

## GUJARAT TECHNOLOGICAL UNIVERSITY



## FINAL REPORT

## International Experience Program 2023 at Hochschule (University) Wismar, Germany During 18<sup>th</sup> July 2023 to 11<sup>th</sup> August 2023



DISCIPLINE: MECHANICAL ENGINEERING

**Report By:** 

Dr. Utsav Dipak Gadhia Mentor IEP- 2023 The students, accompanied by mentor Dr. Utsav Gadhia, gathered at the Sardar Vallabhbhai Patel International Airport in Ahmedabad at 11:45 p.m. on the eve of their flight to Wismar, Germany. The journey began at 4:35 a.m. the following morning, and the students were excited to be on their way. They breezed through security checks, and the entire immigration process was completed smoothly.

The students arrived at Dubai Airport, and after a brief layover, they all boarded a connecting flight to Hamburg Airport. The immigration process was quick and efficient, and the students were soon on their way to Wismar.

A pickup bus was waiting for them at the airport, and they all piled in for the two-hour journey to their destination. The students took a group photo to commemorate their arrival, and then they loaded their luggage onto the bus and set off. The ride was comfortable and relaxing, and everyone enjoyed the scenic views along the way.

Students arrived in Wismar at 5:30 p.m., refreshed and ready to explore their new surroundings. They were grateful for the smooth and uneventful journey, and they were looking forward to their upcoming adventures.



Upon arrival at Wismar, we were welcomed by Ms. Narangerel Tsendbaatar, from the Department of International Relations, Hochschule, Wismar. Brief guidelines and instructions were given and rooms were allotted to all students



Next day on 19th July 2023, Wednesday, an introductory lecture was arranged by Prof. Dr. Henrik Schnegas for about 2 hours, where he gave all the relevant information about Wismar town, nearby villages, and Germany Topology, information about subjects and its schedules.

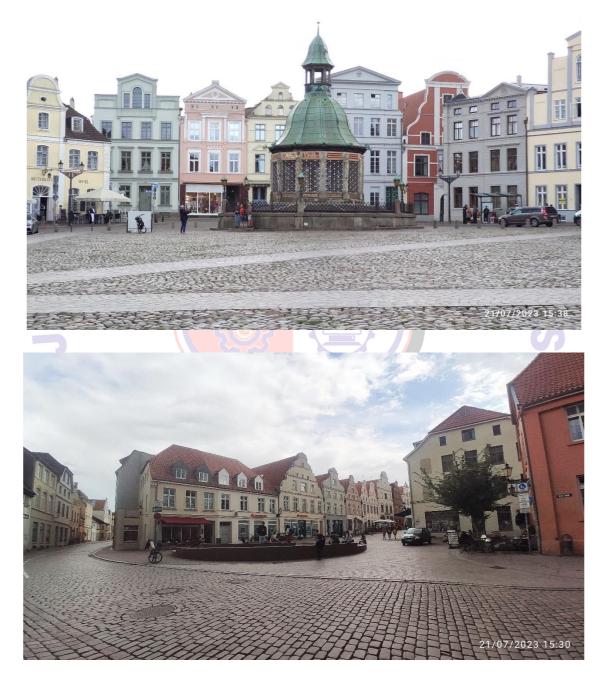
The first subject, lectures on Design of Machine Element (DME) subject (3171917) starts on the second day 20th July 2023, Thursday. The Standard Lecture timing for summer school is from 8:30 a.m. to 12:30 p.m. The total duration of the classroom studies for the DME subject is around 32 Hours. Which is divided into 8 working days.





Group Photo with Prof. Henrik Schnegas

Students eagerly attended all lectures on "Design of Machine Elements," led by an engaging professor who brought the subject to life with practical examples and real-world applications. The lecture sparked our curiosity and ignited our passion for engineering. Students often complete the task given by the professor, in the classroom after the regular theory session and then visit the town marketplace and other monuments. Wismar is a UNESCO World Heritage city and it consists of different churches, monuments, and ports made in early 19th century and before. Every one who visited, marveled at iconic landmarks such as the impressive Wismar Market Square, the majestic St. Mary's Church, and the historic Alter Schwede. Each site added to the allure of this picturesque town.



