

Welcome
Generation 2022!
M.Sc. WASTE

21.10.2022

Dr.-Ing. Carolina Acuña M.Sc. Grecia Solis





#### M.Sc. WASTE Office

M.Sc. WASTE Office Team



#### **Dean of Studies**



Prof. Dr. Andreas Kronenburg

#### **Course Director**



Dr. -Ing. Carolina Acuña Caro

#### **Course Manager**



Grecia Solís Castillo, M.Sc.



#### M.Sc. WASTE Office

M.Sc. WASTE Office Team





# M.Sc. WASTE Office (room 0.02)

Announcements via E-mail Organization of events

E-mail: 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

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

Grecia Solís Castillo, M.Sc.

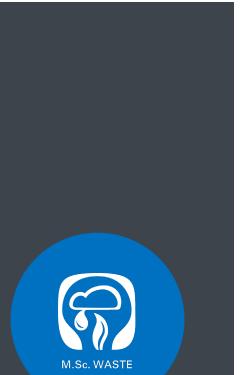
Office hours: **upon appointment** Phone: +49 (0) 711 685 68936

E-mail: cd-waste@ifk.uni-stuttgart.de

#### **M.Sc. WASTE Committees**

M.Sc. WASTE Team







Examination Committee (Prüfungsausschuss)
Chairman: Prof. Ph.D. Carsten Mehring

Admissions Committee (Zulassungsausschuss)

Chairman: Prof. Ph.D. Carsten Mehring



**Study Committee (Studienkommission)** *Chairman: Prof. Dr.-Ing. Andreas Kronenburg* 

# M.Sc. WASTE Office and partners

International Center (IZ)



#### **Social Affairs**

They provide you:

- Assistance with legal and social procedures
- Accommodation
- ✓ Scholarships

https://www.uni-stuttgart.de/en/university/international/service/



Ms. Svenja Wübker

International Master Students + Double Degree Students

Consultation hours:

Mo. and Wed. 1:30 – 4:00 p.m.

Tue. and Thu. 10:00 a.m. – 12:00 p.m.
(and upon appointment)
wuebker@ia.uni-stuttgart.de





International Master Students + DAAD Scholars

Consultation hours: Tue., Thu. and Fr. 10:00 a.m. – 12:00 p.m.

incoming.daad@ia.uni-stuttgart.de



Zentrale Studienberatung

# Support for managing many issues and when facing problems



Overview: www.student.uni-stuttgart.de/beratung/

Examples:

#### **Student Counseling Center**

Organizing the study program, reorientation, change of study program, improving study skills, contact point for all unclear issues.

We can also direct you to the relevant institution. www.uni-stuttgart.de/zsb in Vaihingen: House of Students

Students with a disability or chronic illness

Advice and support to students with disabilities or chronic illnesses concerning all questions ranging from accessibility to organization of the course of studies. Commissioners: Ms Eicken und Ms von Wolff www.uni-stuttgart.de/studium/beratung/behinderung/

in Vaihingen: House of Students

#### Studying and family

We are a family-friendly university and support you! Service Uni & Family, Ms. Alvermann www.uni-stuttgart.de/studium/beratung/studieren-mit-familie/

#### The M.Sc. WASTE: An Overview

Introduction





## **Background:**

- Chemical
- Civil
- Process
- Mechanical

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

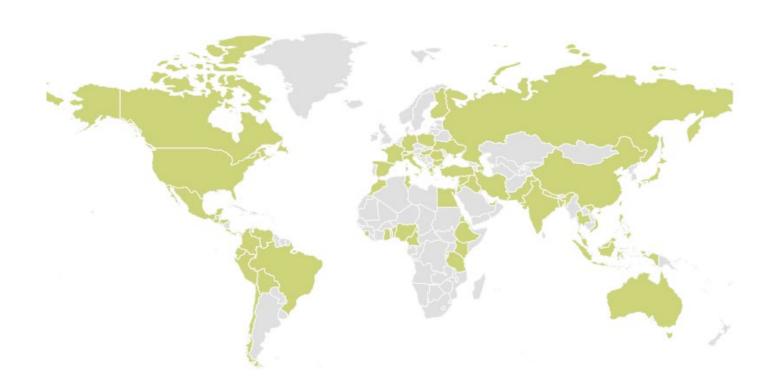
State-of-the-art environmental and process technologies

