

Development of novel support system (University of L'Aquila, Italy)

Date	Place	Partner Organization	Students' Major and Grade	Participants' Information	SIT Instructor
2024/09/08 ~2024/09/20	Italy	University of LAquila	Mechanical Engineering, Systems Engineering and Science, Global Course of Engineering and Science Master 1st grade, Master 2nd grade	(SIT) Students 10, Professor 2 (University of LAquila) Students 9, Professor 3	ITO Kazuhisa (Department of Machinery and Control Systems), TAKAGI Motoki (Department of Bioscience & Engineering)



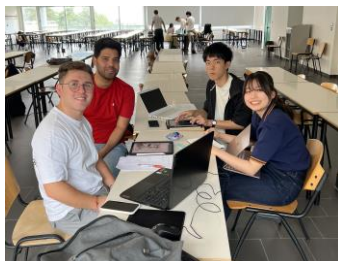
Group working 1

This time, 9 people from the University of L'Aquila (6 from the Department of Mechanical Engineering and 3 from the Department of Information and Automatic Control Engineering) and 10 people from our university (4 from the Department of Mechanical Engineering and 6 from the Department of Systems Engineering and Science) participated, forming five mixed teams. The theme was "Development of innovative Assistive Device/System for X," aiming to propose new support systems for various needs, such as aging, recovery from loss of function due to accidents or injuries, and heavy labor in factories. This theme was announced on the first day of gPBL as a mission paper.

We began by identifying specific themes through a tour of the National Institute of Rehabilitation Science, located two hours by car from L'Aquila, and lectures by both Japanese and Italian professors. On the afternoon of the 5th day, we held a midterm defense. The proposals included systems such as shopping support for the elderly, baby monitoring for disabled couples, a new walking support system, and a posture measurement system. Three professors from both universities asked questions during the presentations.

In the second week, we focused on discussions and activities aimed at quantitatively evaluating the proposals. This included simulations, designing specific devices, sensor placement for measurements, and cost evaluation, while also considering the novelty of each idea. On the final day, the teams gave their final presentations, each lasting 15 minutes, followed by a 10-minute Q&A session. Participants from both countries took turns answering questions, clearly demonstrating their efforts to overcome difficulties.

Additionally, some participants mentioned that they struggled with time management due to the more relaxed attitude of the Italian team members. However, in their final reflections, they also expressed that they gained many new insights. We hope this experience of managing a global team will be of great benefit to them.



Group working2



Group working3



Group working4



Group working5