



# ***Standard Operating Procedures(SOP)***

***for***

***Implementation of Project***

**‘Skill Development of youths in Aspirational Districts in area  
of IECT leading to enhancement in Employability’**

***Sponsored by***

***MeitY***

***Implementing Agency:***

***National Institute of Electronics and  
Information Technology (NIELIT)***

**An Autonomous Scientific Society of  
Ministry of Electronics and Information Technology  
Government of India**

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## ***I - Overview of the Project***

### **i) Skill Development of youths in Aspirational Districts in area of IECT leading to enhancement in Employability**

To conduct Skill Development training program of 21,600 SC / ST / EWS(Women) youths belonging to 60 Aspirational district in the area of IT & Electronics over a period of 3-years.

### **ii) Administrative approval:**

MeitY approved the Project vide Administrative Approval no. F No. 14011/10/2019-HRD dated 28th Feb. 2020 and released the 1st installment of the project of Rs. 7,17,92,446/-vide sanction order dated 28<sup>th</sup> Feb. 2020. The total GIA of the project is Rs. 29,81,23,078/-. Year-wise distribution of GIA 7 Category-wise target is as follows:

<b>Sr. No.</b>	<b>Year</b>	<b>SC Candidates to be Certified</b>	<b>ST Candidates to be Certified</b>	<b>EWS(Women) Candidates to be Certified</b>	<b>Total Candidates to be Certified</b>	<b>GIA (in Rs.)</b>
1	1 <sup>st</sup>	1920	1920	960	4,800	<b>7,17,92,446</b>
2	2 <sup>nd</sup>	3960	3960	1980	9,900	<b>12,86,98,009</b>
3	3 <sup>rd</sup>	2760	2760	1380	6,900	<b>9,76,32,623</b>
<b>Total</b>		8640	8640	4320	21,600	<b>29,81,23,078</b>

### **iii) Beneficiary States:**

The Training programme is to be conducted in 60 districts from the following States: Assam, Bihar, Haryana, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Kerala, Maharashtra, Manipur, Nagaland, Odisha, Punjab, Sikkim, Tamil Nadu, Tripura, Uttar Pradesh, Uttarakhand, West Bengal. The list of 60 Aspirational Districts is mentioned below:

Sr. No.	State	Name of Districts	No. of District
1	Assam	Baksa, Barpeta, Darrang, Dhubri, Goalpara, Hailakandi, Udalgiri	7
2	Bihar	Nawada, Araria, Aurangabad, Banka, Begusarai, Gaya, Jamui, Katihar, Khagaria, Muzaffarpur, Purnia, Sheikhpura, Sitamarhi	13
3	Haryana	Mewat	1
4	Himachal Pradesh	Chamba	1
5	J & K	Baramulla, Kupwara	2
6	Jharkhand	Dumka, Giridih, Godda, Gumla, Khunti, Lohardaga, Pakur, Ranchi, Sahibganj, Ramgarh	10
7	Kerala	Waynad	1
8	Maharashtra	Nandurbar, Washim	2
9	Manipur	Chandel	1
10	Nagaland	Kiphire	1
11	Odisha	Dhenkanal, Gajapati	2
12	Punjab	Ferozpur, Moga	2
13	Sikkim	West Sikkim	1
14	Tamil Nadu	Ramanathapuram, Virudhunagar	2
15	Tripura	Dhalai	1
16	Uttar Pradesh	Bahraich, Balrampur, Chandauli, Chitrakoot, Fatehpur, Siddharthnagar, Sonbhadra	7
17	Uttarakhand	Haridwar, Udham Singh Nagar	2
18	West Bengal	Birbhum, Maldah, Murshidabad, Nadia	4

#### iv) Summary of course details & no. of candidates to be trained:

The list of courses tabulated below are the NSQF aligned courses of NIELIT in the area of IECT. Duration of these courses varies from more than 100 hrs to 350 hrs.

Moreover, there will be flexibility to add / de-list the courses meeting the demand of industry and subject to recommendation of Director NIELIT Centre [dealing with the state] and approval of PRSG/ MeitY. Detailed bifurcation per district is mentioned below:

Sr. No.	Qualification Name	Job Role	Eligibility	NS QF Level	Duration (in Hrs)	Target No of candidates to be certified	No. of Batches with 30 candidates	No of Batch per district	No of Cand. per district
	A	B	C	D	E	F	G	H	I = H*30
1	<b>Certification Course in Data Entry and Office Automation</b>	Data Entry Operator, Computer Operator	10+2 in any stream with min 50% marks or ITI Certificate (One Year) after class 10th with min.50% marks in ITI	4	135	7200	240	4	120
2	<b>Diploma in Installation &amp; Repair of Consumer Electronics Products</b>	Support Technician	ITI / 12 <sup>th</sup> Pass	4	350	1800	60	1	30
3	<b>Advance Diploma in Computer Application Accounting and Publishing</b>	Office Assistant	10+2 with knowledge of Basic computer and Internet Concepts	4	200	9000	300	5	150
4	<b>Solar-LED Lighting Product (Design and Manufacturing)</b>	Designer: of low cost LED products for common use like Lanterns, table lamps, etc. Technician / Service Engineer for Installation, Assemble and Maintenance of Solar Panel	10th/ITI	4	350	3600	120	2	60
<b>Total</b>						<b>21,600</b>	<b>720</b>	<b>12</b>	<b>360</b>

\* Course Fee rate per hour as per common norms.

## ***II- Selection of Training Institutes:***

NIELIT Centers will publicize project in the districts under its jurisdiction so that both TP and beneficiary got the information about the project. Those TP’s who are already registered with NIELIT for any of the four NSQF courses under the project need not take affiliation for that course. However, if an institute which is not registered for NSQF aligned course with NIELIT want to start the project may take affiliation from NIELIT for the course as per procedure already defined & available at <http://www.nielit.gov.in/content/nsqffor> affiliation for NIELIT NSQF courses.

- a) **Shortlisting of TP** :A three member committee Chaired by Center Head or his representative, consisting of Nodal Officer and Investigator/Co-investigator/PCU member from NIELIT HQ will short list the TP based on the criteria below :

<b>Sr. No.</b>	<b>Criteria</b>	<b>Max. Marks</b>
1	No. of students admitted in any NIELIT NSQF course in last 2 years	40
2	Distance from Muncipal body (Nagar Palika/Parishad etc.)	20
3	Date of Operations Education field (particularly in IT & Electronics courses)	10
4	Tie-up with industry and previous placement records	20
5	Training Facility availability	10
Total		100

A copy of the agreement to be signed with the selected institute is placed at **Annexure – II**.

## ***II Selection of Candidates:***

A three-member committee comprising of Nodal officer from NIELIT center, head/authorized signatory of training partner and one members from Dept. of Social Welfare / Dept. of SC/ST development/ Dept. of Women and Child Development of the concerned State Government / Local employment exchange may select the candidates fulfilling minimum eligibility criteria for admission as per qualification file of the course and on merit basis. Candidates with higher qualifications may be preferred.

A student can take benefit under this project only once, i.e. one student can enroll for one course only during the entire project and only once. This will be the responsibility of TP to ensure that no student is enrolled multiple times in one course or in multiple courses under the project. Further, there will be provision also in the portal to check duplicity of student records.

## **III Implementing Strategy**

### **i) Admission Process**

Preliminary Registration for admission in any course will be done online by candidates and TP will assist candidates in Registration. Admission in any course will be granted to registered students after due process of short listing / scrutiny by the three-member committee mentioned in Selection Criteria. Opening of registration in any course will be notified on portal/website of the project well in advance and also TP and NIELIT RC will publicize the same.

**Short Listing of Candidates:** Applications will be invited through online portal with a transparent process of publicity in regional or local dailies/ web-site/ direct counseling at educational institutions or names/list or data of candidates may be provided/uploaded by Dept. of Social Welfare / Dept. of SC/ST Development/ Dept. of Women and Child Development of the concerned State Government / Local employment exchange etc. All these activities will be overlooked by Nodal Officer of NIELIT Center by approval of Center Head.

While admitting a candidate by Training Partner (TP), TP will thoroughly check and upload caste certificate, education qualification certificate, ID Proof and other documents on online portal of every student in a batch. In case in later stage after admission of a candidate, document of beneficiary uploaded on portal is found fake, then TP will not get any reimbursement for training and certification of such beneficiary.

### **ii) Training:**

In first year Training will be delivered in 20 Aspirational districts through NIELIT centre, NIELIT Accredited institutes, NSQF or ESDM training partners and State Govt. departments like Employment Exchanges which is affiliated to implement the project by NIELIT Center as per the prescribed syllabus and format mentioned in Qualification files of the 4 courses available at <https://nqr.gov.in/>. In first year efforts will be made by NIELIT Regional Centers to tie up with the Government institutes with required infrastructure / resource to conduct the training and private institutes will also be mobilized to get accreditation of NIELIT NSQF aligned courses so as training in other districts on these courses can be conducted.

Training Partner (TP) will maintain records of Student preliminary registration, shortlisted Student (for training by committee) records and attendance and provide to NIELIT Official for inspection. Promotion of project, Study material and Library will be provided to students by Training partner and no additional cost will be claimed by TP for these purposes (Training fee includes all these expenditure). Training will be conducted as per course details mentioned in qualification files of these four courses viz Certification Course in Data Entry and Office Automation, Diploma in Installation & Repair of Consumer Electronics Products, Advance Diploma in Computer Application Accounting and Publishing, Solar-LED Lighting Product (Design and Manufacturing) attached as Annexure- III, IV, V, VI respectively.

*In case of any unforeseen circumstances (like lockdown due to Covid-19 pandemic), TP may conduct online/remote/recorded classes while ensuring all norms related to training as per project guidelines are fulfilled.*

### **Monitoring Mechanism –**

- a) TP may be asked to submit the CCTV footage of classroom on random basis.  
Or
- b) Flying squad surprise visit.  
Or
- c) Sudden video call by Nodal Officer, RPCU or any NIELIT Official.

### **iii) Placement Assistance:**

NIELIT Centre through RPCU & TP of concerned TP/District may conduct Job fair at NIELIT Center/tie-up with industry/online remote interview if possible to facilitate certified candidates to get suitable job. RPCU & TP will be responsible for facilitating placement related activity.

### **iv) Impact Assessment or Project Implementation Review:**

An impact assessment of the project would be carried out through third party like DTU, IIM etc. so that the learnings /mid-course corrections, if any, could be carried out during the balance period of implementation of the project.

If required, NIELIT may also take feedback from beneficiary or other stake holders at regular intervals to review the implementation of project and make necessary changes through due procedure.

### **v) Coordination & Roles & Responsibilities:**

#### **a) NIELIT HQs:**

- Joint Director
- Deputy Director
- Scientist ‘B’
- Project Coordination Unit (PCU)

Director General, NIELIT would be responsible for overall management of the Project and will be supported by the coordination team at NIELIT HQs.



**b) NIELIT Centres:**

- One Nodal Officer at each NIELIT Centre has been nominated for this project.
- Regional Project Coordination Unit (RPCU) at 3 NIELIT Centers

Directors of each centre would be responsible for the management of the project in the states of their region.

**c) Project Coordination Unit (PCU), Regional Project Coordination Unit (RPCU) & Nodal Officer at NIELIT Center:**

Further, considering the involvement of multiple Centres/ training partners and other stakeholders in the implementation of project and the need for overall aggregation and integration at the national level, it is appropriate to implement project, with well-defined roles & responsibilities of each concerned involved, and to create an appropriate project management structure three Regional Project-management Units will be set-up at three levels.

