**Training at AKRSP, Zirnia (Khargoan) [12th to 15th April 2014]**

* **First day of training will include Module – I (Introduction of Trainers, Introduction of Million SoUL Project,Introduction of Initiative taken by IITB, Introduction of Sponsors for the Project; Why Electricity?, Hence this Million SoUL Project; Present Power Generation Scenario in India viz. Thermal, Hydro, Wind, Nuclear, Solar; Module – 1 of old Technical Module discussing about the Energy Scenario of the country** -> Day – 1, First Half**) & Module – II (Module – 2 to 4 of old Technical Module discussing aboutthe Basics of Electronics i.e. the Basic Formulations, Unit Conversion, Electric Bill Calculation of the Training Center** -> Day – 1, Second Half**)**

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| **New Module No.** | **Content** |
| I | Introduction of Trainers, Introduction of Million SoUL Project, Introduction of Initiative taken by IITB, Introduction of Sponsors for the Project |
| Why Electricity?, Hence this Million SoUL Project (stating the benefit of the project for self-sustainability by utilizing the technology of Electronics & Solar) |
| (1) Meaning and need of energy (2)Uses of energy in day to day life (3) Different forms of energy (Present Power Generation Scenario in India viz. Thermal, Hydro, Wind, Nuclear, Solar) (4) Energy situation in India(5) Efficient use of Energy |
| II | (1) Electrical Energy and its generation (2) Solar energy and its advantages (3) Units of energy (Electrical) (4) Effective use of Electrical energy in day to day life |
| (1) Meaning of voltage and measurement voltage (2)Units of voltage (3)Meaning of current and measurement of current (4) Units of current (4) Meaning of power (5) Units of power (6) Relation between voltage, current and power (7) Relation and difference between power and energy (8) Relation between voltage, current and energy |
| (1) Basic Multiplication and Division (2) Inter-Unit Conversions |

* **Second day of training will includeModule – III (How to use the Multimeter for measuring the Voltage &Current, currently Module – 5 to 8 of Technical Module discussing the four important parts of the Solar Urja Study Lamp i.e. Battery, Solar Panel, LED, PCB & their Testing** -> Day – 2, First & Second Half**) & Module – IV (MIS Report discussion for Count Check, Physical Check &Technical Check of Lamp Components, currently Module – 1 to 4 of Assembly Module discussing the detailed process & practical implementation of Lamp Assembling; first one lamp is assembled by trainer & then the rest of the lamps are assembled by the trainees under the supervision of trainers** -> Day – 2, Second Half**)**

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| **New Module No.** | **Content** |
| III | How to use the Multimeter for measuring the Voltage & Current |
| (1) Battery as an energy storage device (2)Battery voltage and charge storage rating (3) Series and Parallel Connection of battery (4) Depth of Discharge |
| Testing of Battery |
| (1) Solar module as an energy converter (2)Parameters of solar module Vmp, Imp, Pm (3) Effect of sunlight on output current (4) Series and parallel connections of solar panels (5) Designing basic solar PV system |
| Testing of Solar Panel |
| III | (1) LED as an effective source of light (2)Operating Voltage and current of LED (3)LED testing |
| Testing of LED |
| (1) What is PCB (2) Need of electronic circuit (3) Benefits of electronic circuit for battery and LED protection. (4) Efficiency of PCB |
| Testing of PCB |
| IV | Step by step procedure to assembly of components to make SOUL; with Proper Soldering |
| Final SOUL Testing & Packaging the SOUL as per the guidelines |

* **Third day of training will include Module – V (Campaigning matter theoretical discussion, Baseline Survey Form, Distribution Information System** -> Day – 3, First Half**) & Module – VI (Mock campaigning & presentation of the Lamp considering the environment of School or, Panchayat in front of the trainees; School Visit or, Night Campaigning in Village** -> Day – 3, First & Second Half**)**

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| **New Module No.** | **Content** |
| V | Campaigning matter theoretical discussion, Baseline Survey Form, Distribution Information System |
| VI | Mock campaigning & presentation of the Lamp considering the environment of School and/or, Panchayat in front of the trainees |
| VI | School Visit or, Night Campaigning in Village for Lamp Demonstration |

* **Fourth day of training will include Module – VII (Open book Theoretical Written Test, Feedback Form fill-up, counting of Lamp Components of the Consignment in case it arrives late, Closing of Training Program with motivating speech to benefit the future of our country ASAP** -> Day – 4, First Half**)**

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| **New Module No.** | **Content** |
| VII | Open book Theoretical Written Test (20 minutes), Feedback Form fill-up (40 minutes); counting of Lamp Components of the Consignment *in case* it arrives late (2 hours) |
| VII | Closing of Training Program with motivating speech to benefit the future of our country ASAP |