

NAME: Ajay Girdharilal Chandak

Mission: Energy Independence through Renewable Sources.

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EDUCATION:

Sr. No.	Exam Passed	Title of Degree	Board/University	Year	Subject	% of Marks.
1	Doctor of Philosophy	Ph.D.	D.A.V.V. Indore	2013	Mechanical Engineering	NA
2	Masters	M.Tech.	I.I.T. Bombay	1986	Mech./Prod.	8.71/10 Rank 2nd
3	Bachelor	B.E.	C.O.E.P./Pune Uni.	1984	Mech. Engg.	69 %
4	Secondary	H.S.C. (12 th)	H.S.C. board Pune	1980	Science	80 % 1 st in Dhule District.
5	Energy Auditor (Proff. Exam)	CEA	Bureau of Energy Efficiency GOI.	2005	Energy Auditing.	80%

Academic Experience

Joined as Principal at Shri Vile Parle Kelvani Mandal's Institute of Technology, Dhule since 20th June 2017.

Worked as Professor in Mechanical Engineering at SSVPS BSD College of Engineering, Dhule: 424005; Total teaching experience of 30 years; since 26th July 1986.

AWARDS: Only major awards specified.

- ☀ 'SCI Order of Excellence 2016' from 'Solar Cookers Internationals', Sacramento, USA.
- ☀ 'Renewable Energy Award 05' from Govt. of Maharashtra.
- ☀ "ENCON" awards, by Govt. of Maharashtra: "Certificate of Excellence" for year 2014-15 and first award in individual category three times since 2008.
- ☀ 'Shirin Gadhia Sustainability Award 2011' by NGO ICNEER.
- ☀ 'Engineering Achievement Award' for 2005 & Renewable Energy Award (3rd) by Institute of Engineers Nasik/Pune.
- ☀ Best innovations in renewable energy: 'Solar Concentrators' at Innovation 2009 and PRINCE biogas plants' at Innovation 2011; national events by Alumni association of IIT Bombay, Pune Unit. Also runners up innovation award for PRINCE Biogas plant by Govt. of India in 2014-15.
- ☀ "Vasundhara Sanman" by Kirloskar Group in 2015.

PATENTS: Initiated 36 patents till date. Many technologies especially in renewable energy segment are commercialized. I possess very strong Innovation and R & D aptitude.

Positions held/ associations with International / Govt. / Social / Academic institutions.

- ☀ Worked on the 'Board of Directors' of International Solar Energy Society, Freiburg, Germany for 2014 & 2015. ISES is advisory to World Bank and United Nations on issue of solar energy.
- ☀ Working as global advisor with 'Solar Cookers International', USA, since 2015. Associated with SCI since 2006 in different capacities.
- ☀ "Indian team leader to Netherlands in 2014; 25 days tour for "Vocational Trade" in "Water, Waste Water and Solid Waste Management". Had visits to many organizations, companies, local governments and strong interactions with all stakeholders.
- ☀ Technology Angel" for Ministry of Science and Technology, Govt. of India since 2008.

- ⚙ Expert evaluator for, National Innovation Foundation, Ahmedabad since 2008.
- ⚙ Experience as technical expert with Maharashtra Energy Development Agency, Govt. of Maharashtra and Ministry of New & Renewable Energy, Govt. of India since 2006.
- ⚙ Facilitator for “National Productivity Council”, Govt. of India for “Waste Minimisation Projects’ since 2007.
- ⚙ Founder member and organizing committee member of IAEMP (Indian Association of Energy Management Professionals) since 2006.
- ⚙ Working as subject expert on MED 04 committee of Bureau of Indian Standards since 2014. Main assignment is to frame testing standards for renewable energy systems and products. Also worked on different committees for designing test protocols for concentrating solar cookers since 2006.
- ⚙ Founder and chairperson of a voluntary organization PRINCE (Promoters, Researchers & Innovators in New & Clean Energy) since 2004. The organization is rated as the best NGO in the state of Maharashtra 3 times by MEDA, Government of Maharashtra. Providing training in renewable energy is the USP of the NGO. (www.princeindia.org)

