Project Report

Mobilization, Skill Development Training & Certification of Women in Optical Fiber Splicer Course through CSCs

Phase-II

About CSC SPV:-

CSC e-Governance Services India Limited is a Special Purpose Vehicle (SPV) incorporated as a Company under the Companies Act 1956 with an object to provide a range of services to support the Common Service Centre, which are centers, networks, comprising rural and urban Information Technology enabled delivery outlets which are established under CSC Scheme and Monitored by CSC SPV and are integrated service delivery channel for transmission of public and private services, information and knowledge to citizen and are ICT enabled delivery points for offering various e-services; and to do all incidental acts and things necessary for the attainment of the foregoing objects forming part of Digital India program. These CSCs are Owned and operated by Local Village level entrepreneurs (VLE)

CSC SPV is delivering services through an online portal named Digital Seva Portal, "digitalseva.csc.gov.in". There are presently more than 4.5 lakhs common service centres across India. The digital Seva Platform enables CSC SPV, a Special Purpose Vehicle (SPV), to Monitor and Implement a CSC Scheme that facilitates the progressive migration of services to an e-Governance platform and that enables the delivery of services through the CSC network which is the front end service delivery points of Services.

Common Services Centers (CSCs) are the strategic cornerstone of the Digital India program. CSCs are envisaged as assisted front-end ICT (Information and Communication Technology) enabled centers for delivery of various G2C (Government to Citizen) and other B2C (Business to Citizen) services to the citizens. These are managed and operated by a local skilled entrepreneur. The service portfolio including G2C services enables a sustainable rural enterprise providing employment opportunities to the local population.

About Commonwealth Educational Media Centre for Asia (CEMCA)

Commonwealth Educational Media Centre for Asia (CEMCA) a Regional Centre of Commonwealth of Learning (COL), Vancouver, Canada is engaged in Skill Development for a better livelihood for youth through Vocational Skill Development. CEMCA is into this segment to assist governments and institutions to expand the scale, efficiency, and quality of learning by using multiple media in the open, distance, and technology-enhanced learning. CEMCA also works to develop sustainable models for Community Radio Stations and develops new models of delivery of Open Schooling.

CSC's Association with CEMCA

As part of CEMCA's strategic plan 2021-27 referring to long-term outcome 3: **"Increased, equitable and inclusive access to quality learning opportunities, especially for women, girls and PWD"** CEMCA is pledged to upskill and enhance employability of PwDs and Women. To

achieve it, CEMCA extended its support to **CSC e-Governance Services India Limited** for conducting Online Skill development training & certification of 2500 Women(Phase II) in the Optical fiber Splicer course through CSCs all over India.

CSC's COMPREHENSIVE SKILLING MODEL

CSC SPV gives stress on the skilling ability of youth as better training and learning opportunities with the approach to holistic development (soft + technical) can help India become a truly skilled nation. CSC SPV addresses the pressing needs of Skilling India's youth for employment, entrepreneurship, and community enterprise. It reaches into communities, develops skills of people from financially challenged backgrounds, and acclimatizes them to the changing work environment. The core philosophy is to train candidates on courses that would help in creating and supplying trained manpower to the industrial spectrum as well as develop entrepreneurial talent.

CSC SPV has initiated Skill Development Courses with the following vision:
- Providing the skill training in rural areas, locally accessed by rural youth
- Getting them certified
- Making them eligible for suitable employment opportunities or to start livelihood in their locality itself

The CSC SPV supports:
- Reaching out to potential candidates through their presence across the country
- Registration of Candidates followed by Scheme information dissemination
- Consume skill course: e-Skilling and Hybrid Model of Skilling
- Job opportunities, Self-employment, Placement Linkages

About Optical Fiber Splicing

Optical Fiber splicing is the process of joining two or more filers together. Whether you're deploying a new Fiber optic network or expanding an existing network, you must ensure your fibers are properly spliced to avoid network disruptions. This process helps the Telecom companies properly manage the optical Fiber network. In the last five years, 1.5 lakh Village Panchayats have been connected with an Optical Fiber network. And, in the next 1,000 days, all villages in the country will be connected with an optical Fiber network (According to TOI 15 Aug 2020).

