



Wavetrain2 short course "WAVE ENERGY REALITIES"

Pico Island, September 28th – October 6th, 2009

The wavetrain2 short course "WAVE ENERGY REALITIES" will be held from September 28th to October 6th, as agreed in the Cork short course, and as previously announced. The course contents will include the following two main items:

- (i) Extensive site visit (in 2+ groups) of Pico plant, including operation of plant by fellows; data acquisition, treatment and analysis; work on data of other pilot plants and workshop on data acquisition issues.
- (ii) "The bigger picture": project management & finance, socio-economics & market issues, entrepreneurship, including invited guest speaker(s) The weekend 3rd /4th is tentatively scheduled for "networking activities" (voluntary participation).

Venue is **Hotel Caravelas** in Madalena/Pico, and several rooms (15-20) during and adjacent to the short course duration, will be reserved for us.

Price is **40€** for a single room and 55 € for twin (breakfast included). There are cheaper rooms available at "Pensão Minibela" nearby (~30€), but I would definitely recommend to choose the Hotel (Minibela is a bit torn down). All fellows' and team member budget should not pose a problem to this.

Please confirm your presence with Janete (mail@wave-energy-centre.org) and make travel arrangements asap (if not yet done), as flights and Hotel can be still quite full at that time of the year. Please also drop us (Janete or myself) a note if you need/wish assistance with the Hotel booking – we can take care for this if you indicate the nights.

Regarding course contents, it is planned to start with roughly 1-2 days with former project experiences, including issues regarding project management, the "gap" between science and practice, and historical items about wave energy plants built in real scale. Then we spend 3-4 days to work on different set on pilot plant data (I expect to get assistance from Miguel (AWS) and Jens Peter (Wave Dragon). We will work in small groups on real plant data and discuss the outcome among groups. *See tentative schedule (update later).*

It is therefore important that all participants fellows therefore could indicate their possibility of bringing their own laptop. Software used will be the one that laptop owners or others in the group normally use (Matlab, MatCAD, Excel, Fortran, etc), original data will be made available in a general format (dat, txt,...). Some Hard- and Software will also be made available by WavEC.

TRAVEL:

Flights can be booked via www.tap.pt, if booked early, typical return prices from Lisbon to Horta (Faial Island – boat trip 30min) range from 210 EUR to above 300 EUR. Exceptionally there are direct flights to Pico Island, but only on Tuesdays (25th). Alternatively you can try www.sata.pt, or your local travel agencies. SATA also fly directly from Amsterdam, Dublin, Frankfurt, London and Madrid to Ponta Delgada (São Miguel Island), from where a connection flight to Pico or Faial can be made. (Note: in some periods of the year, flights get cancelled due to weather conditions. Our period is normally quite safe, but no guarantees).

Boat trips schedule – www.transmacor.pt (allow 20min for trip from/to Horta airport):

Horta – Madalena Sept. 26 th -28 th :	07:30h	10:00h	13:00h	15:00h	17:00h	20:00h
Madalena – Horta: Oct. 6 th – 7 th :	08:30h	10:45h	13:45h		18:00h	

SURROUNDING & LEISURE:

Normally this week is still nice weather and **swimming & snorkling gear is strongly encouraged**. The Azores are a famous dive region and who is scuba diver can easily rent equipment. Also, if we have enough interested, we might get special deals for a “discover scuba experience” course (ca. 2h?). Further, Whale & Dolphin watching (~50 €pp) is a popular activity and can be quite rewarding if one is lucky.

If we find time and weather alright, also hiking is a good possibility. For the networking weekend, I suggest a “subida à montanha” (mountain climb) on the highest mountain of Portugal (2351m); with spectacular view (to be confirmed according to conditions). It takes at least 3h (for the ones in very bad shape more) up, and can be quite demanding, but worthwhile (good shoes for trekking required).

It may be beneficial to arrange rental cars shared by several people for part of the period. Europcar has local partners, the other big ones not. Normally rental cars are easily available and reasonably cheap by end of September. Please don't hesitate to contact me directly in case of doubts. Only one thing please take into account:

WEATHER AND WAVES ON THE AZORES NORMALLY DO THE OPPOSITE OF WHAT WE EXPECT – so please don't nail me down on the “normally good weather”.

FINAL NOTE: Although we should take advantage of being at a really pleasant place for several days, please be prepared for a “busy” course content. We have found that in 2007 many participants considered the Pico course a very important experience, and how much we get from it basically depends on the effort that each individual and each group put into it. We expect to have several very experienced lecturers there (to be confirmed later), and hope to be able to reasonably transmit some “Wave Energy Realities”.

Time	Monday, 28.09.2009	Tuesday 29.09.2009	Wednesday, 30.09.2009	Thursday, 01.10.2009	Friday, 02.10.2009	Sat/Sun 03./04.10.2009	Monday, 05.10.2009	Tuesday, 06.10.2009	
09:30h - 10:30h	Fellows' meeting: critical issues and doubts (contract, rights, & duties, Career Development Plan, etc.)	Wave Energy Realities; learnt lessons overview	Project Planning and Engineering Examples: Wave Dragon (Applied project management; generic issues)	Pico OWC Recovery Project: Overview and Technical Issues	Groups 1&2: group work on Wave Dragon & AWS data	Groups 3&4: Extensive site visit & data acquisition campaign at Pico OWC (Cachorro)	Tutored group work on Pico OWC data	Finalisation of result presentations	
10:30h - 11:30h		Project Planning and Engineering Examples: OWC Design (Applied project management; generic issues)		Pico OWC Recovery Project: Measurements and Former Results				Group-wise presentations of results	
11:30h - 12:30h		Last-minute arrivals & group organisation	Wave Dragon measurement data explanation	Pico OWC Data Acquisition Campaign: Introduction and Discussion of Objectives				Discussion	
Lunch Break 12:30h - 14:00									
14:00h - 15:00h	Wave Energy Realities; learnt lessons overview	Project Planning and Engineering Examples: OWC Design (hydrodynamics & aerodynamics)	Project Planning and Engineering Examples: AWS (Applied project management; generic issues)	Groups 1&2: Extensive site visit & data acquisition campaign at Pico OWC (Cachorro)	Groups 3&4: group work on Wave Dragon & AWS data	Annual wavetrain2 project meeting; focus: work plan progress and 1-yearly report; budget	FREE TIME (team-building actions envisaged)	(contd.) work on pilot plant data	Closing short course and departure (optional clarification of doubts and evtl. extra measurements)
15:00h - 16:00h	Project Planning and Engineering Examples							AWS measurement data explanation	
16:00h - 17:00h									