

University of Stuttgart  
Germany



M.Sc. WASTE

**M.Sc. WASTE**

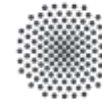
15.07.2022

M.Sc.  
Grecia Solis  
Castillo



# M.Sc. WASTE Office

M.Sc. WASTE Office Team



University of Stuttgart  
Germany

**Dean of Studies**



Prof. Dr. Andreas  
Kronenburg

**Course Director**



Dr. -Ing. Carolina Acuña  
Caro

**Course Manager**



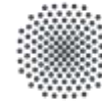
Grecia Solís Castillo,  
M.Sc.



M.Sc. WASTE

# M.Sc. WASTE Office

M.Sc. WASTE Office Team



University of Stuttgart  
Germany



## M.Sc. WASTE Office (room 0.02)

Announcements via E-mail

Organization of events

E-mail: [info@waste.uni-stuttgart.de](mailto:info@waste.uni-stuttgart.de)

## M.Sc. WASTE Course Director (room 0.03)

Dr. -Ing. Carolina Acuña Caro

Office hours: **upon appointment**

Phone: +49 (0) 711 685 68947

E-mail: [cd-waste@ifk.uni-stuttgart.de](mailto:cd-waste@ifk.uni-stuttgart.de)

## M.Sc. WASTE Course Management (room 0.04)

Grecia Solís Castillo, M.Sc.

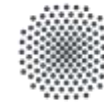
Office hours: **upon appointment**

Phone: +49 (0) 711 685 68936

E-mail: [cd-waste@ifk.uni-stuttgart.de](mailto:cd-waste@ifk.uni-stuttgart.de)

# The M.Sc. WASTE: An Overview

## Introduction



University of Stuttgart  
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### Background:

- Chemical
- Civil
- Process
- Mechanical

**Theoretical background** to engineer creative solutions for environmental challenges

**State-of-the-art** environmental and process technologies

**Individual profile** in the environmental sector

**Practical experience** excursions to companies and industrial and/or municipal facilities





## Landfill in Bangladesh



## Surfing Wave in Java, Indonesia



## Smog in Beijing







**Polluted reservoir, Pingba, China**

Reuters



**Ken River Oil Field, USA**

populationspeakout.org



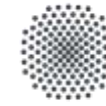
**Mexico City Landscape**  
20.9 million inhabitants

populationspeakout.org



**Polluted water, India**

greenatom.net



## German industry





## German small and medium sized companies



Wasser- und Abwassertechnik



**EISENMANN**

LEADING IN PRODUCTION EFFICIENCY



Die Experten für abwasserfreie Produktion

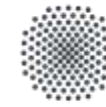


## Universities and Research Institutes





# The M.Sc. WASTE: Our Alumni



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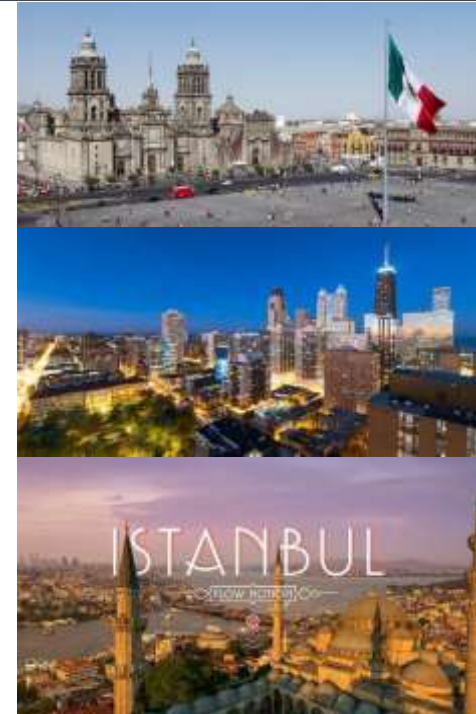
## Companies at their home countries



