a T.I.M.E. Doctoral School

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Content

• Organization
• Vision
• Course structure
• Industry involvement
• Evaluation
Organization

Budget: 20,000 EUR

Academic Partners:
- Politecnico di Milano, Italy
- CentraleSupélec, France
- Beihang University, China
- Universidad Politécnica de Valencia, Spain
- Lund University, Sweden

Industrial Partners:
- Huawei

• 3rd edition:
  - 1st in Politecnico di Milano, June 2014 (1 week)
  - 2nd in CentraleSupelec, September 2015 (1 week)
  - 3rd in BeiHang University, October 2016 (1 week)

• Number of candidates limited to 20 participants (18 for the 3rd edition)
Our vision

Bring professors & PhD candidates from the highest level together & from different background

Aim is to have 5 professors from European & Chinese partners, teaching up to 20 PhD’s

To put industry in contact with PhD candidates from different disciplines and in an international context + extension of academic – business collaboration

Challenges are solved by multidisciplinary & multinational teams of students

To give PhD candidates a concrete overview on research and innovation activities in industry and their own potential role in the future in such contexts

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Course structure (1/2)

3rd edition at BeiHang University (16-22/10/2016)
- 18 participants divided in 4 groups
- 20 hours to realize their projects (afternoon sessions)
- 2 or 3 tutors always present to support the participants in their work.

- Project work:
  - Presentation by industry researchers of one or more broad problems, requiring expertise on different disciplines and with several possible open solutions
  - Development of a project within a team in a short period
  - Active participation of industry during this work

- Educational part:
  - Lectures and interaction sessions on themes related to soft skills
## Course structure (2/2)

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<tr>
<th>Sunday</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Saturday</th>
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<tbody>
<tr>
<td>Welcome Adress and general info</td>
<td>Keynote lecture</td>
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<td>Tutorial + Project Work</td>
<td>Tutorial + Project Work</td>
<td>Tutorial + Project Work</td>
<td>Work + discuss with supervisors</td>
<td>Tutorial + Project Work</td>
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<td>First Pitch</td>
<td>Industry round table</td>
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<td>Presentation</td>
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Final objectives

3rd EDITION

At the end of the week, each group produced three deliverables:
- a 3 minutes elevator pitch,
- one slide summarizing the whole project
- a 10 minutes speech followed by a discussion with the rest of the classroom
  (including lecturers, tutors and other participants).
Course Structure – Challenges

• Cross cultural – teams of around 5 members formed from different universities, from different countries in Europe and China

• Team building

• Problem definition – what are the key problems that need to be solved

• Solving the problem in a given time frame in a given team

• Pitching – presentation skills

• Working in multi disciplinary teams

• Combining their specialist competence with other to create something new
Industrial Partners involvement
Global evaluation (SWOT analysis)

**Strengths**
- Joint supervision by professionals from different sectors
- **International teams and multidisciplinary**
- Enable networking outside academic environment
- Satisfying simultaneously the needs and expectations of university and industry, as well as the candidate’s
- **Multicultural Differences**
  - Different backgrounds
  - Dealing with expectations of the partners
  - Complexity of organizing this type of course

**Weaknesses**
- Industrial supervision stops at the end of week
- **Short time**

**Opportunities**
- Doctoral Candidates as "bridge builders" between academic and private sector
- **Academic and private sector share many views on opportunities, challenges and barriers of university-industry cooperation**
- “T.I.M.E. Product”: new scheme of mobilities, more partners...

**Threats**
- Multicultural Differences
  - Different backgrounds
- Dealing with expectations of the partners
- Complexity of organizing this type of course

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Perspectives/Questions

- Shall we keep this PhD with no fees?
- Application for a next Erasmus + Call
- More industrial partners
- Twice a year?
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**Politecnico di Milano Team:**
- Prof. Piero Baraldi

**Industrial Partners**
- HUAWEI
- ESRA (European Safety and Reliability Association)
- SAFRAN
- TOTAL

**T.I.M.E. Association:**
- Mr. Paul Crowther
Thank you for your attention!