NIELIT
रा.इ.सू.प्रौ.सं

National Institute of Electronics and
Information Technology (NIELIT)
NIELIT Bhawan, New Delhi

ni-msme

National Institute for Micro, Small and
Medium Enterprises (National Institute for MSME)
Yousufguda, Hyderabad

INFORMATION
BROCHURE

For admission to

Joint Certification Program of

National Institute of Electronics and
Information Technology (NIELIT)
&
National Institute for Micro, Small
and Medium Enterprises (ni-msme)

Contents

Message to the Applicants from the Director General, National Institute of Electronics and Information Technology (NIELIT)

National Institute of Electronics & Information Technology, (NIELIT), is a Premier Institution under Ministry of Electronics and IT for capacity building and skilling in the field of Electronics and Information Technology sector.

Besides imparting training in conventional areas of electronics and information technology, NIELIT is also imparting training in various emerging Technologies such as Cloud Computing, Robotics & Artificial Intelligence, Data Science, Machine Leaning, Cyber Security, Block-chain, Internet of Things etc.

Having PAN India presence through its 40+ own campuses, 800+ accredited institutes and 7000+ facilitation centres, NIELIT caters to the youth across the country. Training provided by NIELIT enhances the skills of these youths for making them employable, setting up of Startups and finding suitable & dignified livelihood with a special emphasis on North East, Jammu & Kashmir and Ladakh Regions.

Technical skill is essential for the Industrial development and Entrepreneurial skill helps in self-empowerment, job creation and overall economic development. NIELIT and National Institute for MSME (**ni-msme**) have joined hands to impart training so as to enhance the technical and entrepreneurship skills in the youth to produce the human capital necessary for the technological growth.

I am hopeful that this Joint Training Programme of NIELIT and **ni-msme** will help the youth of the country to achieve bigger roles as technocrats and entrepreneur.

With best wishes,

Dr. Jaideep Kumar Mishra
Director General
National Institute of Electronics and
Information Technology (NIELIT)

Message to the Applicants from the Director General, National Institute for Micro, Small and Medium Enterprises (ni-msme)

National Institute for Micro, Small and Medium Enterprises (**ni-msme**), Hyderabad an autonomous organization of Ministry of Micro, Small and Medium Enterprises (MSME), Govt. of India, a pioneer institute in the field of MSME is playing a major role in providing pro-business environment to foster the progress of MSME towards success and prosperity. The raison detre of this Institute is to assist the Government in formulating policies for micro, small and medium enterprises and to help the practicing and potential entrepreneurs through a host of services like training, research, consultancy, information, education and extension.

The Institute has imparted skill training to 116221 educated unemployed youth by conducting 3831 Entrepreneurship & Skill Development training programs in trades viz., IT, ITeS, BSFI, Beauty & Wellness, Baking Technology, Fashion Technology, Photography, Videography to name few by adopting the curriculum developed by sector skill councils as per the NSQF norms.

Overall numbers of employees in the electronics sector has been falling in recent years and are expected to continue to decline for the rest of this decade, with the main brunt of the reductions affecting skilled and semi-skilled employees. The numbers of professional and managerial employees is forecast to increase over the coming ten years. The balance between the relative skill levels of the workforce has changed significantly and is expected to continue to rise in the future with increasing demand for technicians and higher-level engineers.

The combination of high level technical skills and advanced commercial awareness could be seen as a new skill set crucial to the development of the sector, combining high level technical skills and the ability to apply them in practice with business acumen.

The collaboration with NIELIT is a step towards this direction that aims to support aspiring entrepreneurs to set up their own high-demand business within available resources, Government support, MSME support schemes and develop their entrepreneurial talent to generate employment by becoming "Atmanirbhar", ultimately helping India to become a self-reliant nation, Atmanirbhar Bharat.

