

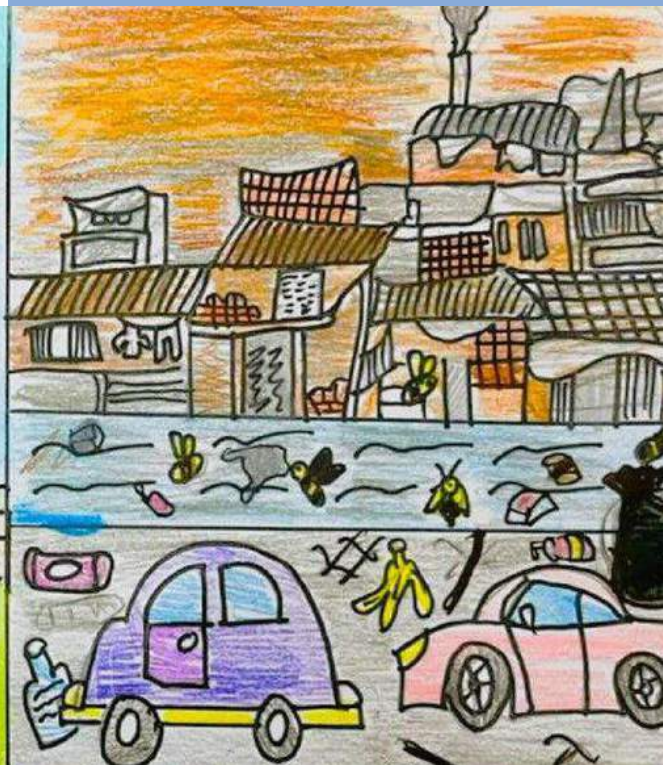
IGCS EXPERIENCE REPORT 04/2023

Indo-German Centre for Sustainability (IGCS)
at IIT Madras, Chennai



experience reports

Angel Jessieleena



Experience Report on IGCS Winter School 2023, IIT Madras, India

IGCS School Participant

Angel Jessieleena

Affiliation

Indian Institute Of Technology–Madras (IIT-Madras)

IGCS School Theme

IGCS Summer School 2022, RWTH Aachen, Germany

“Sustainable Waste Management in The Nexus of Climate Change and Low Carbon Economy”

Starting/End date of the student exchange period

18. July – 29. July 2023

Organizers

Former IGCS Area Coordinator, Prof. Dr. Martin Kranert (Universität Stuttgart),
IGCS Area Coordinator, Prof. Dr. R Vinu (Indian Institute of Technology Madras),
Former IGCS Postdoc, Dr. Gabriela Garcés (Universität Stuttgart).

