

SICSA Distinguished Visiting Fellow, Professor Erik Hollnagel (MINES, ParisTech), 8th-28th August, 2010.

Hosted by Gordon Baxter (St Andrews)

Professor Erik Hollnagel (holder of the Industrial Safety Chair at MINES, ParisTech, France) visited St Andrews in August 2010. Prof Hollnagel is a world leading authority on Resilience Engineering, and his research in this area overlaps with current on the Large Scale Complex IT Systems (LSCITS) and the Interdisciplinary Design and Evaluation of Dependability (InDeED) projects. Prof Ian Sommerville's research group at St Andrews is involved in both of these projects, and there were ongoing discussions with Prof Hollnagel throughout his visit.

Several events were organised during Prof. Hollnagel's stay. The first of these was a Master Class on Resilience Engineering. This consisted of two one hour sessions primarily aimed at SICSA PhD Students and people who were unfamiliar with the topic. The aim of the Master Class was to give people a general awareness of the issues, and provide pointers for people who wanted to look into the area in more detail.

For Prof Hollnagel's visit to Glasgow, he was hosted by Dr Tim Storer and Prof Chris Johnson. As well as meeting several members of staff individually and talking to a group of postgraduate students, Prof. Hollnagel also gave a talk "How to Make Healthcare Resilient?" to fit in with research interests within and across departments at Glasgow.

During the second week of his stay, Prof. Hollnagel visited Aberdeen University, where he was hosted by Prof. Rhona Flin. There he gave an open lecture ("How can you ensure that things go right if you only look at things that go wrong? An illustration of how to use Resilience Engineering) to a capacity audience which included many industrialists from the Oil and Gas industry. Prof. Hollnagel also spent time discussing research issues with Prof. Flin's group.

Later the same week, the SICSA Socio-Technical Systems Network held its latest meeting in St Andrews. This consisted of a panel-based discussion session focusing on the topic of Critical National/Networked Infrastructures (CNI). There were presentations from Prof. Hollnagel, Prof Sommerville, Prof Johnson, and Jim Urqhart from the Scottish Government, looking at different aspects of the problem of CNI, including the nature of the problem itself, organisational learning issues, and the role of responsibilities in CNIs. The presentations were followed by extended discussions between the panel members and the audience, which included academics from Aberdeen, Edinburgh and Glasgow.

The visit to Edinburgh's School of Informatics was hosted by Stuart Anderson. In addition to meeting several members of staff from the School, Prof. Hollnagel gave a talk "Socio-technical systems: dependability or resilience?" to tie in with some of the School's research

interests in those areas. There were also informal discussion after the meeting, which included possible future collaborations.

The final event of Prof. Hollnagel's visit was a day long tutorial on a Resilience Engineering Method that he has developed, called the FRAM (Functional Resilience Analysis Method). The goal of the tutorial was to introduce people to the method (in the morning) and give them the opportunity to try out the method for themselves in the afternoon. This was done by applying the method to the case of Lisa Norris, who was overexposed to radiation whilst being treated at the Beatson Oncology Centre in Glasgow.

Several of the attendees at the events commented on how useful and interesting they had been, and all of the people who hosted Prof. Hollnagel thought that his visit had been a success. Prof. Hollnagel's visit stimulated discussion at all of the sites where he visited, and helped to raise awareness within SICSA of other colleagues who are working in similar or related research areas. It also helped to raise the profile of SICSA a little outside of academia through the open lecture in Aberdeen, and having a representative from the Scottish Government take part in the panel discussions in St Andrews.