

#### **AGENDA**

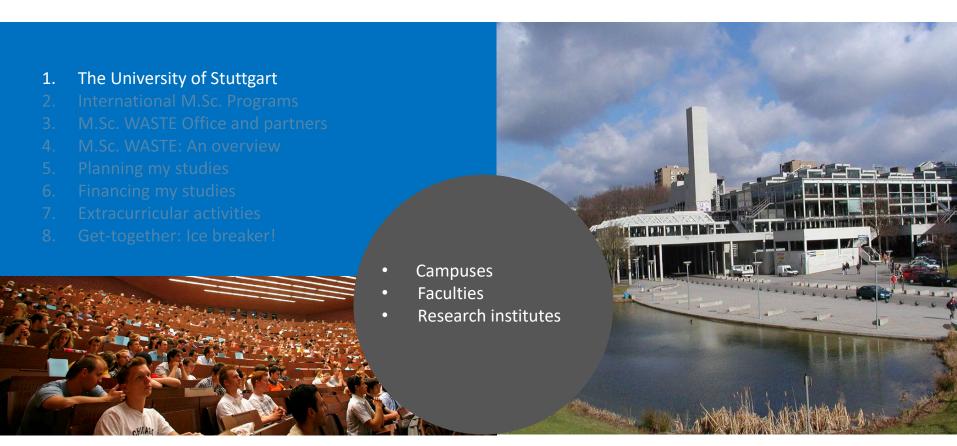


- The University of Stuttgart
- 2. M.Sc. WASTE Office and partners
- 3. M.Sc. WASTE: An overview
- 4. Planning my studies
- 5. Financing my studies
- 6. Extracurricular activities
- 7. Get-together: Ice breaker!
- 8. Hiking / Excursion Schloss Solitude



#### **AGENDA**





Campuses





Campus Vaihingen Engineering Programs

Campuses





Campus Mitte Humanities and architecture

#### **Faculties**



- Faculty of Architecture and Urban Planning
- 2. Faculty of Civil- and Environmental Engineering
- 3. Faculty of Chemistry
- 4. Faculty of Energy-, Process- and Bio-Engineering
- 5. Faculty of Computer Science, Electrical Engineering and Information Technology
- 6. Faculty of Aerospace Engineering and Geodesy
- 7. Faculty of Engineering Design, Production Engineering and Automotive Engineering
- 8. Faculty of Mathematics and Physics
- 9. Faculty of Humanities
- 10. Faculty of Management, Economics and Social Sciences



#### Research Institutes - Faculty 4



- 1. Institute of Biomaterials and Biomolecular Systems (BIO)
- 2. Institute of Biomedical Engineering (BMT)
- 3. Institute of Biochemical Engineering (IBVT)
- 4. Institute of Chemical Process Engineering (ICVT)
- 5. Institute of Energy Efficiency in Production (EEP)
- 6. Institute of Energy Economics and the Rational Use of Energy (IER)
- 7. Institute of Combustion and Power Plant Technology (IFK)
- 8. Institute of Building Energetics, Thermotechnology and Energy Storage (IGTE)
- 9. Institute of Interfacial Process Engineering and Plasma Technology (IGVP)
- 10. Institute of High Performance Computing (IHR)
- 11. Institute of Industrial Genetics (IIG)
- 12. Institute of Nuclear Technology and Energy Systems (IKE)
- 13. Institute of Polymer Technology (IKT)
- 14. Institute of Materials Testing, Materials Science and Strength of Materials (IMWF)
- 15. Institute of Mechanical Process Engineering (IMVT)
- 16. Institute of Microbiology (IMB)
- 17. Institute of Fluid Mechanics and Hydraulic Machinery (IHS)
- 18. Institute of Thermodynamics and Thermal Process Engineering (ITT)
- 19. Institute of Combustion Technology (ITV)
- 20. Institute for Textile and Fiber Technologies (DITF)
- 21. Institute of Thermal Turbomachinery and Machinery Laboratory (ITSM)
- 22. Institute of Cell Biology and Immunology (IZI)

#### Research Institutes – Faculty 2



- 1. Institute of Construction Management (IBL)
- 2. Institute of Structural Mechanics (IBB)
- 3. Institute for Acoustics and Building Physics (IABP)
- 4. Institute of Railway and Transportation Engineering (IEV)
- 5. Institute of Geotechnical Engineering (IGS)
- 6. Institute of Structural Design (KE)
- 7. Institute of Lightweight Structures and Conceptual Design (ILEK)
- 8. Institute of Applied Mechanics (Civil Engineering) (MIB)
- 9. Institute of Spatial and Regional Planning (IREUS)
- 10. Institute of Sanitary Engineering, Water Quality and Solid Waste Management (ISWA)
- 11. Institute of Road and Transportation Science (ISV)
- 12. Institute for Modelling Hydraulic and Environmental Systems (IWS)
- 13. Institute of Construction Materials (IWB) [de]



