

PBL at AGH University of Science and Technology in Poland

| Implementation period | Implementing country | SIT's implementation partner organization | Target students | participant | SIT instructor |
|---------------------------|----------------------|-------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2020/02/24 ~2020/03/06 | Poland | AGH University of Science and Technology | <ul style="list-style-type: none"> Department of Engineering Science and Mechanics Undergraduate 1st grade, Undergraduate 2nd grade, Undergraduate 3rd grade, Undergraduate 4th grade, Master 1st grade, Master 2nd grade | (SIT) Students 8, Professor 2 (AGH University of Science and Technology) Students 11, TA 1, Professor 4, Staff 2 | hosoya naoki(Departura of Engineering Science and Mechanics), takasaki akito(Department of Engineering Science and Mechanics), hashimura shinji(Department of Engineering Science and Mechanics) |



Image1 Laboratory exercises

The Winter School was held at AGH University Science and Technology in Poland, Krakow, from Feb. 24 to Mar. 6th. The hosts at AGH UST are Professor Janush Szmyd, Professor Grzegorz Brus and Dr. Marcin Moździerz. The Winter School's topics and group members are as follows:

- group 1: Mateusz Michna, Weronika Ciołko, Magdalena Ówierz, Kotaro Hirata, Akane Kageyama
topic: The Sun as a reliable energy source? Comparison and perspectives of the solar power market in Japan and Poland
- group 2: Jakub Zychowicz, Aleksandra Podsiadła, Jan Skwarek, Nonomura Yoshito, Tago Aoba
topic: Comparative analysis of Polish and Japanese buildings' thermal insulation systems
- group 3: Konstancin Marcinowski, MArcin Magierło, Kenta Nishimura, Tomoki Tanikawa
topic: Hydrogen-based chemical and energy systems – hydrogen production and usage in Poland and Japan
- group 4: Jakub Wiszniewski, Jakub Banach, Zuzanna Zgorzałek, Masashige Ito, Yuma Nitta
topic: Polish and Japanese coal-based energy conversion systems – current status and future perspectives

The Winter School was composed of a welcome party, a laboratory works, English class (Japanese), midterm presentation, a final presentation, a farewell party, etc. The final presentation was evaluated by the committee and by other groups with scale from 1 to 5, based on the following evaluation standards:

- (1) Creativity: Did the group obtain creative results?
- (2) Usefulness: Did the group obtain results that hit the point of the theme, which is useful in general or global problem solving?
- (3) Completion: Did the group obtain results with a higher degree of completion through analysis, plan, and evaluation?
- (4) Team work: Did the group work together and tightly?
- (5) Achievement to the Goal: Did the group achieve the goal that was set at the beginning?



Image2 Short lecture of professor Shinji Hashimura (SIT): Importance of bolted joint for mechanical structures



Image3 Final presentation



Image4 Farewell party