For the different everyday groceries students have a various choices and often visited various supermarkets nearby to the hostel – like, REWE, Penny, Netto, ALDI, and LIDL, which are also within two-kilometer distance. Out of all Penny looks more affordable

During the Weekend a group of 5 students visited the city of Berlin, which

is around 3 hours away from Wismar. The first destination in Berlin was the iconic Alexanderplatz, a bustling public square and transportation hub, later They visited the most striking landmark the Berlin Fernsehturm (TV Tower) which loomed tall over the cityscape. Later, the Brandenburg Gate, and through the Tiergarten, a large park in the center of Berlin. Followed by the majestic Victory Column, standing tall amidst lush greenery.



The final stop on the tour was the Berlin Wall. The students walked along the wall and learned about its history. They also saw the graffiti that had been painted on the wall by people who were protesting against the division of Germany.

Another Group visited the city of Schwerin and arrived in Schwerin at 1:00 **6** | P a g e

PM, They were excited to explore the city, which is known for its beautiful castle, historic architecture, and lakeside setting.



Their first stop was the Schwerin Castle, which is one of the most popular tourist attractions in Germany. The students were amazed by the castle's size and beauty. They took a tour of the castle, which included the State Rooms, the Chapel, and the Armoury. After visiting the castle, the students took a walk around the Schwerin See, which is a large lake in the center of the city. The next stop on their tour was the Schwerin Cathedral, which is a Gothic cathedral that was built in the 13th century.

Next Week on 24<sup>th</sup> July 2023 I meet Prof. Dr. Nobert Gruenwald who was a Vice-chancellor of Wismar University for more than 11 years and is currently retired and connected with Wings, Initially a Student exchange program in Wismar was initiated. I have handed over a memento to Prof. Nobert Gruenwald on behalf of Gujarat Technological University.



In the second week, the students continued their study of the DME subject, maintaining their schedule and arriving on time for class at 8:15 AM. One of the best things about the theory class was that the professor also demonstrated different elements. Almost every day, Professor Henrik would bring two bags full of elements, such as a broken crankshaft (due to torsional stress), broken valves, sheared gear splines, lay shafts, windmill screws, water kettles, gears, and many other deformed elements. These demonstrations helped to clarify the concepts for the students and made understanding easier.

In addition to the demonstrations, Professor Henrik was also an excellent lecturer. He was clear and concise in his explanations, and he was able to engage the students' attention. He also made the subject matter relevant to the students' own lives, which helped them to see the importance of learning about DME.

As a result of Professor Henrik's teaching, the students made significant  ${\bf 8} \mid$  P a g e

progress in their understanding of DME. They were able to apply the concepts that they learned in class to real-world problems, and they were confident in their ability to use DME in their future careers.



On 26<sup>th</sup> July 2023 Students visited a laboratory and workshop at Wismar University, where Prof. Henrik Schnegas visited all laboratories related to the Mechanical Engineering department,

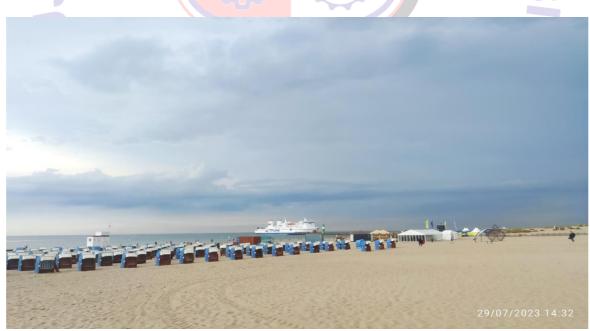


On 27<sup>th</sup> July 2023, Prof. Dr. Nobert Gruenwald visited students to spend  $9 \mid$  P a g e

time with them and also informed them about the various excursion visit which is supposed to happen in the last week of the Summer school program.



Friday 28<sup>th</sup> July, 2023 students have written a two-and-a-half-hour exam for the DME subject, where the major focus is on the problem solutions while using the standards.



On the weekend of the second Week that is 29<sup>th</sup> of July, all the Students along with me visited the city of Rostock, which is around 60 km away from Wismar, the train took almost 1 hour to reach there, where Students had to Explore a Beach side which is Warnemunde Beach and light tower near it and on Sunday

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it is been a day of Rest.

The next Week Starts with a new Subject for the Students "Quality, Reliability, and Safety" and also informed them about the excursion visits with a detailed plan.

On the 1<sup>st</sup> of August – We visited Mr. Thomas Beyer, mayor of Wismar City, and handed over a Memento on behalf of Gujarat Technological University, A Very fruitful round table meeting was held with the mayor exchanging the detailed purpose of visiting Wismar, and Gujarat Technological University's Achievements and connections with Wismar. I have also discussed and presented a view on how to strengthen the decade-old bond with the city of Wismar.



