



AHEC, IIT Roorkee



renewable energy &amp; energy efficiency partnership



## Training program on Micro and mini hydro scheme development in the Indian sub-continent

**Date:** 16th and 17th October 2008

**Venue:** AHEC Roorkee

### Tentative agenda

16 <sup>th</sup> October 2008		
Time	Activities	
09.00–09.30	Registration	
09.30–10.15	<b>Inaugural session</b> Welcome address by AHEC <b>Key note addresses</b> About SHAPES project – Mr Jonathan V Cox, DULAS Ltd., UK SHP in India – Dr N P Singh, Advisor, Ministry of New and Renewable Energy (MNRE), India* Workshop objectives – Mr Shirish S Garud, Fellow, The Energy and Resources Institute (TERI), India Introduction of participants Vote of Thanks	
10:15–10:30	Tea break	
Time	Activity	Presenter organisation <sup>#</sup>
10.30–11.30	<b>Technical session I (Feasibility stage)</b> Scope and output of a good feasibility study and a good DPR, including getting consents and permissions	AHEC
11.30–12.20	Geological survey requirements for developing SHP	AHEC
12.20–12:30	Tea break	
12.30–13.30	Hydrological study (particularly for flood prediction), Intake, canal desilting design etc.	AHEC
13.30–14.00	Sizing of equipment and control philosophy, expected energy generation study and end uses	AHEC
14.00–15.00	Lunch	
15.00–16.00	<b>Technical session II (EPC stage)</b> Best practice on specification of civil works	Studio Frosio
16.00–17.00	Selection of Electrical and Mechanical Equipment for SHP, Use of checklist for SHP schemes	Studio Frosio
17.00–17.30	Tea break	
17.30–18.30	Control and Protection for SHP systems	DULAS Ltd.
18.30–19.00	Low head schemes- overview of options, equipment and arrangements	Studio Frosio
19.30–21.00	Dinner (Sponsored by REEEP)	

\*To be confirmed

<sup>#</sup> Speakers yet to be decided

17 <sup>th</sup> October 2008		
Time	Activity	Presenter organisation <sup>#</sup>
	<b>Technical session III (Operation and maintenance)</b>	
9.30–10.30	Operation and Maintenance (O&M) planning and management	TERI
10.30–11.30	Incentives for good O&M function, Scheme monitoring by SCADA, other monitoring systems and some European best practice for O&M	DULAS Ltd.
11.30–12.00	Tea break	
	<b>Non technical issues</b>	
12.00–13.00	Getting financial viability on off grid schemes and best practice	TERI
13.00–14.00	<b>Lunch</b>	
	<b>Grid connectivity</b>	
14.00–14.30	Standards, procedures and policies for grid connection	DULAS Ltd.
14.30–15.30	Best practices for equipment, technology and philosophy of grid connection	DULAS Ltd.
15.30–16.00	Tea break	
16.00–17.00	Visit to SHP simulator	AHEC
17.00–17.30	Feedback from delegates	
17.30–18.00	Closing session	TERI
	Review of Feedback and discussion among Presenters	
7.30:9.00	Dinner	