Optical Fiber splicer is responsible for ensuring efficient splicing of the Optical Fiber cables and supports in optical Fiber installation and in carrying out Fiber testing using OTDR and power meter.

The objective of the course:

As CSC VLEs and their operators have been given responsibility for the maintenance and

upkeeping of Bharat Net infrastructure in the villages. We propose for their training on the aspects like Wi-Fi access points, optical Fiber splicing, and maintenance through online mode across the country by the SSC certified trainers from the relevant industry. CSC VLEs and the operators shall be facilitated with Digital training content provided by SSC in a self-paced mode and also through live classes. Following the training, skill competency certificates shall also be provided by SSC after a successful online assessment

Learning outcome:

It has been clear since the outset of this training that demand for Optical Fiber Splicer is high in the market. Many new as well as old organizations are using OFS technicians as high-demand personnel as it helps the organization in smooth operations. Rest market is also seeing high demand and many strategies are planned. Indeed this project was conducted primarily to compare notes on what is currently being done.

Participants were focused on the latest techniques to be used in the OFS industry along with behavioral skills were also drilled in to ensure a better and more impactful technician to be produced for this industry.

Need of the course:

National Optical Fiber Network (NOFN) will connect to Gram Panchayats wherever necessary. The Dark Fiber network thus created will be lit by appropriate technology thus creating sufficient bandwidth at the Gram Panchayats. Thus, the connectivity gap is filled. Non-discriminatory access to the NOFN will be provided to all the Service Providers. These service providers like Telecom Service Providers (TSPs), ISPs, Cable TV operators, and Content providers can launch various services in rural areas. It will ensure adequate availability of skilled manpower to boost growth and productivity in the Telecom sector soon.

Course Outline:
   1. Introduction:
      1.1   Explaining various types of Optical fiber and their applications
      1.2   Imparting knowledge of working principles of Optical fiber and Fiber-optic communication system
      1.3   Making the candidate understand the main characteristics of Optical Fiber like attenuation and bending
      1.4   Acquiring the basic information on Splicing, types of splicing, and splicing operation
      1.5   Understanding the importance of documenting the steps for splicing
      1.6   Learning to carry out route inspection, cable laying procedure, detailed checks

   2. Key Learning:
      2.1   Acquiring the basic information on Splicing, types of splicing, and splicing operation
      2.2   Understanding the importance of documenting the steps for splicing

2.3   Learning to carry out route inspection, cable laying procedure, detailed checks

3. Employability and Entrepreneurship skills/ Soft Skills
   3.1   Understand the concept, importance, and characteristics of entrepreneurship
   3.2   Benefits of effective leadership
   3.3   List down different parts of the computer
   3.4   Understand the main applications of MS office.
   3.5   Understand about Internet and Network
   3.6   Practice how to type effectively
   3.7   List down the importance of listening skill
   3.8   Practice effective listening skills
   3.9   Use effective speaking skills in your role
   3.10   Demonstrate reading and keep yourself updated on the latest news
   3.11   Practice effective writing skills
   3.12   Digital Literacy
   3.13   Learning the benefits of saving money

4. Undertake splicing of optical fiber
   4.1   Acquiring the basic information on Splicing, types of splicing, and splicing operation
   4.2   Understanding the importance of documenting the steps for splicing
   4.3   Learning to carry out route inspection, cable laying procedure, detailed checks
   4.4   Educating the importance of safety guidelines and their compliance
   4.5   Understanding the testing effectiveness of the splice through OTDR and power meter tests
   4.6   Learning about various testing tools and equipment, field tests
   4.7   Understanding the importance of documenting the testing procedure
   4.8   Educating the importance of safety guidelines and their compliance
   4.9   Acquiring knowledge about personal protective equipment like safety Harness, helmets, gloves, goggles, earplugs, nose masks, etc., and their application under different working conditions.

5. Installation & Commissioning of Optical fiber cables (OFC)-
   5.1   Coordinating trenching cable laying, jointing, and cable blowing activities.
   5.2   Perform preventive and corrective maintenance tasks on Fiber link.
   5.3   Find Fiber breakdowns, and loss on joints, cable, and connectors.
   5.4   Checking the duct joints
   5.5   Appropriate disposal of the cut fibers, sleeves, and cable pieces.
   5.6   Measuring the distance, fiber attenuation (dB/km), event loss, link loss, and reflectance using OTDR.