WISHING ALL THE VERY BEST

Mrs. Glory Swarupa
Director General,
National Institute for Micro, Small
and Medium Enterprises (ni-msme)

INTRODUCTION
National Institute of Electronics and Information Technology (NIELIT)

National Institute of Electronics and Information Technology (NIELIT), is an autonomous scientific society under the administrative control of Ministry of Electronics and Information Technology (MeitY), Government of India. NIELIT is actively engaged in Capacity Building and Skill Development in the areas of IECT, FutureSkills, Cyber Law; Cyber Security; GIS; Cloud Computing; ESDM; e-Waste; e-Governance and related verticals. It offers courses both in the Formal as well as the Nonformal sectors and is also one of the National Examination Bodies which accredits institutes/ organizations for the conduct of courses in the Non-Formal Sector. NIELIT is also rolling out IT Literacy Programmes for many State Governments for its employees and the masses.

NIELIT is functioning under the overall control and guidance of the **Governing Council**. The Hon'ble Union Minister for Electronics and Information Technology (E&IT) is the Chairperson of the Council whereas Hon'ble MoS (E&IT) is the Deputy Chairperson with its members from Government, Industry, Academia and representatives of various professional bodies.

Besides the own Centres, NIELIT is also well networked through about 850+ **accredited training institutions** for training of O/A/B/C level courses and a network of about 10,200+ **facilitation centres** engaged in training of digital literacy courses making NIELIT distinctly positioned in terms of its outreach to all corners of the country and all segments of the society.

NIELIT as the HRD arm of MeitY, is making efforts to bridge the 'digital divide' through its IT Literacy Courses leading to employability of youth, especially for the marginalized section of the society. It plays an important role for skilling of youth in the area of IECT, especially in rural sectors. NIELIT has a range of Digital Literacy courses. The wide repertoire of NIELIT Courses includes: (a) Courses in the **Formal Sector** offered by the NIELIT Centres in association with State Universities/Technical Board such as **ME/ M.Tech, BE/B.Tech, MCA, BCA** programmes; Aurangabad Centre is also facilitating PhD Program in the area of Electronics (b) Courses in the **Non Formal Sector** in IT, Hardware, etc., under four levels, namely O, A, B and C Level; (c) NSQF aligned Courses in Information Technology and Electronics; and (d) **IT Literacy Programmes** for the proliferation of Digital Literacy in the country; besides specialized programmes in e-Governance, e-Waste, GST etc. targeted towards empowering the employees of the State Governments. In addition, NIELIT has also created expertise for the roll out **of customized skill development programmes**, as per specific needs of public and private sector firms.

INTRODUCTION
National Institute for Micro, Small and Medium Enterprises (ni-msme)

National Institute for MSME (ni-msme), the pioneer institute in the field of MSME is playing a major role in providing pro-business environment to foster the progress of MSME towards success and prosperity. The raison detre of this Institute is to assist the Government in formulating policies for micro, small and medium enterprises and to help the practicing and potential entrepreneurs through a host of services like training, research, consultancy, information, education and extension.

Set up in 1962, **National Institute for MSME** (**ni-msme**) has made valuable contributions by creating an impressive record of achievements beyond the Indian shores, enabling other developing countries to get the benefit of the Institute's facilities and expertise. The Institute is associated with prestigious world bodies such as UNIDO, UNESCO, ILO, CFTC, UNICEF, AARRO and GIZ.

ni-msme's intellectual activities are pursued by its four Schools of Excellence, viz., School of Enterprise Development (SED), School of Enterprise Management (SEM), School of Entrepreneurship & Extension (SEE) and School of Enterprise Information & Communication (SEIC).

The Institute is having theme focused Centers like National Resource Centre for Cluster Development (NRCD) for helping the MSMEs by implementing the Cluster Development Approach. At present, the Institute is involved in development of more than 50 Rural, Artisan, Industry clusters across the nation and supporting to KVIC, Coir Board, NBCFDC,NSFDC and various state Governments for development of Handlooms, Handicrafts, Food Processing and Textiles Clusters. Intellectual Property Facilitation Centre (IPFC) provide IP advisory services to various research and academic institutions, Clusters, SMEs, Start-ups & Individual innovators. Around 150 SMEs & Start-Ups got benefited from IP registrations such as Trademarks, Patents and designs etc. Goods & Services Tax Cell (GSTC) provide GST registrations and tax compliances, Entrepreneur Development Cell (EDC) and Livelihood Business Incubator (LBI) supports MSMEs for creating a favorable ecosystem for entrepreneurial development in the country. The Institute stores and supplies information that helps to make a successful entrepreneur who is well versed in the intricacies of business and can participate in business activities intelligently and diligently through its Small Enterprises National Documentation Centre (SENDOC). The Institute has been publishing Small Enterprise Development and Management Extension (SEDME) Journal since 1974 in the domain of small enterprises, attracting contributors and users not only from every corner of the country but also from other developing as well as developed nations.