Layout and Design

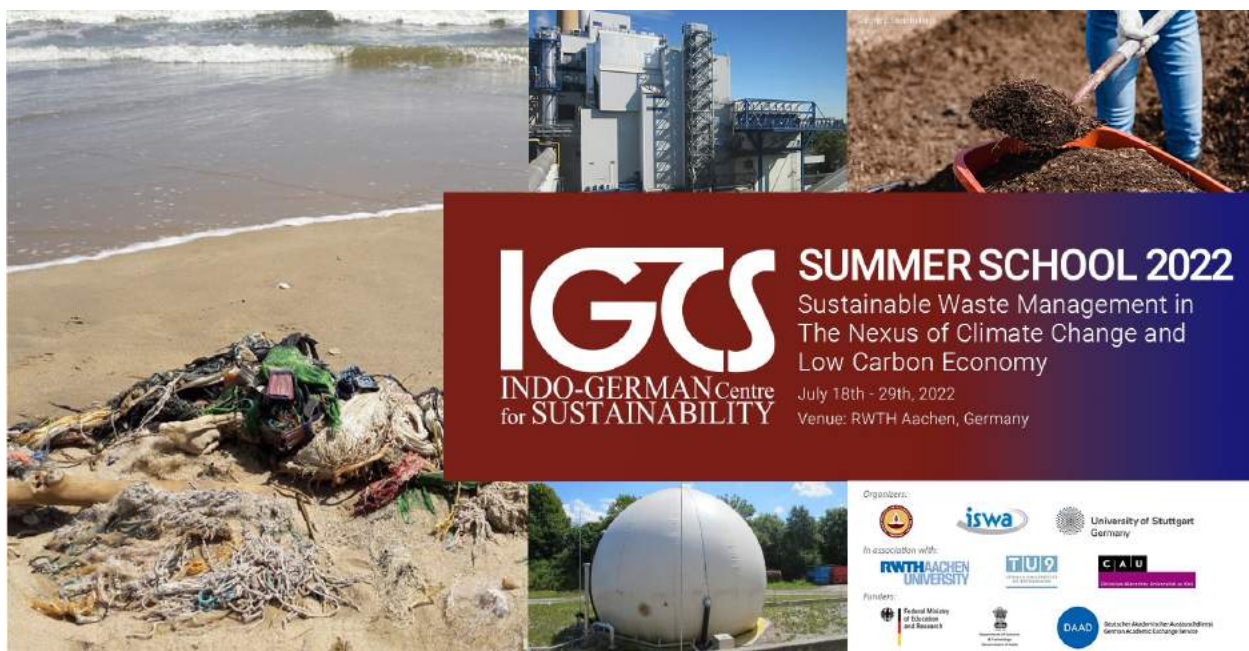
Rahul G. Rajkarnikar

Front Page Illustration

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Zurück zur Erde: A Workshop on Human-Nature Relationships and Sustainability for Students and Teachers

Co-organized by Goethe Institute and the Indo-German Centre for Sustainability (IGCS)



Experience Report from Summer School 2022, RWTH Aachen, Germany

I'm Angel Jessieleena, doing my PhD in the division of Environmental and Water Resources Engineering of Civil Engineering department, IIT Madras. My doctoral research work is titled as 'Investigation of the fate and transport of microplastics in surface water bodies'. I have recently attended the IGCS Summer School 2022 which was conducted on the theme "Sustainable Waste Management in the nexus of Climate Change and Low Carbon Economy". As you aware of, the summer school was conducted at RWTH Aachen University in Aachen, Germany between July 18th to July 29th, 2022. Since I'm registered in an Indian University, I was given mobility allowance as well as stipend, amounting to a total of 1315 euros.

Now I would like to take you through the various aspects of this summer school which interested me to take part. As we know, the discussion about terms like sustainability, climate change, low carbon, decarbonization and carbon footprint has gained an ever-high significance, of late. However, I'm not very well aware of these catchy terms and its associated things. But being a human being, especially being an environmental engineer, I felt it is utmost essential to know more about these concepts and facts. This is because, only

when we know about these aspects and its unchanging detrimental impacts on the planet, we can work in that field. That's one of the primary reasons I have applied for it. Secondly, to be honest, I never had any previous experience of visiting any country and so that has excited me on a personal level.

With respect to the various activities we had in the summer school, let me start with the very first day. The very first day was intercultural programme. Like the previous virtual winter school, in this summer school also, we are asked to choose someone and interact with them. At the end of a stipulated time, we are supposed to come up with an art work and one should explain about the partner they have chosen. I felt that I didn't do it much well. May be next time I should be more enthusiastic while I'm explaining. Just a thought. Followed by this session, we had another fun game. Wherein we are asked to get ourselves arranged in a line/ order of hierarchy. Some of the questions were 1. To form a line aligning with our field of study 2. To form a descending line of the number of languages each person knows 3. To form a descending order of line which represents the distance between Aachen and our home place/country. All these were interesting.

Then, we had another quiz round where Rahul has asked us some important facts which everyone is expected to have known from Germany as well as from India. That's it. Then after our lunch, we had a city tour. The healing water coming from the springs and the pungent smell of it due to sulphur sounded interesting. Another interesting part was the history of Charlemagne and it was interesting to know that the reason he had shifted to Aachen is because of the healing water (Picture 1). Later, we had tasted the famous Printen biscuits/breads/cookies and it was good. Then, we had visited a temple and the guide has told us a haunting story about that. Yes, overall, it was fun.

Now, coming to the technical part, from the day 2 of IGCS summer school, we have technical talks/lectures. The most interesting talk which I could immediately recall is the lecture delivered by Prof Marzia Traverso. I'm attaching the same reason I have given in the evaluation report. In all the previous talks I have attended related to LCA, the discussion would be more about the methodology of LCA. However, in this lecture, we got to hear how we should be critical enough. If someone says we have an LCA of a product, we shouldn't just say yes and appreciate, rather ask what all parameters you have considered; for example, whether water usage is

