A “winter school” for DIY candidates

Some people see Fab’Labs as “the place to be” for least cost, rapid innovation. Are they becoming a popular focal point for any engineer or SME Manager who wishes to prototype his/her creation very simply? The success of the International School of Innovative Products in Fab’Labs, jointly organized in the recent winter period by UTC and Polytechnic University Turin (PoliTO) seems to point in this direction.

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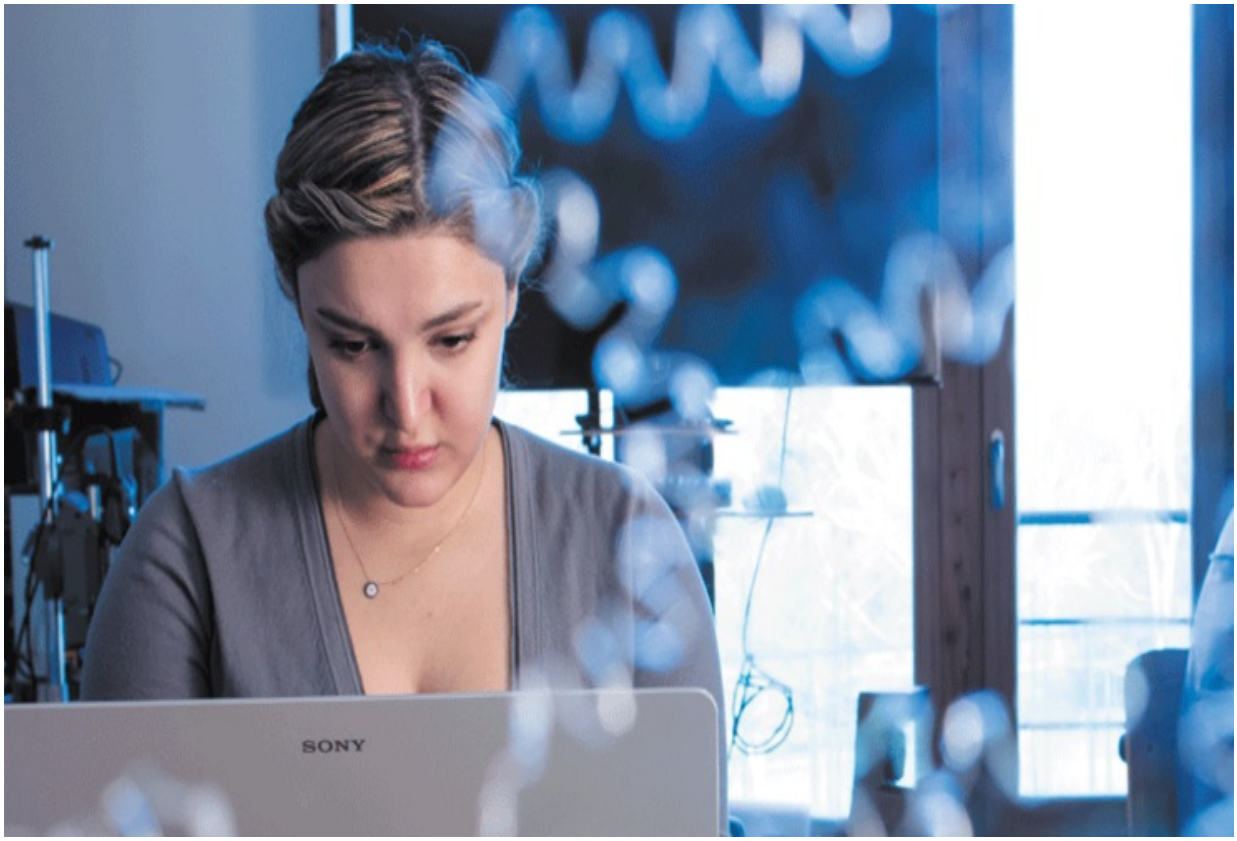

Would you like to learn how to rapidly make a low cost prototype starting from an innovative idea? *The International School of Innovative Products in Fab'Labs* (DIP Fab'Lab) was *the* training course for you. Organized jointly by UTC-Compiegne and the Polytechnic University Turin (PoliTO), the two week course took place, last February, in both Verres (Aoste valley, Italy) and at the UTC Innovation Centre, Compiegne. The objective was to host some 15 students and initiate them in methods and use of tools for rapid prototyping available in the Fab'Labs. These "fabrication laboratories" emphasize the gains of applying a DIY (Do-it-Yourself) approach, offering space and allowing the trainees to rapidly design, assemble and test their prototypes.

Discovering the tools

Out of 63 applicants, 16 were selected by the DIP Fab'Lab organizers. The first week was scheduled Feb. 1-5, 2016 in Verres, in the Aoste Valley, Italy with the assigned aim to teach the participants the necessary base for prototyping work: training in 3D design, in CAD, in the use of Arduino cards to control mechanical systems or the handling of laser knives. "The basic idea is to propose the theory and to show at the same time that the tools available can be used properly by the without any prerequisites", underlines Andrea Guerra, a lecturer at PoliTO and co-organizer of this DIP Fab'Lab event. This "theory-intensive phase was completed by training on product development processes.

"Hands-on" training

The second week of week was to put into practice the theory learned in Italy, through concretely implementing a project. There were 4 teams, each assigned the mission to design and make a prototype in 3 days' time, on the theme "light". The first prize went to a "light-key" for a light-activated lock. The next group made a modular lamp, made up of cubes that can be moved around, changing intensity and the light colour. The third team made a lamp that uses gravity as its source of power, for places with no electric grid supply. The device relies on a weight falling several minutes to generate enough electricity. The fourth project was an "emotion sensor" that uses a heart sensor (infrared) to transform the intensity and the frequency of heart-beats into messages displayed on a pad screen. The event organizers entertain the hope that, who knows, some of these ideas (and others) will be pursued and lead to viable products

The *International School of Innovative Products in Fab'Labs* welcomed a group of students at varying levels of their studies and at different points in the training cursus" adds Bruno Ramond, Director of the Daniel Thomas Innovation Centre and French co-organizer of the event, who underscores the important role of a multidisciplinary approach for processes like those found in a Fab'Lab. Bruno Raymond envisages holding the event for a second edition next year, opening participation to SME managers who express the wish to discover these new tools. The visit made by Prof Alain Storck, President and Vice-Chancellor UTC to meet Marco Gilli, Rector of PoliTO, as well as the visible investment of the regional partners such as the Val d'Aoste authorities is a good omen for the opening of new, wider-reaching forms and areas of collaboration.