Following table shows the levels and proposed unit responsible for management of the progress of training work force:

<b>Level</b>	<b>Unit Name</b>	<b>No.'s</b>
NIELIT HQ Level	Project Coordination Unit (PCU)	1
NIELIT Centre Level	Regional Project Coordination Unit (RPCU)	3 at NIELIT Centre[One each for North East states, Northern and South & Central states]
NIELIT Centre Level	Nodal Officer	At each Centre for a state

➤ The 3 RPCU will be set-up as per details mentioned below:

<b>Sr. No.</b>	<b>RPCU</b>	<b>NIELIT Center</b>	<b>State</b>	<b>No. of Districts</b>
1	RPCU-N (For North India)	Lucknow	U.P.	7
			Bihar	13
			Haryana	1
			Himachal Pradesh	1
			J & K	2
			Punjab	2
2	RPCU-NE (For North East India)	Guwahati	Uttarakhand	2
			Assam	7
			Manipur	1
			Nagaland	1

			Sikkim	1
			Tripura	1
			Odisha	2
			West Bengal	4
3	RPCU-C&S (For Central & South India)	Aurangabad	Kerala	1
			Maharashtra	2
			Tamil Nadu	2
			Jharkhand	10

Following teams will work for the coordination of the project.

### c-1. Role of Project Coordination Unit (PCU) at NIELIT HQ Level

A Project Coordination Unit (PCU) & 3 Regional Project Coordination Unit (RPCU) will be setup to monitor the project of training of 21,600 beneficiaries. PCU & RPCU will meet over Video conferencing(VC) to review the progress of project every month. Representatives from Ministry, NIELIT PCU, NIELIT RPCU, Centre Level Nodal Officer, will meet to review through VC or physically and analyze reports prepared by PCU. The Unit will report to Chief Investigator and Co-Investigator at NIELIT HQ will play rolesfor:

- Assist/ support MeitY in coordination/ monitoring/ PRSG etc.
- Develop MIS for monitoring performance/ progress of the project
- Advice on Implementation Models
- Guidance in Capacity Building
- Strategic Control
- Support in Project Monitoring and advice
- To review the target achieved during the said period.
- To discuss the issues raised during review meeting and suggesting the appropriate action.
- To review the status of funds given and their utilization.
- To review the target set and achieved
- Overall coordination of the project.

The responsibilities of this unit are:

- **Awareness and Communication:** As this unit is responsible for implementing the strategy to achieve objective of training 21,600 candidates, therefore it becomes important that information and guidelines in implementing the programme must be made aware to all the concerned centres and branch. The information may be in the

form of courses to conduct, add/ de-list any course, technology to be used, objective of the project and target to be achieved in particular year.

- **Assessment of result:** The unit will review the progress of the programme in a meet to be held twice in a year. The unit will also decide on action to be taken in case some issue arises in terms of mismatch of target and achievement.
- **Strategic and Operational Issues:** The committee will resolve the strategic and operational issues encountered during the implementation of programme.
- **Monitoring and Evaluation:** A comprehensive MIS will be developed to keep track and evaluate targets met, financial results i.e. availing and utilizing the funds. These MIS reports would be discussed in the annual meetings of the unit. Some of the MIS reports are listed below.
  - Summary of the target set and achieved during the said period
  - Centre wise, no of candidates trained
  - Category wise number of candidates trained
  - State wise number of candidates trained
  - Statement of expenditure incurred
  - Feedback report
  - List of issues to be discussed related with strategy, policy and the relevant operational matters.

## **c-2.Role of Regional Project Coordination Unit (RPCU) at the NIELIT Centre Level**

At this level, Regional Project Coordination Unit (RPCU) will manage, monitor and control the project. The RPCU would review the project progress quarterly at center level. All the reports as mentioned above would be analyzed and forwarded to RPCU. RPCU will also discuss the local issues and risks involved in implementing the project to produce skilled work force. It will report to Director of concerned NIELIT Center where it be deputed and also to PCU and project head at NIELIT HQ.

The responsibilities of this unit are:

- **Conducting the Course:** The unit will ensure that course is being run properly and timely in order to achieve the target. The unit will also ensure sufficient infrastructure as per requirement

- **Monitoring the Critical Activities:** The main critical activities in terms of training are training faculty, arranging Hardware and Software timely and providing space to conduct course. The unit will monitor these activities closely.
- **Preparation of Reports:** All the MIS reports as mentioned above would be prepared and analyzed by this unit.
- **Tracking Fund Utilization:** The unit will keep track of the fund availed and utilized.

### **c-3 Role of Centre level Nodal Officer**

Each of the NIELIT centres will have a Nodal Officer to oversee the implementation of the project at the centre level.

The responsibilities of this unit are:

- Affiliation of Training Partners.
- Allocation of targets to affiliated training partners.
- Collaboration with Social Welfare of respective State / Employment Exchanges and other organizations for getting list of eligible list of candidates.
- Placement and counselling support to the successful candidates.
- Will be responsible for all financial matters of the project, will explain and clarify various financial aspects of the project to finance wing of concerned NIELIT Center.
- Responsible for timely preparation of Utilization Certificates and submission to NIELIT HQ as when required.

#### **✓ Monthly Report:**

Monthly progress report will be submitted by RPCU at NIELIT Centres to PCU at NIELIT HQs for onward submission to HRD division of MeitY.

### **c-4 Role of TP**

The TP registered by NIELIT Center after due process to implement the project in a respective district will have following roles:

- To promote the project/program at District Level.
- Will play active role in selection of beneficiary/candidate to be certified.
- To conduct training of candidates as per Qualification File of courses and support in conduction of examinations.

- To guide students and help them in training & certification related matters.
- To submit invoices in proper format along with all requisite documents to NIELIT Center.
- Any other activity not covered above as felt in future by NIELIT Center/RPCU/PCU/NIELIT HQ.

#### **d) Examination & Certification System:**

Examination would be conducted by NIELIT HQ in line with the syllabus prescribed in Qualification file of the course.

- **Examination:**

Examination would be conducted through online mode by Examination Section NIELIT HQ, at the end of the course for assessing the overall knowledge of the participants along with NSQF Course Exams.

- **Certificate:**

All the successful participants would be issued Digital Certificate as in case of NIELIT NSQF courses.

### ***IV Post Certification Activities***

#### **i) Raising invoice by Training Partner (TP):**

After completion of training and certification of a batch, invoice will be generated from online portal by the TP. TP will verify the invoice online, upload attendance of students and other necessary documents in that batch after due attestation and forward it to Nodal Officer of the NIELIT Center in the corresponding state. Nodal Officer will further verify these details, take approval of Director and payment will be done to TP by Center.

### ***V Grievance Handling***

All grievances of training partner and students will be addressed by concerned NIELIT Center. Head of NIELIT Center will be solely responsible for smooth conduction of training in districts under the jurisdiction of concerned NIELIT Center.

Matters related to changes in policy/implementation strategy of the project will be dealt by NIELIT HQ.

## Annexure-I

## LIST OF 60 ASPIRATIONAL DISTRICTS SHOWING INDICATIVE PRESENCE OF NIELIT

Sr. No.	State	District	NIELIT own presence	NIELIT DLC Facilitation Centre	NIELIT Accredited Centre
1	Assam	Baksa	--	3	0
2	Assam	Barpeta	--	6	0
3	Assam	Darrang	--	3	0
4	Assam	Dhubri	--	7	0
5	Assam	Goalpara	--	4	0
6	Assam	Hailakandi	--	2	0
7	Assam	Udalgiri	--	4	0
8	Bihar	Nawada	--	6	0
9	Bihar	Araria	--	7	0
10	Bihar	Aurangabad	--	11	0
11	Bihar	Banka	--	4	0
12	Bihar	Begusarai	--	15	0
13	Bihar	Gaya	--	4	0
14	Bihar	Jamui	--	4	0
15	Bihar	Katihar	--	12	0
16	Bihar	Khagaria	--	3	0
17	Bihar	Muzaffarpur	--	24	1
18	Bihar	Purnia	--	11	0
19	Bihar	Sheikhpura	--	4	0
20	Bihar	Sitamarhi	--	3	0
21	Haryana	Mewat	--	1	0
22	Himachal Pradesh	Chamba	--	6	4
23	J & K	Baramulla	1	46	5
24	J & K	Kuypwara	--	16	1
25	Jharkhand	Dumka	--	5	0
26	Jharkhand	Giridih	--	7	0
27	Jharkhand	Godda	--	6	0
28	Jharkhand	Gumla	--	8	0
29	Jharkhand	Khunti	--	3	0
30	Jharkhand	Lohardaga	--	3	0
31	Jharkhand	Pakur	--	6	0

32	Jharkhand	Ranchi	1	24	6
33	Jharkhand	Sahibganj	--	6	0
34	Jharkhand	Ramgarh	--	6	1
35	Kerala	Waynad	--	6	0
36	Maharashtra	Nandurbar	--	23	0
37	Maharashtra	Washim	--	13	0
38	Manipur	Chandel	--	1	0
39	Nagaland	Kiphire	--	1	0
40	Odisha	Dhenkanal	--	3	0
41	Odisha	Gajapati	--	3	0
42	Punjab	Ferozpur	--	3	0
43	Punjab	Moga	--	3	0
44	Sikkim	West Sikkim	--	1	0
45	Tamil Nadu	Ramanathapuram	--	8	0
46	Tamil Nadu	Virudhunagar	--	4	0
47	Tripura	Dhalai	--	2	0
48	Uttar Pradesh	Bahraich	--	17	3
49	Uttar Pradesh	Balrampur	--	9	2
50	Uttar Pradesh	Chandauli	--	28	4
51	Uttar Pradesh	Chitrakoot	--	14	3
52	Uttar Pradesh	Fatehpur	--	23	2
53	Uttar Pradesh	Siddharthnagar	--	22	2
54	Uttar Pradesh	Sonbhadra	--	33	0
55	Uttarakhand	Haridwar	1	21	4
56	Uttarakhand	Udham Singh Nagar	--	36	0
57	West Bengal	Birbhum	--	13	0
58	West Bengal	Maldah	--	16	1
59	West Bengal	Murshidabad	--	27	2
60	West Bengal	Nadia	--	30	0





1.3. The maximum number of candidates to be trained in the district of <District & State name> for the course <Course Name> is 30 per batch.

2. OBLIGATION OF SECOND PARTY:

2.1. <Project title> for the <District name> for the course <Course name>,

211. **SECOND PARTY** proposing to conduct the training program shall furnish an undertaking that it fulfils all the necessary requirements in terms of infrastructure, hardware, software, faculty and library if applicable, etc for conducting the training programs and shall allow the **FIRST PARTY** personnel or its representatives for inspections of the training centre if they so desire.

212. If the training is not carried out to the satisfaction of **FIRST PARTY**/end user and if the behavior or character or conduct of the personnel engaged by the **SECOND PARTY** are found to be unsatisfactory at any time during the period of operation of the contract, **FIRST PARTY** reserves the right to terminate the contract with one month’s notice and if the contract is so terminated the **SECOND PARTY** shall not have any claim whatsoever for compensation for the remaining period of contract. The security deposit of the **SECOND PARTY** shall be forfeited in such cases.

213. **SECOND PARTY** or its district office shall monitor and coordinate the training programs conducted through its training centre and ensure that the training programs are conducted as per the criteria mentioned in Qualification File (QF) of the courses available at National Qualification Register <https://nqr.gov.in/>, NIELIT NSQF norms, and project implementation SoP/norms.

214. **SECOND PARTY** shall ensure that the persons employed for training possess the minimum essential qualification(s) and maintain a trainee: PC/lab practical training instruments ratio of 2:1 to ensure quality of the program

215. **SECOND PARTYS** Training charges for the Courses (includes GST and other applicable overhead charges) as per NSQF training fee rates per candidate which covers cost of publicity & study material also.

216. **SECOND PARTY** shall maintain a Student Registration Register, a Student Record Register and Student Attendance Register as given below.

