

Announcement: “Workshop on Entrepreneurship in Renewable Energy” with special emphasis on Manufacturing Parabolic Solar Cookers.”

Duration: 1st to 3rd March 2009.

Venue : Dhule, INDIA

Organisers: PRINCE (Promoters & Researchers In Non Conventional Energy), Suman Foundation, Shamgiri, Agra Road, Opposite Swagat Lodge, Deopur, DHULE: 424005 INDIA

Association with Ministry of New and Renewable Energy, GOI, is likely.

Introduction: PRINCE (Promoters & Researchers In Non Conventional Energy) is a voluntary group working under NGO Suman Foundation. Details of the organisation can be viewed on our website www.princeindia.org . Developing new entrepreneurs is the key to promote new renewable energy technologies. Hands on training is the way to develop new manufacturers.



Domestic Solar Cookers



Parabolic cookers have enormous business potential. In Feb.-March 2007, one of our trainees completed an order for 300 community parabolic solar cookers for tribal ministry in Maharashtra costing Rs. 86 lakhs. This was world's biggest solar cooking installation completed in just 45 days. Cooking gas is not only costly but also becoming scare. Our experience in Dhule shows that in this town there are more than 300 installations of domestic parabolic cookers without any major advertisements or campaigns. We expect business potential of more than 1000 domestic cookers a year in almost every district. Business potential for community cookers can reach any magnitude as we have thousands of schools and aanganwadis where mid day meals are served. This indicates enormous potential these parabolic cookers, domestic and community models, have in Asian and African continent. Parabolic cookers have following advantages.

1. Very fast: Parabolic cookers are almost 4 to 6 times faster than conventional box cookers. Most of the boiling dishes are cooked in span of around 20 to 30 minutes. This speed suits many city dwellers.

2. Cooking starts early: Cooking starts after one hour of Sunrise. In many cases food is ready at 10.00 a.m. This suits office goers and students. This is not feasible in box cookers.
3. Additional cooking capabilities: Roasting, shallow frying is possible apart from steaming operation. Boiling milk, boiling drinking water etc. can be added advantages.
4. Taste is great.
5. Can be used in almost all major states in India. Climate is suitable.
6. For new manufacturers, Capital investment required is negligible, no gestation period. They can start manufacturing from day 1 after the workshop.

Parabolic cookers can bring in revolutionary changes in Indian market.



Community Solar Cooker



Scheffler Community Solar Cooker

Few workshops have been conducted by us for "Renewable Energy Technologies" and were well appreciated by the participants, national level news papers and magazines. We believe in giving hands on training for manufacturing the renewable energy gadgets and necessary follow up after the workshop.

Background: Free training had been imparted to people approaching PRINCE regarding parabolic cookers. However after such brief training of 2-3 hours, there have been very few trainees turned in to serious manufacturers. It was also observed that after brief training still there have been lots of mistakes committed during manufacturing of this seemingly simplistic product. Hence it is planned to conduct a 3 day workshop covering all these aspects up to last details. Based on feedback from prospective participants manufacturing aspects of 'Solar vegetable dryers' and installation and commissioning of solar water heaters are added to the scope of the workshop._

Scope of the Workshop: More stress on practical/workshop training will be given and there will be minimal classroom teaching and lecturing. Organisers will like to ensure that all participants will be in a position to manufacture the parabolic cookers after they go back to their place of business. Scope of workshop will include:

1. All manufacturing details of 'Parabolic Cooker of 1.4 m dia.'. Participants will be involved in manufacturing at least one

parabolic cooker from scratch. A manual with all drawings, photographs and instructions will also be given to the participants. Information regarding operation, maintenance will also be practiced and will also be specified in the manual. A video CD will be prepared during the course of workshop as per instructions of the participants to record all manufacturing activities and this CD will be the part of workshop package.

Participants are expected to conduct all recommended tests on at least one cooker. Along with circular dish cooker, training will also be imparted to manufacture new design of square/rectangular dish cooker developed by PRINCE.

2. Details about policies of central and state governments, test procedures, test centers, registration with MNRE, subsidies etc. for these cookers.
3. A presentation and lectures on “Entrepreneurship in Renewable Energy” and Practical approach to other renewable energy technologies.
4. Introduction and basics of solar thermal technologies including different cooking systems, water heating systems, air heating systems, solar vegetable dryers etc. Special emphasis will be given on following issues.
 - a. Manufacturing aspects of Solar Vegetable-Fruit dryer for food processing applications. Demonstrations on Solar dryers/air heating system will be held.
 - b. Different solar water heating systems, criteria for selection of system, capacity calculations. Detailing on installation, commissioning, plumbing, selection of material for pipe and insulation etc.
 - c. Introduction and demonstrations of ‘Scheffler Solar Concentrators’.
 - d. Introduction and demonstration of community solar dish cooker of 2.3 m dia.
5. Introduction to domestic urban biogas plants.
6. Introduction and demonstration to wood stoves and cooking gasifiers.
7. Organisers will not charge any royalty or technology transfer charges for ‘Parabolic cooker of 1.4 m’ domestic model and ‘Solar vegetable-fruit dryers’. For other indigenously developed products organizers reserve right to charge royalties.
8. Site visits.
9. All participants will be introduced to practical aspects and technologies in renewable energy to attain fuel independence at domestic, colony, village and town level.
10. Certificates will be issued to all participants.

Medium of Instructions: English and Hindi.

Fees: Fees for the workshop is Rs. 5000/- per participant. This fee includes accommodation (In city hotel on sharing basis) from 1st March 09, morning to 3rd March 09 morning. It will also include all course material, tea, breakfast and lunches for all 3 days. **MNRE is likely to support the program and provide financial assistance. In that case fees for the workshop will be Rs. 2500/-**

For non Indians, fees will be US \$ 200, to be paid in rupees.

Sample parabolic cookers, jigs for manufacturing new cookers & raw material for new manufacturers can be made available at additional cost.

Eligibility: No bar. Anybody can participate. We recommend that serious entrepreneurs should come along with a technician/foreman/senior worker/any person related to fabrication. Most operations are related to welding and drilling.

We encourage participation from existing manufacturers and traders of solar water heating systems. We also encourage participation from all new entrepreneurs. People having background of ITI, diploma or degree in engineering from any disciplines and having entrepreneurship aptitude are also welcome. This is not an academic workshop and people interested only in research papers not leading to practical applications may not find this event useful.

Organisers reserve right to select or reject participation in the workshop.

Registration: Interested members may contact organizers through email/phone and communicate their willingness with brief introduction about them. Organisers will communicate you regarding your selection for the program and payment details. Please mention clearly whether you wish to take up the course even if MNRE support is not available. Contact: contact@princeindia.org , Cell no. 0091-9823033344, Ajay Chandak.

HOW TO REACH DHULE: People coming from Mumbai side can come by train. Dadar Amrutsar express has two coaches directly connected to Dhule and timings are also comfortable. Train leaves Dadar at 11.45 p.m. and reaches here at 7.20 a.m. For return the train leaves Dhule at 7.25 p.m. and reaches Dadar at 4.0 a.m. For people coming from south India or North India nearest convenient railway stations are Bhusaval 125 km, Jalgaon 95 km, Chalisgaon 55 km, Amalner 35 km, Manmad 90 km. All these stations are well connected by road to Dhule and there are frequent buses from State Transport.

Prof. Ajay Chandak.

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