The Very Next Day, (2<sup>nd</sup> August) a wonderful dinner is planned by Prof. Dr. Nobert Grünwald and Prof. Henrik in Wismar for all of us. All the Students had enjoyed a lot and had a good conversation with everyone. On the same day After dinner, we visited a Foundation building of Hochschule Wismar, which was built in 1908. After the Dinner students gifted a good watch to Prof. Henrik for his gentle nature and dedication. The next Day students prepared for the final examination scheduled on  $4^{th}$  August.



Foundation Building of Hochschule Wismar (Currently church and art theater)

On 4th August students have to give the examination for the second subject, on the same day in the afternoon we have started our Poland Journey. The next 2 Days are planned for Szczecin, Poland, which is around 3 - 4 hours by drive from Wismar. Prof. Maggi Zakrzewska is our guide for the entire trip. A Good Accommodation is arranged for the duration and well planned.



For the next two days exploring the captivating city of Szczecin is a mesmerizing experience. There are several Architectural marvels, and riverside shopping are the experiences which is outstanding. Exploring the city by night was a remarkable

experience, making the day truly fulfilling. This venture into Poland added a new layer of cultural enrichment to our Germany internship, creating lasting memories and broadening our horizons. On the last day, students visited a Ship Museum in Szczecin, which is very interactive and informative, where they gathered all ship-related information along with some experience.



Photographs of Excursion Visit to Poland

After the visit to Poland, the very next day on 7<sup>th</sup> August 2023, a Visit to the Volkswagen, manufacturing unit in Wolfsburg, which is one of the oldest VW manufacturing plants and was built in 1938 as the original factory for mass-production by Adolf Hitler's "Volkswagen" Daily production capacity of the

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Wolfsburg Plant is 4000 cars. We all have witnessed technological advancements. The high degree of automation employed by VW was truly astounding, showcasing the cutting-edge practices in the automotive industry. This visit not only deepened our understanding of modern manufacturing processes but also offered a firsthand glimpse into the innovation and precision that go into producing vehicles at such a grand scale.



Photograph of Volkswagen Manufacturing plant visit at Wolfsburg



Photograph of Airbus Manufacturing plant visit at Hamburg.

The next day, on 8<sup>th</sup> August, 2023 we visited Airbus in Hamburg, led by Prof. Norbert. Students have explored the massive facility, witnessing body shops, assembly points, and more that produce Airbus A330, A350, A320, and many other variants. The tour showcased aircraft production intricacies. Students have shopped for Airbus merchandise, enjoyed lunch at McDonald's, and returned to hostels. The Airbus visit deepened our hands-on learning during the Germany internship, offering insights into aviation industry operations.

Some spare days to visit, shopping, and final packing are provided so as to avoid the last-minute rush and hustle. Students have also prepared a brief report for the IEP and submitted it to the mentor on the last day



On the last day, 11<sup>th</sup> August 2023 all students and Mentor visited the TGZ Center in Wismar, Where There is an Office of Robert-Schmidt-Institute of Prof. Dr. Nobert Grunwald. On that day we all were briefed about the work and different centers of TGZ and startup support center. All students and mentors have received a certificate of participation and students have gifted a perfume to Prof. Nobert as a part of courtesy toward his warmth and support.



During the Return flight, a long halt at Dubai excited students and we had a day city tour arranged by ourselves to explore a glimpse of Dubai. Some students have also visited Meena Bazaar a Famous place for shopping for electronics and gold in Dubai. Before A flight to Ahmedabad, all the students thanked the mentor for his support and taken a selfie with him for a final goodbye.



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Contents and Photographs are from the Student Report of

Sr.	Enrollment No	Name As per passport
No.		
1	200170119011	BHATT VAIVASVAT DEEPAK
2	200320119099	KANVA NILESHKUMAR PATEL
3	200320119106	DEV KISHOR KOSHTI
4	200410119041	PARTH SNEHAL TRIVEDI
5	200470119079	OMKUMAR RASIKKUMAR BHORANIYA
6	210320119509	SIDDARTH RAJESH AMBLE
7	210320119539	KUNJ KANTIBHAI SHARMA
8	210430119525	RAMDEBHAI KESHU MODHWADIYA
9	210670119516	PREYANSH ALKESHBHAI PATEL
10	210860119502	MAURYEN RITISH DESAI
11	210320119538	PREET HEMANTBHAI PADALIA