PUBLICATIONS & PRESENTATIONS:

1. Thirteen research papers are published in international and national journals of high repute; most of them are in the field of renewable energy. None of them is paid journal.
2. Twenty one papers presented/published at international conferences in Spain, Germany, USA, Nepal, India etc. 26 papers presented/published at national conferences. Attended more than 50 international and national conferences in different capacities as keynote speaker to participant.
3. More than 100 expert lectures delivered for promotion of renewable energy.
4. More than 50 papers, and articles related to renewable energy in magazines & newspapers.

OTHER PUBLICATIONS:

- ⚙ Published one “Manual for Scheffler Solar Concentrators” and another “Manual for Parabolic Solar Cookers”, both are used for training programs by MNRE.
- ⚙ Published many Articles in Akshay Urja (Akshay Urja is publication of MNRE and TERI, Govt. of India). “Future Energy” (Future Energy is a Publications of MEDA, Govt. of Maharashtra) and Sun-Focus (Publication of TERI with UNDP-GEF-MNRE project), Sun Focus (MNRE publication) etc.
- ⚙ Cover story published in “Electrical India” January 2015 issue on “Innovative business mechanism for Solar Project, through public participation”. Similar cover story in ‘Renewable Energy Booster”, “Smart Energy”, TERI’s “Future Energy etc.
- ⚙ Published few articles on EERE in ‘Urja Watch’ of IAEMP, in Solar Cookers International Newsletters, “SunFocus” of MNRE and through other magazines and newspapers.
- ⚙ Prepared and published four success stories for “Ministry of New & Renewable Energy’ Govt.of India and prepared 4 promotional videos for “Ministry of New & Renewable Energy’ Govt.of India.

TRAINING WORKSHOPS ORGANISED:

Total 18 workshops and business meets organized in the capacity of principle organizer and main faculty at different location in India. Few training workshops are organized in Institute with financial support from Ministry of New & Renewable Energy. These are very popular workshops where trainees come from all parts of India as well as from few other countries.

WORKSHOPS / TRAINING ATTENDED:

Total 12 major training workshops/programs attended. Most of these are professional workshops.

EXPERT LECTURES, KEY NOTE ADDRESSES ETC.:

TEDx Speaker on Solar Energy: <https://www.youtube.com/watch?v=zInSwk6dzOg>

Have been invited as key note speaker, session chair, expert speaker at many international and national events. More than 100 expert lectures delivered in different capacities. These include lectures and training programs at institutes of repute like IIT Bombay, ASCI Hyderabad, ESCI Hyderabad, TIFR (Tata Institute of Fundamental Research) etc.

R & D and Consultancy Experience

- ☀ Has very strong innovation and R & D aptitude. Initiated 36 patents, around 10 of them are already commercialized.
- ☀ **Worked as “Consultant” for alternate energy applications for “United Nations”** in 2008-09 for one year. One month at HQ of UN at New York and rest from Dhule.
- ☀ **Consultancy services offered to private firms in USA, Oman, Dubai etc.**
- ☀ Consultancy service offered to many private companies in India as well as organizations like GERMI.
- ☀ **Consultant to Ministry of New & Renewable Energy for one year on a UNDP-GEF project.**
- ☀ R & D project on Solar multieffect distillation was done with “Department of Science and Technology”, Government of India. Upgraded unit was developed and exported to Oman for research work.
- ☀ R & D and commercialization of industrial solar concentrator was done for “ATE” with expenditure of more than Rs. 1 crore. Technology was handed over to the company and patents licensed to them.
- ☀ R & D and commercialization of “Community solar dish cooker” was done for “Elektromag’ group from Mumbai with development cost of @ Rs. 60 lakhs. Technology handed over and patents licensed. Invested personal funds to the tune of 80 lakhs for development of technologies in solar, biogas and biomass stoves. Technology transferred to many entrepreneurs.
- ☀ Received grants from NMU and successfully developed steam cooking systems.
- ☀ Services provided as energy auditor and energy manager for few companies. Some of them won ENCON awards.
- ☀ Consultation services offered for oil mills for “Waste Minimization Circle” in Dhule region on behalf of “National Productivity Council”.
- ☀ Many designs of biogas plants offered to commercial clients and many charitable organizations.

