

**"Talking about Teaching 2013" (TaT'13)**<http://dx.doi.org/10.3991/ijep.v4i2.3790>

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The 2<sup>nd</sup> edition of the Special Session *Talking about Teaching 2013 (TaT'13)* within the Annual Conference IGIP2013 (<http://www.igip-online.net/>) aimed to promote the discussion on Engineering Education by providing an opportunity for debating and sharing approaches, developments and experiences, in line with the mission of both the Portuguese Society for Engineering Education (SPEE) and the International Society for Engineering Education (IGIP). This initiative also helped to strengthen the cooperation between these two Societies, one being a well established international society with more than 40 years of experience and the other, SPEE, a young society with 3 years of life.

*Talking about Teaching* is the name of a thought-provoking column of Susan Zvacek, USA, in the SPEE Newsletter and the organizers intended to give continuity to its reflections and potentiate them within this Special Session @ IGIP2013, fostering profitable discussions.

The proposed topics were concerned not only with resources in engineering education (EE) and with the constant demand on the use of technology, but also with the effectiveness of knowledge in order to guaranty simultaneously the spirit of engineering leadership in society and the lifelong learning capability. They also included the perspective of EE oriented for STEM, as well as the commitment in sharing resources with those affected by the digital divide.

Six of eight presentations at TaT'13 have been the basis for the present reworked versions now integrated in this Special Scope of the International Journal of Engineering Pedagogy (iJEP).

Teresa Larkin received the Best Paper Award after having got the reviewers enthusiastic agreement on its quality, interest, engagement and excellence. One of the reviewers closed his/her comments declaring "I only wish I had this course when I was a student"

The paper **The Student Conference: A Model of Authentic Assessment** describes an alternative assessment strategy developed for a second-level physics course based on student writing, highlighting the advantages in terms of deeper learning when compared to the traditional assessment approaches.

**Online Experimentation in Education and Training** describes how emergent technologies were used for developing tools for online experimentation at STEM and at higher education as well as for lifelong training and for knowledge dissemination, addressing the access to many of the described materials. Different prototypes are also presented.

**Linking experiments with the real world** is a work describing an interactive video focusing on groundwater flow phenomena in embankment dams. The work, reinforcing that "visualization is a fundamental component of the learning process", starts synthesizing the relevance of dams as important civil engineering structures and also offers interesting facts and figures about dams, types of dams and shows the link of physical phenomena and theoretical models. All these aspects are integrated in an interactive video.

**Design, Implementation and Analysis of Learner-Centered Guided In-Service Programme for Technical Teacher Education** describes the reasoning, the strategy and the objectives behind the design and implementation of a training programme for engineering educators, being at the present a relevant topic in line with the "third wave" now in EU goals and focused in didactic/pedagogic higher education teaching staff professional aspects.

**Involving Parents at Step One in the Freshman Engineering Experience**, summarizes the authors long experience at the University of Pittsburgh. The paper analyses the problems frequently felt by freshmen due to the transition from high school to college and describes the strategies successfully developed and applied to adequately prepare both parents and students to the various dimensions of that phenomenon.

Finally, a word of gratitude is due to the reviewers - Axel Zafoschnig, Carla Barros, Dan Budny, Fernando Magalhães, Filomena Soares, Gustavo Alves, James Wolfer, Jorge Lino, José Figueiredo, José Marques, José Metrolho, Luis Gomes, Radojka Krneta, Russ Meier, Stephanie Farrell, Teresa Larkin and Vasilij G. Ivanov.