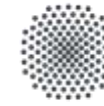
LEADING IN PRODUCTION EFFICIENCY



energy people



# The M.Sc. WASTE: Historical highlights



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INTERDISCIPLINAR

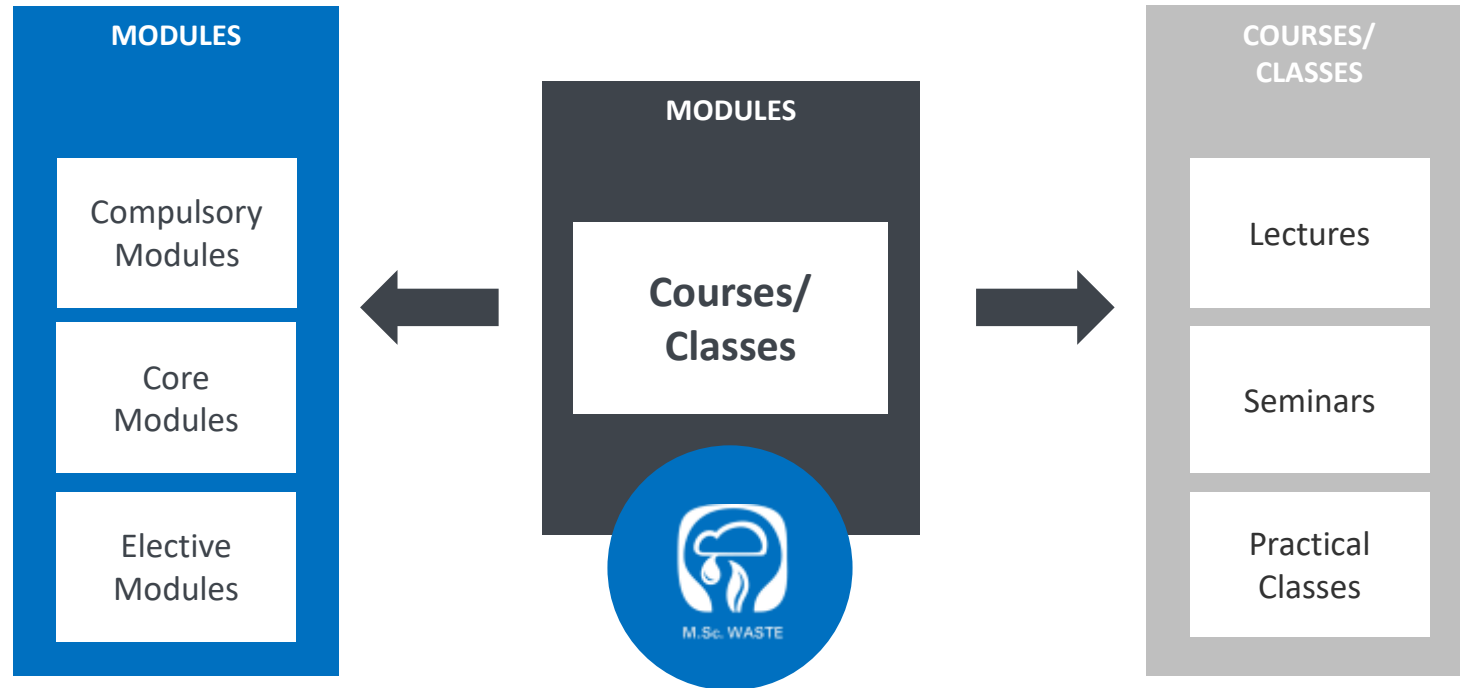
INDIVIDUAL

INTERCULTURAL

- Established in 2002 as a 3 semester program
- Changed in 2008 to 4 semesters
- Start in September – incl. German course
- Start in October – excl. German course
- Bologna Process: M.Sc. WASTE based on a modular system
- **Degree: Master of Science**

