Why do we run TESS?

T.I.M.E. European Summer School (TESS) is a remarkable concept, fully aligned with the T.I.M.E. spirit, with the capacity to grow and to involve a larger amount of T.I.M.E. members, inside and outside Europe. It uses the latest communication techniques for communicating in real time both visually and by audio.
TESS course... our story

• A “T.I.M.E.” product, offered by a consortium of T.I.M.E. members.
  – 5 ECTS credits awarded on successful completion of the program.
  – Short program aimed for MSc students or students with a BSc degree.
  – Topics not likely to be taught in an engineering curriculum.

Unique selling objectives:

• Give the students a deeper knowledge of the relation between sustainable development and the economic/financial conditions on a global scale.
• Encourage the students to propose creative solutions for real problems in a global context.
Methodology

The aim is to move from “teacher driven” to “student centered” learning, changing higher education from being just knowledge based into also being competence based.

At the end of the course students will have the competences and skills to:

• **Apply their knowledge** to how sustainable development interacts with the global economy.
• Propose solutions to real problems regarding this item, always considering the **social and human issues**.
• Improve their **ability to communicate** their choices properly in local and remote contexts.
• Work efficiently within **multicultural audiovisual remote environments**.
Number of applying students 2007-2016

- KTH & ITU
- KTH & UPM
- ITU

Admission run by KTH only

Reason for dip unknown

1st year without EM funding
Participated and graduated number of students
### Students’ home universities 2016

<table>
<thead>
<tr>
<th>Home university</th>
<th>Nº students</th>
</tr>
</thead>
<tbody>
<tr>
<td>CentraleSupélec</td>
<td>2</td>
</tr>
<tr>
<td>KTH Royal Institute of Technology</td>
<td>10</td>
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<tr>
<td>Università degli Studi di Trento (UniTn)</td>
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<tr>
<td>Politecnico de Torino</td>
<td>1</td>
</tr>
<tr>
<td>University of Queensland</td>
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</tr>
<tr>
<td>Open University of Sri Lanka</td>
<td>17</td>
</tr>
</tbody>
</table>
Course activities

Seminar held by UniTn

Study visit at Arlanda airport’s heat and cool storage

Seminar at OUSL, Sri Lanka

Project work at Centrale-Supelec
Dissemination of the course

The physical distance between the different campuses was shown to not impair communication between the students and the teachers. However, teachers could become more familiar with the audio-visual online-conferencing system before the course begins to prevent any problems when using it and to make the course more interactive.

The paper gives an overview of the development and technical challenges encountered over the years in providing such a course and illustrates various questions that the students, teachers and organizers face. Also, results of the evaluation of the course during all those years are presented.

In this paper an innovative experience developed by seven Universities (six European and one non-European) to teach a two weeks summer course in a non-conventional, remotely way is presented. The course is developed using a Project Based teaching-learning methodology and it is also designed to have a deeper knowledge of the relationship between sustainable development and the economic and financial conditions.
Conclusions

• TESS has been a forerunner for the T.I.M.E. mission of global collaboration using modern technology to bring learners together.

• But: It cannot be continued as previous.

• Conclusion: No more funding from T.I.M.E. or new approach.
  – Perhaps with more involvement from the T.I.M.E. office?
  – Advantage of this: T.I.M.E. visibility, dissemination, outreach
TESS 2016 students and some staff

At KTH

At Centrale-Supelec

At OUSL

At UniTn