**Individual profile** in the environmental sector

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

## The M.Sc. WASTE: Our Alumni Network





#### The M.Sc. WASTE: Our Alumni





# **German industry**









**Building Technologies** 





#### The M.Sc. WASTE: Our Alumni





# German small and medium sized companies



Wasser- und Abwassertechnik





LEADING IN PRODUCTION EFFICIENCY



Die Experten für abwasserfreie Produktion









## **Universities and Research Institutes**











#### The M.Sc. WASTE: Our Alumni





# **Companies at their home countries**





LEADING IN PRODUCTION EFFICIENCY













INFRASTRUCTURE LEASING & FINANCIAL SERVICES LIMITED



# The M.Sc. WASTE: Historical highlights





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

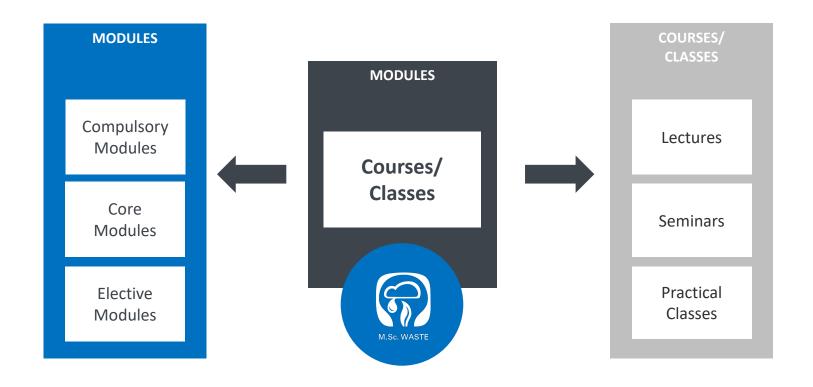






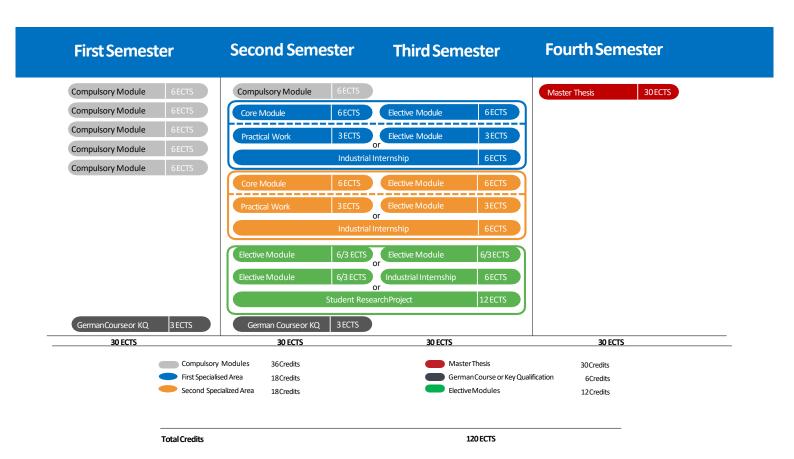
#### The M.Sc. WASTE: Modules definition





#### The M.Sc. WASTE: Macrostructure





#### The M.Sc. WASTE: Macrostructure





#### 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)



#### The M.Sc. WASTE: Macrostructure



# Compulsory Modules of the 1<sup>st</sup> and 2<sup>nd</sup> semester

- Thermo- and Fluid Dynamics (Kronenburg/Laurien)
- Pollutant Formation and Air Quality Control (Kronenburg/Vogt)
- Chemistry and Biology for Environmental Engineers (Engesser/Schönberger/Schwederski)
- Sanitary Engineering (Fischer/Schönberger)
- Process Engineering (Eiden/Trautmann)
- Technology Assessment and Presentation Techniques (Hufendiek)



# The M.Sc. WASTE: Specialized Areas



#### **Air Quality Control (18 Credits)**

## **Mandatory Core Module (6 Credits)**

- Firing Systems and Flue Gas Cleaning (Scheffknecht)
- Measurement of Air Pollutants (Vogt)