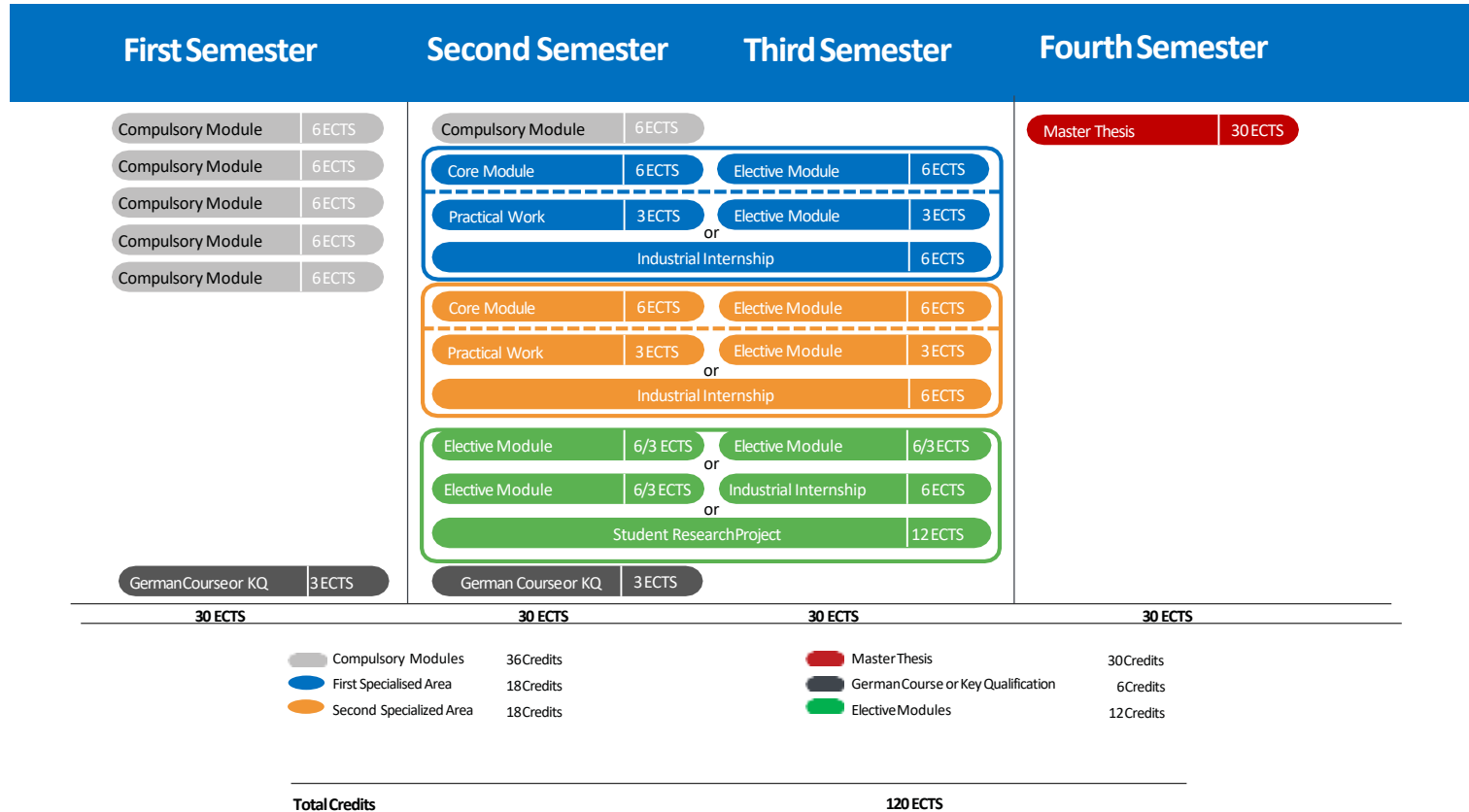


# The M.Sc. WASTE: Modules definition

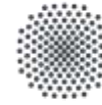




# The M.Sc. WASTE: Macrostructure



# The M.Sc. WASTE: Macrostructure



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M.Sc. WASTE

## Advanced modules (36 credits)

- Consolidation via 6 compulsory modules

## 2 Specialized Areas (each 18 credits)

- Air Quality Control
- Solid Waste
- Waste Water Process Engineering

## Elective Modules (12 credits)

- Modules in English and German
- Student Research Project
- Industrial Internship

## German Course and/or Key Qualifications (6 credits)

## Master Thesis (30 credits)









Welcome to the M.Sc. WASTE – Dr. Ing. Carolina Acuña Caro – Grecia Solis Castillo, M.Sc.