6. Program Wrap-up
   6.1   Understand what an interview is?
   6.2   Develop the skills to participate in an interview effectively
   6.3   Know commonly asked questions in an interview
   6.4   Revise and integrate the learning of the training program

OFS Training Program – Delivery

The OFS Training Program was launched on Oct 21, 2021. In this training program, Women candidates were registered from 45 CSC centers in 14 states across the country.

The OFS Training Program consisted of the following:
- The OFS Training held for 28 hours
- 24 hours of self-study through Digital content
- 4 hours of Virtual Classroom sessions by trained faculty
- Practice Assessments after every module and two complete Practice Assessments at the end of the Training Program

Education Background :

Sr. No.	Highest Education	Total Numbers of Women Candidates
1	Up to 10th	54
2	11th – 12th	2025
3	Diploma	16
4	Graduate	182
5	ITI	10
6	Postgraduate	40
7	Undergraduate	173
Total		**2500**

Difficulties faced:

Since the project was quite new to CSC SPV, there was no such hurdle that was faced by CSC SPV except in the below-mentioned areas:
- Convincing Women for this course was the area that was quite constrained as it was very unfamiliar to these women.
- The language of the content was the obstacle to the candidates who were not equipped with Hindi and English properly.

Future improvement in methodology and implementation:

Being into the project there were several areas which are sought to be improvised in the terms of methodology and implementation. A few are mentioned below:
- Practical sessions to be focused on in the context of getting a good learning outcome.
- More VLEs are to be added from the rural part of the country to connect them with a highly demanded professional course.

Executed Activities:

Since CSC SPV has a wide outreach in the country even in the remotest areas, it had been quite easy for CSC SPV to mobilize the candidates. Those states were focused on mobilizing the candidates where trained youths are required for Bharat Net Project.

CSC SPV had a detailed and clear strategy to make this project a success and executed it with a team of dedicated professionals. Choosing the right person for the defined job as per the capabilities made this project come to an end with satisfactory success. VLEs were ensured a helping hand from time to time for maintaining smooth coordination with the candidates. Coordination with SSC was made in a timely manner for closing the project in the timeframe.

