



**RAYAT SHIKSHAN SANSTHA'S**  
**D.P. BHOSALE COLLEGE, KOREGAON**  
Department of PHYSICS  
**"Industrial Training"**  
**2018-19**

Jointly Organized by Department of Physics and  
Electra Solar

**Place to training : Electra Solar Pvt. Ltd.**  
**M.I.D.C.Koregaon**

**Day : Monday Date : 26<sup>th</sup> February, 2019**

**Time : 10:30am- 5:30pm**

  
Co-ordinator



  
Head  
Department of Physics  
D. P. Bhosale College, Koregaon  
Dept. of Physics

# INDUSTRIAL TRAINING

Student attendance

Date :26/02/2019

Sr. No.	Name of Participant visited	Sign
1	Barge Kedar Prakash	<u>Barge</u>
2	Bhandekar Shubham Sunil	<u>Bhandekar</u>
3	Dafedar Junaid Ammin	<u>Dafedar</u>
4	Jadhav Akshay Chandrakant	<u>Jadhav</u>
5	Maner Arbaj Hamid	<u>Maner</u>
6	Nalawade Akash Ramesh	<u>Nalawade</u>
7	Nalawade Mangesh Mahendra	<u>Nalawade</u>
8	Nikam Amarjeet Shankar	<u>Nikam</u>
9	Nikam Amruta Shivaji	<u>N.A.</u>
10	Phadtare Snehal Dipak	<u>Phadtare S.P.</u>
11	Shedage Anirudha Ganesh	<u>shedage A.G.</u>
12	Shinde Sagar Sharad	<u>shinde S.S.</u>

Phadtare  
Incharge



A.P.M.  
Head  
Department of Physics  
D. P. Bhosale College, Koregaon  
Dept. of Physics

## **Industrial visit: 'Suryottam'** **(Electro solar company)**

### **Acknowledgement:-**

It has remarkable experience of study tour .This acknowledgement is attempt to thanks to 'Suryottam' Solar Water Heater Company.

We are thankful to Dr. V. S. Jamdade (HOD) and Mr. S. L. Jadhav for offering us all facilities during tour. Completing this report would not have been possible without cardinal help and permission, extended to us by Honourable Principal Dr. V. S. Sawant.

### **Abstract:-**

Solar water heating system for domestic use has been constructed using locally available materials. Lot of energy required for heating the water to good extent. Approximately 18% of domestic energy is used to heating the water in most homes and businesses this energy is generated from non-renewable sources i.e. oil, coal etc. But many people still heat their water using electricity which is the most expensive way to heat water. So by using Solar Water Heater we can save the energy.

### **Tour Report:-**

(Department of Physics of D. P. Bhosale College, Koregaon was organized one day study tour at Solar Company M.I.D.C. Koregaon Dist. Satara on 26<sup>th</sup> Feb 2019 )

We are the student of T.Y. B.Sc. (Physics) has participated in this study tour to understand construction as well as the working of solar water heater and its uses. Technician officer Mr. Salunkhe V. S. Sir was informed us about all machines and their importance. Also use of solar water heater in daily life and how we can save the energy. The also talked & demonstrate how to fabricate solar water heater.





### **Solar water heater consists:-**

The domestic solar water heater has been divided into two components.

- 1) Storage Tank.
- 2) Absorber Plate.

#### **1) Storage Tank:-**

The wide range of the storage tank ranging from low end capacities to high end capacities. The tanks can be used for small homes to large townships. The Storage Tank has to cylinder with drilled hole 20 i.e. inner and outer cylinder. These two cylinder separated by insulating material for avoiding the heat exchange with the environment.

#### **2) Absorber plate:-**

Evacuated tube collector are way to reduce heat loss. Water piping in an ETC surrounded by two concentric tubes of glass separated by vacuum that admits heat from the sun. The inner tube is coated with thermal absorber. ETC can gather energy from the sun all day long at all angles due to their tabular shape. In ETC cold water comes from tank with lower level and hot



Water transfer from ETC to tank with upper layer. Thus, separation of the cold and hot water obtained in same time. When we pass the cold water from inlet then and only then we get hot water through outlet.



*[Signature]*  
Head  
Department of Physics  
D. P. Bhosale College, Koregaon

**Place to Training : Electra Solar Pvt. Ltd.  
M.I.D.C.Koregaon**



**Training for Fabrication of Solar panel**



**Training for Installation training of Solar panel**

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**Place to Training : Electra Solar Pvt. Ltd.**

**“Suryottam”**



**Training for Fabrication of water heater**



**Training for Installation training of water heater**

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