University of Wollongong for 2 years and Swinburne University of Technology.
8.	Business Intelligence and Analytics	**Waqar Ahmad,** PMP, MS, MCS, BCS Senior Consultant - Business Intelligence and Analytics at Greystanes, New South Wales, Australia

15. Publicity & Promotional Efforts

The Centre announces courses through leading dailies normally in Ananda Bazar Patrika, Telegraph, Times of India (TOI), Facebook www.facebook.com/groups/400535433657048/), Twitter (@NIELITIndia and it's website (www.nielit.gov.in/kolkata). Also information in this regard is available at the Reception Desk (033-2414-6054/6081) and Centre's Notice Boards throughout the year.

16. Excellent Lab Facility

- The Centre has Labs where students can interact with Computer on 1:2 sharing basis as per class schedule. It provides an opportunity for hands-on learning and developing confidence in working environment Computer Programming –
- 23 PC (LAB-1)
- Computer Programming – 16 PC (Lab-2)
- Computer Programming – 12 Pc (Lab -3)
- Computer Programming – 12 PC (Lab-4)

- Networking & Data Communication Lab – 15 PC (Lab-5)
- Hardware Lab – 05 Pc (Lab-6)
- Multimedia & Animation – 15 PC (Lab-7)
- Data Centre – Server & PC (Lab – 8)
- 24 X 7 NKN (Internet facility) Service – 100 Mbps

17. Faculty & Professionals

- The Centre has well-qualified professionals. Faculty support is also provided by several University, Academic Institutions and Industries on requirement basis.

18. Project and Academic Certificate

- Students are given Project guidance and support from the Centre, as far as practicable, on a regular basis for fulfilling the criteria for getting Academic Certificates in NIELIT 'O', 'A,' 'B' Level courses.

19. Library

- The Centre is having a well-equipped Library for students having around 10,000 books.

20. Website

- Information pertaining to Education (General and Special Courses) and all other activities will be available on our website (www.nielit.gov.in/kolkata).

21. Payment Scheme for Course Fees of Courses offered by NIELIT

Sl. No.	Level	Installments			Down payment with discount
		Total	1st installment (at the time of Admission)	2nd installment (within 6 months of starting the course)	
01. NIELIT (IT)	O	Rs. 12500/-	Rs. 6500/-	Rs. 6000/-	Rs. 11500/-
	A	Rs. 25000/-	Rs. 12500/-	Rs. 12500/-	Rs. 23000/-
	B	Rs. 24000/- (per year)	Rs. 12000/-	Rs. 12000/-	Rs. 22000/- (per year)
At present there is no Government Tax and Levies will be charged for above IT Courses					
02. Hardware & Networking	CHM-O	Rs. 14200/-	Rs. 8200/-	Rs.6000/-	Rs.13200/-
	CHM-A	Rs. 17500/-	Rs. 10000/-	Rs. 7500/-	Rs. 15500/-
Applicable Government Tax and Levies (as applicable) will be charged for Hardware & Networking Courses					
03. Multimedia & Animation	MAT-O	Rs. 25000/-	Rs. 9000/-	Rs. 8000/-	Rs.8000/-	Rs.24000/-

Applicable Government Tax and Levies (as applicable) will be charged for Multimedia & Animation Courses

- *Course fees are subject to change till the admission process of the candidate is completed.*

22. Additional Fees:

1.	Registration Fees (*)	Rs. 500/-
2.	Exam Fees (Theory) Per Paper	Rs. 500/-
3.	Exam Fees (Practical) Per Paper	Rs. 300/-
4.	Caution Money (Refundable)	Rs. 1000/- for 'O'/'A'/'B' Level (IT) and MAT-O Level

(*)Validity for 5 years('O'/'A'/'B' Level (IT) and MAT-O level), 2 years CHM-O **from the date of Registration for at present .Subject to revision.**

23. Rules &Regulations for Long term and Short term courses

Long term courses	Short term courses
IT (O/A/B Level) Courses are exempted from Government Tax and Levies. For other Courses, Government Tax and Levies (as applicable) on Course fees has to be paid additionally.	For Short Term Courses Registration Fees/Exam fees will be charged based on Online Registration/Exam to be conducted by concerned Nodal Centres.
Registration for a course or for a level (O/A/B) of a course cannot be altered once admission (i.e. fees submission) is taken	for course duration maximum upto 200 hrs., Registration fees is Rs. 100/- plus Government Tax and Levies (as applicable). Short term Course Registration is valid for one year.
An examination fee, once submitted, is not refundable under any circumstances	Students may deposit fees to Central Bank of India, Jadavpur Branch or Bank of India, Jodhpur Branch
Students may deposit fees to Central Bank of India, Jadavpur Branch or Bank of India, Jodhpur Branch.	