(a) **Student Registration Register:** Student Registration Register shall contain details like Serial No.; Student Name & Address; Student ID Number; Date of Admission; Course Name, Course Code & Duration; Batch

Code, Start Date & End Date, Sex, date of birth, caste, community details

(b) **Student Record Register:** Student Record Register shall contain details like Serial No.; Student Name; Student ID; Course Name; Period of Study; Assignment/Test paper/Model Exam Nos. & marks/Gradesawarded.

(c) **Attendance Register:** with signatures of the candidates for each of the day’s attendance

**SECOND PARTY** will be responsible for the verification and maintaining record of all relevant documents of the beneficiary like educational qualification, caste certificate etc.

**217. SECOND PARTY** shall print and distribute the necessary Course material/handouts for the program as per the syllabus/course material mentioned in QF.

**218. SECOND PARTY** will ensure the quality of the training programme by implementing a Two-Tier Evaluation Project: (1) Continuous evaluation by means of Assignments & Class Tests and (2) Final Evaluation by NIELIT as per Examination for NIELIT NSQF aligned courses.

**219. SECOND PARTY** shall tie-up with the local industries for providing placement assistance for the candidates.

**2110. SECOND PARTY** shall provide any other reports or information required by **FIRST PARTY** in connection with this training program.

**2111. SECOND PARTY** shall nominate a **Co-ordinator/authorized contact person** for this project.

**2112. SECOND PARTY** shall not sub-contract the whole or part of the contract or assign the contract or any part thereof to any other third Party

### 3. OBLIGATION OF FIRST PARTY:

**3.1. FIRST PARTY** shall coordinate the selection of the candidates based on the applications received and the candidates will be allocated to the nearest training centre of the **SECOND PARTY**.

**3.2. Payment terms:** Payment shall be made on completion of the courses and further certification of candidates based on the actual number of candidates certified on receipt of invoice along with relevant documents online through portal to **SECOND PARTY**.

#### **4. Tenure /Renewal of theAgreement**

This agreement shall come into force when duly signed by the representatives of both the parties and shall be valid for a period of **One Year** from the date of such signing. On the expiry of One year, parties hereto shall be entitled to renew by mutual consent on such terms as may be then be agreed upon. If not renewed, **SECOND PARTY** shall be entitled to stop conducting the training program for the candidates in this project. Before such action, both the parties shall ensure that the Courses already started are fully completed, examination conducted and certificates issued. This agreement shall not be terminated until successful completion of any pendingCourse.

#### **5. Breach of Terms of thisAgreement**

If either party commits breach of any of the terms of this agreement, the other party may bring the fact of breach to the notice of the former and the former shall immediately take steps to rectify the breach and in case he fails to do so and the breach continues for a period of 1 Month, the aggrieved party may treat this agreement as repudiated by the other party and forthwith serve a notice of termination and the aggrieved party will have the right to claim from the other party the damages in respect of losses already sustained by him for the unexpired period of the agreement on account of such termination of the agreement. The agreement will automatically be terminated within 1 month after the receipt of such notice, subject to the liability and arbitration clause. In the event of breach of any of the terms and conditions of the agreement signed by the **SECOND PARTY**, the security deposit will also beforfeited.

In case of any such termination of this agreement, in the middle of a Course, which has already been started, both the parties should take sufficient steps so as to complete the Course, already started. Termination of the agreement should be implemented in such a way that the future of the students/trainees is not affected by the termination. In case of such termination of the agreement, both the parties shall ensure that the Courses already started are fully completed, examination conducted and certificates issued.

#### **6. Termination ofcontract**

The contract is liable to be terminated by either side on one month’s notice. Abrupt termination or breach of the contract by the **SECOND PARTY** for reasons attributable to the **SECOND PARTY** will entail forfeiture of the Security Deposit of the **SECOND PARTY**.

If the **SECOND PARTY** (a) abandons the contract or has failed to proceed with the work or does not adhere to the committed schedules or technological requirements due to negligence or the progress on any particular item or items is slow (b) has failed to execute the work in accordance with the terms and

conditions of the contract, (c) is persistently or frequently neglecting to carry out their obligation under the contract, then **FIRST PARTY** shall be competent to terminate the contract unilaterally at its discretion at any time without notice and without paying any compensation or any other amounts and to proceed with the balance of the work through any other agencies and the **SECOND PARTY** is liable to compensate **FIRST PARTY** for losses incurred by it in such cases. In such termination of the contract, the Security Deposit made by the **SECOND PARTY** shall also be forfeited

## **7. Jurisdiction**

This Agreement shall be governed by the Laws of Indian Union in force. Both the parties here in agree that all disputes between them shall be subject to the jurisdiction of courts in <District of Office of **SECOND PARTY** >

## **8. Arbitration or Mediation**

Any dispute arising between the parties if not resolved between them shall be referred after mutual consent of both the parties to an arbitrator or mediator. The selection of the arbitrator shall be decided by the above parties mutually.

In case of termination of this agreement, in the middle of a Course, which has already been started, both the parties should take sufficient steps so as to complete the Course, already started. Termination of the agreement should be implemented in such a way that the future of the students/trainees is not affected by the termination. In case of such termination of the agreement, both the parties shall ensure that the Courses already started are fully completed, examination conducted and certificates issued.

## **9. Modifications**

The modifications in the Agreement can be done with the mutual consent of both the parties but strictly in line with the project guidelines.

**10.** The application, submitted documents by **FIRST PARTY to SECOND PARTY** and the record of the negotiation meeting held between **FIRST PARTY** and **SECOND PARTY** also form part and parcel of this agreement.

IN WITNESS WHEREOF, the parties hereto have caused this AGREEMENT to be executed in duplicate on the day and the year first above written

AGREED:

For (**FIRST PARTY**)

For (**SECOND PARTY**)

(Institute Head signature & stamp)

(Institute Head signature & stamp)

(Name in Block Letters)

(Name in Block Letters)

Name of <b>FIRST PARTY</b>	Name of <b>SECOND PARTY</b>
Address	Address
Contact Details	Contact Details
E-mail ID	E-mail ID
Web	Web

Witness 1:

Witness 2:

Signature.....

Signature.....

Name ...(in Block Capital Letters)...

Name...(in Block Capital letters) ...

Address .....

Address .....

.....

.....

.....

.....

Contact No. ....

Contact No. ....

**NSDA REFERENCE***To be added by NSDA***Contact Details of the Awarding Body for the Qualification****Name and address of submitting body:**

NIELIT Delhi Centre

2<sup>nd</sup> Floor, Parsvnath Metro Mall, Near Inderlok Metro Station, Inderlok, Delhi-110052.

**Name and contact details of individual dealing with the submission**

<b>Name</b>	Ms. Kanchan Rani
<b>Position in the organisation</b>	Deputy Director(System)
<b>Tel number(s)</b>	011-23644849, 23644149
<b>E-mail address</b>	kanchan.rani@nielit.gov.in

**List of documents submitted in support of the Qualifications File**

1. Industry Validation (Annexure I)
2. Placement Records (Annexure II)
3. Detailed Curriculum (Annexure III)

# QUALIFICATION FILE TEMPLATE

## SUMMARY

<b>Qualification Title:</b>	Certification Course in Data Entry and Office Automation.
<b>Qualification Code:</b>	NIELIT/IT/L4/026
<b>Nature and purpose of the qualification:</b>	<b>Nature:</b> <ul style="list-style-type: none"><li>❖ Certificate Course which will help in employment.</li></ul> <b>Purpose:</b> <ul style="list-style-type: none"><li>❖ To get unemployed youth in work.</li><li>❖ To upgrade the skills of people.</li><li>❖ Digital literacy.</li></ul>
<b>Body /bodies which will award the qualification:</b>	<b>Examination Cell,</b> National Institute of Electronics and Information Technology
<b>Body which will accredit providers to offer courses leading to the qualification:</b>	National Institute of Electronics and Information Technology
<b>Body /bodies which will Be responsible for assessment:</b>	National Institute of Electronics and Information Technology
<b>Occupation(s) to which the qualification gives access:</b>	Data Entry Operator, Computer Operator
<b>Licensing Requirements</b>	N/A
<b>Proposed level of the qualification in the NSQF</b>	Level-4
<b>Anticipated volume of training/learning required to complete the qualification</b>	135 Hours
<b>Entry requirements/ Recommendations</b>	10+2 in any stream with min 50% marks OR ITI Certificate(One Year) after class 10th with min.50% marks in ITI

## QUALIFICATIONFILETEMPLATE

<b>Progression from the Qualification:</b>	<p>After acquiring this certification an individual can work as Data Entry Operator. Both government and private sectors offer excellent employment opportunities in data entry service. Every organisation, from a big corporate office to little grocery shop are in need of data entry operators who along with entering, maintaining and retrieving data may have to handle daily official work like sending communication, drafting letters etc. Data entry operators may work in many fields, including banking, insurance, marketing, accounting, human resources, healthcare sector etc.</p> <p>Following are some of the prominent and utilized categories of data entry services available in India. In each field, data entry operators are required to do data entry work related to that particular field :</p> <ul style="list-style-type: none"><li>• Data entry of medical and insurance claims</li><li>• Data entry of Surveys and market research results</li><li>• Data entry of company reports</li><li>• Data entry of medical records of patients</li><li>• Data entry of personal details of customers for bank transactions</li><li>• Data Capture -capturing data from unstructured documents such as letters, invoices, email, fax, forms etc</li><li>• Image Processing Services / Image Data Entry etc</li></ul>
<b>Planned arrangements for RPL.</b>	<ul style="list-style-type: none"><li>❖ Presently only candidates who undergo training shall be assessed.</li><li>❖ Later on, candidate can appear for certification examination directly if they fulfil entry requirements.</li></ul>
<b>International Compatibility where Known.</b>	NA
<b>Date of Planned review of the Qualification</b>	After Every 2 Years



**Formal structure of qualification:**

The entries will show how the qualification is designed for delivery and assessment. It will list the components of the qualification, where the learning outcomes to be accessed are grouped

<b>Title of NOS/units or other components</b>	<b>Mandatory/ Optional</b>	Estimated Size (Learning hours)	<b>Level</b>
Introduction to computer	M	5	3
Introduction to GUI Based Operating System	M	5	3
Elements of Word Processing	M	15	3
Spreadsheets	M	15	3
Introduction to Internet, WWW and web browsers	M	15	4
Communication and Collaboration	M	5	3
Application of presentations	M	15	3
Application of Digital Financial Services	M	5	3
Soft Skills	M	10	4
Data Entry / Typing Test.	M	45	4
Theory/ Lecture Duration(In Hours)		<b>50</b>	
Practical +Typing (In Hours)		<b>40+45</b>	
Total Duration Duration(Hours)		<b>135</b>	

Detail Curriculum attached at **Annexure III.**

## SECTION -1

### ASSESSMENT

Qualifications in the NSQF should be trusted by the learners and employers. A lot of this will relate to assessment. On the one hand, employer will want to be sure that holders of a qualification have been tested to show that they have achieved the outcomes described in the qualification to the standard set. On the other hand, learners will want to be sure that the assessment they are given is fair and that the same pass/fail judgements are made for all candidates.

This section of the qualification File asks you to show how these ends will be achieved.

**Name of Assessment body:****Examination Cell,**

National Institute of Electronics and Information Technology

6-CGO Complex, Electronics Niketan

Lodhi Road, New Delhi. 110003.

**Name of body checking or verifying Assessments:****Examination Cell,**

National Institute of Electronics and Information Technology

6-CGO Complex, Electronics Niketan

Lodhi Road, New Delhi. 110003.

**Name of Qualification Awarding body:**

National Institute of Electronics and Information Technology.

**Will the assessment body be responsible for the RPL assessment?**

As per minimum eligibility criteria RPL is not mandatory. However, RPL may be carried out through screening, identifying the skill gaps, provide bridge training to cover the competency gap & then conduct final assessments of the candidates.

