

News Release

Is seaweed the answer to Cooling the Planet?

Young engineers pit their wits at national finals at IMechE Thursday 5 March

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Is seaweed on our buildings the answer to combating climate change? This is just one of the novel ideas that will be submitted at an international environmental competition on Thursday (5 March) from 1.30-5.30pm in London when some of the world's brightest young eco-engineers will pit their passion and wits to come up with ideas that will help us in **Cooling the Planet**.

The finals of Cooling the Planet is being organised by the Institution of Mechanical Engineers (IMechE) and will take place at its London headquarters, Birdcage Walk. It comes hot on the heels of its groundbreaking Climate Change: Adapting to the inevitable report. The competition will see six teams (including one from Malaysia) create practical and sustainable approaches to curbing emissions using geo-engineering and mitigation.

Teams will have a stab at trying to prove if these scientific and engineering solutions really have a chance of working. There are dozens of potential solutions floating around, from mirrors in space to algae on buildings. Six teams of young engineers will assess the risks, costs and other factors for each idea and can enter one of two categories: mitigation, which reduces the carbon emissions generated; and geo-engineering to remove carbon from the atmosphere or cool the planet artificially. There will be a winner from both categories but only members of the overall winning team will win £500 each and have their ideas incorporated into the IMechE's statement of recommendations on climate change to the Government.

Within the geo-engineering category, a team from Rutherford Appleton Laboratory in Oxfordshire will be assessing the use of artificial trees to remove CO₂ from the atmosphere; BH Young Engineers based at Buro Happold, want to use algae on buildings to act as an insulator; a team from Jaguar Land Rover in Coventry will look at reflective roofing to increase the Earth's radiation reflectivity - which is beneficial because the higher the radiation reflectivity of the earth, the lower the heat absorption that occurs within the planet's atmosphere, leading to lower temperatures.

Ideas for the mitigation category include using carbon capture and storage as a method by a team from Tenaga Nasional University in Malaysia; another is team Glow, based at Buro Happold in Bath, will focus on Anaerobic Digestion, which produces a biogas that can be burnt to generate heating and electricity from a renewable source. The last entry is from Planet AECOM at Faber Maunsell in London - they will discuss how organic waste can be transformed into useful products using a method called Pyrolysis.

Dr Tim Fox, IMechE's Head of Environment and Climate Change said: "Despite the lack of Government funding to effectively assess proposed climate change solutions, young engineers have shown desire and passion to help solve a major challenge that faces society today. We are very proud that young people from around the world have actually used their spare time to research and assess solutions that could reverse the effects of global warming and keep our planet cool.

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"It is vital that a national programme is established for engineers to use their skills to decide whether a solution is realistic or not – without such research taking place, there is little hope that we will ever be able to reverse global warming and combat climate change. We have already urged the Government to take action and are looking forward to including the findings of the winning entry in all our future recommendations."

The competition opened in October 2008, with 25 teams registering and over 100 young engineers from around the world. The regional heats took place December 2008. Encouraging young engineers to use their skills to combat climate change is at the very heart of the IMechE's work because one of its key themes is 'environment'. The latest environment theme report released by the IMechE is '*Climate Change: Adapting to the Inevitable?*' which considers the possible climate changes which we may expect over the next 1,000 years due to continuing CO₂ emissions, and recommends what engineers need to do to adapt to our future world so that we can cope with these changes.

Dr Fox has assembled an eminent panel to judge the entries which includes Professor Tim Lenton, of University of East Anglia, Dave Watson, Head of Environment and Sustainability at United Utilities, Chris Cox, IMechE Young Member Ambassador for the Environment and Dr Colin Brown, IMechE's Director of Engineering and the panel's chairman.

Chris Cox commented: "The aim of the competition is to raise awareness of how engineering can have an impact on environmental issues. The competition received entries from across the world – a Malaysian team is in the final – which shows that engineers in any country want to solve environmental concerns."

The final of Cooling the Planet takes place at the IMechE on 5 March from 1.30pm until 5pm.

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Notes to Editors

- If you would like further information please contact the IMechE Press Office on 0207 304 6992 or email media@imeche.org.
- The Institution of Mechanical Engineers (IMechE) was established in 1847 and has some of the world's greatest engineers in its history books. It currently has around 80,000 members in 120 countries representing mechanical engineers involved in a diversity of fields such as the automotive, rail, aerospace, medical, power and construction industries to name a few. Visit www.imeche.org for more information.