The Institute has trained 5,40,877 participants by organizing 16,106 programmes for Officials from various Ministries of Govt. of India and State Governments. **ni-msme** has also imparted skill training to 1,16,221 educated unemployed youth by conducting 3831Entrepreneurship & Skill Development training programs (ESDPs). The Institute is implementing ITEC Scheme of Ministry of External Affairs, Govt. of India since 1967 and trained more than 10,350 International Executives from 143 developing countries. **ni-msme** has also completed more than 945 research and consultancy projects.

The management of the Institute rests with the Governing Council appointed by the Government of India. The governing body acts through the Director General. The present Director General is **Ms. S. Glory Swarupa**.

CERTIFICATION PROGRAMMES

Name of the Course: Entrepreneurship Development in Solar-LED Lighting Product (Design and Manufacturing)

The courses are divided into 2 parts, online and offline. The theory part will be conducted online by NIELIT and **ni-msme**. The practical classes will be conducted physically at NIELIT Centers. List of NIELIT Resource Centers is available in Annexure-I.

Admission to the Programmes: Admission to the programmes is normally made on the basis of first come, first serve. Applications are invited from candidates by advertising the programmes on website of all NIELIT Resource Centres and ni-msme.

Eligibility and Duration of programmes:

Name of the Programme	Eligibility	Duration of course covered by NIELIT (in hrs)	Duration of course covered by ni-msme (in hrs)	Duration (in hours)
Entrepreneurship Development in Solar -LED Lighting Product (Design and Manufacturing)	10th, ITI	350	150	500

Conduct of classes: Classes will be conducted in blended mode. Theory classes would be conducted online and the Practical classes would be conducted offline at the NIELIT Centre in Patna, Aurangabad, Ajmer, Chandigarh, Kokrajhar, Imphal and Gorakhpur

*Candidates in the final year of their programmes and who expect to complete their Eligibility/ qualifying degree requirements before the starting of new batch, are eligible to apply for admission.

Assessment: Online proctored exams will be conducted after the completion of course. The practical exams will be conducted at the NIELIT Centers. Certificate will be awarded after getting the passing marks as fixed by the organization. A student will be allowed for two extra attempts in case, s/he is unable to pass in the first attempt.

a) **Course Fee Payable –**

Rs 12,500.00/- + Additionally, GST (currently @18%) applicable will be charged.

(b) **Other Fees**

Table II - Fees other than the course Fees

Components	Course Fees
Registration fee for exam (in Rs.)	200
Exam fee for Theory part (in Rs.)	1000
Exam fee for Practical part + Project (in Rs.)	300
Additionally, GST (currently @18%) applicable will be charged.	
*If a major project is the part of the syllabus.	

GENERAL GUIDELINES

a. The minimum eligibility criteria indicated above fo reach programme is only an enabling clause. NIELIT Centers and National Institute for MSME may fix his/her criteria at the time of shortlisting for admission, keeping in view the number of candidates, minimum background expected to cope with the programe etc.

b. Candidates who are in the final year of their qualifying examination can be considered for admission only if they complete the requirement of their final examination including Viva-Voceby the last date of admission given in important dates above.

c. Candidate must inform NIELIT Centre where he is registered, through e-mail by the date of admission, if the requirements of their qualifying degree including Viva-Voce, if any, are not met by this date. Failure to inform the NIELIT HQs about non- completion shall result in for feature of entire fees deposited by the min addition to the cancellation of their admissions.

d. Application incomplete, in any respect, is liable to be rejected.

e. A provisional list of applicants selected for admission will be displayed on both the NIELIT Resource Centre and ni-msme notice board/ website within a day of the last date of registration. The selected candidates would be required to pay the full fee or the first instalment of fees (if resource centres permits) within one week of the publication of the provisional list of candidates.