Media recognitions:

One chapter in book “Dhule Icons” in Marathi. A TV show/Interview was broadcasted in two episodes in programme “Samvad” by ETv, one program broadcasted on national DD channel by PCRA, few radio interviews, cover stories in many magazines. Articles and appreciations in many newspapers at national, state and local level. Many articles published in newsletters and magazines of solar cooker international, IAEMP, Akshay Urja, Sun focus, Electrical India, Smart Energy etc.

Date: 26-6-2017

(Ajay G. Chandak)

PROFESSIONAL MEMBERSHIPS & ASSOCIATIONS:

Sr. No.	Name of Body/Head Quarter	Grade of Membership	Membership No
1	International Solar Energy Society, Germany	Silver	1110230
2	Solar Energy Society of India	Life Member	
3	The Institute of Engineering & Technology, U.K.	Annual	1100214997
4	Bureau of Energy Efficiency, Govt. of India.	(Certified Energy Auditor) Lifetime.	EA-944
5	Institute of Engineers. (Nasik Center)	Chartered Engineer. Life membership	115163/5
6	Indian Institute of Production Engineers.	Fellow	WF-0944
7	Indian Water Works Association.	Life Member	-
8	Indian Society for Technical Education.	Life Member	-
9	Solar Cookers International Association, now named Solar Cookers World Network. H.Q. California, USA,	Founder. Annual Membership (At present Technical expert on advisory committee.)	-
10	Indian Association of Energy Management Professionals.	Founder and Life member, At present member, executive council	-
11	International Association of Engineers, Hong Kong.	2 years till end of 2013: Under renewal.	113205
12	IIT Bombay, Alumni Association	Life Member	860001

Ajay Chandak: Publications in International and National Journals:

Sr. No.	Title of Paper	Title of Journal with ISSN no.	Publisher, Volume no. pg no
1	Design, Modelling & Analysis of Safety Impact Guard for Heavy Duty Vehicle	International Journal of Innovative Research in Advanced Engineering (IJIRAE) ISSN: 2349-2163	Volume 1 Issue 6 (July 2014); pg2 84-290
2	Heat retention cooking and no tracking properties of solar oven with five sides of double glazing	Journal of Research (Science), ISSN 1021-1012	Bahauddin Zakaria University, Multan, Pakistan, Vo. 20-22, Nos. 1-4, Oct. 2009-10, pp 1-7
3	Production of Plaster of Paris Using Solar Energy	IRJET, ISSN: 2319 – 1163	Vol.2, issue 4, Apr. 2013,516-519
4	Development of PRINCE-40 Solar Concentrator as Do It Yourself (DIY) Kit	The Journal of CPRI, ISSN 0973-0338,	CPRI (Central Power Research Institute), Govt. of India. Volume 8, Issue 04, December 2012, pg. 309-316
5	The Use of Solar Energy for Powering a Portable Autoclave	Journal of Hospital Infection, ISSN 0195-6701	Elsevier, Science direct, Vol. 80 (2012) 345-347
6	Development of Solar Industrial Oven Using Pair of Scheffler Solar Concentrators	SESI journal of Solar Energy Society of India ISSN 0970-2466	Vol. 23 Nos. December 2011
7	"Procedure for Thermal Performance Evaluation of Steam Generating Point-Focus	Solar Energy, Science Direct, ISSN: 0038-092X	Elsevier Science direct, Volume 85, Issue 7, July 2011, Pages 1390-1398.