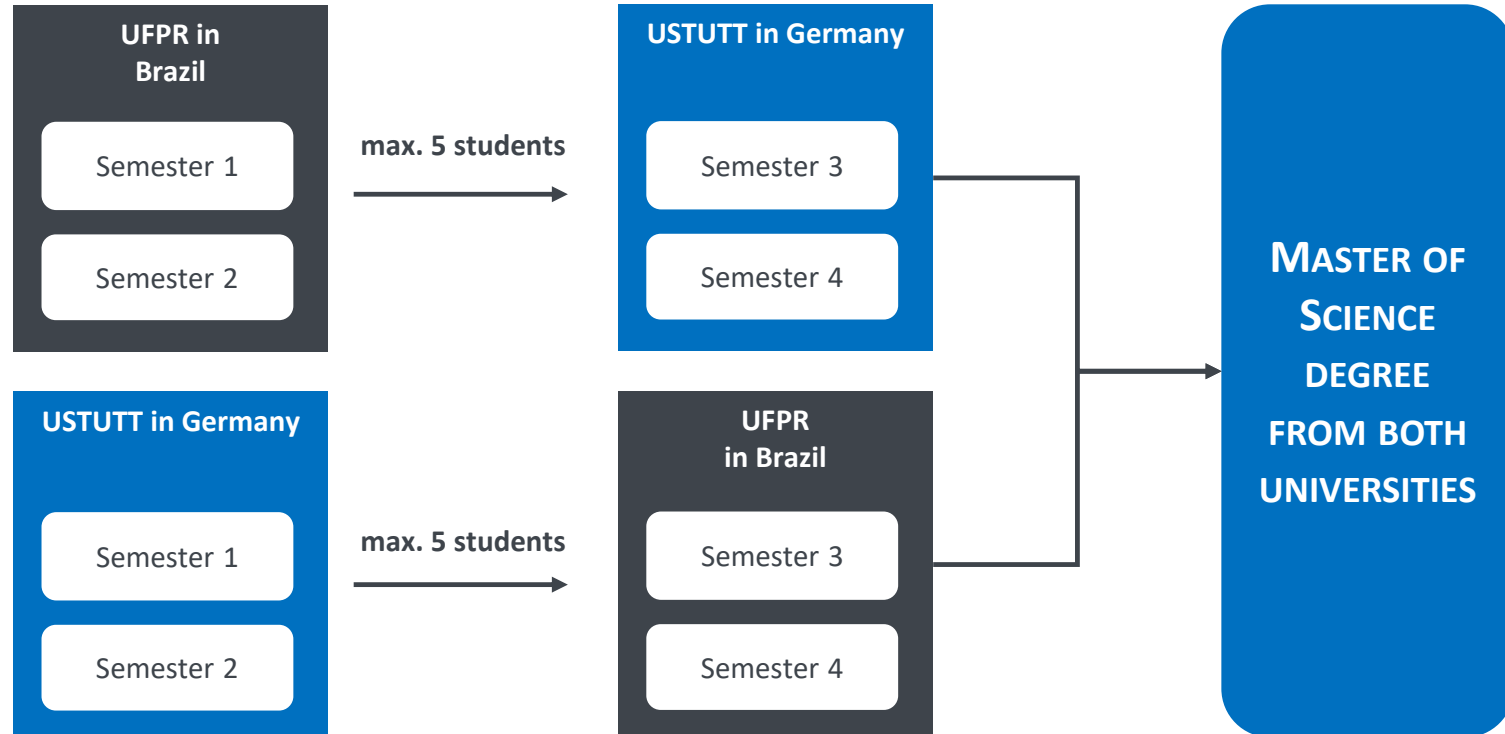






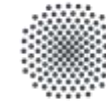


# The M.Sc. WASTE: Double Degree



# Organizing my studies

M.Sc. WASTE Website



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University of Stuttgart 



University of Stuttgart  
Master Program WASTE

[DE](#) / [EN](#)



Welcome to the M.Sc. WASTE

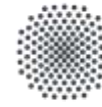
## Air Quality Control, Solid Waste and Waste Water Process Engineering

We offer an extensive and unique range of graduate courses educating students to respond to the increasing environmental challenges in the fields of Air Quality Control, Solid Waste, and Waste Water Process Engineering.

