Project Report

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

*Phase-I*
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 is a network 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 programme. 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 lakhs common service centers across India. The digital Sewa 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 a strategic cornerstone of the Digital India programme. 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 open, distance and technology-enhanced learning. CEMCA also works to develop sustainable models for Community Radio Stations, and also develop new models of delivery of Open Schooling.

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 create and supply trained manpower to the industrial spectrum and 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**

Optic 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 related to an Optical Fiber network. And, in the next 1,000 days, all villages in the country will relate to 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 maintaining and keeping 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 through live classes. Following the training, skill competency certificates shall also be provided by SSC after a successful online assessment

**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 shortly

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 Acquiring knowledge about personal protective equipment like safety Harness, helmet, gloves, goggles, earplugs, nose masks etc., and their application under different working conditions.
4.6 Understanding the testing effectiveness of the splice through OTDR and power meter tests
4.7 Learning about various testing tools and equipment, field tests
4.8 Understanding the importance of documenting the testing procedure
4.9 Educating the importance of safety guidelines and their compliance
4.10 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 Centres 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:**

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Highest Education</th>
<th>Total Numbers of Women Candidates</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>11th – 12th</td>
<td>2238</td>
</tr>
<tr>
<td>2</td>
<td>Diploma</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>Graduate</td>
<td>139</td>
</tr>
<tr>
<td>4</td>
<td>ITI</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>Postgraduate</td>
<td>34</td>
</tr>
<tr>
<td>6</td>
<td>Undergraduate</td>
<td>86</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>2500</strong></td>
</tr>
</tbody>
</table>

**Assessment & Certification Process**
- Candidates log in with their respective credentials on [https://essci.skillstrainer.in](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:

Bhadra, Rajasthan, India
Nohar - Bhadara - Hissar Toll Rd, Bhadra, Rajasthan 335501, India
Lat 29.106424°
Long 75.172017°
07/12/21 01:00 PM
Sample Certificates

Certificate

This is to certify that

Vaishali Aher

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: 22 March 2022
Institution Name: CSC e Governance Services India Limited
Enrollment No.: CSC/ESSCI/CEMCAWOM/OF680053/MH/92191

Mr. Piyush Chakraborty
Officiating Head
Electronics Sector Skills Council of India
Certificate
This is to certify that
Priyanka Ahire
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: 22 March 2022
Institution Name: CSC e Governance Services India Limited
Enrollment No.: CSC/ESSCI/CEMCAWOM/0FS0011/MBI/00461

Mr. Piyush Chakrabarty
Officating Head
Electronics Sector Skills Council of India

Certificate
This is to certify that
Pranjali Ahire
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: 22 March 2022
Institution Name: CSC e Governance Services India Limited
Enrollment No.: CSC/ESSCI/CEMCAWOM/0FS0011/MBI/00441

Mr. Piyush Chakrabarty
Officating Head
Electronics Sector Skills Council of India
Total Female Candidates enrolled - 2500

Total Candidates Enrolled State wise:

<table>
<thead>
<tr>
<th>State</th>
<th>No. of Candidates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uttar Pradesh</td>
<td>816</td>
</tr>
<tr>
<td>Rajasthan</td>
<td>304</td>
</tr>
<tr>
<td>Haryana</td>
<td>277</td>
</tr>
<tr>
<td>Jammu And Kashmir</td>
<td>269</td>
</tr>
<tr>
<td>Odisha</td>
<td>198</td>
</tr>
<tr>
<td>West Bengal</td>
<td>167</td>
</tr>
<tr>
<td>Maharashtra</td>
<td>150</td>
</tr>
<tr>
<td>Punjab</td>
<td>116</td>
</tr>
<tr>
<td>Jharkhand</td>
<td>100</td>
</tr>
<tr>
<td>Madhya Pradesh</td>
<td>92</td>
</tr>
<tr>
<td>Assam</td>
<td>4</td>
</tr>
<tr>
<td>Chhattisgarh</td>
<td>4</td>
</tr>
<tr>
<td>Bihar</td>
<td>2</td>
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<tr>
<td>Karnataka</td>
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Result:

<table>
<thead>
<tr>
<th>Result</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pass</td>
<td>2500</td>
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</table>
Percentage-wise result:

<table>
<thead>
<tr>
<th>Marks (%)</th>
<th>No. of Candidates</th>
</tr>
</thead>
<tbody>
<tr>
<td>50-75%</td>
<td>231</td>
</tr>
<tr>
<td>76-90%</td>
<td>828</td>
</tr>
<tr>
<td>91-100%</td>
<td>1441</td>
</tr>
</tbody>
</table>

Success Story:

**Sujata**

The happiness can be felt on Sujata’s face who is coming from a small village. She is overwhelmed while elaborating her feelings about the course. She said, “This is the course that changes my life and has positively impacted my life.” She and her family are thankful to CEMCA & CSC Skill Center for providing this course.

**Pooja Rani**

Girls are no less than boys these days and it is proven by Pooja Rani who has completed the OFS course from CSC Skill Center Hisar. She stated, “For a shy and introvert girl like me, it was difficult to cope with the outside world, but the training boosted the confidence and I noticed a great change in me.” These words are enough to express the importance of these kinds of training in society. Pooja is thankful to CEMCA and CSC Skill Center.