considered, product availability is considered, socioeconomics of the product is considered etc. This was the best lecture. Very much practical and true I would say. Another question which was there in my mind was "Whether incineration is good or bad"? This is because we got to hear different views from different lecturers, for instance, Prof Peter Quicker was totally in favour of incineration whereas some other lecturers were having mixed opinion or a totally opposite opinion on "incineration". Then, in the very final day, I could get the opinion of Prof Martin and he had clarified that Incineration would be a last option but if there is no other choice of handling other than disposal into landfill, then we can resort to incineration. Later after coming back to India, I had discussed about this with my advisor Prof Indumathi M Nambi and she has highlighted the importance of first two aspects of waste management which is reuse and recycling. Her view is that instead of recycling, you should go for reuse. Recycling might sound fancy, but lot of processing energy goes into that. Therefore, we should reuse the product as much as we can. Therefore, we should spend a little more money so that we can get a quality product and use it for longer time rather than spending little money but end up throwing the product after a very short period of its usage. One such product

we had discussed about is our clothing. Of late, we find many shops selling clothing for discounted prices. Just because we get a discount, we tend to buy it. Not only discounted clothes, other clothes in general, if we spend a little more money, we would get a good quality cloth. Another important learning which I had from the Germany trip is to use public transport. Thereby, I learnt how to reduce so much of my expenditures that goes towards cabs like Ola, Uber. Upon discussing this with my advisor, have also realized that apart from money, we are also reducing our carbon footprint and helping the environment in a least possible way we can.

When I had applied for the school as I had mentioned earlier, I was with an assumption that I would learn more about climate change and low carbon economy; but that didn't happen. I kind of felt too much focus was given into the waste management concepts and theories and very less discussion about how sustainable waste management can help in preventing climate change or how it can contribute to low carbon economy. What I mean to say is the nexus of all three aspects i.e waste management, climate change and low carbon economy was not sufficiently discussed; rather each aspect was discussed separately, the interdependence of them was not given much importance.

Yes, I totally agree all the topics cannot be covered in a span of 14 days. But for student like me whose background is environmental engineering, many of the lectures seemed repetitive for me. It would have been better if more lectures were given in the area of sustainability and climate change. For instance, why climate change is happening at a high pace and other aspects like this? Nevertheless, overall it was good. Especially, the two excursions (Picture 2 and 3) we had was worth the time. In both Metabolon as well as the other composting centre, we had many of our doubts cleared and it was awesome. Now coming to the people I met there, I could meet Prof Klaus and Dr. Piero Bellanova. Since my research is on microplastics, we are in need of micro-FTIR. When my advisor had visited RWTH Aachen in the month of June, she had a look at the micro-FTIR and informed me. When I discussed that with Prof Klaus and Dr. Piero, they were so kind to allow me to visit the lab. Dr. Anna Uffmann was kind enough to take me to the lab and wherein Dr. Piero had given a brief explanation about the instrument.

Coming to the recommendations to the prospective participants of IGCS summer/winter schools, the list goes on. If you are staying in Germany for some time, then there would not be any problem.

Specially for Indian students who are visiting a foreign country for the first time, I have a list of suggestions:

Have a portable electric kettle with you – you cannot rely on restaurants for both breakfast and dinner; So, you can take maggi noodles, readymade upma etc., and cook it in the kettle. (your hotel room will not have this) 2. If you are keen on wearing only ironed clothes, better carry a portable iron box with you.

Carry basic utensils like spoon, plate and mug.

Very important thing, do not carry any liquid items in your hand luggage. No matter how much expensive it is, you will be asked to throw it out at the check-in desk in the airport.

Don't try to convert euros to Indian money whenever you are buying something; If we do this, we cannot stay peacefully, so just spend for essential things without converting.

There is a famous chocolate factory called "Lindt factory" in Aachen. They give student offer of 10 % every Tuesday if I'm not wrong, so plan your trip to the factory on that day. But, if you get something at a very discounted price, make sure to see the expiry date.

Finally, the overall organization of our stay was very good. But as it was earlier discussed in the feedback session, if all of us have stayed in the same place, it would have been better. As far as my case is concerned, I have stayed in B and B hotel and it was the best as it is well connected with the main Aachen city.

Yes, I'm very much interested to work with IGCS in the future as well. Hoping to come there again to carry out part of my research work.

About the IGCS Schools

IGCS' flagship teaching project are the annual interdisciplinary Summer and Winter schools. The annual schools are held under the motto of one of our IGCS focus areas and are organized by the respective area coordinators and their partners. The itinerary is about two weeks long and consists of lectures, discussions, group work, and field trips. The Winter Schools take place at IIT Madras in Chennai in February / March while the Summer School takes place at one German partner university in June / July. For more information on IGCS' events, see [here](#).