## **Elective Modules (9 credits)**

# **Practical Work (3 Credits)**

Practical Class Air Quality Control



# The M.Sc. WASTE: Specialized Areas



**Solid Waste (18 Credits)** 

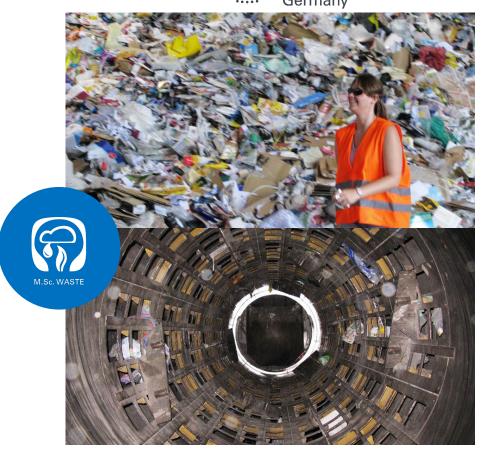
## **Mandatory Core Module (6 Credits)**

Mechanical, Biological and Thermal
 Waste Treatment (Fischer/Gehrmann)

**Elective Modules (9 credits)** 

## **Practical Work (3 Credits)**

Sanitary Engineering Part II: Solid



# The M.Sc. WASTE: Specialized Areas



#### **Waste Water (18 Credits)**

## **Mandatory Core Module (6 Credits)**

 Urban Drainage and Design of Wastewater Treatment Plants (Schönberger/Dittmer)

**Elective Modules (9 credits)** 

# **Practical Work (3 Credits)**

Sanitary Engineering Part I: Water











#### The M.Sc. WASTE: Basic Rules





- Each semester around 30 Credits (+/- 10%)
- Total: 120 Credits in 4 semesters
- Industrial internship optional, minimum duration 6 weeks

# The M.Sc. WASTE: German language courses





#### **Language Center University of Stuttgart**

http://www.sz.uni-stuttgart.de/deutsch/daf info.en.html

#### **Private Language Schools**

Institut für Auslandsbeziehungen (ifa)

http://www.ifa.de/en.html

Deutschkolleg im Ökumenischen Zentrum

http://www.deutschkolleg-stuttgart.de/de/deutschkurs-programm.php

VHS Stuttgart

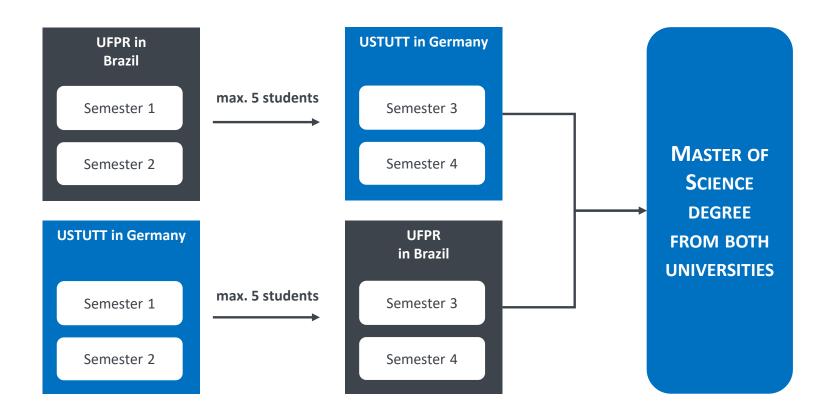
http://www.vhs-stuttgart.de/

Henke Schulungen

http://www.henke-schulungen.de/de/uebersicht.html

# The M.Sc. WASTE: Double Degree





#### The M.Sc. WASTE: An Overview

Examination





# **Examination Office - University of Stuttgart**

Haus der Studierenden

Pfaffenwaldring 5c // 3<sup>rd</sup> floor

Campus Vaihingen

https://www.student.uni-stuttgart.de/en/exams/studentservice-examinationoffice/

#### Office hours:

Wednesday 01:00 p.m. – 03.30 p.m. Thursday 09:00 a.m. – 12:00 p.m.

#### Online consultation hours:

Monday 01:30 p.m. - 02.30 p.m.Thursday 10:00 a.m. - 11:00 a.m.

