









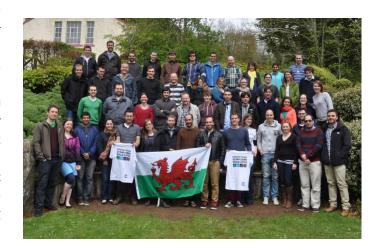
The 2013 International Symposium

This year the international INORE symposium welcomed more than 50 graduate researchers to the rolling hills of Pembroke, Wales. The Pembrokeshire Adventure Centre, located on an inflow to the river Cleddau, played host to the week-long event where attendees participated in motivational and technical presentations, poster sessions, and team-building exercises.

One of the highlights of the presentations came when Dr. Gregorio Iglesias from Plymouth University gave an impromptu presentation on the defining traits that a successful offshore energy converter must possess. The acronym Dr. Iglesias coined, SNF (Simple, Non-self-destructing, and Friendly), will be remembered by all.

"Changing the Game" was presented by Julia Chozas. This educational tool, masquerading as an extremely fun game, demonstrates the impact of governmental policy on energy and emissions. The lasting message brilliantly demonstrated by the game is that if the status quo isn't working, make a change!

A visit was made to the Pembroke Docks which are at the head of the deep-water port of Milford Haven. The dockyard is actively working to support the developing wave and tidal industries, and has the potential to be an important partner as the industries develop. The symposium wasn't all business, as the Adventure Centre provided access to several activities throughout the week. Coasteering was the highlight for many of the attendees, while those with a more reasonable respect for heights enjoyed raft building, kayaking, and canoeing. Other after-hours activities included: group games, basketball, and singing around the bon-fire. The Symposium even had live music courtesy of the Moose Band Wales. The world has never seen so many engineers and researchers dance so well!









We Are 1000 Strong

Fernando del Jesus Peñil from the University of Cantabria recently joined INORE as our 1000th member. This is a fantastic milestone for our organization! Even a few short years ago, many of us who were researching offshore renewable energy felt like we were on an island all our own. If the growth of the community is any indication of the future of offshore renewable energy, the future looks bright!

So who is Fernando and what does he do? We were wondering too, so we sent him an email to find out!

Fernando received his master's degree in Coastal Engineering and Ports from the University of Cantabria. Due to the difficult economy, Fernando was delighted by the opportunity to pursue his PhD with the Environmental Hydraulics Institute at the University of Cantabria (IH Cantabria).











Fernando's research has been focused on offshore wind energy. Specifically, he has analyzed the data from floating IDERMAR meteorological masts and developed a movement compensation system in order to improve the accuracy of field measurements. Fernando will soon be completing a study funded by Fundación Iberdrola in which he examined the effect of coastline orography on the distribution and price of offshore wind energy.

As offshore wind parks grow in size, the spatial variability of site characteristics becomes important to design. Fundación Iberdrola will continue to fund Fernando over the next year as he examines the variability of wind loads within an offshore wind farm.

INORE is proud to welcome Fernando, our 1000th member!

Looking Back on Our Start

INORE was started by a small group of offshore renewable energy researchers at the Norwegian University of Science and Technology (NTNU). Nicolai Løvdal was one of those researchers pursuing his PhD. Nicolai had entered the offshore renewable energy field after studying philosophy, economy, mechatronics, and business strategy. Nicolai received his degree in international entrepreneurship within offshore renewable energy, studying the growth of businesses within the offshore renewable energy field. He recounts that NTNU quickly realized that in order to reach a critical mass of researchers for meaningful discussions and collaboration, they needed to expand the group outside their own university.

In order to expand the group, they knew they would need money, and this led Nicolai to write a rough draft of an application for funding. But before he was able to clean up and polish the application, one of the invited professors submitted the draft application, in his name. application wasn't funded, and a measure of trust was lost. This event was defining for INORE as it focused the group's goal. INORE wasn't just looking for members; it became clear that INORE needed to be built by and for a new generation of young researchers who were willing to share ideas and experiences across borders and cultures, and who were also willing to appreciate the contributions and research of others. They also knew that the group needed to be affordable as graduate students are always short on cash, and some advisors can be stingy. The "jobs" section of INORE's website was a direct result of the idea that INORE should support its members even as those members move on in life. Above all, the group needed to be focused on saving the world and having fun along the way. This is after all Nicolai's own mantra.

With these goals clear, INORE was able to secure initial funding from two of the big energy companies in Norway, Stratkraft and Statoil, as well as a smaller amount from NTNU. To insure that INORE lived up to its International

aspirations, several of the founding committee members were brought in from other countries. With the committee and funding in place, INORE was officially born.

Nicolai believes that the most important roll of INORE is, and always will be, to develop and safeguard the "informal, yet professional" environment that is fundamental to the organization. As the group grows, as long as it continues to be built on this premise, and fosters friendship and collaboration between young researchers, it will be a success.

Where is Nicolai now? He is 36 years old with a wife and two children. He is an independent consultant for issues related to new energy technology, commercialization, and internationalization, currently working as a special advisor to the Research Council of Norway helping them develop new energy concepts and companies capable of solving our energy related challenges. In his spare time (what spare time?), he enjoys travelling, trips to the mountains, boating, and campfires.

Nicolai made an excellent comment that will serve well as a closing:

"The oceans will be more and more important for us human beings in many ways. I hope every active INOREan is proud of this and understands that the research they are doing is important."













ICIS Grant Awardees for 2013

After reviewing all of the fantastic ICIS grant applications, the 2013 awardees have been determined. The three following projects will all be receiving €500 in support of their collaborative efforts:

Camilla Thomson and Julia Fernández Chozas, "Development of a joint Economic, Carbon & Energy openaccess model for wave energy".

Carlos Pérez Collazo, Morten Jakobsen, and Julia Fernández Chozas, "Synergies for a wave-wind energy concept".

Adrian David de Andres & Andy MacGilllivray, "Study of the factors that affect cost of energy: paths towards a reduced LCOE"

Introducing INORE at OMAE

The 32nd International Conference on Ocean, Offshore, and Arctic Engineering (OMAE) was held from June 9-14th in Nantes, France, and hosted by the École Centrale de Nantes. OMAE is one of the leading conferences for offshore engineering with a tract specifically devoted to offshore renewable energy research. With a total attendance of about 1200, the conference features presentations on nearly 900 technical papers.

James Brekke was kind enough to give Adrian de Andres some time at the Outreach for Engineers Specialty Forum to introduce INORE to those attending OMAE. The event is designed to welcome students and early professionals to the field of offshore engineering, and to foster professional relationships within the community. The forum's purpose is very well aligned with that of INORE, and hopefully Adrian's work as an ambassador will open an avenue for continuing collaboration in years to come.



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Port of Milford Haven