	Solar Concentrators",		
8	"Renewable Fuel Saving Obligation: Innovative Mechanism for Emission Reduction",	Journal of Petroleum Technology and Alternative Fuels, Available online at http://www.academicjournals.org/JPTAF	Academic Journals February, 2011, Vol. 2(1), pp. 21-24
9	Heat Loss Characterization From Solar Concentrator Receiver: A Review	International Journal of Engineering Science & Technology, ISSN 0975-5462	Vol.II (12), 2010, 7531-7539
10	Design, Development And Testing of Multieffect Distiller/Evaporator Using Scheffler Solar Concentrators.	Journal of Engineering Science and Technology ISSN : 1823-4690	School of Engineering, Taylor's University College, Malaysia . Vol. 4, No. 3 (2009) 337 – 343,
11	Performance of Industrial Oven with 16 Sqm Scheffler Solar Concentrator	SESI journal of Solar Energy Society of India ISSN 0970-2466	Vol. 19 Nos. 1 and 2 June and December 2009
12*	Development of Automatic Pump Shut Off System for Rural Water Supply Schemes*	Journal of Indian Water Works Association, ISSN 0970-275 X	Indian Water Works Association, Vol XXV, Jan. 1998, pg. 33,34.
13	New Simplified Inlet Outlet Arrangement for Ground Storage Reservoirs and Sumps	Journal of Indian Water Works Association, ISSN 0970-275 X	Indian Water Works Association, Vol XXIV, Oct. 1997, pg. No. 241-242

* Awarded as best technical paper of the year at IWWA convention in Lucknow.

Ajay Chandak: Presentations/Publications: International conferences:

<u>Sr. No.</u>	<u>Title of Paper</u>	<u>Title of Conference</u>	<u>Organiser of conference and place</u>	<u>Duration of Conference</u>
1	Development of Universal Standards for Solar Cookers for Use at Test Centers and for Customer Education	SCI World Conference 2017, MSA, INDIA	Solar Cookers International, MSA, Broda, INDIA	17-19 Jan 2017
2	Development of Paneled Concentrating Solar community Cookers	SCI World Conference 2017, MSA, INDIA	Solar Cookers International, MSA, Broda, INDIA	17-19 Jan 2017
3*	Development of Universal Standards for Solar Cookers for Use at Test Centers and for Customer Education	Solar Cookers International Network Convention 2014	Solar Cookers International, Sacramento, CA, USA	16-19 July 2014
4	Evolution of PRINCE Paneled Concentrating Solar Dish Cookers as DIY Kits	Solar Cookers International Network Convention 2014	Solar Cookers International, Sacramento, CA, USA	16-19 July 2014
5	Cozinha Solar Na India, Chile E Portugal. (Coauthor in the paper, presented by main author)	X Congreso Lberoamericano de Energia Solar	XV Congreso Lberico Y, Vigo, Galicia, Espana ,	19-22 June 2012
6*	Development of PRINCE-40 Solar Concentrator as Do It Yourself (DIY) Kit	ISES Solar World Congress 2011	International Solar Energy Society, Kassel, Germany .	28 th August 2011 to 2 nd Sept. 2011
7*	Industrial Oven Powered with a Pair of Scheffler Solar Reflectors	ISES Solar World Congress 2011	ISES, Kassel, Germany .	28-8-11 to 2-9-11
8	Comparative Analysis of SK-14 and PRINCE-15 Solar Concentrators (Presented by Co-author)	World Congress on Engineering 2011	WCE 2011 London	6-8 July 2011