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#### M.Sc. WASTE Office and Partners

M.Sc. WASTE Office Team



#### **Dean of Studies**



Prof. Dr. Andreas Kronenburg

#### **Course Director**



Dr. -Ing. Carolina Acuña Caro

#### **Course Manager**



Laura Scheurer, M.A.



## M.Sc. WASTE Office and partners

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 Manager (room 0.04)

Laura Scheurer, M.A.

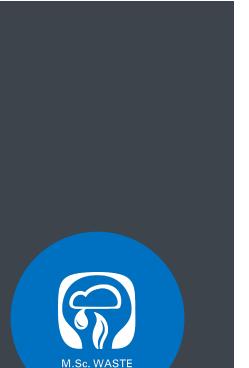
Office hours: **upon appointment** Phone: +49 (0) 711 685 68936

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

#### M.Sc. WASTE Office and Partners

M.Sc. WASTE Committee







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



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

#### M.Sc. WASTE Office and Partners

International Office (IZ/IO)



#### **Social Affairs**

They provide you:

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

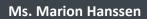
https://www.uni-stuttgart.de/en/university/international/service/

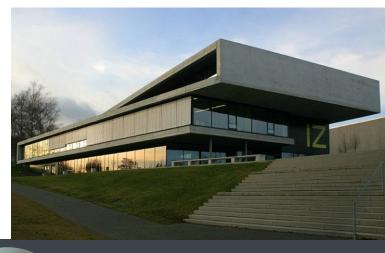


Ms. Svenja Wübker

#### **International Master Students**

Consultation hours:
Mo. and Wed. 2:00 – 4:00 p.m.
Tue. and Thu. 10:00 a.m. – noon
(and upon appointment)
wuebker@ia.uni-stuttgart.de





**Double Degree Students** 

Consultation hours: Mo. and Wed. 2:00 p.m. – 4:00 p.m. Tue. and Thu. 10:00 a.m. – noon

hanssen@ia.uni-stuttgart.de



# Learning Counseling

in the Student Counseling Center

## Tips and advice for successful learning

- Learning skills newsletter in the winter semester
- Counseling for individual students and learning groups
- Workshops on:
  - Efficient learning methods and exam preparation
  - Learning regularly, avoiding procrastination



## **Contact for appointment & newsletter subscription:**

<u>lernberatung@uni-stuttgart.de</u>

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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

Introduction: Our Alumni





# **German industry**









**Building Technologies** 





Introduction: Our Alumni





# German small and medium sized companies



Wasser- und Abwassertechnik





LEADING IN PRODUCTION EFFICIENCY



Die Experten für abwasserfreie Produktion









## **Universities and Research Institutes**











Introduction: Our Alumni





# **Companies at their home countries**





LEADING IN PRODUCTION EFFICIENCY











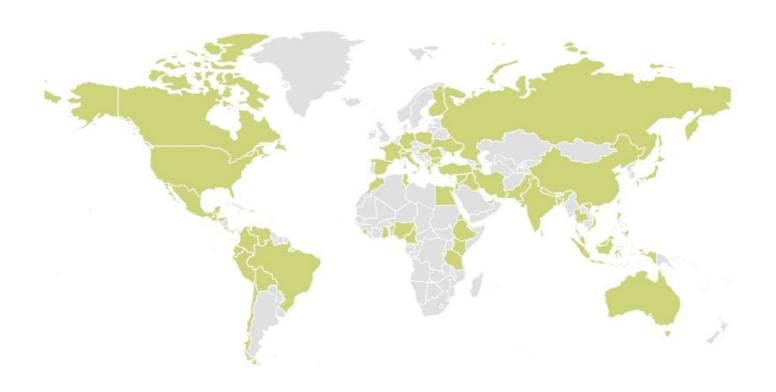


INFRASTRUCTURE LEASING & FINANCIAL SERVICES LIMITED



Introduction: Our Alumni Network





Introduction: Historical highlights





**INDIVIDUAL** 

Established in 2002 as a 3 semester program



Start in September – incl.
 German course

Start in October – excl. German course

 Bologna Process: M.Sc. WASTE based on a modular system (Standard for Mobility)

