



Kobe Steel, Ltd. , Kobe, Japan

**Jyotimay**

BCI – Masters in Process Systems Engineering – 5th Semester

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# KOBELCO

## Kobe Steel, Ltd.

Kobe Steel, Ltd., commonly known as Kobelco, is a prominent Japanese steel company headquartered in Kobe. Established in 1905, the company has evolved to specialize not only in steel manufacturing but also in machinery, advanced materials, and electric power. As of March 2023, Kobe Steel, Ltd. boasts a workforce of over 38,488 employees and maintains a global presence with sites in Europe, Asia, and the United States.

## Kobe, Japan

Kobe, situated in the Kansai region of Japan, stands as a prominent urban center with a population estimated at approximately 1.5 million residents. The geographical landscape, characterized by an abundance of mountains within the nation's interior, has led to the concentration of densely inhabited areas along Japan's coastal regions. As a result, the Keihanshin metropolitan area, encompassing Kyoto, Osaka, and Kobe, collectively accommodates a populace surpassing 20 million individuals. These figures underscore the significant demographic presence and urban prominence of Kobe within the broader regional context of Japan's populous coastal areas.





## Vorbereitung

The accomodation was given by the company. I was living in the company dormitory. The rent was free and also the meals in the dormitory was free of charge. The type of accomodation allocated differs by respective companies. For me, in Kobe Steel, Ltd. It was fully free of charge and everything was managed by the company authoroties.

I got the opportunity for this Oveaseas Internship from the department of BCI, TU Dortmund. I applied for the opportunity on December 2022 and I was accepted on February 2023. The company was fixed by Kyoto University which was the partner University with TU Dortmund for this Program.

## Aufgaben während des Praktikums

During my internship, I learned a lot about how GHG emissions are of prime concern and how there is ongoing research on ways to mitigate CO<sub>2</sub> on an industrial scale. I had the experience of working alongside professionals who have years of experience in engineering fields and sharing insights with them was a good opportunity for me to boost my academic background. My focus was on production ways of Sustainable Aviation Fuels (SAF) which could serve as a way of achieving carbon neutrality in the aviation sector. Further suggestions on my behalf were on how Japan could utilize its high land mass with forestry and offshore wind and solar energy for powering to liquid (PtJ). Eventual works were proceedings with experiments and data analysis.



- Presentation skills
- Green Chemistry
- Sustainability
- Laboratory skills
- Chemical Process Design and Cost analysis



## Eindrücke

Being an international student in Germany, my experience in Japan has led me to experience new insights of different work culture and being more versatile to changes and learning and reaching new endeavours. Also as a chemical engineering student, it has helped me to have broader insights of the chemical industry and sustainable goals scenario in Japan in comparison to Germany. These set of additional perspectives will certainly provide me an edge for my career as a chemical process engineer.

## Kultur

During my time in Japan, I encountered a daily array of novel experiences. The frequent displays of kindness and readiness to assist by the Japanese populace left a profound impression on me. Regrettably, the general proficiency in English among locals is limited, thereby occasionally posing challenges in communication. Japan boasts numerous cities of cultural significance adorned with temples, parks, and towering skyscrapers, seamlessly coexisting. Owing to the constraints of available land, there are sizable urban clusters and congregations of people. Nevertheless, the prevailing atmosphere remains serene, a testament to the reserved and patient demeanor characteristic of the Japanese populace.



I wouldn't describe it as a culture shock, as I always felt welcomed and embraced in Japan. However, there were certain nuances that required adaptation, like the prevalence of seafood in the cuisine or the cultural tendency to avoid direct refusals. These aspects added depth to my cultural understanding and enriched my experience in Japan.

## Nachhaltigkeit

### Hin- und Rückreise

Regarding my travel to and from Japan, I couldn't see any way to make my travel more sustainable than normally. However in Japan, I mostly engaged myself travelling using Public transport rather than taking private cars. Also, I used to walk 25 mins to my work place rather than boarding the bus. I believe I could make my travel to and from work more sustainable in such manner.

### Nachhaltigkeit vor Ort

Just like I mentioned above, I used to walk to work making my travel more sustainable. Also, most colleagues at work usually take trains ( as long as 2 hours) to work even though they had their own cars to avoid Carbon emissions. Not just my colleagues but most people in Japan take public transport rather than their own cars. This was something inspiring and impressive to look and learn from.



## Tipps & Vorschläge für zukünftige Praktikant/-innen

- JapanPraktikum is one of the best things to have experienced and I would highly recommend students to take the chance if attained.
- Having a basic knowledge of Japanese is always handy since less people can speak english.
- Plan the travel accordingly since most interns stay after the internship to travel around Japan.
- Try to experience every bit of food, culture around and also visit sport bars and ,Izakaya'. You get to meet a lot of new people and chance to make new friends.
- Trains after 12 midnight are not there anymore so make sure you are back in your dorm before that or else you need to stay untill morning 5:30 am. In such cases, you can go to Karaoke Clubs and sleep inside. They are cheap.

## Das Leben danach...

I have gained valuable insights from my internship that will shape my future path. During my time at the research center, I had the opportunity to contemplate my career trajectory. The experience affirmed my desire to pursue a career in research and development. The Japanese demeanor of serenity has taught me that it's not necessary to engage in loud debates or rush in crowded spaces to achieve one's goals. Unfortunately, Japanese culture often entails working long hours, as work is considered a crucial aspect of life. However, I aspire to work in a country where leisure time is valued just as much as work.