**Describe the overall assessment strategy and specific arrangements which have been put in place to ensure that assessment is always valid, consistent and fair and show that these are in line with the requirements of NSQF:**

The emphasis is on practical demonstration of skills & knowledge based on the performance criteria. Student is required to pass in all OUTCOMES individually and marks are allotted.

Following assessment methodologies are used.

The Following assessment methodologies are used.

- A. Written Assessment(MCQ, Fill in the blanks, T/F, Shortcuts, Full forms and Subjective Questions)
- B. Practical Assessment & viva
- C. Typing Test

The assessment results are backed by following evidences.

1. The assessor collects a copy of the attendance for the training done under the scheme. The

- attendance sheets are signed and stamped by the In-charge / Head of the Training Centre.
2. The assessor verifies the authenticity of the candidate by checking the photo ID card issued by the institute as well as any one Photo ID card issued by the Central/Government. The same is mentioned in the attendance sheet.
  3. The assessor assigns roll number.
  4. The assessor takes photograph of all the students along with the assessor standing in the middle and with the centre name/banner at the back as evidence.

### **About Question Paper Pattern:**

Examination will be consists of three sections

- Theory
- Practical
- Typing test

Theory portion Assessment will be done Physically by Faculties. Theory section will include MCQ, Fill in the blanks, T/F, Shortcuts, Full forms and Subjective Questions.

Theory paper will be of 50 Marks containing six sections:-

- 15 MCQ based Questions with one mark each.
- 5 Fill in the blanks based Questions with one mark each.
- 5 True/False based Questions with one mark each.
- 5 Shortcut based Questions with one mark each.
- 5 Full form based Questions with one mark each.
- Subjective questions of 15 Marks.

Practical will be of 50 Marks.

Typing with criteria of a minimum typing speed 35 wpm on computer or 10500 key depressions per hour.

**ASSESSMENT EVIDENCE**

Assessment Guideline:

- Criteria for assessment will be created by NIELIT. Each Unit/Components will be assigned marks for its importance in the NOS.
- Candidate will be assessed for conceptual knowledge about the technology as well as its practical implementation
- The assessment for the theory part will be based on knowledge bank of questions created by NIELIT
- The assessment for practical will be conducted by practical assignment/activities and viva-voce.
- For Typing candidate should meet the minimum typing speed requirement

**Complete a grid for each component as listed in “Formal structure of the qualification” in the summary.**

**NOTE: this grid can be replaced by any part of the qualification documentation which shows the same information –i.e. learning Outcomes to be assessed, assessment criteria and the means of assessment.**

**Means of Assessment**

Assessment carried out by using a variety of question formats applicable.

Assessment will be made as per below mentioned criteria for different units/Components.

<b>Outcomes to be assessed</b>	<b>Assessment Criteria for the outcome</b>	<b>Means of Assessment</b>		
		<b>Total Marks</b>	<b>Marks for Knowledge Evidence(Theory )</b>	<b>Marks for Practical Assessment</b>
Understanding basics of computer	1. Candidates should have understanding of computer architecture. 2. Candidate should have clear understanding of hardware, software and their applications. 3. Candidate should know about the peripheral devices used with	08	08	0

## QUALIFICATION FILE TEMPLATE

	<p>computer.</p> <p>4. Candidates should know the applications of ICET</p> <p>5. Knowledge of Data types.</p>			
Understanding of GUI Based Operating System	<p>1. Candidate should understand all popular operating systems.</p> <p>2. Understanding of basic features of various windows editions.</p> <p>3. Candidate should be able to understand various settings of operating system.</p> <p>4. Clear understanding of MS DOS</p> <p>5. Performing file and directory management.</p>	06	04	02
Understanding of Word Processing	<p>1. Candidate should understand how to open and close a document in MS word.</p> <p>2. Candidate should be able to create and manipulate text.</p> <p>3. Candidate should be able to do formatting of text.</p> <p>4. Clear understanding of table manipulation.</p> <p>point presentation</p>	20	08	12
Basics of Spreadsheets	<p>1. Candidate should know all the elements of electronic spreadsheet</p> <p>2. Candidate should be able to do manipulation of cells</p> <p>3. candidate should know how to work with functions and charts</p>	20	08	12
How to use Internet, WWW and web browsers	<p>1. Basics of Networking</p> <p>2. Study of various networking methodology</p>	15	05	10

## QUALIFICATION FILE TEMPLATE

	3. Introduction to web browser and WWW 4. How to use various search engines			
Understanding of Communication and Collaboration	1. Creating email address and Sending email 2. Introduction to mailbox 3. Candidate should have knowledge of instant messaging. 4. Candidate should know the advance features of email	10	06	04
Understanding of Application presentations	1. Learn to know the basics of PowerPoint 2. Learn to create PowerPoint, apply styles , aesthetics effects on it 3. Learn to prepare Slide show	15	05	10
Understanding Application of Digital Financial Services	Candidate should be aware about digital financial services.	06	06	0
<b>Total</b>		<b>100</b>	<b>50</b>	<b>50</b>
<b>Soft Skills</b>	1. Basics of soft skills 2. Group Discussion 3. Interview preparation	Grades (Based on the marks out of 10) A: 9-10 Marks B: 7-8 Marks C: 5-6 Marks D: Below 6 Marks		
<b>Data Entry / Typing Test.</b>	Typing speed of the candidate should be as per the requirement	Typing with criteria of a minimum typing speed 35 wpm on computer or 10500 key depressions per hour.		
<b>Grand Total</b>		<b>100</b>	<b>50</b>	<b>50</b>

### Pass/Fail

Following Grading Scheme (on the basis of total marks) will be followed:

Grade	S	A	B	C	D	Fail
<b>Marks Range (in %)</b>	85 to 100	75 to 84	65 to 74	55 to 64	50 to 54	Below 50

**SECTION 2**

**EVIDENCE OF LEVEL**

Level of qualification: 4

Assessed outcome		Individual Level	Process Required	Professional Knowledge	Professional Skill	Core Skill	Responsibility	Overall Level
1	Basics of computer	03	Person may carry out as data entry operator or Lab assistant or Junior assistant	Learning Office automation and typing it will help the students to get employment opportunity in computer related fields.	Candidate can develop their computer skills based on practical knowledge.	Candidate will be learning effective communications which will make them smart in communicating with various companies and people.	Candidate can perform well under supervision of team lead.	04
2	Windows	03						
3	MS Office,	03						
4	Spread Sheet	03						
5	How to use Internet, WWW and web browsers	04						
6	Understanding of Communication and Collaboration	03						
7	Understanding Application of presentations	03						
8	Understanding Application of Digital Financial Services	03						
9	Soft Skills	04						
10	Data Entry / Typing computer.	04						

## SECTION 3

### EVIDENCE OF NEED

#### **What evidence is there that the qualification is needed?**

After doing Data Enter Operator course candidate can be placed in various government and private organisations. Following are the list of departments where data entry operators can be placed.

- Central Govt. Depts.
- State Govt. Depts.
- Municipal Corporation of Delhi Depts.

#### **Central Govt. Depts. Include**

- CPAO (Central Pension Accounting Office)
- Department of Environment
- DIT-NIC
- Drugs Control Department
- EPFO-Head Office, North, South and NDC-Dwarka
- Excise & Luxury Tax Department
- Irrigation & Flood Control
- Labour Department
- Principal Accounts Office
- CGDA, PWD, PNGRB etc....

#### **State Govt. Depts. Include**

- Delhi Jal Board
- Delhi Health Services
- CATS
- Deputy Commissioner –West, South-West and North
- Delhi High Court
- State Election Office
- Delhi Development Authority (DDA)
- Delhi Fire Service
- G.B. Pant Govt. Hospital and Engg. College
- Lt. Governor Office
- New Delhi Municipal Corporation (NDMC) etc.....



**What is estimated uptake of this qualification and what is the basis of this estimate?**

On an average estimated uptake of this qualification will vary as per demand in Industry. Perhaps, estimated uptake on the basis of current scenario is 500 to 600 per year. Basis of this estimate is current average count of enrolments in Data Entry Operator Course in all NIELIT Centres.

**What steps were taken to ensure the qualification (s) does/do not duplicate already existing or planned qualification in the NSQF?**

The Qualification does not exist as per information available in public domain.

**What arrangements are in place to monitor and review the qualification(s)? What data will be used and at what point will the qualification(s) be revised or update?**

The Qualification is to be monitored and reviewed every two years. The following data will be used

- ❖ Results of assessments
- ❖ Employer feedback regarding student skill after conducting a placement drive
- ❖ Employer feedback will be sought post-placement
- ❖ Student feedbacks
- ❖ Workshops and seminar for reviewing the qualifications

**Please attach any documents giving further information about any of the topics above.: NIL**

**SECTION 4**

**EVIDENCE OF RECOGNITION AND PROGRESSION**

**What steps have been taken in the design of this or other qualifications to ensure that there is a clear path to other qualifications in the sector?**

This qualification comprises both technical and analytical skills and can be linked to any qualification higher than this one, existing or to come.

**Opportunity for Data entry operator to venture into more advanced courses or to start their own business.**

After doing data entry operator course candidate can pursue for O level.

Please attach any documents giving further information about any of the topics above: **NA**

**SECTION 5**

**EVIDENCE OF INTERNATIONAL COMPARABILITY**

**List any comparisons which have been established.**

The new level of computer power will help the students to deliver the output in fast and efficient ways. The course also act as an important part in helping the students to further pursue various other graduate courses to get broader ideas on the computer system. These course also provide to develop new tools that will help in managerial work related to computer systems.

**Office administration in legal and executive**

The course generates executive program with specialised skills in Microsoft word, excel, access, PowerPoint. The students will acquire the advanced software skills, accounting fundamentals, accounting software and time management.

Source:- (<http://geebeeworld.com/latest-news/canada/mohawk-college/mohawk-college-courses-international-students/>)

**Office Administration**

It develops the skills and expertise required to work in law offices and large organisations as a legal assistant.

Source: - [www.algonquincollege.com](http://www.algonquincollege.com)

## QUALIFICATION FILE – CONTACT DETAILS OF SUBMITTING BODY

### Name and address of submitting body:

- NIELIT Gorakhpur,  
M.M.M.U.T. Campus, Deoria Road Gorakhpur – 273010 (UP)  
Phone No.: 0551-2273371  
**Branch Office**
- NIELIT Lucknow  
A-1/9, Sumit Complex, VibhutiKhand, Gomti Nagar, Lucknow- 226010(UP)  
Phone No.: 0522 272 0590

### Name and contact details of individual dealing with the submission

<b>Name:</b>	<b>Pawanverma</b>
<b>Position in the organisation</b>	<b>Technical officer</b>
<b>Address if different from above</b>	NA
<b>Tel number(s)</b>	0522-2720590
<b>E-mail address</b>	<b>pawanverma@nielit.gov.in</b>

### List of documents submitted in support of the Qualifications File

1. Annexure I: Detailed Curriculum
2. Annexure II : Industry Validation
3. Annexure III : Placement Record
4. Annexure IV : Administrative Approval (Attached at Annexure 3)

