



TRAINING FUTURE IT LEADERS IN A COLLABORATIVE AND MULTICULTURAL SETTING

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FIT-Europe Project (1/2)

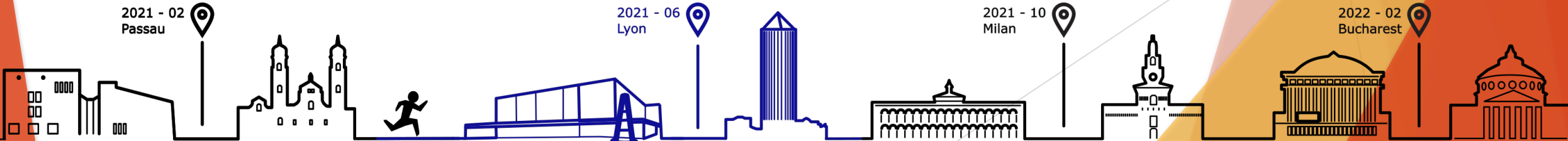
- ▶ FIT-Europe: Future IT Leaders for a Multicultural Digital Europe
- ▶ Strategic Partnerships for higher education action of the ERASMUS+ program
- ▶ FIT-Europe consortium
 - ▶ 4 academic partners from France, Germany, Italy, and Romania: INSA Lyon, Univ. of Passau, Univ. of Milan, University Politehnica of Bucharest
 - ▶ 4 “deep tech” corporate partners: La French Tech One Lyon Saint-Etienne, Atos International Germany GmbH, Engineering Ingegneria Informatica, Centrul IT pentru Stiinta si Tehnologie
- ▶ Audience : high level students from IT and computer science master programs

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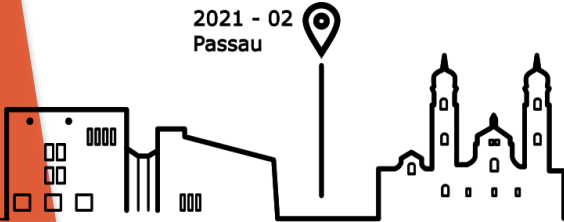
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FIT-Europe Project (2/2)

- ▶ 4 target technologies and 4 societal and ethical questions
 - ▶ Artificial Intelligence (AI)/Machine Learning (ML)/Big Data --- *Ethics*
 - ▶ Blockchain --- *Entrepreneurship/Start-up Creation*
 - ▶ Internet of Things (IoT) --- *Privacy/Trust/Security*
 - ▶ Robotics --- *Assisted Living/Robots, AI, and Humans*
- ▶ Objectives
 - ▶ Improving technological and scientific knowledge and skills
 - ▶ Addressing opportunities and social impact of IT emerging technologies
 - ▶ Living a unique intercultural experience and developing global thinking

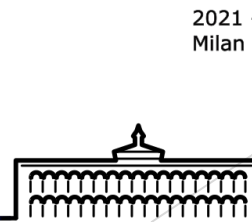
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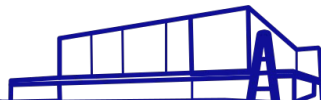
Implementation

- ▶ Organization of
 - ▶ Four seminars: Lyon, Passau, Milan, Bucharest
 - ▶ One-week duration
 - ▶ Mixed contributions from academic (IT and social sciences) and business partners
 - ▶ Lectures, round tables, team projects
- ▶ Companion paper: “Fostering Student Entrepreneurship Mindset”, room E2, 1PM

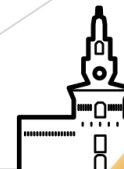
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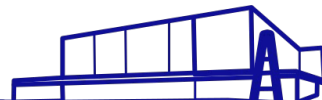
3rd Seminar in Milan

- ▶ “Preserving Privacy and Trust in the Internet of Things”
- ▶ 35 students
 - ▶ First seminar in presence
- ▶ Morning
 - ▶ Students attended scientific (IT and social science) and technological seminars
- ▶ Afternoon
 - ▶ Split in international teams
 - ▶ Real-world challenges and questions
 - ▶ Derived from effective ongoing research projects at Engineering Informatics SpA
 - ▶ Mentored by Engineering SpA engineers and academic researchers

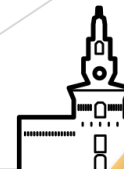
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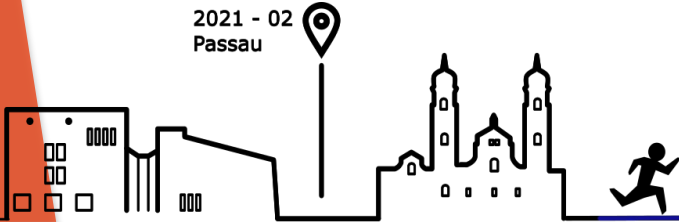
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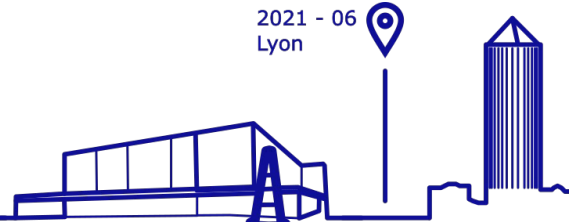
Four Challenges - 4 Student Teams

- ▶ Federated Machine Learning Challenges in IoT
- ▶ Preserving Privacy in Atomic Cross-Blockchain Swap Operations
- ▶ Preserving Privacy in 5G platforms for smart automotive
- ▶ NFT token (“Asset Tokenization”) and IoT