NIELIT Resource Centre's Address

NIELIT Patna	Bihta Kanpa Road, Near IIT Patna Main Gate, Amhara, Bihta, Bihar 801106. Phone: 0612 221 9134
NIELIT Chandigarh	NIELIT Plot no. 925, Sector 30B, Chandigarh, 160030 Phone: 0172 265 0121
NIELIT Aurangabad	Dr. B.A.M. University Campus, Aurangabad, Maharashtra 431004 Phone: 0240 298 2021
NIELIT Ajmer	Village-Kohda, Kota Road,Tehsil-Kekri, District-Ajmer, Pin-305408 (Rajasthan), Phone: 090969 85835
NIELIT Gorakhpur	NIELIT GORAKHPUR MMM University of Technology Campus, Deoria Road, Gorakhpur, Uttar Pradesh, 273010. Phone: 0551 227 3371
NIELIT Kokrajhar	J. D. Road, Tengapara, Above SBI North Kokrajhar Branch, Kokrajhar - 783370, ASSAM. Phone: 03661-271267/271268
NIELIT Imphal	Akampat P.O. Box-104, Imphal, Manipur -795001 Phone: 0385-2454109

APPLICATION PROCEDURE

Submission of Application is only through online procedure. Candidates are NOT required to send hard copy of the application form and bank challan. Candidates may complete prelimentry registration by accessing the following link: nielitpatnaonline.in/solarled

After the release of the provisional list by the resource centres, Candidates have to fill their complete details and pay the required fees online.

REFUND OF FEES

Refund of fees would be decided by the concerned NIELIT Resource Centres.

CONTACT TELEPHONE NOS AND EMAIL-IDS

Contact Person	Contact number	E-mail ID
Shri Ankit Kumar	9074841785	ankit@nielit.gov.in

ANNEXURE I

S.No.	Name of the Programme	Eligibility	NIELIT Resource Centers
i)	Entrepreneurship Development in Solar-LED Lighting Product (Design and Manufacturing)	10th, ITI	Patna, Aurangabad, Ajmer, Chandigarh, Kokrajhar, Imphal and Gorakhpur

ANNEXURE II

Syllabus: Entrepreneurship Development in Solar-LED Lighting Product (Design and Manufacturing)

Unit 1

Outline the fundamentals of LED & describe types of lighting sources. Measurement of various light units. Types and behavior of LEDs. Connection of Multiple LEDs, wiring of multiple LEDs in series and parallel, white light production from the LED.

Unit 2

Types of LED and Light sources. Design of LED by following various Reliability parameters like the Heating problem, poor electronics, fitting types, environmental factors dimming of LED, space flexibility, enhanced safety, increased, productivity, efficacy, illumination, light quality, response timing, dimming, glare, light color, and color rendering.

Unit 3

Design of Single transistor constant current driver, with voltage regulation, an alternative to Zener diode, LED switching using LDR. 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.

Unit 4

Advantages of Solar energy as a renewable source. Historical Perspective of using solar energy. Concepts of solar photovoltaic cells. Working on SPV's, ratings, and specifications of SPV peak voltage. voltage/current on load, ratings of module, specification of PV module.

Unit 5

Use of tools involved in the 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 of waste as per the 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, and direction assessment. Installation of solar plates on holding clamp, wiring multiple PV modules, wiring of the solar panel to inverter, Maintenance Criteria of solar panels.

Unit 6 & 7

Government MSME support schemes, Marketing, e-commerce, Social Media Marketing, Brand Management, Financial Management, e-filing and GST procedures, Intellectual Property Rights, Logistics, National and International Trade documentations and procedures, Detailed Project Report Preparation, and Firm Registration Process.