## QUALIFICATION FILE SUMMARY

<b>Qualification Title</b>	Diploma in Installation & Repair of Consumer Electronics Products			
<b>Qualification Code</b>	NL/S/L4/C007 NIELIT/ES/L4/007			
<b>Body/bodies which will assess candidates</b>	<b>Examination Cell,</b> National Institute of Electronics and Information Technology, 6-CGO Complex, Electronics Niketan, Lodhi Road, New Delhi. 110003.			
<b>Body/bodies which will award the certificate for the qualification.</b>	<b>Certification Division,</b> National Institute of Electronics and Information Technology, 6-CGO Complex, Electronics Niketan, Lodhi Road, New Delhi. 110003.			
<b>Body which will accredit providers to offer the qualification.</b>	<b>Accreditation Division,</b> National Institute of Electronics and Information Technology, 6-CGO Complex, Electronics Niketan, Lodhi Road, New Delhi. 110003.			
<b>Occupation(s) to which the qualification gives access</b>	Support Technician for Multi-National and National Desktop PCs Manufacturers  Can Work In Call Centre for After Sale Support - can be also absorbed in Local Markets  Can start their own Small Scale business and can be self employed			
<b>Proposed level of the qualification in the NSQF.</b>	4			
<b>Notional Learning Hours</b>	350 hours.			
<b>Entry requirements / recommendations.</b>	ITI or 12th pass			
<b>Progression from the qualification.</b>	Technician ➔ Service Engineer ➔ Service manager Technician ➔ Self Entrepreneur			
<b>Planned arrangements for RPL.</b>	Yes. The RPL will be carried out through screening, identifying the skill gaps, provide bridge training to cover the competency gap & then conduct final assessments of the candidates			
	<b>Formal structure of the qualification</b>			
<b>Module Code</b>	<b>Title of unit or other component</b> (include any identification code used)	<b>Mandatory/ Optional</b>	<b>Estimated size (learning hours)</b>	<b>Level</b>
DCEP-01	LCD-LED TV and Monitor	Mandatory	100	4

DCEP-02	Cable TV and DTH Services	Mandatory	90	
DCEP-03	VCD-DVD Player and Home Theatre System	Mandatory	70	
DCEP-04	FM Radio- Cordless Phone-Hair Dryer	Mandatory	35	
DCEP-05	Induction Stove and Microwave Oven	Mandatory	40	
DCEP-06	Enhancing Communication Skill	Mandatory	15	

Please attach any document giving further detail about the structure of the qualification – eg a Curriculum or Qualification Pack. Nil

## **SECTION 1** **ASSESSMENT**

### **Name of assessment body:**

#### **Examination Cell**

National Institute of Electronics and Information Technology  
6-CGO Complex, Electronics Niketan,  
Lodhi Road, New Delhi. 110003.

### **Will the assessment body be responsible for RPL assessment?**

Give details of how RPL assessment for the qualification will be carried out and quality assured.

Yes. The RPL will be carried out through screening, identifying the skill gaps, provide bridge training to cover the competency gap & then conduct final assessments of the candidates.

### **Describe the overall assessment strategy and specific arrangements which have been put in place to ensure that assessment is always valid, consistent and fair and show that these are in line with the requirements of the NSQF:**

The emphasis is on practical demonstration of skills & knowledge based on the performance criteria. Each OUTCOME is assessed & marked separately. Student is required to pass in all OUTCOMES individually and marks are allotted. Following assessment methodologies are used.

- A. Written Assessment (Multiple Choice Questions)
- B. Practical Assessment
- C. Viva Voce Assessment

### **Supporting evidences for Assessment**

The assessment results are backed by following evidences.

- 1 The assessor collects a copy of the attendance for the training done under the scheme. The attendance sheets are signed and stamped by the In charge / Head of the Training Centre.
- 2 The assessor verifies the authenticity of the candidate by checking the photo ID card issued by the institute as well as any one Photo ID card issued by the Central/Government. The same is mentioned in the attendance sheet.
- 3 The assessor assigns roll number.
- 4 The assessor takes photograph of all the students along with the assessor standing in the middle and with the centre name/banner at the back as evidence.

Please attach any documents giving further information about assessment and/or RPL.

## ASSESSMENT EVIDENCE

Complete the following grid for each grouping of NOS, assessment unit or other component as listed in the entry on the structure of the qualification on page 1.

<b>Job Role</b>	Support Technician for Multi-National and National Desktop PCs manufacturers Can Work In Call Centre for After Sale Support - can be also absorbed in Local Markets Can start their own Small Scale business and can be self employed
-----------------	---

### Title of Unit/Component:

Assessable Outcomes	Assessment criteria for the outcome	Total Mark	Written	Practical	Vivo-voce
<b>1: Use of Tools and testing equipments to repair/service LCD-LED TV and Monitor.</b>	Installation and demonstration of LCD-LED TV. Use and functionality of all features/ Operation of LCD-LED TV and Monitor. Use of repairing tools and testing equipments like multimeter, function Generator etc.	30	10	8	2
	Identifying correct software version/modules in the product and ascertain correct and complete porting/update of software in the Product Operate Product testing equipment. Fault Diagnosis & Connect Product's PCB to PC/test equipment for diagnostics. Repair/replace part if needed using right tool.		10		
		<b>Total</b>	<b>20</b>	<b>8</b>	<b>2</b>
<b>2: Implementation/maintenance of Cable TV and DTH Services.</b>	Connection & Implementation of Cable TV and DTH Services	30	10	8	2
	Diagnosis Faults and rectify the same		10		
		<b>Total</b>	<b>20</b>	<b>8</b>	<b>2</b>
<b>3: Use and functionality of all features of VCD-DVD Player and Home Theatre System</b>	Demonstration & Installation of VCD-DVD Player and Home Theatre System. Use & functionality of all features/ operation of VCD-DVD Player and Home Theatre System.	30	10	8	2

	Safely dismantle/assemble Product using the right tools.  Servicing of Product.  Assess & analyse fault and take appropriate action like replacement of any part or card.		10		
		<b>Total</b>	<b>20</b>	<b>8</b>	<b>2</b>
<b>4: Servicing and repair FM Radio Cordless Phone-Hair Dryer</b>	Demonstration and access all features of FM Radio, Cordless Phone & Hair Dryer	30	10	8	2
	Servicing of FM Radio, Cordless Phone & Hair Dryer,  Diagnose faults using step by step procedure and take appropriate action like replacement of part etc using right tool.		10		
		<b>Total</b>	<b>20</b>	<b>8</b>	<b>2</b>
<b>5: Installation, Servicing &amp; repair Induction Stove and Microwave Oven</b>	Demonstration, installation and Operation of Induction Stove and Microwave Oven. Use and access of all features/Operation of Induction Stove and Microwave Oven.	30	10	8	2
	Servicing of these equipments. Identify faults following standard procedure and rectify it.		10		
		<b>Total</b>	<b>20</b>	<b>8</b>	<b>2</b>
<b>6: Enhancing Communication Skills</b>	Interpret operating manual of the equipment. Interpret safety manual.	<b>50</b>			<b>10</b>
	Record customer query and provide appropriate solution.				<b>20</b>
	Communicate with customer and supervisor clearly. Fill up record/work book clearly, concisely and accurately .				<b>20</b>
		<b>Total</b>			<b>50</b>
	<b>Grand Total</b>	<b>200</b>	<b>100</b>	<b>40</b>	<b>60</b>

### Means of assessment 1

Proctored online assessments (LAN and Web based), carried out using a variety of question formats applicable for linear / adaptive methodologies; performance criteria being assessed via



situation judgement tests, simulations, code writing, psychometrics and multiple choice questions etc.

## **SECTION 2**

### **EVIDENCE OF NEED**

#### **What evidence is there that the qualification is needed?**

India is expected to become the fifth largest consumer durables market in the world by 2025. The consumer electronics market is expected to increase to US\$ 400 billion by 2020. The production is expected to reach US\$ 104 billion by 2016.

The sector is expected to double at 14.7 per cent compound annual growth rate (CAGR) to US\$ 12.5 billion in FY15 from US\$ 6.3 billion in FY10. Urban markets account for the major share (65 per cent) of total revenues in the consumer durables sector in the country. Demand in urban markets is expected to increase for non-essential products such as LED TVs, laptops, split ACs and, beauty and wellness products. In rural markets, durables like refrigerators as well as consumer electronic goods are likely to witness growing demand in the coming years as the government plans to invest significantly in rural electrification.

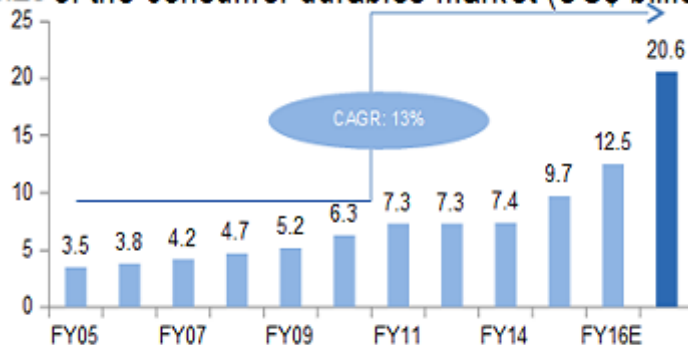
The Government of India has increased liberalisation which has favoured foreign direct investments (FDI). Also, policies such as National Electronics Mission and digitisation of television and setting up of Electronic Hardware Technology Parks (EHTPs) is expected to boost the growth of this sector.

The consumer durables market is anticipated to expand at a CAGR of 14.8 per cent to US\$ 12.5 billion in FY15. Also, the demand from rural and semi-urban areas is projected to expand at a CAGR of 25 per cent to US\$ 6.4 billion in FY15, with rural and semi-urban markets likely contributing majorly to consumer durables sales.

#### **Consumer durables revenues have been growing at a healthy pace**

- The consumer durables sector revenues reached US\$ 9.7 billion in FY15 and is expected to reach US\$ 12.5 billion in FY16
- Consumer durable market expected to grow at CAGR of 13 per cent from FY05 to FY20
- Around two third of the total revenue is generated from urban population and rest is generated from rural population
- Samsung has emerged as the market leader in the consumer durable segment followed by the Indian giant Videocon

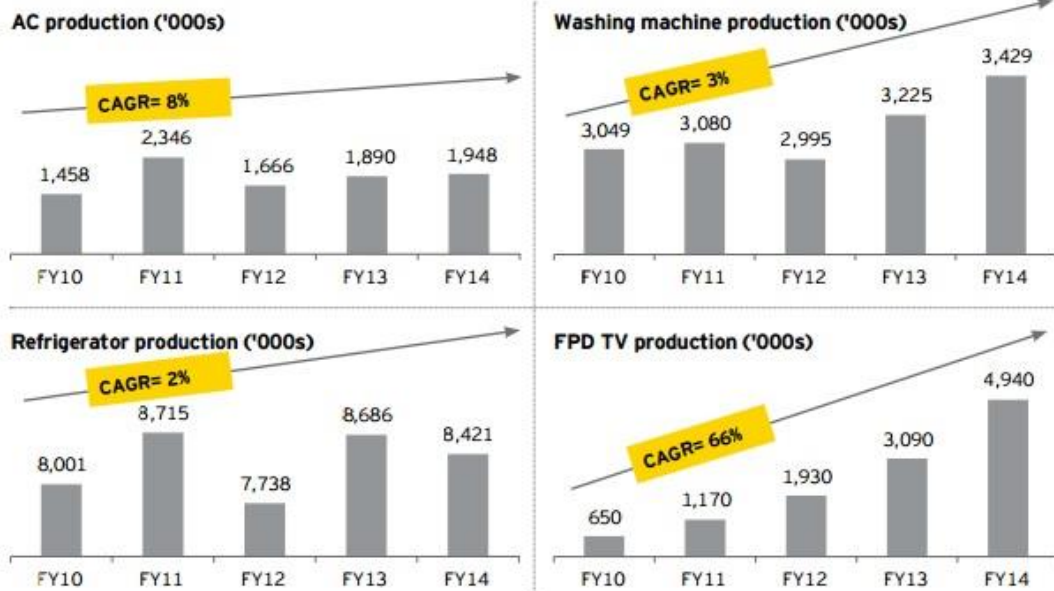
**Size of the consumer durables market (US\$ billion)**



Source: Electronic Industries Association of India  
CAGR – Compound Annual Growth Rate, E: Estimated F: Forecasted

Link: <http://www.ibef.org/industry/indian-consumer-market.aspx>

With growing demand, domestic production has also been on a rise...