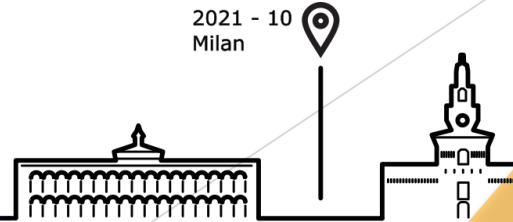
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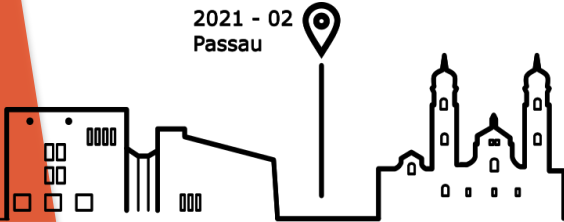
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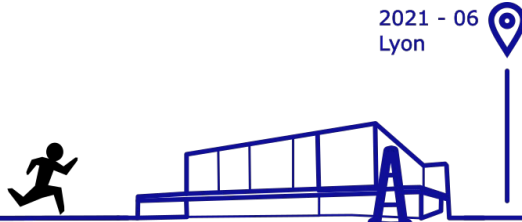
Team Work and Project-Based Learning

- ▶ Team work
 - ▶ Strengthening student motivation
 - ▶ Diversity of knowledge, skills, and visions - collaboration mindset
 - ▶ Richer thinking
 - ▶ Intercultural experience
- ▶ Real-World project-based learning
 - ▶ Strengthening student motivation
 - ▶ Active role and autonomy
 - ▶ Exchanges with engineers and researchers

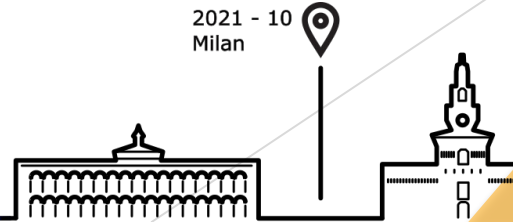
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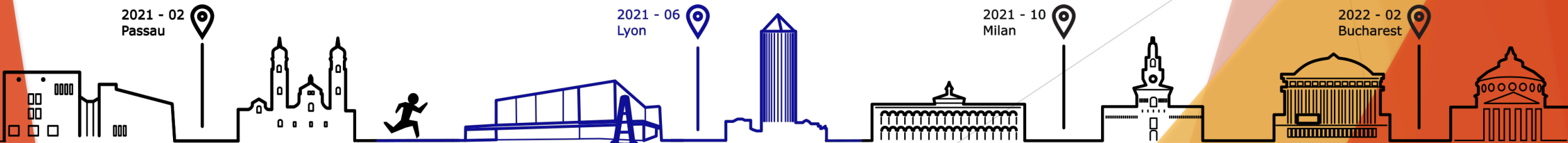


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Results

- ▶ Very positive feedback collected from the students
- ▶ The students all learnt a lot
 - ▶ in the technical field
 - ▶ in the ethical/societal field
- ▶ Rich intercultural interactions
- ▶ All the students would recommend taking part in FIT-Europe



Conclusions (1/2)

- ▶ Addressing cutting-edge technology by mixed teams of engineers and researchers
- ▶ Real-world projects faced by the involved engineers
- ▶ Joint supervision by engineers and academics
- ▶ Creating a “community of advanced knowledge and expertise” among all the participants

- ▶ Project-based learning during short international programs provides students with a learning environment that motivates them and increase their
 - ▶ domain-specific knowledge
 - ▶ generic working-life skills such as the ability to communicate, innovate and engage in teamwork; critical thinking and autonomy

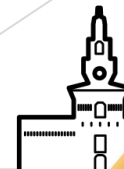
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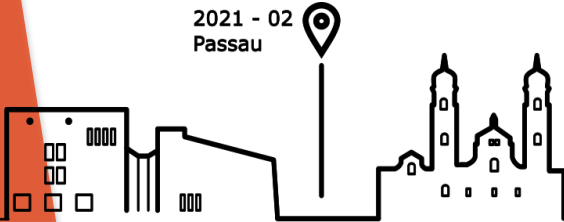
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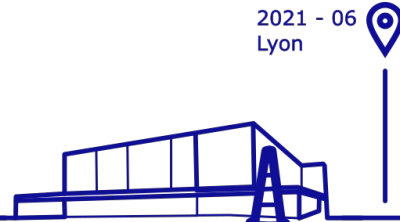
Conclusions (2/2)

- ▶ International teams brings diversity of knowledge, skills, experiences, visions
---> so important to address opportunities and social and ethical impacts of IT techs which are dramatically changing the world
- ▶ Possible local implementation leveraging the presence of exchange students
- ▶ Long-term positive impacts of this project are expected thanks to the FIT Europe multi-media library (material of the four seminars):
<https://library.fit-europe.eu/>

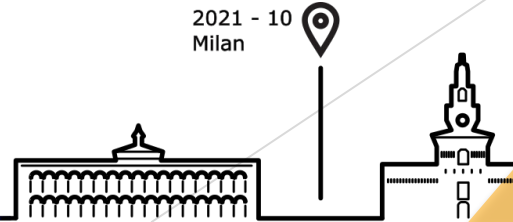
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