[Photo: Jeramiah Backman Photography]

# Extracurricular Activities

WASTE Intercultural Meetings & Summer Party



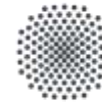
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# Extracurricular Activities

## WASTE Intercultural Meetings & Summer Party

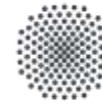


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# Extracurricular Activities

## WASTE Intercultural Meetings & Summer Party



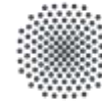
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# Extracurricular Activities

## M.Sc. WASTE Soccer Team



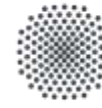
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# Extracurricular Activities

## M.Sc. WASTE Fundraising activities

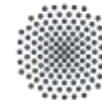


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# Extracurricular Activities

## Graduation Ceremony



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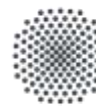
Save the Date!  
November 19<sup>th</sup> 2022





# Extracurricular Activities

## M.Sc. WASTE Newsletter



University of Stuttgart  
Germany



M.Sc. Air Quality Control,  
Solid Waste and Waste Water  
Process Engineering  
(WASTE)

SUMMER SEMESTER 2020 - ISSUE 24

# NEWSLETTER

**CORONAVIRUS PANDEMIC: A RETROSPECTIVE OF THE DIGITAL SUMMER 2020**

University of Stuttgart



**Newletter: Information on the coronavirus**

In the beginning of this year we received, through the news, some vague news about what was happening in China during December 2019. On January 27, 2020 the first case in Germany was confirmed near Munich, Bavaria. Currently the ongoing worldwide pandemic has spread to at least 117 countries killing more than 610,000 and infected more than 14 million in a matter of months (source: New York Times Aug. 6, 2020).

Within this new context and after a confusing period trying to organize the last examinations of winter term (2019/20) as well as the coming summer term, the middle of March saw our university decided to implement home office for its employees and to ban the entrance of the students to the campus. The main focus was directed at avoiding the further spread of the SARS-CoV-2. To stay at home was the main message of the German government during the following days, which, in the end, became months. Therefore, the university announced a fully online summer 2020 term starting with this measure a new challenge presented itself for the University of Stuttgart: digital teaching. Although our university already utilized some platforms to share important material for the lecturers and to assist the communication between lecturers and students, e.g. EAS, this situation brought a new challenge for both sides. On one hand the lecturers had to put in practice their creativity to offer attractive online lectures, while, on the other, students had to organize their daily schedules and attend the lectures from their dormitories. Unfortunately, the management of the summer term under the given conditions was not that "easy" for everybody. Some of our international students got stuck in their home countries being unable to come back to Germany even for the period of on-site examinations. Many master thesis and student research projects were delayed until further notice.

Accordingly, corona-guidelines for study programs of the University of Stuttgart and the corona ordinance from the Federal State Government of Baden-Wuerttemberg were released and must be considered for each of the cases. Moreover, a very dynamic, informative situation assumed when the university started to publish updated information almost daily through their "Newsticker: Information on the coronavirus" page (<https://www.uni-stuttgart.de/News/University/News/Corona/>). Up to date this link is still very important to follow the latest news regarding the hygiene concept, examination rules, enrollment, travel warnings, and framework of conditions for teaching in the coming winter semester 2020/21, among others.

Since the pandemic is still an ongoing issue worldwide, we must continue taking care of ourselves but also of our neighbor. Hopefully, during this time after the confinement we realized just how important social contact is, to meet friends, to breathe fresh air, to attend a lecture, to interact with professors and colleagues, and consequently try to appreciate every moment together. Let's hope for better times!

University of Stuttgart | Faculty of Mechanical Engineering | Institute for Energy Efficient Buildings and Indoor Climate | Summer 2020 | Issue 24

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CORONAVIRUS PANDEMIC

ONLINE LECTURES DURING COVID-19

STUDYING M.Sc. WASTE

EXTRACURRICULAR

## WASTE DURING COVID - 19: ONLINE LECTURES

M.Sc. WASTE NEWS

NEWS

WASTE NEWS WEBSITE

SUSTAINABILITY WEEK

WELCOME THE NEW GENERATION

SYMPOSIUM 2020

LIFE AFTER WASTE

MEASUREMENTS OF AIR POLLUTANTS

RECYCLING PROJECT IN PIRRI

POTENTIAL WOMEN IN SCIENCE

RECYCLING IN PIATRENHOI DOOMS

UNIVERSITY CHOR

With the spread of the novel coronavirus in early 2020 and the resulting need to maintain social distancing, holding online lectures on virtual platforms have become essential. With the spread of the novel coronavirus in early 2020 and the resulting need to maintain social distancing, holding online lectures on virtual platforms have become essential. With the spread of the novel coronavirus in early 2020 and the resulting need to maintain social distancing, holding online lectures on virtual platforms have become essential. With the spread of the novel coronavirus in early 2020 and the resulting need to maintain social distancing, holding online lectures on virtual platforms have become essential.