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24. Digital literacy training at Tier2/3 Cities of West Bengal

NIELIT Kolkata has taken initiative to conduct the Computer Training Program in and around six IT parks of West Bengal for unemployed youths to increase their skills in IT, Electronics and IT enabled services by extension of locational presence of NIELIT Kolkata.

Six IT Parks are located at :
(1)   Bolpur, (2) Kharagpur (3) Asansol (4) Purulia (5) Barjora and (6) Siliguri.

Course fees:

25% Fees waived by NIELIT Kolkata , 50% fees sponsored by GoWB, and **Students need to pay 25% of the fees only.** Expected fees in the range of Rs 2000/-3000/-.

Courses offered: The following Courses of 42 hours (1 and ½ months) will be offered in different phases:

1.   Certificate Course in Android Apps Development
2.   Certificate course in IoT using Python
3.   Certificate Course in Office Automation and Practices
4.   Certificate Course in Assembly & Maintenance of PC
5.   Certificate Course in Desk Top Publishing
6.   Certificate Course in Soft Skill
7.   Certificate Course in Multimedia
8.   Certificate Course in Financial Accounting
9.   Certificate Course on Solar Technologies

Registration of Students

1.   The students are to be registered with NIELIT Kolkata.
2.   The admission of a student will be confirmed after registration. Without valid registration the students cannot be given any confirmation by the institute.
3.   The student should submit valid photo identification proof (valid Aadhar Card/ PAN Card/ Voter ID/ Passport/ Driving License) along with application form.

Eligibility

1.   The Candidate must submit the photocopy of photo identity proof and their educational qualification along with NIELIT application.
2.   Taking admission in more than one course by a student will be discouraged.
3.   The candidate will be selected by a committee.
4.   Academic eligibility of the students (according to the course).
5.   The following additional points will be considered for selection.
    - Economically Weaker sections (EWS) are preferred.
    - Basic Computer knowledge and intention to setup entrepreneurship.

Examination and Certification
1.   NIELIT Kolkata will conduct the skill evaluation examination as per practice.
2.   Certificates will be issued to the successful candidates. All the successful candidates would be issued the Certificate and Grade card.

25. Code of Conduct for students of the centre

1.   **Principles :**

This code of conduct has been formulated to provide a clear statement of the Centre's expectations with respect to students in respect of academic matters and personal behavior.

NIELIT, Kolkata recognizes and values the diversity of students' experiences and expectations, and is committed to treating students, both academically and personally in a fair and transparent manner. All students in return, are required to comply both the requirements set down in this code of conduct.

2.   **Coverage :**

This code of conduct applies to all full and part-time students of NIELIT Kolkata, in respect of all actions and activities relating to or impacting on the NIELIT Kolkata or its students and employees.

3.   **Definitions :**

In this code of conduct, **student** means all full and part-time students whose names are enrolled at NIELIT Kolkata.

Employee means all officers and staff of NIELIT Kolkata (including full time & part time Faculty / employees, Contract Employees, Lab Assistants, Casual staff), and Employees from other organizations working for the Centre.

4.   **Personal Conduct :**

All students must

4.1   Treat all employees (as defined above) with respect, dignity, impartiality, courtesy and sensitivity.

4.2   Maintain a co-operative and collaborative approach to interpersonal relationship.

4.3   Ensure that they do not act in a manner that unnecessarily or unreasonably impedes the ability of other students, employees and vendors working with the Centre.

4.4   Ensure that they do not become involved in or encourage discrimination against or harassment of employees or other students.