9	Methodology for performance evaluation of fixed focus moving solar concentrators (Coauthor in the paper)	World Renewable Energy Congress XI	WREN-UNESCO, at Abu Dhabi, UAE	25-30 September 2010
10	New Approach for Heat Loss Characterization from Solar Receiver	India Int. Energy Summit -2011 (IIES-2011)	SEEM, VNIT Nagpur, Vijnana Bharati, at VNIT Nagpur	28 th to 31 st January 2011
11	People's Green Power Project	India Int. Energy Summit -2011 (IIES-2011)	SEEM, VNIT Nagpur, Vijnana Bharati, at VNIT Nagpur	28 th to 31 st January 2011
12	Renewable Fuel Saving Specifications: Innovative Mechanism for Emission Reduction	ICORE 10 Int. Congress on Renewable Energy-10	SESI, MNRE, Chandigarh, India Solar Energy Society of India, Ministry of New and Renewable Energy, Govt. of India. New Delhi. Pg. 70-76	1-3 Dec. 2010
13	Development of Solar Multiple Effect Distillation Unit	ICORE 09 Int. Congress on Renewable Energy-09		2 days. 6 th and 7 th Oct. 2009
14	Design of multistage evaporators for integrating with Scheffler Solar concentrators for food processing applications	International Conference on Solar cooking and Food processing	International Solar Energy Society, Freiburg, Germany, WISIONS Wuppertal, Germany, MNRE. Barli Development Institute for Rural Women, Indore, India.	3 days. 14 th to 16 th January 2009
15	Design of Solar Dryer with Turboventilator and fireplace	International Conference on Solar cooking and Food processing	Barli, Indore, India	3 days. 14 th to 16 th January 2009
16	Development of 2.3 meter diameters Solar Community Dish Cooker	Asia Regional workshop on solar cooking and food processing	Alternate energy Promotion center, CRT Nepal, FoST Nepal etc. at Kathmandu', Nepal	2 days. 16 th and 17 th April 2007.
17	Solar cooking and renewable energy policies	Asia Regional workshop on solar cooking and food processing	Alternate energy Promotion center, CRT Nepal, FoST Nepal etc. at Kathmandu', Nepal	2 days. 16 th and 17 th April 2007.
18	Solar Energy for Quality improvement in food-processing industry	International Conference on Solar cooking and Food processing	Solar Cookers International, Terra Foundation. At Granada, Spain,	12th to 14th of July 2006. Site visits on 15 th .
19	Innovative balcony solar cooker'	International Conference on Solar cooking and Food processing	Solar Cookers International, Terra Foundation. At Granada, Spain,	12th to 14th of July 2006. Site visits on 15 th .
20	Application of Solar Concentrators for Treatment of Biomedical Waste	International Congress on Renewable Energy 2005	MITCON, MCCIA, SESI, MNES at Hotel Le Meredian, Pune, India	3 days. 20-22 January 2005
21	Innovative Solar Concentrator For Industrial Heating Applications.	International Congress on Renewable Energy 2005	MITCON, MCCIA, SESI, MNES at Hotel Le Meredian, Pune, India	3 days. 20-22 January 2005

*Presented by coauthor.

Ajay Chandak: Presentations/Publications: National conferences:

Papers/presentations at more than 26 major professional conferences. Academic conferences not included.

Ajay Chandak: Training Workshops organized as main organizer/main faculty:

S.No.	Title/Place/Sponsors	Duration
1	Market development initiative for Solar Concentrator Technologies, held on 10-7-2013 at Leh. UNDP-GEF-MNRE initiative.	1 day
2	Market development initiative for Solar Concentrator Technologies, held on 19-6-2013 at MSA, Vadodara, Gujrat. UNDP-GEF-MNRE initiative.	1 day
3	Market development initiative for Solar Concentrator Technologies, held on 12-6-2013 at Coimbatore, Tamilnadu. UNDP-GEF-MNRE initiative.	1 day
4	Market development initiative for Solar Concentrator Technologies, held on 23-3-2013 at UREDA hall, Dehradun. UNDP-GEF-MNRE initiative.	1 day
5	Market development initiative for Solar Concentrator Technologies, held on 7-3-2013 at Sinhgad College of Engineering, Pune. UNDP-GEF-MNRE initiative.	1 day
6	Scheffler solar concentrators". / Dhule / Ministry of New and Renewable Energy.	7 days, 21 st to 27 th Jan. 2012
7	Entrepreneurship Opportunities in Renewable energy with special emphasis on Parabolic solar cookers". / Dhule / Ministry of New and Renewable Energy.	2 days. 25 th to 26 th Jan. 2012
8	"Entrepreneurship Opportunities in Renewable energy with special emphasis on Parabolic solar cookers". / Dhule / Ministry of New and Renewable Energy.	3 days. 27 th to 29 th Jan. 2010
9	Energy Conservation Building Code 09/ Dhule. Rotary Club of Dhule Cross roads and Dhule district committee on Renewable Energy.	½ day. 18 th August 2009
10	"Entrepreneurship Opportunities in Renewable energy with special emphasis on Parabolic solar cookers". / Dhule / Ministry of New and Renewable Energy.	3 days. 1 st to 3 rd March 2009
11	'Entrepreneurship opportunities in Energy Efficiency and Renewable Energy with special emphasis on parabolic solar cookers'. / College of Engineering Walchandnagar.	2 days. 5 th and 6 th July 2008
12	"Manufacturing Parabolic solar cookers and introduction to Renewable Energy Technologies./Dhule / Suman Foundation & Essential Equipments.	3 days. 26 th to 1 Day. 28 th Oct. 2008
13	Manufacturing Small wind Generators", organized by MITCON in Pune	2 days. 1 st and 2 nd April 2006
14	Manufacturing Parabolic solar cookers and introduction to Renewable Energy Technologies. / Dhule / Jankibai Trust / Essential Equipments.	3 days, 29 th to 31 st January 2006
15	Manufacturing Small Wind Generators and Renewable Energy Technologies. / Dhule / Jankibai Trust / Essential Equipments.	3 days. 13 th to 15 th August 2005
16	Energy conservation in Industries and Energy Audits. /Hotel Residency Park Dhule/ Maharashtra Energy Development agency (MEDA) Govt. of Maharashtra.	1 day. 17 th Dec. 2005
17	Training w/shop for manu. small wind generators and R.E. technologies. / Dhule / Colorado University U.S.A., AID, SSVPS BSD COE, Jankibai Trust,	11 days. 4 th to 14 th April 2005.

Patents: Ajay Chandak: PATENT FILED DETAILS (As on 1-6-14):

As principle inventor: With patent application nos.

1. "An Improved Float Valve" : 165/BOM/97 dated 21-3-1997
2. "Built In Solar Water Heater": 1014/MUM/2003
3. "Fluid Pump Using Heat: 125/MUM/2004,
4. "Fixed Focus Concentrating Solar Oven": 1989/MUM/2006
5. 'Gas Holder For Adjustable Gas Pressure': 420/MUM/2007 5/3/2007
6. 'Solar Dryr With Fuel Backup And Turboventilators': 1583/MUM/2007
7. Wave And Flow Powered Generator: 1803/MUM/2008
8. Parallel Beam Generating Solar System: 2288/MUM/2009
9. Solar Sterilizer With Heat Recovery System: 2267/MUM/2009
10. Apparatus For Testing Solar Concentrators: 2377/MUM/2009
11. Paraboloidal Solar Concentrator: 326/MUM/2010,
12. Biogas Plant With Stackable Components: 1606/MUM/2010
13. Apparatus For Heat Loss Characterization Of Solar Ovens: 1607/MUM/2010
14. Wood Stove with Whirling flame: 1608/MUM/2010
15. Apparatus For Heat Loss Characterization Of Solar Receivers: 2389/MUM/2010
16. Steam Operated Water Pump: Patent application no. 2484/MUM/2010
17. Direct Steam Generating Receiver For Solar Concentrators With Rotating Focus: 3074/MUM/2010
18. System For Lowering And Raising Of Reflector And Tilting Of Receiver Of Solar Concentrator: 66/MUM/2011
19. A Digester For Biogas Plants: 1192/MUM/2011
20. Solar Cooker With Bottom Opening: 1194/MUM/2011
21. A Method Of Combining Solar Thermal Gadgets For Increasing Overall System Efficiency: 1189/MUM/2011
22. A Business Method For Renewable Energy Projects 1191/MUM/2011
23. 'Ready to Install Biogas plant': 2095/MUM/2011
24. 'Concentrating Solar Cooker With Dish Opening And Umbrella': 3266/MUM/2011
25. 'Solar Wall': 3267/MUM/2011
26. 'Cold Storage With Roof Integrated Solar Dryer And Waste Heat Recovery': 3268/MUM/2011
27. 'Biomass Gasifier Stove': 3304/MUM/2011
28. 'Solar Line concentrator with inclined axis: 1696/MUM/2012
29. 'Natural Draught Jacketed Wood Stove: 3201/MUM/2012
30. A Waste Pricker: 1238/ MUM/2014
31. Rear Impact Guard: 3243/MUM/2014

