

THE GEOTHERMAL ASSOCIATION OF IRELAND

SECRETARIAT: CSA HOUSE, 7 DUNDRUM BUSINESS PARK, WINDY ARBOUR, DUBLIN 14, IRELAND

Tel: +353-1-296 4667

Fax: +353-1-296 4676

email: conodate@mac.com

GEOTHERMAL AWARENESS DAY PROGRAMME

Date: Wednesday 4th March 2009

Time: 2pm to 9pm

Location: Cork

The GAI has organised the following programme of events to coincide with the Annual General Meeting.

1. Site visits have been arranged to 3 prominent projects in Cork, each of which have incorporated shallow, open-loop, geothermal systems to provide heating and/or cooling for the buildings.

Please wear own personal protective equipment (hard hat, hi-visibility jacket and site boots).



(a) Cork County Hall and Library

Meet in main foyer on ground floor at 2pm (directly across road from the Kingsley Hotel).

(b) UCC IT Building (3:00pm)

Attendees will walk from the County Hall to the IT Building approximately 0.5 km away.



(c) UCC Glucksman Art Gallery (4:00pm).

Attendees will walk from the IT Building to Art Gallery approximately 0.5 km away.

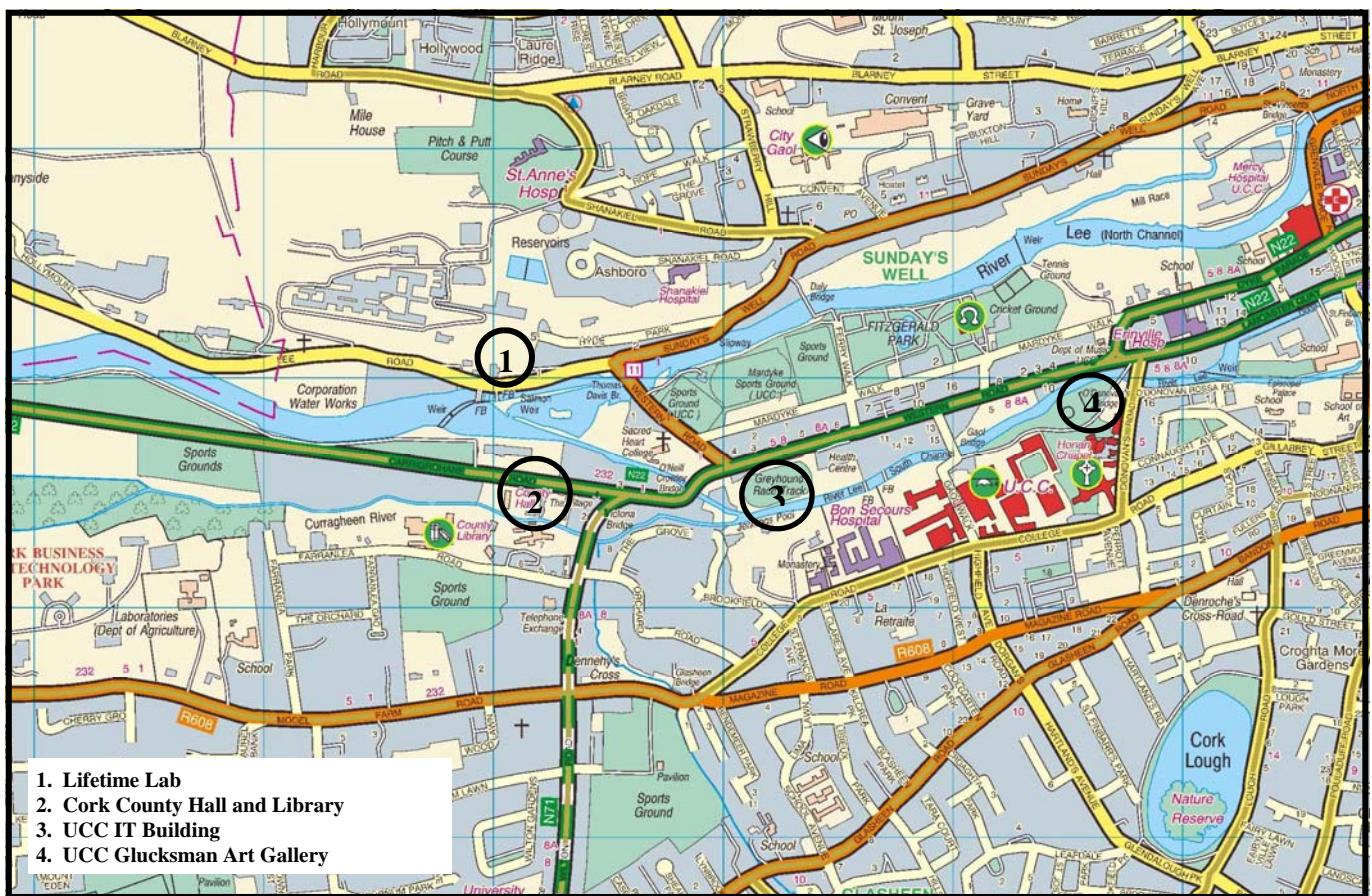
2. AGM will commence at 6:00pm in the Lifetime Lab on the Lee Road (north of River Lee from County Hall approximately 1km from the Glucksman Art Gallery).

3. The GAI AGM Guest Lecture will commence at 7:30pm in the Lifetime Lab and will be:

**Geothermal Water In Crystalline Rocks In Portugal,
Its Development And Use**
Dr. José Martins Carvalho

In mainland Portugal, where crystalline rocks outcrop over 60% of the area, thermal waters are related with active faulting, mainly in granitic rocks. Twenty-six springs have discharge temperatures between 25°C and 76°C and are used in balneotherapy. The average air temperature is 15°C, the water in shallow wells presenting temperature up to 18°C. A few small, low enthalpy operations for direct use at existing hotels are operating normally. A dozen feasibility studies, already carried out at other sites, demonstrate adequate conditions for further operations.

The two main Portuguese geothermal projects, in Chaves (150m depth) and S. Pedro do Sul (500m depth) have temperatures respectively of 76°C and 68°C and exploitation capacities of ca 10 l/s. They are direct use operations (hot tap water production, space heating and greenhouse heating) with an annual utilization of 81 TJ/yr (Chaves) and 58 TJ/yr (S. Pedro do Sul). The promising implementation of these geothermal projects in Portugal, is modest due to several difficulties (mild climate, lack of tradition in heating, low demand and conflict with balneotherapeutic uses).



RSVP: Please advise if you (and colleagues or friends) will be attending by emailing anna-maria.murphy@arup.com or on Telephone No. 021 4223274 before 5pm Monday 2 March 2009