Assessment & Certification Process
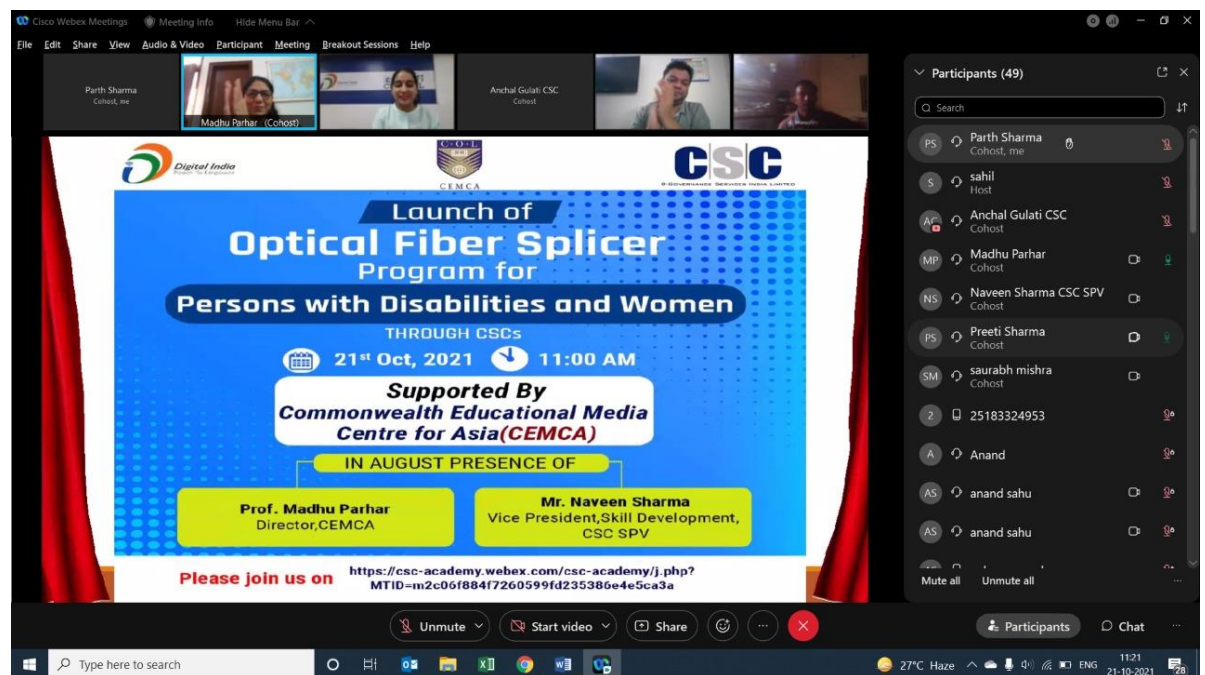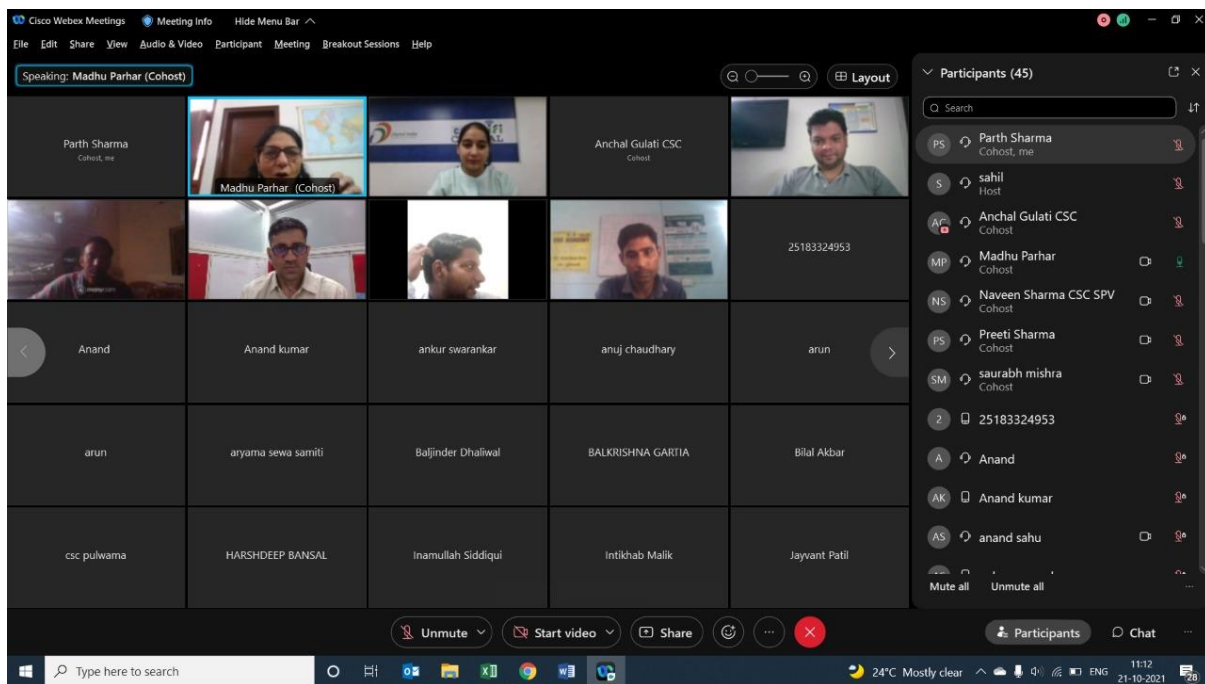- Candidates login with their respective credentials on https://essci.skillstrainer.in
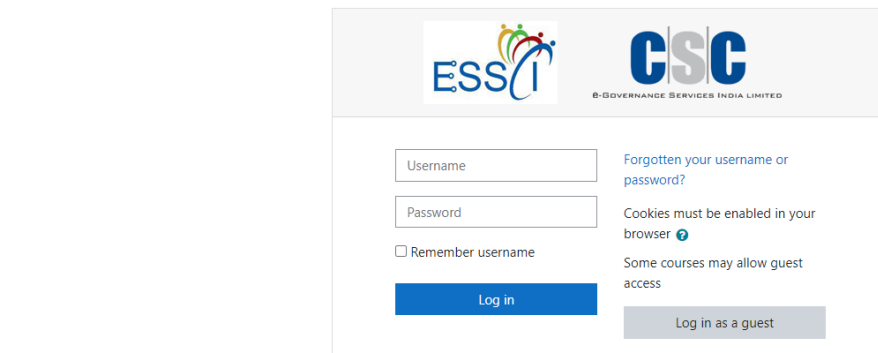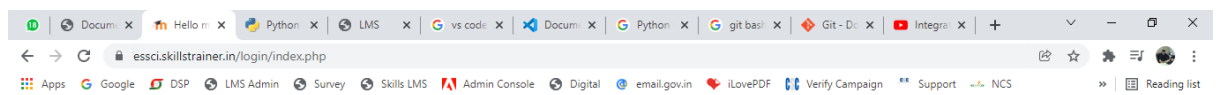
- Click on Final assessment
- Attempt all 30 questions and click on Submit
- Certificate generated (candidate can download the certificate)