5.   **General Rules and Code of Conduct for Students :**

In keeping with the tradition of the institution, all students of NIELIT Kolkata are required to maintain discipline and decorum in the building / campus and refrain from any activity that can tarnish the reputation of the institution. Violation of this will result in inviting appropriate disciplinary action. Following rules are to be strictly maintained by the students:

5.1   Avoid any activity or behavior that unfairly provide advantage or disadvantage to any student academically.

5.2   Read necessary official correspondences, meant for students, at the Notice Board on a regular basis.

5.3   Online Registration for all Long term & Short term courses are periodically updated in the website (www.nielit.gov.in). All students must Register themselves within the schedule. Clear all the fees within scheduled time to avoid any embarrassment and / or penal action.

5.4   Record complaints, if any, in the concerned Register lying with the Reception. Authority will see to solve them as far as practicable at the earliest. They can not disturb activities of the Centre, faculty or others with their complaints. They can meet Teaching Staff, Coordinator or others with prior appointment only for explaining their views in a cordial way.

5.5   Speaking loudly, using microphones within the Centre / Campus, indecent language or behavior, sitting on a desk or using the chair of the faculty, writing indecent and / or objectionable things on board in the absence of faculty, damaging assets of the Centre are not allowed. Violation of the guidelines will attract penalty including suspension of students.

5.6   Ragging in any form or type is banned in the Centre.

5.7   Smoking and use of alcohol are strictly prohibited.

5.8   All students are required to maintain the environment clean and not to litter the building & campus.

5.9   Identity Card should always be kept by the students and produce on demand by the Security. Non-production of the same will lead to suitable action.

5.10   Pasting posters and / or writing on classroom walls / corridor walls, doors, windows, toilets are strictly banned.

5.11   Indulging in any act of sexual harassment of any student is strictly prohibited, and it may be reported to Disciplinary committee and then to Police station.

5.12   Bringing any political or other influence in a matter pertaining to a student's career, fees concession / waiver or any other favour not allowed.

5.13   Strike, Picketing, Gherao are totally banned in the Institute. Any such act may attract appropriate penal action.

5.14   Using Mobile Phone or equivalent in the Classroom / Lab will not be allowed. These are to be switched off while entering the classroom or lab. If any student is found using the same or it is heard ringing while class / lab is going, it will be forfeited.

6.   **Laboratories :**

6.1   All students are required to attend laboratory classes as per schedule, and the Centre is not liable to compensate any absence due to reason whatsoever.

6.2   Students should enter Lab and use equipment as per schedule. They will not be allowed other than schedule time in the Lab under any circumstances.

6.3 Lab Records should be brought, and instructions should be followed accordingly.

6.4 A congenial atmosphere should be maintained in the Laboratory Classes.

6.5 Misbehavior with Students / Staff is not allowed in any circumstances in Lab / Classroom / Centre Premises and will be seriously dealt with.

6.6 Use of any personal media / equipment like CD, Pen Drive, etc. will not be allowed.

6.7 Use of internet for a purpose other than academic or career advancement related activities is banned. Viewing Pornographic Sites or sites playing against social and national interest will be treated as a very serious offense.

7. Examination :

7.1 Malpractice of any kind will not be allowed during all the Theory / Practical Examinations conducted at the Centre round the year.

7.2 Students who indulge in copying from neighbors with Papers Bits / Books / Notes / Calculators, etc., will be severely dealt with.

7.3 Students cannot carry any mobile phone or equivalent in the examination hall. If any student is found using the same or heard them ringing during examination inside the examination hall, he / she will be expelled from the rest of the examination period and the equipment will be forfeited.

7.4 All NIELIT (DOEACC) Examinations are conducted by an independent body managed by a Committee. The Committee is represented by Professionals from different Academic Institutes / Universities / Centre of Excellence. The committee looks after the day-to-day activities of the system. It cannot be controlled nor has been formed to control for someone's benefit but to manage the Examination in a fair way and in an unbiased manner.

7.5 Any student can only forward his / her view(s) through the respective Wing Heads to the Centre Head who may forward them to the Examination Committee for its consideration, but such forwarding does not guarantee the implementation of the observations. The committee has the liberty to consider / reject the observations based on the merit of each such case.

7.6 The Course Coordination Group may conduct internal examination for improvement of the students and reduce communication gaps between students & faculty members with respect to teaching.

7.7 The Venue of Examination, the Examination Supervisor, Conductance of Examination, etc. is totally controlled by the Examination Committee, and the Centre has no right to make any addition / alteration to them.

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