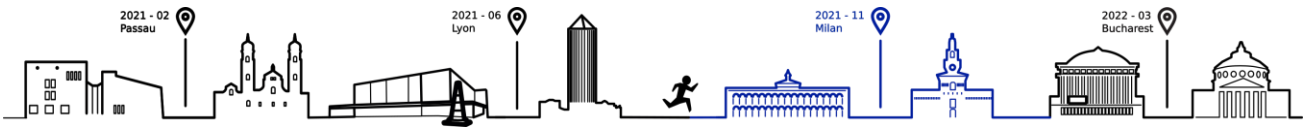


FIT Europe 3rd seminar

« Preserving Privacy and Trust in IoT »

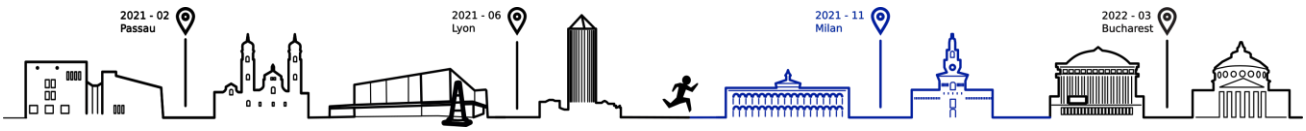
Hosted by UMIL Milan, November 15th to 19th 2021

In November 2021, students from the four countries participating to the project (France, Germany, Italy and Romania) have met together to attend the 3rd seminar planned for the activities of the '**Future IT Leader for a Multicultural Digital Europe – FIT Europe**' project. This is one of the funded projects under the Erasmus+ Programme and has the goal to involve proficient IT students in a training on different emerging technologies such as Artificial Intelligence, Internet of Things, Blockchain and Assistive Robotics. The lessons are programmed in a European context, where discussions including the related social and economic implications such as impact of innovation on society, multiculturalism, ethics or privacy, are solicited and are part of the training. This intense programme has been possible due to the strong collaboration among the four proposing academic institutions (INSA Lyon, Politehnica Bucharest, Università degli Studi di Milano, Universität Passau) and their corporate partners (La French Tech One, IT Center for Science and Technology CITST, Engineering SPA, ATOS).

The Milan seminar has involved 35 students and has been the first one where they have had the opportunity to interact in presence, since, due to the Covid pandemic, the previous seminars have been provided remotely. As in the previous weeks, the seminar has been organized with the goal of advancing students' competencies and soft skills by making them participate to scientific keynotes on the technical issues related to Internet of Things. In addition to the scientific and research topics, presentations have also been provided by research teams in companies, where practical issues related to the implementation and use-cases have been described. Finally, students had the opportunity to cooperate in the solution of some challenges, related to the application of IoT solutions to real case studies, working in international teams.

Throughout the week students have participated each day to 2 or 3 seminars focused on different topics related to Iot deployment. Most of seminars dealt with the problem of addressing security and privacy concerns for IoT in different contexts, trough multi-agent systems, when interfacing with augmented reality, or in collaborative learning. Security of some IoT devices has been deeply analysed, as in the case of smart assistants such as Alexa. The rest of seminars has raised interesting discussions on the application of Iot in different scenarios, such as assisted living, smart cities and blockchain based trust management. In addition, as planned since the beginning, questions about ethics and legal aspects of IoT deployment have been presented.

During the entire duration of the seminar, the second part of the day was characterized by the active involvement of students in a sort of role-playing game to test their problem-solving skills by applying the academic notions acquired, and searching for new ones among the sources available on the web. The students have been previously divided into four teams associated to specific colors (orange, blue, green, red) and before the seminar have been solicited to study some specific topics in IoT, such as BlockChain, Security and ML to be ready for the shared work activity (pointers to online materials have been shared among the participants). Four use cases inherent to the previously mentioned topics were presented by the group of three experts of Engineering Ingegneria Informatica and students were asked to prepare a presentation where



each team could describe its findings and the proposed solution to solve the question presented in each use case. Specifically, the use cases titles were:

- Federated Machine Learning Challenges in IoT.
- Atomic Swap Privacy Preserving
- Enjoy green vehicle preserving privacy in the age of 5G
- NFT token and IoT

During the entire study and preparation period each team met in separate rooms, having the opportunity to openly discuss and interact with the experts to get suggestions and share possible solutions. On the last day each team chose one or more representatives to present their work and answer questions from the experts and professors as if it were a standard review phase for a European project. At the end of the presentations, the experts and professors gathered to decide the winning team in light of all the excellent presentations. The winner team has been selected for the goodness of the paper, presentation and ability to support their arguments. The team was awarded during the final ceremony with a certificate as "Best project of the seminar".

At the end of the seminar the students and the FIT Europe team have scheduled the participation to the next seminar in agenda that will be held in March 2022 at Politehnica Bucharest.

As final output of the week, all the materials including the registrations of the presentations have been made available on a media library, that represents one of the final products of the project. In summary, students have been successfully involved in a rich program, being deeply involved in passionate technical discussion, and enjoying the possibility to share an international and multi-cultural environment, where future IT-leaders can discuss under different point of views, fully achieving the objective of the FIT-Europe programme.

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