# **Organizing my studies**

M.Sc. WASTF Website





DE/EN Q =

University of Stuttgart (>)



Welcome to the M.Sc. WASTE

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

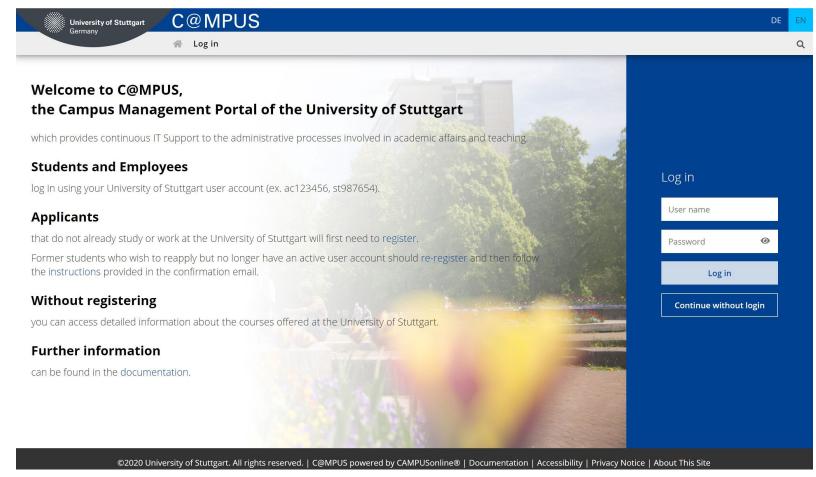
We offer an extensive and unique range of graduate courses educating students to respond to the increasing environmental challenges in the fields of Air Quality Control, Solid Waste, and Waste Water Process Engineering.

[Photo: Jeramiah Backman Photography]

# **Organizing my studies**

C@MPUS Platform





# **Planning my studies**

C@MPUS Platform



STEP 1: Lecture Registration (C@MPUS) STEP 2: Exam Registration (C@MPUS)

- Access to lecture material
- Calendar
- Guarantee your spot (Practical works - Lab)

**Lectures Start: 17.10.2022** 

- MUST DO!
- Allow you to take an exam
- Allocate it in the right place of your curriculum

16.11 - 08.12.2022

#### M.Sc. WASTE Schedule WS2022/23 – 1. Semester



					(WASTE)
Time	Monday	Tuesday	Wednesday	Thursday	Friday
8:00-9:30	Sanitary Engineering: Solid Waste Management Dr. Duelli V47.03			Chemistry and Biology for Environmental Engineers Dr. Hazari/Dr.Kuch/Prof. Kleindienst V7.11	
9:45-11:15	Sanitary Engineering: Waste Water Technology Dr. Schönberger V38.04	Thermo and Fluid Dynamics: Thermodynamics of Mixtures, V Prof. Kronenburg V23.01	Technology Assessment and Presentation Techniques: Technology Asessment and Environmental Economics Dr. Fahl V9.32	Pollutant Formation and Air Quality Control: Chemistry and Physics of Combustion,V Prof. Kronenburg V31.01	Pollutant Formation and Air Quality Control: Basics of Air Quality Control Dr. Vogt V23.01
11:30-13:00			Thermo and Fluid Dynamics: Flow with Heat Transfer Prof. Germann V12.01	Thermo and Fluid Dynamics: Flow with Heat Transfer,Ü Prof. Germann V5.03	Pollutant Formation and Air Quality Control: Chemistry and Physics of Combustion, Ü Thermo and Fluid Dynamics: Thermodynamics of Mixtures, Ü - Alternating Prof. Kronenburg V23.01
14:00-15:30	Chemistry and Biology for Environmental Engineers¹ Dr.Hazari/Dr.Kuch/Prof. Kleindienst V47.04/V6.02	Chemistry and Biology for Environmental Engineers¹ Dr.Hazari/Dr.Kuch/Prof. Kleindienst V7.04		Technology Assessment and Presentation Techniques: Academic Communication Skills - Group 1 Dr. Böhner Pfaff. 23, S0.38	
15:45-17:15	Chemistry and Biology for Environmental Engineers <sup>1</sup> Dr.Hazari/Dr.Kuch/Prof. Kleindienst V47.04/V6.02	Chemistry and Biology for Environmental Engineers <sup>1</sup> Dr.Hazari/Dr.Kuch/Prof. Kleindienst V7.04		Technology Assessment and Presentation Techniques: Academic Communication Skills – Group 2 Dr. Böhner Pfaff. 23, S0.38	
17:45-21:00	German language course <sup>2</sup>		German language course <sup>2</sup>	German language course <sup>2</sup>	