The qualification is approved under scheme for financial assistance for skill development in electronics System Design and Manufacturing(ESDM) sector of latter dated 01/11/2013 of Ministry of communication and Information Technology Department of electronics and Information Technology

**Letter of Approval is Attached Annexure-3**

The Department of Electronics and IT has formulated the National Policy on Electronics 2012 which aims at transforming India into a premier ESDM hub. The objective of the policy include creation of an eco-system for a globally competitive Electronic System Design and Manufacturing sector in the country to achieve a turnover of USD 400 billion by 2020 and employ 27.8 million(approx.) persons at various levels by 2020. To create a policy framework for creating a conducive ecosystem for promoting investment in ESDM sector in the country several initiatives are being taken up. The instant scheme is one such initiative which aims at facilitating creation of an eco-system of Skill Development in ESDM sector in the country to meet the emerging requirements of skilled human resource in this sector. There is no overlap of this scheme with any other project/scheme.

The National Skill Development Policy which targets skilling of 500 million persons by 2022 has set a target for the Department to skill 10 million persons by 2022 in the domain of Electronics & ICT.

The Department has also formulated a National Policy on Electronics (NPE 2012) with a vision to create a globally competitive electronics design and manufacturing industry to meet the country's needs and serve the international market. The objectives of the Policy include significantly enhancing the availability of skilled Manpower in the ESDM sector.

The employment in the Electronics industry is estimated to grow phenomenally. As per estimates projected by a study conducted by National Skill Development Corporation (NSDC) in the year 2009, this sector's employment figures of about 0.9 million in the year 2008 is estimated to increase by 3.2 million by 2022. Now, the NPE 2012

envisages employment for about 28 million at various levels. The Electronics Manufacturing sector has a lot of potential for large-scale employment of ITI graduates, Diploma holders, etc. Further, semi-skilled persons with appropriate training can also be employed/made readily employable.

However, the present education/skill development system at both formal as well as non-formal level is not vibrant enough to meet the emerging requirement of the ESDM sector. Hence, it is essential for the Government to intervene and create an Enabling environment for increasing the numbers of skill providers (both in public and private domain) to address the emerging human resource requirements for ESDM sector.

Keeping the above in view, it is proposed to launch a scheme for facilitating skill development in ESDM sector focussing on students/school drop-outs at 9-10<sup>th</sup> Standard onwards, ITI, Diploma, Non-engineering graduates, unemployed youth, etc. (in-line with NVEQF) to increase their employability to work in manufacturing and Service support functions.

**A copy of the Scheme is attached Annexure-4**

**What is the estimated uptake of this qualification and what is the basis of this estimate?**

30 students / Batch – 3 Batches /Year

**What steps were taken to ensure that the qualification(s) does/do not duplicate already existing or planned qualifications in the NSQF?**

Online access of Qualification Register is not yet available.

**What arrangements are in place to monitor and review the qualification(s)? What data will be used and at what point will the qualification(s) be revised or updated?**

The Qualification is to be monitored and reviewed every two years.

The following data will be used

1. Results of assessments
2. Employer feedback will be sought post-placement
3. Student feedbacks

Please attach any documents giving further information about any of the topics above.

NIL

**SECTION 3**  
**SUMMARY EVIDENCE OF LEVEL**

Level of qualification: 4

Summary of Direct Evidence:

Justify the NSQF level allocated to the QP by building upon the five descriptors of NSQF. Explain the reasons for allocating the level to the QP.

Generic NOS is/are linked to the overall authority attached to the job role.

Process required	Professional knowledge	Professional skill	Core skill	Responsibility	Level
The individual needs to know and understand Consumer Electronics Product Equipment operating Skills, Consumer Electronics Product repairing skills, Consumer Electronics Product Component Handling skills, Consumer Electronics Product Software Skills, Consumer Electronics Product Troubleshooting Skills	The individual on the job needs to know and understand Knowledge of spare management and repair & return process for faulty components Protection equipment (anti-static wrist bands, shoes, dress, packaging, and other appropriate insulations ) that are required to be used First aid requirements in case of electrical shocks, cuts and other common injuries Functionality and features/working of Consumer Electronics Products Consumer	The individual on the job needs to know and understand Consumer Electronics Product Equipment operating Skills Use and access all features and applications Consumer Electronics Product Operate Consumer Electronics Product testing equipment’s Connect Consumer Electronics Product’s PCB to PC/test equipment for diagnostics Consumer Electronics Product repairing skills Undertake fault diagnostic Interpret test results to identify and localize faults Utilize appropriate mechanisms and tools to rectify the faults	The individual on the job needs to know and understand how to Read and understand technical manuals, work orders and reports Read and understand Consumer Electronics Product safety instructions Fill up record sheets clearly, concisely and accurately as per company procedures Clearly communicate relevant information to supervisors Respond appropriately to queries Prioritize and execute tasks in a high-pressure environment Use and maintain resources	After successful competition of this course, participant will be acquainted with the necessary Hardware and Software skills for Installation, Repair, Maintenance and Trouble shooting of Consumer Electronics Product. Participants will be a “Ready to Observe” product for Consumer Electronics Product manufacturing sector.	4

	<p>Electronics Products specific Console Control and user interface Functionality of hardware components of Consumer Electronics Products Procedure to dismantle and assemble Consumer Electronics Products Range of tools and testing equipment (multi meters, frequency generators etc) available and their functionality ESD hazards and their effect on electronic components Standard fault-finding (troubleshooting) techniques Basic computer knowledge to be able to run diagnostic tools Functionality of hardware components, software applications, screen, touchpad etc. Consumer Electronics Products software related problems and their possible solutions</p>	<p>Utilize appropriate communication channels to escalate unresolved problems Test Consumer Electronics Product to confirm and resolve of the reported fault Undertake corrective repairs by software porting/updates Undertake checks to confirm that the problem is resolved Consumer Electronics Product Component Handling skills Safely dismantle/assemble Consumer Electronics Product using the right tools Safe remove/replace components using right tools Compliance to ESD protection measures Consumer Electronics Product Software Skills Identifying correct software version/modules Ascertain correct and complete porting/update of software in the Consumer Electronics Product Consumer Electronics Product Troubleshooting Skills How to approach a defect Make</p>	<p>efficiently and effectively Analytical Skills Analyse (and understand) Manufacturing Process based on Company need Interpret reports, readings and numerical data Keep up to date with new technology and performance issues Other Skills Create and maintain effective working relationships and team environment through collaboration Take initiatives and progressively assume increased responsibilities Share knowledge with other team members and colleagues</p>		
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	Standard repairing process	use of standard OEM specified troubleshooting steps Interpret intermediate results and progress fault rectification accordingly			
4	4	4	4	4	

## **SECTION 4**

### **EVIDENCE OF RECOGNITION OR PROGRESSION**

**What steps have been taken in the design of this or other qualifications to ensure that there is a clear path to other qualifications in this sector?**

This qualification has comprises both technical and analytic skills and can be linked to any qualification higher than this one, existing or to come.

The qualification is approved under scheme for financial assistance for skill development in electronics System Design and Manufacturing(ESDM) sector of latter dated 01/11/2013 of Ministry of communication and Information Technology Department of electronics and Information Technology

Please attach any documents giving further information about any of the topics above.  
Give details of the document(s) here:

NA

## **SECTION 5**

### **EVIDENCE OF INTERNATIONAL COMPARABILITY**

**List any comparisons which have been established.**

**NIL**

**QUALIFICATION FILE – CONTACT DETAILS OF SUBMITTING BODY****Name and address of submitting body:**

NIELIT Gorakhpur Extension Centre Lucknow,

A 1/9, Sumit Complex, Vibhuti Khand, Gomtinagar, Lucknow 226010.

**Name and contact details of individual dealing with the submission**

<b>Name:</b>	Mr.Pawan Verma
<b>Position in the organisation</b>	Technical Officer
<b>Address if different from above</b>	NA
<b>Tel number(s)</b>	0522-2720590
<b>E-mail address</b>	pawanverma@nielit.gov.in

**List of documents submitted in support of the Qualifications File**

1. Detailed Curriculum
2. Industry Validation (Annexure-1)



## QUALIFICATION FILE SUMMARY

<b>Qualification Title</b>	Advance Diploma in Computer Application Accounting and Publishing		
<b>Qualification Code</b>	NIELIT/OA/4/40		
<b>Body/bodies which will assess candidates</b>	<b>Examination Cell,</b> National Institute of Electronics and Information Technology, 6-CGO Complex, Electronics Niketan, Lodhi Road, New Delhi. 110003.		
<b>Body/bodies which will award the certificate for the qualification.</b>	<b>Certification Division,</b> National Institute of Electronics and Information Technology, 6-CGO Complex, Electronics Niketan, Lodhi Road, New Delhi. 110003.		
<b>Body which will accredit providers to offer the qualification.</b>	<b>Accreditation Division,</b> National Institute of Electronics and Information Technology, 6-CGO Complex, Electronics Niketan, Lodhi Road, New Delhi. 110003.		
<b>Occupation(s) to which the qualification gives access</b>	Office Assistant, Desktop Publisher, Account Assistant, Technical Assistant		
<b>Proposed level of the qualification in the NSQF.</b>	4		
<b>Notional Learning Hours</b>	200 hours.		
<b>Entry requirements / recommendations.</b>	Intermediate with knowledge of Basic computer and Internet Concepts.		
<b>Progression from the qualification.</b>	Office Assistant → Technical Assistant → Account Assistant → Desktop Publisher		
<b>Planned arrangements for RPL.</b>	Yes. The RPL will be carried out through screening, identifying the skill gaps, provide bridge training to cover the competency gap & then conduct final assessments of the candidates		
<b>Formal structure of the qualification</b>			
This Course contains total four modules.			
<b>Title of unit or other component</b> (include any identification code used)	<b>Mandatory/ Optional</b>	<b>Estimated size (learning hours)</b>	<b>Level</b>
Understanding Computer fundamental and office automation software	Mandatory	50	4
Introduction To Financial Accounting	Mandatory	50	

Preparation of Account Books Using Accounting Packages	Mandatory	50	
Working with Desktop Publishing Softwares	Mandatory	50	

Please attach any document giving further detail about the structure of the qualification – eg a Curriculum or Qualification Pack.

## **SECTION 1** **ASSESSMENT**

### **Name of assessment body:**

#### **Examination Section**

National Institute of Electronics and Information Technology  
6-CGO Complex, Electronics Niketan,  
Lodhi Road, New Delhi. 110003.

#### **Will the assessment body be responsible for RPL assessment?**

Give details of how RPL assessment for the qualification will be carried out and quality assured.

Yes. The RPL will be carried out through screening, identifying the skill gaps, provide bridge training to cover the competency gap & then conduct final assessments of the candidates.

#### **Describe the overall assessment strategy and specific arrangements which have been put in place to ensure that assessment is always valid, consistent and fair and show that these are in line with the requirements of the NSQF:**

The emphasis is on practical demonstration of skills & knowledge based on the performance criteria. Each OUTCOME is assessed & marked separately. Student is required to pass in all OUTCOMES individually and marks are allotted. Following assessment methodologies are used.

- A. Written Assessment (Multiple Choice Questions)
- B. Practical Assessment
- C. Viva Voce Assessment

#### **Supporting evidences for Assessment**

The assessment results are backed by following evidences.

- 1 The assessor collects a copy of the attendance for the training done under the scheme. The attendance sheets are signed and stamped by the In charge / Head of the Training Centre.
- 2 The assessor verifies the authenticity of the candidate by checking the photo ID card issued by the institute as well as any one Photo ID card issued by the Central/Government. The same is mentioned in the attendance sheet.
- 3 The assessor assigns roll number.
- 4 The assessor takes photograph of all the students along with the assessor standing in the middle and with the centre name/banner at the back as evidence.

Please attach any documents giving further information about assessment and/or RPL.

