

Call for Papers

ICL2014 Special Session

Competence development in (online) laboratories for a globalized professional world

Focus

The professional world has been and still is changing significantly as working contexts are becoming more and more globalized. Especially, young engineers face the situation that colleagues, they are working with, are distributed all over the world, living in different countries and having different cultural backgrounds. This is a situation competence development in engineering education should have in mind.

Just as the professional world, engineering education in the laboratory environment has been changing, too. A fundamental strength of many engineering courses is engaging students in engineering experiments and laboratory work. That supports the connection between theory and its appropriate practical application. In addition to that, especially online labs are an approach that offers completely new opportunities to contextualize engineering courses. In order to support the employability of young engineers, a deeper insight into the fields of competences, which can be addressed by experiments, is necessary. Aiming at fostering the conceptual understanding and competence development, the learning environment requires a carefully adjusted setup, e.g. regarding the lab objectives or learning & teaching activities. Having all these aspects in mind, the discussion in this special session will connect the following three topics:

Topics of Interest

- **(Online) Laboratories in higher engineering education**
- **Competences needed in the professional world**
- **Internationalization of engineering courses**

The objective of this Special Session is to stimulate an open discussion and a reflection of experience in the use of (online) experiments in future oriented engineering education. Therefore aspects to achieve competence development in lab courses more effectively and in the context of internationalization will be carved out. For the session it is not necessary, that every single contribution addresses all three topics equally. The session will be designed so that the big picture will become visible through the individual perspectives. Therefore the interactive discussion on the topics above is paramount and will be guided by the presentations. The described special session is structured as an interactive track as follows:

- 1st part (120 min): Presentations (final quantity depending on submissions)
 - **2 full paper** contributions (20 min each = 40 min)
 - **4 short paper** contributions (10 min each = 40 min)
 - **3 work in progress** contributions (10 min each = 30 min)
- 2nd part (120 min): Round Table Discussions
- 3rd part (30 min): Closing interactive discussion

Important Dates

The deadlines for **full paper**, **short paper**, and **work in progress paper** submissions are:

13 June 2014	Submission of complete paper
14 July 2014	Notification of Acceptance
20 October 2014	Camera ready due

Guidelines for submission of contributions

To submit a contribution, please create a user account. Contributions will be considered only if

submitted via the IGIP Conference management system. Submission URL:

<http://www.conftool.com/icl-conference/>

It is important to respect the [authors instructions](#)

Proceedings

All accepted and presented submissions will be published in the ICL2014 Proceedings, listed in IEEE Explore, and submitted to EI Compendex, SCOPUS and other scientific indexing services.

Program Committee

- Dominik May, Claudius Terkowsky, Christian Pleul, Prof. Dr.-Ing. A. Erman Tekkaya and Prof. Dr. Uwe Wilkesmann (all TU Dortmund University, D)
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