Patent applications as Co-inventor:

32. Energy Efficient Water Cooler: 2235/MUM/2010
33. Tracking Mechanism For Solar Systems With Polar Axis Mounting. 2234/MUM/2010
34. Segmented Dish Reflector: 267/MUM/2011
35. Universal Fixture For Polar Axis Mounted Solar Concentrators: 2520/MUM/2010
36. Solar Dish Concentrator with central Opening:1330/ MUM/2012
37. Effluent Evaporation System: 3423/MUM/2012
38. Water Saver Toilet:

Many products like innovative float valve, solar cookers, solar industrial concentrators, solar dryers, biogas plants, efficient wood stoves, Solar Concentrating cookers etc. are commercialized.

AJAY CHANDAK: WORKSHOPS / TRAINING ATTENDED: (Only major programs mentioned)

1. Visited Netherlands as Indian team leader for Vocational training and interaction on 'Water', 'Waste Water' and 'Solid Waste Management' in April-May 2014 for 23 days.
2. Aailed training for 'Scheffler Solar Concentrators' for 8 days from 'Wolfgang Scheffler', the German inventor, who holds accreditation for world's largest solar steam cooking system. Training was organized by Ministry of non conventional energy sources, Govt. of India. 1st to 7th February 2002.
3. Mission 10X by Wipro, 1 week.
4. Participated in training program on "Patenting in India and Abroad", organized by Institute of Engineers, Maharashtra State Center, Mumbai. 16th and 17th July 2002.
5. One week training program for facilitators for WMC, by National Productivity Council. 21-25 January, 2008 at New Delhi.
6. Three day workshop on "Quality control in renewable energy systems and standardization of test procedures for testing solar flat plate collector", at School of energy studies, Pune University, 23rd to 25th August 2006. Also delivered one presentation on test procedures in solar concentrators.
7. Attended and made presentation on "Technologies available for energy efficient low cost cooking devices" at "Project Surya Workshop" at TERI, New Delhi, August 3, 2007.
8. Attended "Renewable Energy Showcase & Community Development workshop" at IISc Bangalore. Nov. 11-12, 2005. Workshop organized by University of Nottingham, European Union, IISc etc.
9. Training program on "Energy Efficiency capacity building program for various stake holders", at Nasik. Program organized by World bank, IREDA, Winrock International. 20th to 22nd April 2006.
10. Participated in 'Renewable Energy Community Development and Showcase Workshops-2006" at IIT Bombay. Workshop organized by RENET, European Union and IIT Bombay.
11. Participated at National Workshop on Renewable energy based innovations of grassroots Innovators, Orientation and evaluations. Participated in the workshop and made presentation on "Scientific Aspects of Renewable Energy" at NIF Ahmedabad, 14th May 2007.
12. Participated in 31st Annual Convention of 'The Indian Water Works Association' at Lucknow, 11th to 13th Feb. 1999. Best paper award for yr. 1998 was bestowed during this conference.