

## HITEC Retreat 2013

**A joint event of young scientists from Forschungszentrum Jülich, RWTH Aachen University, Universität zu Köln and Universität Wuppertal**

The HITEC graduate school gathers growing scientists from various fields combining chemistry, physics, engineering and material science. The common mission is a contribution to the future of energy production and its impact on environment. In July 2013, 43 of these young researchers in the second year of their PhD went together the long way to the energy pioneering village Wildpoldsried in Allgäu, Bavaria in order to bring together different views and perspectives, to learn about their work and methods.



The venue was the 4000 inhabitant village of Wildpoldsried within the pre-Alp area which chose to take an individual way by involving the inhabitants in energy production setting up solar, bio mass and wind plants. In the ongoing project IRENE which is supported by BMWi, the local power supplier develops in cooperation with partners from industry and universities a smart-grid system which is able to handle an electricity grid which is not just based on centrally created power and spread consumers, but where every consumer is also own supplier feeding non-consumed electricity into the grid.



Wildpoldsried, with more than four times bigger electricity production than consumption showed out to be a perfect field study as electricity grids maintain a complex system, extremely difficult to be modeled. A presentation of the IRENE project including a small tour gave an overview about the activities and the outcomes, drawbacks and challenges of a practical realization of a smart grid and was followed by a lively discussion about technological challenges up to the feasibility of the German “Energiewende”.



In talks giving by the young scientists, the methods spanning manufacturing, measuring and modeling methods which are used in the certain institutes were presented showing the variety of works carried out, showing different ways of handling a problem and enabling a discussion about possible collaborations. As the institutes presented as a whole group it was possible to visualize very well the variety of methods and classifying them. Discussions between the Hitec fellows carried on until late at night.



At a trip to a near-by lake the HITEC fellows went together to a high line park where they pushed themselves mastering several highline courses putting them together as a great team.



All in all, the event was rated really great among the young scientists. Just the long bus ride was experienced as a bit too exhausting for the short time but “maybe”, as one participant pointed out “this was necessary to really leave everyday routine behind and get the feeling of doing something really different and meaningful”.