Outcome/Benefit:
1. Maximize system performance and reliability by learning today's Splicing techniques.
2. Be aware of current industry standards and become a trusted resource for your customer.

3. Gain customer confidence by ensuring the integrity of their Fiber splicing abilities and support.
4. SSC Certificate remains on electronic record and can be confirmed and reissued at any time.
5. This Certification is Nationally Recognized.

A glimpse of the launch of the Optical Fiber Splicer Program for PwDs & Women in support of the Commonwealth Educational Media Centre for Asia (CEMCA)

A glimpse of the virtual OFS training:

A glimpse of OFS Assessment:

Sample Certificates


Certificate

This is to certify that

Ms. Sushma

has successfully completed the Training for the Job Role of

Optical Fiber Splicer (ELE/TEL/Q6400) - Level 3

Issued by: Electronics Sector Skills Council of India

Date of Issue: 24 May 2022

Institution Name: CSC e Governance Services India Limited

Enrollment No.: CSC/ESSCI/CEMCAWOM/OFS0064/JH/02508

Mr. Piyush Chakraborty
Officiating Head
Electronics Sector Skills Council of India

Certificate

This is to certify that

Ms. Shakuntala

has successfully completed the Training for the Job Role of

Optical Fiber Splicer (ELE/TEL/Q6400) - Level 3

Issued by: Electronics Sector Skills Council of India

Date of Issue: 24 May 2022

Institution Name: CSC e Governance Services India Limited

Enrollment No.: CSC/ESSCI/CEMCAWOM/OFS0064/JH/02507

Mr. Piyush Chakraborty
Officiating Head
Electronics Sector Skills Council of India

Total Female Candidates enrolled - 2500

Total Candidates Enrolled State wise-

State	No. of Candidates
Uttar Pradesh	2240
Maharashtra	124
West Bengal	107
Jharkhand	12
Kerala	5
Haryana	3
Uttarakhand	3
Himachal Pradesh	2
Assam	1
Jammu and Kashmir	1
Sikkim	1
Tamil Nadu	1
Grand Total	**2500**
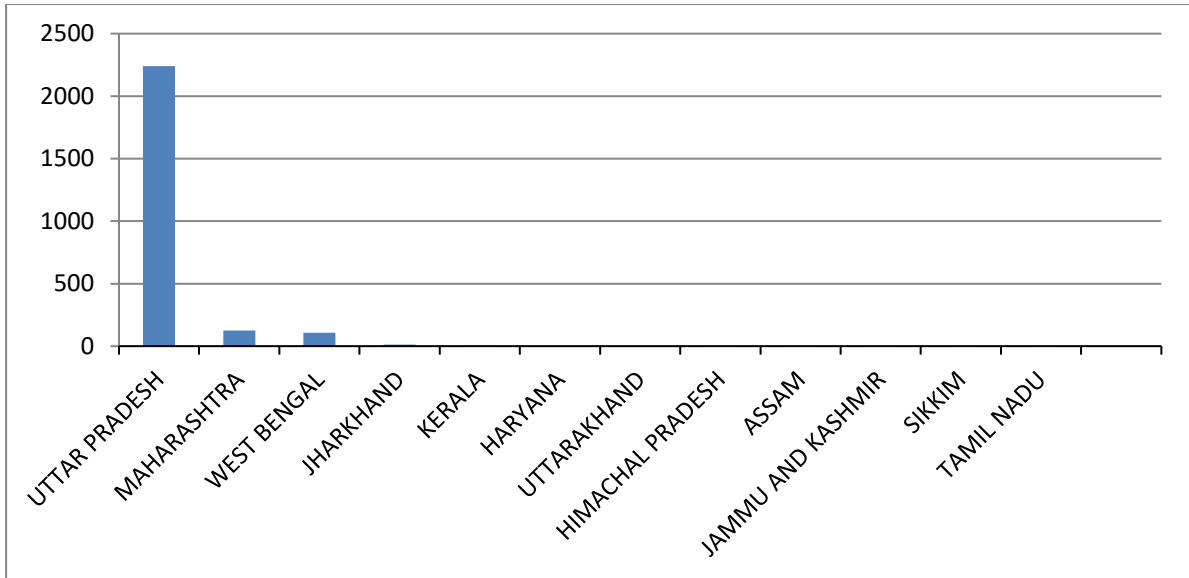
Result:

Result	Count
Pass	2500

Percentage-wise result:

Marks (%)	No. of Candidates
90%-100%	1514
80%-90%	530
70%-80%	212
60%-70%	185
50%-60%	59
Total	**2500**
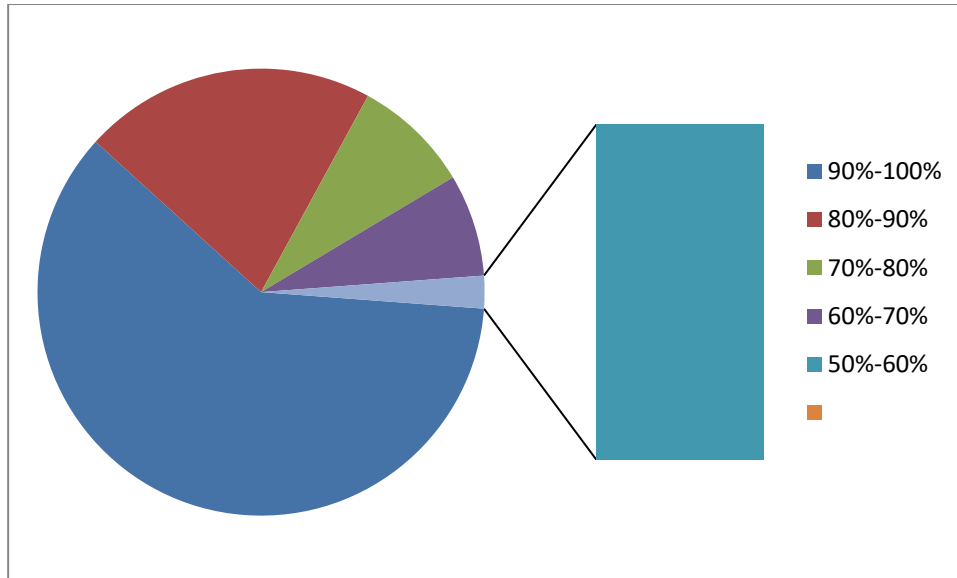
Success Story:

Shivani

The transformation of a girl from a nervous to a confident girl was witnessed in the training. A daughter of a small shopkeeper got an opportunity to get OFS training and this has made an impactful change in their lives. Shivani lives in Bareily and has completed 12th from State Board came to CSC Skill Center and got to know about OFS course from CEMCA and CSC Academy, that enlightened her thinking towards the life and she completed the training. She stated," Taking admission in the OFS training program was a life-changing step in her life. She has seen herself changing from introvert to extrovert and found herself employable." She is very thankful to CEMCA and CSC Academy.

Ashma Khatun

Being a girl from a hand-to-mouth family Ashma faced a lot of difficulties to pursue her education but somehow she managed to complete her 12th standard and now she was clueless about the next step. One of her friends told her about the OFS training program and she visited CSC Academy and took admission to the program. She is very happy after completing the training and is ready to conquer the difficulties that her family is facing up. She is thankful to CEMCA and CSC Academy for bringing this kind of training into her life.