14:00 – 14:30	Welcome Presentation
14:30 – 15:30	Photo Shooting
15:30 – 16:15	Prof. Dr. Andreas Kronenburg Dean of studies
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17:00 – 17:30	Election of: Class speakers  Newsletter coord.  WIM coord.
17:30	Get together  M.Sc. WAS





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## **Extracurricular Activities**

WASTE Intercultural Meetings & Summer Party





WASTE Intercultural Meetings & Summer Party





M.Sc. WASTE Soccer Team





M.Sc. WASTE Fundraising activities





WASTE Intercultural Meetings & Summer Party





**Graduation Ceremony** 





Rooms at the IFK





# IFK Computer Pool (room 0.78)

- Please do not eat and drink in the computer pool
- Please always close the window in case you are the last one to leave

# M.Sc. WASTE Student Room (room 0.51)

Keep it neat and clean!

### IFK Kitchen

Keep it neat and clean!



Rooms at the IFK





#### M.Sc. WASTF Newsletter





least 177 countries, killing more than 610,200 and sickening more than Accordingly, corona-guidelines for study programs of the Uni-14.7 million in a matter of months [source: New York Times Aug. 6, 2020]. versity of Stuttgart and the corona-ordinance from the Federal

2020 term starting with this measure a new challenge presented itself winter semester 2020/21, among others. for the University of Stuttgart: digital teaching. Although our university the management of the summer term under the given conditions was not together. Let's hope for better times! that "easy" for everybody. Some of our international students got stuck in

State Government of Baden-Württemberg were released and Within this new context and after a confusing period trying to organize must be considered for each of the cases. Moreover, a very dythe last examinations of winter term 2019/20 as well as the coming sum- namic, informative situation occurred when the university starmer term, the middle of March saw our university decided to implement ted to publish updated information almost daily through their home office for its employees and to ban the entrance of the students "Newsticker: Information on the coronavirus" page (https:// to the campuses. The main focus was directed at avoiding the further www.uni-stuttgart.de/en/university/news/corona/). Up to date spread of the SARS-CoV-2. To stay at home was the main message of the this link is still very important to follow the latest news regarding German government during the following days, which, in the end, became months. Therefore, the university announced a fully online summer nings, and framework of conditions for teaching in the coming

already utilized some platforms to share important material for the lectures and to assist the communication between lecturers and students, continue taking care of ourselves but also of our neighbor. e.g. ILIAS, this situation brought a new challenge for both sides. On one Hopefully, during this time after the confinement we realized hand the lecturers had to put in practice their creativity to offer attractive just how important social contact is, to meet friends, to breonline lectures, while, on the other, students had to organize their daily athe fresh air, to attend a lecture, to interact with professors and schedules and attend the lectures from their dorms/home. Unfortunately, colleagues, and consequently try to appreciate every moment



A M Sc WASTE student's initiative

UNIVERSITY CHOIR
Culture

**WASTE DURING COVID - 19: ONLINE LECTURES** 

need to maintain social distancing, holding online lectures on virtual platforms have become essential With the spread of the novel coronavirus in and that it also requires more time management skills. After the reopening early 2020 and the resulting need to maintain social distancing, holding of the quarantine, he opined that the virtual lecture can still be a good online lectures on virtual platforms have become essential. Universities supplement, even if we are allowed to have normal lectures. across the globe quickly evolved to create digital platforms to ensure uninterrupted learning for their isolated students. At the University of Stuttgart, the students and professors, but we all are embracing it as a consequence students use an online platform called WebEx to attend online meetings of the pandemic. While in person teaching will eventually return to camand lectures. An interview was conducted to understand the students' and pus, the crisis provides an opportunity to bring more technology to the the professors' feedback with regards to the online lectures and their pros classroom. The use of digital tools and modernizing the way courses are

division manager SIA.

and has been teaching sanitary engineering and mechanical and biological and their pros and cons. treatment of waste. He was the perfect candidate for the interview as he Dr.-Ing. Klaus Fischer is a visiting lecturer for the M.Sc. WASTE program has been a lifelong contributor to the WASTE program.