### **ASSESSMENT EVIDENCE**

**Complete the following grid for each grouping of NOS, assessment unit or other component as listed in the entry on the structure of the qualification on page 1.**

#### **Job Role**

Office Assistant

**Title of Unit/Component:**

Assessable Outcomes	Assessment criteria for the outcome	Total Mark	Written	Practical	Vivo-voce
1. Getting Knowledge of Computer fundamental and office automation software	Learn basic concepts of Computer Fundamental	125	15	15	5
	Identify different concepts of Operating System and its functions		15	15	10
	Take necessary action how to use Office Automation Software		20	20	10
		<b>Total</b>	<b>50</b>	<b>50</b>	<b>25</b>
2. Explain Concepts of Financial Accounting	Prepare and Practice Financial Accounting	125	25	25	10
	Prepare and Practice Advance Financial Accounting		25	25	15
		<b>Total</b>	<b>50</b>	<b>50</b>	<b>25</b>
3. To familiarize with Preparation of Account Books Using Accounting Packages	Prepare Account Books Through Accounting Package	125	25	25	10
	Prepare Account Books Through Advance Accounting Package		25	25	15
		<b>Total</b>	<b>50</b>	<b>50</b>	<b>25</b>
4. Develop Concept of Desktop Publishing Softwares	Execute Advance Skills on Page Maker	125	25	25	10
	Execute Advance Skills on Photo Shop and Coral Draw		25	25	15
		<b>Total</b>	<b>50</b>	<b>50</b>	<b>25</b>
	<b>Grand Total</b>	<b>500</b>	<b>200</b>	<b>200</b>	<b>100</b>

**Means of assessment 1**

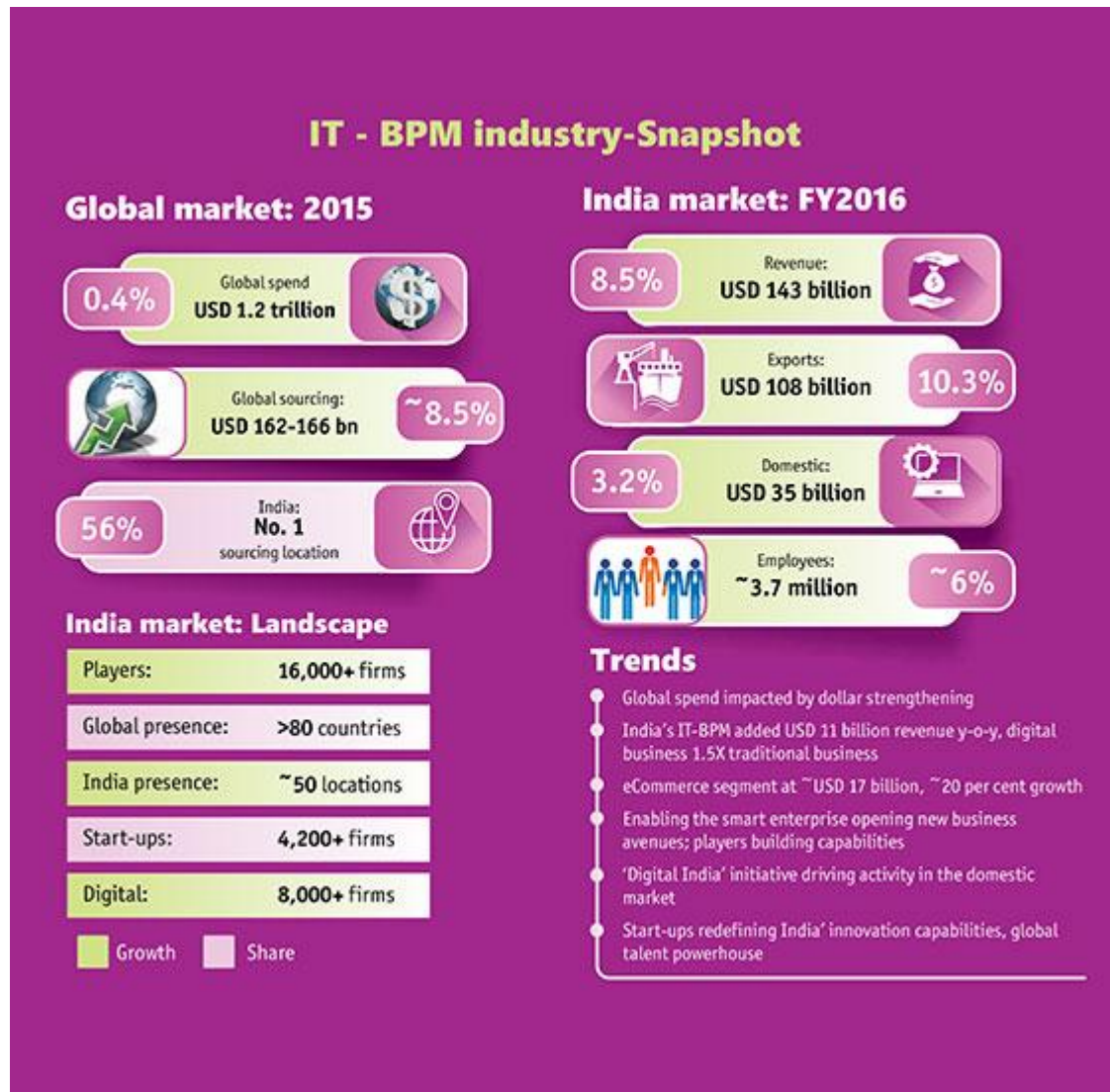
Proctored online assessments (LAN and Web based), carried out using a variety of question formats applicable for linear / adaptive methodologies; performance criteria being assessed via situation judgement tests, simulations, code writing, psychometrics and multiple choice questions etc.



## SECTION 2

### EVIDENCE OF NEED

What evidence is there that the qualification is needed?



<http://www.nasscom.in/indian-itbpo-industry>

The Indian IT-BPM sector continues to be one of the largest employers in the country directly employing nearly 3.5 million professionals, adding over 2,30,000 employees. Mr. R Chandrasekaran, Chairman, NASSCOM, said, "We are delighted with the robust growth demonstrated by the industry during the current fiscal year. The industry today has a very diverse landscape which is constantly evolving and fuelling growth for the industry. Digital also became main stream during the year, with industry increasingly investing in digitized solutions to drive future growth opportunities. Interestingly digital solutions in the year accounted for 12-14% of the industry revenues. NASSCOM will continue to work with its members to build capabilities within the country and position India as an ideal global digital hub, leveraging technology for transformation and driving innovation across domains."

The domestic IT-BPM market is rapidly approaching the USD 50 billion mark. In FY2015, the market is expected to be a little over USD 48 billion, an annual growth of

14 per cent. This is faster than the average industry growth, and is largely being driven by the booming eCommerce segment. Stable government with a technology focused growth agenda is further boosting technology adoption in the domestic market

“India is jumping the technology maturity curve and is emerging as a digital economy. The recent announcements by the Government on Digital India, Make in India, Skilling India are creating a renewed thrust on the domestic market. NASSCOM will continue to partners with diverse industry sectors and related government departments to enable technology adoption for key challenges faced by the country.” said Mr. R. Chandrashekhar, President, NASSCOM.

In FY2016, NASSCOM expects the industry to add revenues of USD 20 billion to the existing industry revenues of USD 146 billion. Export revenues for FY2016 is projected to grow by 12 to 14% and reach USD 110-112 bn. Domestic revenues (including ecommerce) for the same period will grow at a rate of 15-17% percent and is expected to reach USD 55-57 billion during the year.

Mr. BVR Mohan Reddy, Vice Chairman, NASSCOM said “The future looks very promising as the IT-BPM industry is gearing itself well to next phase of challenges. Digitization, disruptive technologies and innovation will fuel growth with new opportunities in the years ahead. NASSCOM will work with its members to showcase India as a destination of high value globalized solutions which are transformative and innovative. The fast growing technology start-up sector will further drive innovation in the country”

Source: <http://www.nasscom.in/robust-growth-indian-itbpm-industry>

In FY2016, NASSCOM expects the industry to add revenues of USD 20 billion to the existing industry revenues of USD 146 billion. Export revenues for FY2016 is projected to grow by 12 to 14% and reach USD 110-112 bn. Domestic revenues (including ecommerce) for the same period will grow at a rate of 15-17% percent and is expected to reach USD 55-57 billion during the year.

**What is the estimated uptake of this qualification and what is the basis of this estimate?**

20 students / Batch – 2 Batches /Year

**What steps were taken to ensure that the qualification(s) does/do not duplicate already existing or planned qualifications in the NSQF?**

Online access of Qualification Register is not yet available.

**What arrangements are in place to monitor and review the qualification(s)? What data will be used and at what point will the qualification(s) be revised or updated?**

The Qualification is to be monitored and reviewed every two years.

The following data will be used

1. Results of assessments
2. Employer feedback will be sought post-placement
3. Student feedbacks

Please attach any documents giving further information about any of the topics above.

NIL

**SECTION 3**  
**SUMMARY EVIDENCE OF LEVEL**

Level of qualification: 4

Summary of Direct Evidence:

Justify the NSQF level allocated to the QP by building upon the five descriptors of NSQF.  
Explain the reasons for allocating the level to the QP.

Generic NOS is/are linked to the overall authority attached to the job role.

<b>Process required</b>	<b>Professional knowledge</b>	<b>Professional skill</b>	<b>Core skill</b>	<b>Responsibility</b>	<b>Level</b>
<p>Individual after acquiring the knowledge of Computer fundamental and office automation software is able to manage all office work through computer</p> <p>Individual After acquiring skill of Financial Accounting and Accounting Packages is able to prepare account books</p>	<p>The candidate should have the knowledge of all the topics given in the curriculum in terms of the concept as well as its practical implementation.</p> <p>Acquainted with common software tools and process. Understand the context of work and trade at basic level. Familiar with local specific profession and basic numeracy with literacy skills</p>	<p>Handling of appropriate software tools. Take adequate steps. Posses soft skills required to deal with profession efficiently</p>	<p>Individual should have strong technical, analytical and problem solving, skills.</p> <p>For updating job knowledge by researching latest enhancements in the technology and software products.</p> <p>Can demonstrate routine, basic operating tasks independently</p>	<p>Office Assistants and Technical Assistants are able to deliver services to any corporate offices as per their requirements</p> <p>Desktop Publisher are able to work with any advertising firm OR start their own business</p> <p>Account Assistants are able to work in account and finance department of any requirements.</p> <p>After acquiring skill of Desktop Publishing Software individual is able to prepare and design pamphlet brochures.</p>	4
4	4	4	4	4	

#### **SECTION 4**

##### **EVIDENCE OF RECOGNITION OR PROGRESSION**

**What steps have been taken in the design of this or other qualifications to ensure that there is a clear path to other qualifications in this sector?**

This qualification has comprises both technical and analytic skills and can be linked to any qualification higher than this one, existing or to come.

Please attach any documents giving further information about any of the topics above.  
Give details of the document(s) here:

NA

#### **SECTION 5**

##### **EVIDENCE OF INTERNATIONAL COMPARABILITY**

**List any comparisons which have been established.**

**NIL**





Revised Application Documentation: Version 4 /22 DEC, 2016

## QUALIFICATION FILE – CONTACT DETAILS OF SUBMITTING BODY

### Name and address of submitting body:

NIELIT Chandigarh,

Plot No. C-134, Phase VIII, Industrial Area, Sector 72, Mohali. 160071.

