financed by Austrian Development Cooperation

# SOLTRAIN

## Training Course for Experts & Professionals

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## Agenda - Training Course 1

11 and 12 March, 2013

Skilpadvlei Conference Centre,
Stellenbosch, South Africa

### Background Information:

This training course is carried out in the frame of the project SOLTRAIN 2, which is carried out by "AEE - Institute for Sustainable Technologies" from Austria in cooperation with the Centre for Renewable and Sustainable Energy Studies (CRSES) of Stellenbosch University.

The aim of this training course is to increase the knowledge on solar thermal systems and applications of "professionals", who are already working in the field of solar thermal.

The content of the training course will be the theoretical and practical background to be able to design, build and to install solar thermal systems with forced circulation.

| **Monday, 11 March** | |
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| 09:00 h | Welcome<br>Alan Brent, CRSES – Stellenbosch University<br>Werner Weiss, AEE INTEC |
| 09:15 h | Introduction of participants and expectations |
| 09:30 h | The framework, duration and the content of the Soltrain 2 project |
| 10:00 h | Solar Heat Worldwide – an overview on the worldwide developments |
| 10:30 h | Coffee break |
| 11:00 h | Overview on applications and main characteristics of solar thermal systems for:<br>• Domestic hot water systems (pumped and thermosyphon)<br>• Medium-scale hot water systems for hotels, hospitals…<br>• Combi-systems for hot water and space heating<br>• Industrial applications (food and beverage industry, metal and mining industry)<br>• Recent developments - large-scale systems |
| 12:30 h | Lunch |
| 13:30 h | Overview on applications (continued) |
| 15:00 h | Preconditions for solar energy utilization and the solar resource |
| 15:30 h | Coffee break |
| 16:00 h | Performance of collectors and recent new collector developments for medium temperature applications |
| 17:00 h | End of 1st day |
| **Tuesday, 12 March** | |
| 09:00 h | Hydraulic assembly of collector areas |
| 10:30 h | Coffee break |
| 11:00 h | Storage Units for different applications– Function and requirements<br>• Small domestic hot water tanks<br>• Large, long term storages<br>• Recent developments with PCM and thermo-chemical storages |
| 12:30 h | Lunch |