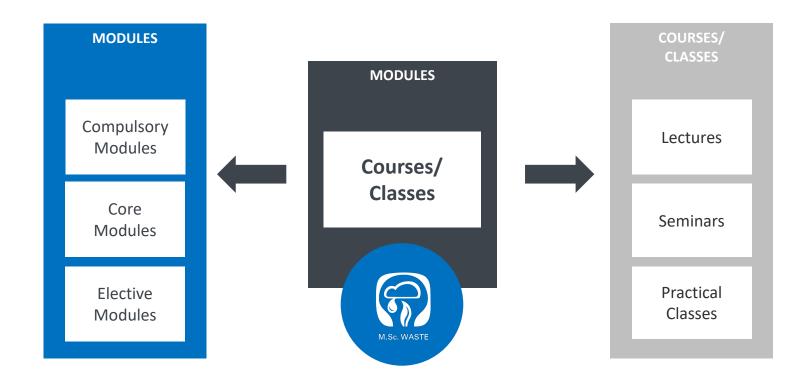
• Degree: Master of Science





Introduction: Modules

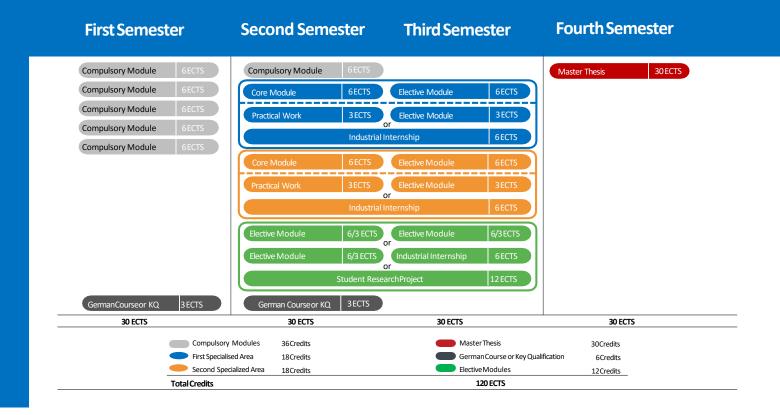




The M.Sc. WASTE Macrostructure







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
- Pollutant Formation and Air Quality Control
- Chemistry and Biology for Environmental Engineers
- Sanitary Engineering
- Process Engineering
- Technology Assessment and Presentation Techniques



**Specialized Areas** 



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

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

- Firing Systems and Flue Gas Cleaning
- Measurement of Air Pollutants

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

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

Practical Class Air Quality Control



**Specialized Areas** 

**Solid Waste (18 Credits)** 

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

 Mechanical, Biological and Thermal Waste Treatment

**Elective Modules (9 credits)** 

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

Sanitary Engineering Part II: Solid





**Specialized Areas** 



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

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

 Urban Drainage and Design of Wastewater Treatment Plants

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

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

Sanitary Engineering Part I: Water





**Basic Rules** 





- Each semester around 30 Credits (+/- 10%)
- Total: 120 Credits in 4 semesters
- Industrial internship optional, minimum duration 6 weeks
- Further questions? Please refer to our FAQs:
   FAQs before studying

The German Intensive Course





Policy regarding excuses: participation is mandatory!

Accepted excuses: **Illness** and **examinations** (**only** in the case that take place at the same time as German classes)

How to be excused?

**Illness** → medical certificate

**Examinations** (in advance!) → certificate from M.Sc. WASTE Office

Both to be handed in as soon as possible to your teacher

German Language Courses outside IO





## **Language Center University of Stuttgart**

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

#### **Private Language Schools**

Institut für Auslandsbeziehungen (ifa)

https://www.ifa.de/en/

Deutschkolleg

https://deutschkurs-stuttgart.de/de/deutschkurse/

**VHS Stuttgart** 

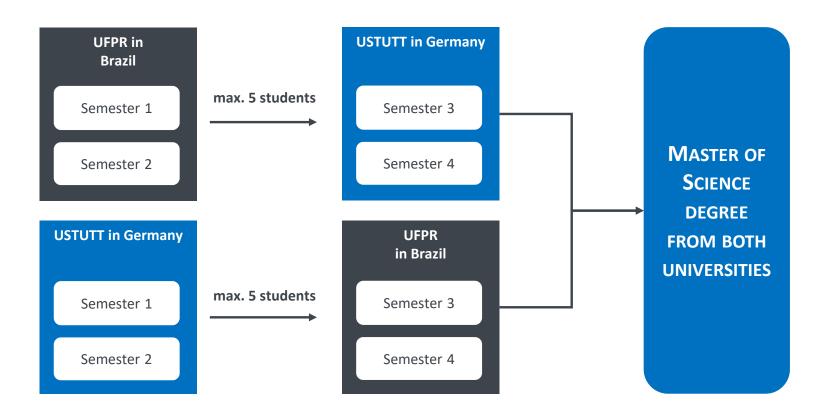
http://www.vhs-stuttgart.de/

Henke Schulungen

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

Double Degree





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 01:30 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.