### Name and contact details of individual dealing with the submission

**Name:** Sarwan Singh

**Position in the organisation** Deputy Director (Systems)

**Address if different from above** NA

**Tel number(s)** 7087235355

**E-mail address** sarwan@nielit.gov.in

### List of documents submitted in support of the Qualifications File

1. Detailed Curriculum(Attached at Annexure I)
2. Industry Validation (Attached at Annexure II)

## QUALIFICATION FILE SUMMARY

<b>Qualification Title</b>	Solar-LED Lighting Product ( Design and Manufacturing)
<b>Qualification Code</b>	NL/M/L4/C022 NIELIT/RE/2/89
<b>Body/bodies which will assess candidates</b>	Examination Cell, National Institute of Electronics and Information Technology, 6-CGO Complex, Electronics Niketan, Lodhi Road, New Delhi. 110003.
<b>Body/bodies which will award the certificate for the qualification.</b>	National Institute of Electronics and Information Technology, 6-CGO Complex, Electronics Niketan, Lodhi Road, New Delhi. 110003.
<b>Body which will accredit providers to offer the qualification.</b>	National Institute of Electronics and Information Technology, 6-CGO Complex, Electronics Niketan, Lodhi Road, New Delhi. 110003.
<b>Occupation(s) to which the qualification gives access</b>	Solar-LED Lighting Product ( Design and Manufacturing)
<b>Proposed level of the qualification in the NSQF.</b>	4

<b>Notional Learning Hours</b>	350 hours.		
<b>Entry requirements / recommendations.</b>	10 <sup>th</sup> /ITI/12 <sup>th</sup>		
<b>Progression from the qualification.</b>	<p><u>Professional:</u></p> <p>Technician (in design, supply, installation, Civil work, testing, commissioning of Solar LED Street Lighting System etc.) → Senior Technician → Service Engineer</p> <p>→ Designer → Entrepreneur (of low cost LED products for common use like Lanterns, table lamps, etc.)</p>		
<b>Planned arrangements for RPL.</b>	<ul style="list-style-type: none"> <li>• Presently only candidates who undergo training shall be assessed.</li> <li>• It will be incorporated once RPL strategy is finalized</li> </ul>		
<b>Formal structure of the qualification</b>			
<b>Title of unit or other component</b> (include any identification code used)	<b>Mandatory/ Optional</b>	<b>Estimated size (learning hours)</b>	<b>Level</b>
Introduction of light sources and their characteristics	Mandatory	70	4
Study of led and light sources	Mandatory	70	
Design of led based products	Mandatory	70	
Introduction of solar photo voltaic cells	Mandatory	70	
Installation and maintenance of solar panel	Mandatory	70	

Please attach any document giving further detail about the structure of the qualification – e.g. a Curriculum or Qualification Pack .Detailed Curriculum attached at Annexure III.

## **SECTION 1** **ASSESSMENT**

### **Name of assessment body:**

#### **Examination Cell,**

National Institute of Electronics and Information Technology  
6-CGO Complex, Electronics Niketan,  
Lodhi Road, New Delhi. 110003.

### **Will the assessment body be responsible for RPL assessment?**

Give details of how RPL assessment for the qualification will be carried out and quality assured. Presently, only candidates undergoing training shall be assessed. Later on, candidates having experience and knowledge shall be assessed. The information will be provided on finalization of such procedure.

**Describe the overall assessment strategy and specific arrangements which have been put in place to ensure that assessment is always valid, consistent and fair and show that these are in line with the requirements of the NSQF:**

The emphasis is on practical demonstration of skills & knowledge based on the performance criteria. Each OUTCOME is assessed and marked separately. Student is required to pass in all OUTCOMES individually and marks are allotted. Following assessment methodologies are used.

Written Assessment (Multiple Choice Questions)

- A. Practical Assessment
- B. Viva Voce Assessment

The assessment results are backed by following evidences.

- 1 The assessor collects a copy of the attendance for the training done under the scheme. The attendance sheets are signed and stamped by the In charge / Head of the Training Centre.
- 2 The assessor verifies the authenticity of the candidate by checking the photo ID card issued by the institute as well as any one Photo ID card issued by the Central Government. The same is mentioned in the attendance sheet.
- 3 The assessor assigns roll number.
- 4 The assessor takes photograph of all the students along with the assessor standing in the middle and with the centre name/banner at the back as evidence.

Please attach any documents giving further information about assessment and/or RPL.

### **ASSESSMENT EVIDENCE**

**Complete the following grid for each grouping of NOS, assessment unit or other component as listed in the entry on the structure of the qualification on page 1.**

**Job Role**

**Solar-LED Lighting Product Technician.  
Technician (Solar LED)**

**Title of Unit/Component:**

**(Detailed Curriculum attached As Annexure-III)**

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Assessable Outcomes	Assessment criteria for the outcome	Total Mark	Written	Practical	Vivo-voce
1. Will be able to connect multiple LEDS.	Outline fundamentals of LED & describe types of lighting sources. Measurement of various light units. Types, Behaviour of LEDs.	100			
	Connection of Multiple LEDs, wiring of multiple LEDs in series and parallel, white light production from LED	<b>Total</b>	<b>50</b>	<b>30</b>	<b>20</b>
2 Designing of LEDs considering reliability parameters	Types of LED and Light sources	100			
	Design of LED by following various Reliability parameters like Heating problem, poor electronics, fitting types, environmental factors dimming of LED, space flexibility, enhanced safety, increased, productivity, efficacy,	<b>Total</b>	<b>50</b>	<b>30</b>	<b>20</b>

	illumination, light quality, response timing, dimming, glare, light colour and colour rendering				
3 will be able to design LED based products	Design of Single transistor constant current driver, with voltage regulation, an alternative to zener diode, LED switching using LDR.	100			
	Use of various tools like temperature meter, resistance thermometer, magnifying glass etc. Benefits of LED assembly, application of LED assembly, LED bulb light, LED spotlight assembly, LED tube light.	<b>Total</b>	<b>50</b>	<b>30</b>	<b>20</b>
4 Use & connection of solar photo voltaic cells	Adv of Solar energy as renewable source. Historical Perspective of using solar energy. Concepts of solar photo voltaic cells	100			
	Working of SPV's, ratings and specifications of SPV peak voltage and voltage/current on load, ratings of PV module, specification of PV module.	<b>Total</b>	<b>50</b>	<b>30</b>	<b>20</b>
5. Installation and maintenance of solar panel	Use of tools involved in installation of systems. Follow and maintain procedures to achieve a safe working environment in line with occupational health and safety regulations and requirements and according to site policy. Avoid waste and dispose waste as per procedure. Take opportunities to use energy and materials in an environmentally friendly manner Design and Installation of solar PV system considering sizing, site surveying methods and evaluation parameters, sunlight's and direction assessment.	100			
	Installation of solar plates on holding clamp, wiring multiple PV module, wiring of solar panel to inverter,	<b>Total</b>	<b>50</b>	<b>30</b>	<b>20</b>
	Maintenance Criteria of solar panels	<b>500</b>	<b>250</b>	<b>150</b>	<b>100</b>

## **SECTION 2**

### **EVIDENCE OF NEED**

**What evidence is there that the qualification is needed?**

The scope of work includes design, supply, installation, Civil work, testing,

commissioning of Solar LED Street Lighting System including 05 years comprehensive warranty maintenance in two peripheral villages – Hirtand and Girdhartand of Bokaro Steel Plant.

LEDs are becoming popular with every passing day. High energy saving, low costs, modular designs & ease of use have make LEDs lighting 1<sup>st</sup> choice in industrial, commercial and domestic applications. So is Indian lighting market is ready to opt for LED based lighting as a 100% lighting medium, are CFL & traditional bulbs are completely out of industry, are we going to manufacture LED domestically or will be all imported. ED being a scattered industry broken into segments like, LED importers or manufacturers, drivers manufacturers or providers, lighting systems providers and solution providers, the concerns from various perspectives are different on 100% adaption of LEDs. Following are the feedbacks from some of the giants from LED manufacturers & Lighting products & solution providers on our future lighten up by LEDs.

Source: <http://electronicsmaker.com/is-india-ready-for-energy-efficient-led-lighting>

**What is the estimated uptake of this qualification and what is the basis of this estimate?**

Student uptake from Industry

**What arrangements are in place to monitor and review the qualification(s)?  
What data will be used and at what point will the qualification(s) be revised or updated?**

The Qualification is to be monitored and reviewed every two years.

The following data will be used

1. Results of assessments
2. Employer feedback will be sought post-placement
3. Student feedbacks
4. Workshops and seminar for reviewing the qualifications
5. Industry Requirements
6. Consultation/ Tie-up with Industries or Expert for review of the Curriculum.

**SECTION 3**  
**SUMMARY EVIDENCE OF LEVEL**

Level of qualification: 4

Summary of Direct Evidence:

Justify the NSQF level allocated to the QP by building upon the five descriptors of NSQF. Explain the reasons for allocating the level to the QP.

Solar-LED Lighting Product technician.					
Process required	Professional knowledge	Professional skill	Core skill	Responsibility	Level
After this course candidate will be able for developing a detailed design by analysing and understanding the requirements in terms of product specification. They are responsible for a detailed design of light emitting diode (LED) boards and systems, as per the specifications and architecture given. They work on the optimum design solution and make sure it meets specifications within boundary conditions of cost and timeline. They are also responsible for preparing test samples, test plans, design documents and to maintain test set-up in the development. On a regular basis, they interact with quality teams for validating platform, module or product designs.	After acquiring professional knowledge Solar-LED Lighting Product Design and manufacturing candidate will be able to installation and maintenance cost of the solar panels is on the higher side, these are an absolutely green way to generate electricity — free of smoke, gas and chemicals. Higher demand, cheaper materials, lower installation and maintenance costs, better policies and improved standards will surely make solar energy affordable in the near future. Also, initiatives like the Jawaharlal Nehru National Solar Mission (JNNSM) by the government of India, will lead to strengthening of the manufacturing capabilities and technology advancement, creating many more jobs.	Check the non-functional LED Light in as per standard procedure to find out the fault; dismantle the LED Light; repair the fault and reassemble the light to make it functional and <b>How to Design Solar PV System.</b>	Designer is expected to understand technical specifications of LEDs and PCBs. Basic understanding of the EMS process, its critical process parameters and ability to deal with external suppliers, particularly PCB/EMS, are some other skills that, if developed, can keep you ahead in the competition and possibly reward you with a great job. Good communication skills are also important for meetings and presentations. A design technician is expected to have strong fundamentals in electronics as well as good communication skills.	The technician is responsible for identifying and repairing faults at preliminary level.	4

## **SECTION 4**

### **EVIDENCE OF RECOGNITION OR PROGRESSION**

**What steps have been taken in the design of this or other qualifications to ensure that there is a clear path to other qualifications in this sector?**

This qualification comprises both theoretical and practical skills and can be linked to any qualification higher than this one, existing or to come. The candidates who complete this course successfully can enrol for diploma courses in solar LED product Design (EPD) as a lateral entry in some of the universities/colleges. The course is also valid in many industries as the verification from companies of countries like USA, CANADA etc.

## **SECTION 5**

### **EVIDENCE OF INTERNATIONAL COMPARABILITY**

**List any comparisons which have been established.**

The training is meant for dealers, technicians and even others that require a basic insight in how to design Solar-LED Lighting Product, such as employees of NGOs or saving banks who wish to engage in small affordable solar electrification. The primary aim is to train a network of technicians that can actually do proper installations in the field, linked to start-up or existing retailers. This way, retailers can guarantee that they do not only sell good solar systems, yet also that these are properly installed and maintained. Sometimes the technicians are employed by the retailers, sometimes they have a more free-lance relation, yet sometimes the technicians are also sales agents for the retailer

[http://macsen-pv.iter.es/pub/documentos/documentos\\_Basic\\_Tech\\_Solar\\_Training\\_manual\\_FEF\\_08\\_ENG\\_84e8a4fd.pdf](http://macsen-pv.iter.es/pub/documentos/documentos_Basic_Tech_Solar_Training_manual_FEF_08_ENG_84e8a4fd.pdf)