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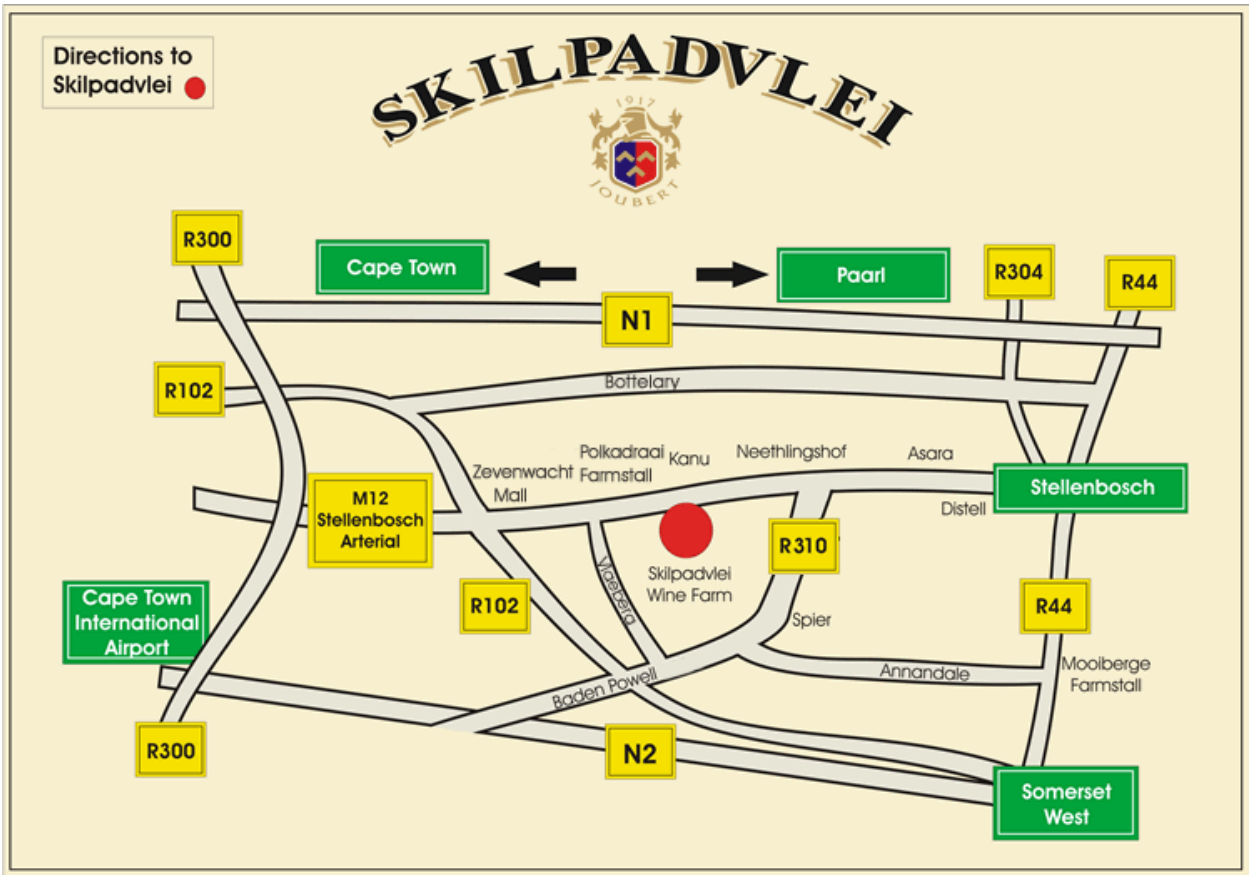
|---|---|
| 13:30 h | Other components of a solar thermal system (piping, expansion vessels, electronic control,) |
| 14:00 h | Dimensioning of medium scale systems |
| 15:30 h | Coffee break |
| 16:00 h | Economics: Cost of solar thermal heat |
| 17:00 h | End of training course |

The course will take place at Skilpadvlei, about 8km outside Stellenbosch, see map below. Please confirm your attendance before **4 March 2013** with Me Denielle Andrews at 021 808 4069 or crses@sun.ac.za.




GPS co-ordinate:
S 33° 57.550'
E018° 46.064'

Directions from Cape Town via N1:
From the N1 direction Paarl, take the R300 direction Somerset-West. From there you take the second off-ramp left into Stellenbosch Arterial Road. Continue approximately 11km pass Zevenwacht Mall and the Polkadraai Farm Stall until you find us on your right, opposite Mulderbosch (previously Kanu).

Directions from Cape Town via N2:
From the N2 direction Somerset-West, take the R300 direction Bellville. From there you take the Stellenbosch Arterial off-ramp right, direction Stellenbosch. Continue approximately 11km pass the Zevenwacht Mall and Polkadraai Farm Stall until you find us on your right, opposite Mulderbosch (previously Kanu).

Directions from Paarl via the N1:
From the N1 direction Cape Town, take the R44 off-ramp left and continue through Stellenbosch until you reach the "Cape Town International Airport and R310/M12" sign. Turn right there and continue straight pass Distell on you left. Continue for another 7kms pass Asara (do not turn left at the next traffic light) and Neethlingshof until you find us on your left opposite Mulderbosch (previously Kanu).

Directions from Somerset-West via the N2:
From the N2 direction Cape Town, turn right into Baden Powell Drive (R310). Continue for approximately 6kms and turn left into Vlaeberg Road. At the next intersection, turn right into Polkadraai Road (M12). Continue for another 1.5km until you find us on your right, opposite Mulderbosch (previously Kanu).