When asked about his experience with the change to virtual platforms 
Engineering, Water Quality and Solid Waste Management) and a former he said that it was relatively easy for him as he is constantly involved in division manager SIA. them chapter by chapter to the students.

One major change he made was giving a lot of exercises after each chapter. When asked about his experience with the change to virtual platforms compendium but also think about the content and read further literature consulting and doing online meetings. Setting up online lectures was also about it. However, he does not find online meetings to be advantageous as simplified as he had his own camera and could make videos easily. In additures and grade more evercises now compared to the past. He commented them chanter by chanter to the students that he has been waiting desperately for the vaccination to arrive so that One major change he made was giving a lot of exercises after each chapter. life could go back to normal.

What Professor Fischer really misses is the personal interactions with the compendium but also think about the content and read further literature students: the questions they ask and the reactions that he gets when he is about it. However, he does not find online meetings to be advantageous as giving a live lecture. Due to the online meetings, he does not have much they are more time consuming for the professors to prepare additional leccontact with the students, and he misses interacting with them. While doing a WebEx meeting he said "you can see only see a small picture that he has been waiting desperately for the vaccination to arrive so that and each person has a very small space" and he says he cannot "see the life could go back to normal. students smiling, laughing, or being tired". He remarked that even if the What Professor Fischer really misses is the personal interactions with the online format of lectures is helpful, it is still very distant from the actual students: the questions they ask and the He has been conducting lectures classroom environment. He values the personal contact with people and for the WASTE program since it began and has been teaching sanitary finds that to be beneficial for forming a strong relationship. On the students' side, however, some interesting feedback was received. One of the perfect candidate for the interview as he has been a lifelong contributor to students from Generation 2019, Zhaolin Xu, said he prefers the online lec- the WASTE program. tures 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 as 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.

With the spread of the novel coronavirus in early 2020 and the resulting Nevertheless, he reflected that the virtual lecture really requires self-disci-

instructed can potentially allow students to choose how they learn best. Dr.-Ing. Klaus Fischer is a visiting lecturer for the M.Sc. WASTE program Universities across the globe quickly evolved to create digital platforms to and, up until three years ago, was a member of ISWA (Institute for Sanitary ensure uninterrupted learning for their isolated students. At the University Engineering, Water Quality and Solid Waste Management) and a former of Stuttgart, students use an online platform called WebEx to attend online meetings and lectures. An interview was conducted to understand the He has been conducting lectures for the WASTE program since it began students' and the professors' feedback with regards to the online lectures

and, up until three years ago, was a member of ISWA (Institute for Sanitary

consulting and doing online meetings. Setting up online lectures was also He has been conducting lectures for the WASTE program since it began simplified as he had his own camera and could make videos easily. In addi- and has been teaching sanitary engineering and mechanical and biological tion, he had to make some changes to his compendium to be able to send treatment of waste. He was the perfect candidate for the interview as he has been a lifelong contributor to the WASTE program.

His objective for doing this, he said, is that the students not only read the he said that it was relatively easy for him as he is constantly involved in they are more time consuming for the professors to prepare additional lection, he had to make some changes to his compendium to be able to send

His objective for doing this, he said, is that the students not only read the

International Symposium





WASTE Club Stuttgart e.V.



WASTE Club e.V. – MSc WASTE Professional Network (wasteclubstuttgart.com)



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!

# **AGENDA**



14:00 – 14:30	Welcome Presentation
14:30 – 15:30	Photo Shooting
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17:30	Get together  M.Sc. WASTE

Taskforce



### We need your commitment as:

- → Class Speaker
- → Task force member
- → Newsletter coordinator
- → WIM coordinator
- → Symposium Committee 2023

# **Ongoing project: Graduation Ceremony 2022**

\*\*Helpers are wanted!

Fill in the corresponding list!





Class speakers
Generation 2021



Jazmin Morel

Javier Rangel

# **AGENDA**



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17:30	Get together  M.S





# Thank you!



M.Sc. WASTE Office

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