**Social Work and Research Centre (Known as Barefoot College)**

**Training Illiterate/semi-literate Rural Women on Solar Electrification and rooftop rainwater harvesting**

**TRAINING CURRICULUM**:

A five-month Solar Energy Curriculum of Solar Electrification of poor remote households for Domestic Lighting in remote inaccessible rural area and rural livelihood trades.

The trainees and trainers are being self-taught by each other at the Barefoot College. The following a five-month solar electrification practical syllabus is to be learnt by the rural semiliterate women in the World:

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| **Month** | **Solar** | **Enriche** | **Digital** |
| **1** | * Introduction of Solar Photovoltaic Panel (SPV) lighting system, solar electronic workshop tools and equipment and rural livelihood activities.
* General concept of SPV Panel, which generates electricity for lighting when it is exposed to sun light and maintenance of the battery, how essential is it for a Solar Unit to accumulate solar power for lighting in the night.
* Understanding of the colour coding scheme for finding resistance values for solar lantern circuit.
* Proper Connections of SPV to Battery and electronic charge controllers. (Parallel & Series)
* Knowledge of Printed Circuit Boards (PCB) for lamp, inverter, to change Direct Current (DC to Alternate Current (AC), for LED lamps and charge controllers for controlling under and above current supply to battery and lighting units.
* Assembling of the lamp circuit, name, and function of the various components of the lamp, fixing electronic components on the lamp circuit, soldering PCB connection and checking its efficiency, testing of required flow of current in the circuit for shining LED.
* Functioning and use of the Multimeter and Circuit Testing Unit.
 | * Orientation session in Enriche section.
* Conducting Baselines with the International solar trainees.
* Workshop on the Self-Awareness Module. It takes the women on an awareness, self-confidence building and leadership journey. This allows them to map their aspirations and initiate establishing a path to achieve those aspirations.
* Workshop on understanding Gender, its construction and stereotypes in our lives and society and working towards bringing about a change by deconstructing them. It is a part of their self-awareness journey which gives them a new direction to think and realize their own worth and true potential.
 | * Introduction to Digital Devices (iPad & Smartphone)

iPad parts name, Power button, Home Button, Speaker grills, Sound buttons (Up and down buttons), Headphone jack, Front camera and back camera, SIM Card slot, touch screen, how to charge an iPad (+ lightning cable - both sides + adaptor) They must never use duplicate/fake cable or adaptor. Only use Apple cable and Apple adaptor.* Common Actions on the iPad.

How to Switch On the iPad, How to Switch Off the iPad, how to unlock the iPad, how to swipe on the screen in iPad* Camera

How to use the camera (front / back), How to click the photo, how to make the videos, how to do the time lapse* Assignment

Test about all objectives  |
| **2** | * Training on the Solar Lantern
* Knowledge of the different electronic components used in the Solar Lantern
* Solar Lamp circuit assembling and fabrication
* Solar lantern circuit assembling
* Testing the circuit in the Solar Lamp and the Solar Lantern
* Repair and maintenance of the Solar Lantern in the field.
 | * Workshop on the Financial Inclusion Module. It provides them the understanding of basic principles of budgeting, opening a bank account, debt, loans, and savings, leading to informed decisions on household finance.
* Workshop on the Healthy Living Module. Awareness around overcoming social barriers and myths to enable an improved understanding of one’s body, hygiene, reproductive health, and overall nutrition. Leading women towards body positiveness and culturally relevant healthy lifestyle.
 | * photo album

How to delete the photo album and video,How to delete recently deleted unused photos and videos from recently deleted folder* photo booth

How to use the photo booth (Front and back), How to the use different effects in photo booth,* What the use of clock

How to Switch On the iPad, How to Switch Off the iPad, how to unlock the iPad, how to swipe on the screen in iPad* Assignment

Test about all objectives  |
| **3** | * Independent fabrication practice begins with circuits of solar lantern, charge controllers and lamp units in the training period by each trainee.
* Training on Solar Fixed Unit which includes wiring of solar lantern and Charge controller circuit assembling.
* Understanding of Volts and Ampere and how to measure it.
 | * Workshop on the Entrepreneurship Module. Understanding Operational Efficiency related to sale of products (specific to solar products), Sales & Marketing, Pricing Strategy, Building Customer Relations, and Entrepreneurial Abilities.
 | * About settings

How to set the Wallpaper, About Wi-Fi icon, how to connect & Dis connect Wi-Fi, About Bluetooth icon, How to on-Off it* Air drop

how to Air drop in iPad* Air Paly

How to connect & Disconnect iPad with LED TV* Assignment

Test about all objectives  |
| **4** | * Independent fabrication practice on charge controller, solar LED lamp and solar lantern continues.
* Understanding wiring and installation process of Home lighting system and REW.
* Setting-up of a Solar Power Supply Unit of 300watts for Rural Electronic Workshop and its regular repair and maintenance.
* Familiarization with the maintenance of the Solar Power Plant- cleaning the solar panels and battery, measuring gravity of the battery.
* Practical exercises- how to put panels in parallel and series connection.
 | * Under entrepreneurship Module, trainees are also motivated to conduct a market for 4 hours where they sell the product they made with the locally available material. These products could be- food items, jewelry, or handicrafts. It reaffirms their learning.
* Workshops on basic Rights and Responsibilities related to issues such as equality, education, health, domestic violence, and child marriage.
 | * **YouTube**

How to use YouTube, how to open enrich channel, how to share link, how to download video and where can watch offline downloaded videos * What’s app

Use of what’s app, how to Chet, how to do video & audio calls, how to share photos & Videos, about what’s app seating * Assignment

Test about all objectives  |
| **5** | * Independent fabrication practice on charge controller, solar LED lamp and solar lantern continues.
* Assembling and testing the solar home lighting units.
* Practical installation of the solar panels and connections to the battery.
* Practical training in connecting charge controllers and invertors.
* Workshops on how to establish a Rural Electronic Workshop (REW).
* Familiarization with the fault-finding process and testing of the Charge Controller, Solar LED Lamp, Solar LED lantern circuits.
* Knowledge of packing and forwarding of solar lighting units fabricated by them in training to be shipped to their countries and unpacking before installation in their communities.
 | * Workshops to fosters awareness of local and global environmental interconnectedness. Information on environmentally friendly practices such as kitchen waste management, composting, rainwater harvesting, Smoke-less mud-stoves.
* Workshop on the Self-Awareness Module. By this time, the participants have gone through a workshop on the other modules, and have had time to absorb the information shared, be a part of the awareness created and reflect on the possibilities to address challenges. This activity aims at bringing forth their aspirations.
* End line assessments with the International trainees.
 | * face time

How to sing in Face time, how to add other ID, how to do call.* Assignment

Test about all objectives  |

Note: **No CERTIFICATE will be issued to the trained BSE.in India**

**For all the women trained in the BVTCs Certificates will be issued.**