

# Climate Change and Civil Engineering

Friday 20th November 2009 09.45-17.30

Cowes Yacht Haven, Isle of Wight

£150 (inc VAT)

£30 (inc VAT) Isle of Wight Residents

Climate change affects the UK. We will see hotter, drier summers and warmer wetter winters, coupled with increased frequency of extreme weather events such as heat waves, droughts, heavy rain and floods. The latest UK Climate Projections say that a mean sea level rise of 40 cm this century is likely and considers a 1.9m rise to be possible. A few scientists, such as Jim Hansen of NASA, believe global sea levels could rise up to as much as 5m by 2100.

It will fall to civil engineers to design and implement many of the measures that will be required to prevent or, at least, mitigate the worst ravages of climate change. Among many essential tasks, they will be called upon to design and construct sea defences to cope with sea level rise, install alternative power generators such as wind turbines, tidal barrages and nuclear power plants, and build dams and water distribution networks to overcome the worst effects of droughts.

This conference will start by examining our latest scientific understanding of natural and man-made global climate change and the scale and immediacy of the problem. We will then look at how civil engineering can help address the problems we are facing as a planet - from flood defence work to imaginative geo-engineering proposals such as launching reflective mirrors into Earth orbit.

The presentations are intended to be accessible to engineers, scientists and lay folk alike. There will also be an opportunity to participate in a question-and-answer session with the expert presenters and chairmen.

A limited number of places will be available, free of charge, for Isle of Wight students (Years 12 and 13)



# Schedule

from 09:45	Registration and coffee
Introduction 10:30	Welcome and outline of programme Don McCallum <i>Institution of Civil Engineers</i>
<b>The science of climate change</b>	
First Session: 10:45	<b>Natural climate change – the long view</b> Prof. Martin Culshaw <i>University of Birmingham and Former Director British Geological Society</i>
Chair: Ted Nield <i>Geological Society of London</i>	<b>Man-made climate change – a recent phenomenon</b> Dr Bob Thomas <i>Glaciologist and Former Manager of NASA's Polar Research Programme</i>
12:15	Buffet lunch
<b>Predicting the future</b>	
Second Session: 13:00	<b>How General Circulation Models (GCMs) are used to predict future climate</b> Dr Howard Cattle <i>CLIVAR Director, National Oceanographic Centre, Southampton University</i>
Chair: Dr John Laverty <i>Institution of Civil Engineers</i>	<b>How to tell man-made and natural changes apart and forecast the future</b> Dr Bruce Denness <i>Environmental Consultant</i>
14:30	Break
<b>How engineers can help</b>	
Third Session: 14:45	<b>Adapting to climate change – what civil engineers can do</b> Dr Jean Venables OBE <i>ICE President 2008/09 and Crane Environmental Consulting</i>
Chair: Prof. Robert Nicholls <i>Southampton University</i>	<b>Geo-engineering - What can be done if all else fails</b> Prof. John Shepherd FRS <i>Southampton University and Tyndall Centre for Climate Change</i>
16:15	Break
<b>What climate change means for the South Coast</b>	
Fourth Session 16.30 - 17:30	Debate and discussion with all speakers and chairmen about what climate changes means for the south coast, and the ways in which engineering solutions can help mitigate the potential problems.
Chair: Prof. Grant Hearn <i>Southampton University</i>	

## Getting there

### On Foot

Ferries to the Isle of Wight operate from several mainland ports. The closest ferry terminal to Cowes Yacht Haven is Red Funnel's High Speed Terminal in West Cowes. Scheduled departures of Red Funnel's 'Red Jet' foot passenger service operate on a 'turn up and go' (no pre-booking) policy and leave from Red Funnel's Terminal 2 in Southampton every 30 minutes.

Cowes Yacht Haven is a short five minute walk from the Cowes Red Funnel High Speed Ferry Terminal.

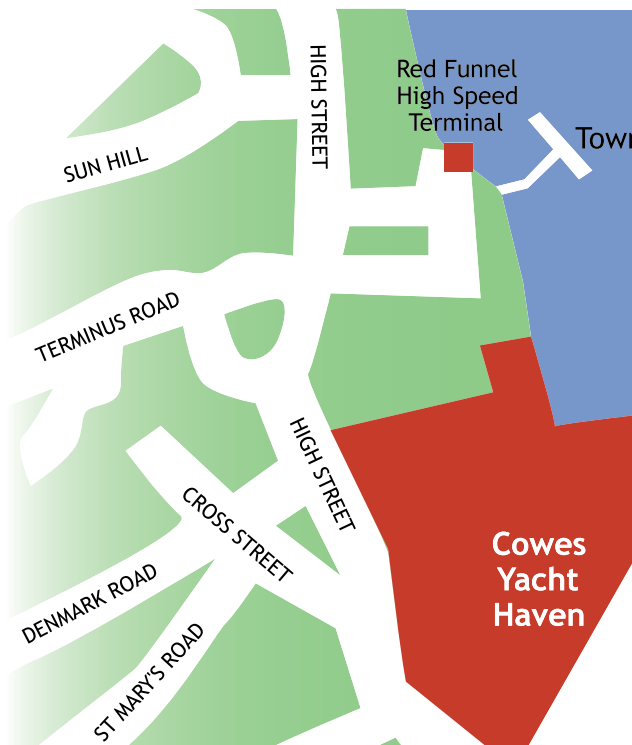
Ferry from Southampton [www.redfunnel.co.uk](http://www.redfunnel.co.uk)

Ferry from Portsmouth or Lymington [www.wightlink.co.uk](http://www.wightlink.co.uk)

### By Car

Car ferry services are available from Southampton (East Cowes), Portsmouth (Ryde, Fishbourne) or Lymington (Yarmouth).

Once in the Island, you can use the postcode PO31 7BD, for a door to door route using [www.theaa.com](http://www.theaa.com) or if you are using a SatNav system.



# Booking Form

Climate Change and Civil Engineering  
Cowes, 20th November 2009

Name .....

Company .....

Address .....

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Email .....

Telephone .....

I require the following number of places at the conference:

Isle of Wight Resident (£30 inc VAT per person)

Full Delegate Rate (£150 inc VAT per person)

I enclose a cheque (payable to Institution of Civil Engineers) for £ \_\_\_\_\_

Please invoice me for the full amount. Purchase Order number: \_\_\_\_\_

If you wish to pay by credit/debit card, please telephone Anne Qualters on 020 8663 9027

Y/N Please send me a VAT Invoice

Please return completed Booking Forms to:

Anne Qualters e [anne.qualters@ice.org.uk](mailto:anne.qualters@ice.org.uk)

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