Nevertheless, he reflected that the virtual lectures really require well-discipline. He said it is easy to be distracted when you have a meeting virtually and that it also requires more time management skills. After the beginning of the quarantine, he agreed that the virtual course can still be a good supplement, even if we are allowed to have normal lectures.

He said that online teaching is something that is unprecedented for both the students and professors, but we still see advantages if as a consequence of the pandemic. While in person teaching will eventually return to campus, the crisis provides an opportunity to bring more technology to the classroom. The use of digital tools and maintaining the way courses are conducted can potentially allow students to choose how they learn best.

Universities across the globe quickly evolved to create digital platforms to ensure uninterrupted learning for their enrolled students. At the University of Stuttgart, students use an online platform called Moodle to attend on-line meetings and lectures. An interview was conducted to understand the students' and the professor's feedback with regards to the online lectures and their pros and cons.

Dr.-Ing. Klaus Fischer is a visiting lecturer for the M.Sc. WASTE program and, up until three years ago, was a member of DWA (Division for Sanitary Engineering, Water Quality and Solid Waste Management) and a former division manager (D).

He has been conducting lectures for the WASTE program since it began and has been teaching sanitary engineering and mechanical and biological treatment of waste. He was the perfect candidate for the interview as he has been a lifelong contributor to the WASTE program.

When asked about his experience with the change to virtual platforms, he said that it was relatively easy for him as he is constantly involved in consulting and doing online meetings. Setting up online lectures was also simplified as he had his own camera and could make videos easily in addition, he had to make some changes to his curriculum to be able to add them chapter by chapter to the students.

One major change he made was giving a lot of exercises after each chapter. His objective for doing this, he said, is that the students not only read the curriculum but also think about the content and read further literature about it. However, he does not exclude meetings to be advantageous as they are more time consuming for the professors to prepare additional lectures and grade more exercises now compared to the past. He commented that he has been waiting desperately for the restriction to arrive so that "he could go back to normal".

What Professor Fischer really misses is the personal interactions with the students. The questions they ask and the reactions that he gets when he is giving a lecture. Due to the online meetings, he does not have much contact with the students and he misses interacting with them. While he doing a Moodle meeting he said "you can see only a small picture and each person has a very small space" and he can't see the students smiling - laughing or being "lost". He remarked that even in the virtual format of lectures is helpful, it is still very distant from the actual classroom environment. He values the personal contact with people and finds that to be beneficial for forming a strong relationship. On the student side, however, some interesting feedback was received. One of the students from Generation 2019, Zhuang, Li, said he prefers the online lectures more compared to the physical ones. He likes this kind of teaching methodology as he found it easy to adapt to. For example, he said that he could record the videos during the lectures and replay the video at many times, as he wants if he has difficulty in understanding something. He observed that studying online saves him a lot of time because he does not need to go to the classrooms, which are quite far away from his dorm.

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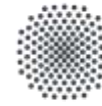
Welcome to the M.Sc. WASTE – Dr.-Ing. Carolina Acuña Caro – Grecia Solis Castillo, M.Sc.

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# Extracurricular Activities

VI – M.Sc. WASTE International Symposium



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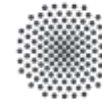
November  
4<sup>th</sup>, 2022

More information:  
[www.wasteclub.net](http://www.wasteclub.net)



## Extracurricular Activities

WASTE Club Stuttgart e.V.



University of Stuttgart  
Germany



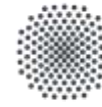
The WASTE Club is a Professional Network that supports the activities of the International M.Sc. “ Air Quality Control, Solid Waste and Waste Water Process Engineering” (WASTE)

- Support the M.Sc. WASTE during events and excursions.
- Consolidate a Professional Network with Alumni, Students, Lecturers, and Staff from the MSc. WASTE.
- Foster public relations among members.
- Promote Science, Research and Innovation.

# Join us!

# WASTE Club Stuttgart e.V.

Our Alumni Network



University of Stuttgart  
Germany







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# Thank you!



**M.Sc. WASTE Office**

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