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

**Examination Regulations** 



#### **Examination regulations PO 2015**

- Please be careful with tips and tricks from senior students, because they might not apply for your generation!
- We strongly advise you to ask the Course Director/Course Manager in case of any doubt!

Friday 20th October, 2023

**Second part of the Welcoming Event!** 

Prof. Kronenburg will give you detailed information about the examination regulations

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

Study guide



#### **Study Guide**

- A guide with helpful information regarding your study program/ USTUTT/ and life as a student here in Stuttgart.
- Please go to our Website, download the guide and have a look at it.
- Main navigation -> While studying -> Downloads

https://www.waste.uni-stuttgart.de/research/downloads/



#### Program-related downloads

Here you can find documents related to the modules of the M.Sc. WASTE

- > M.Sc. WASTE Macrostructure
- M.Sc. WASTE Module Handbook
- > M.Sc. WASTE Study Guide
- > M.Sc. WASTE Roadmap
- M.Sc. WASTE Step by Step Lecture registration
- > Examination Regulations

#### **AGENDA**





#### Planning my studies

C@MPUS Platform + M.Sc. WASTE 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]

### Planning 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)

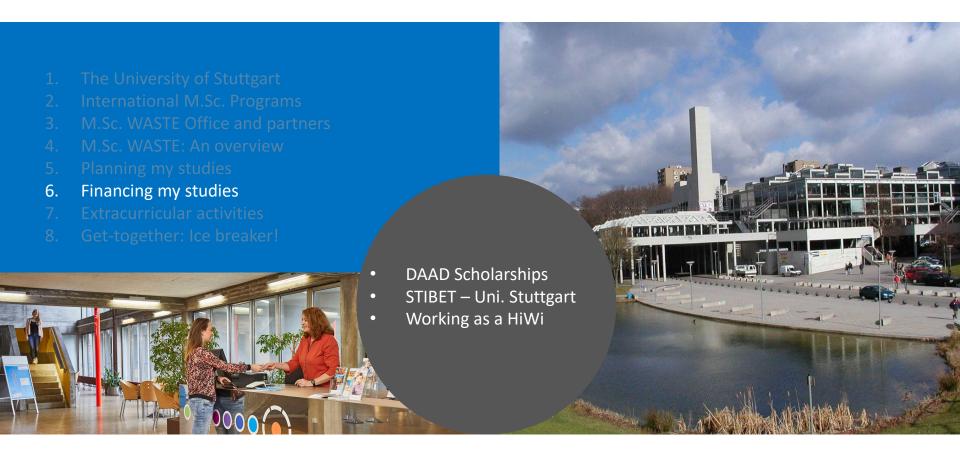
**Lectures Start: 16.10.2023** 

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

15.11 - 07.12.2023

#### **AGENDA**





#### **AGENDA**





Rooms at the IFK





#### Computer Pool at IFK (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





WASTE Intercultural Meetings & Summer Party





WASTE Intercultural Meetings & Summer Party





WASTE Intercultural Meetings & Summer Party





#### M.Sc. WASTF Newsletter

for the University of Stuttgart: digital teaching. Although our university

that "easy" for everybody. Some of our international students got stuck in



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



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 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 2020 term starting with this measure a new challenge presented itself winter semester 2020/21, among others.

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 the management of the summer term under the given conditions was not together. Let's hope for better times!



A M Sc WASTE student's initiative

UNIVERSITY CHOIR
Culture

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 unin-

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.

he said that it was relatively easy for him as he is constantly involved in division manager SIA. consulting and doing online meetings. Setting up online lectures was also. He has been conducting lectures for the WASTE program since it began 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 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 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 addithey 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 tures 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-discineed 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

terrupted 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 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 When asked about his experience with the change to virtual platforms 
Engineering, Water Quality and Solid Waste Management) and a former

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

**International Symposium** 





**Graduation Ceremony** 





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 MSc. "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!

Taskforce



#### We need your commitment as:

- → Class Speaker
- → Task force member
- → Newsletter coordinator
- → WIM coordinator







Class speakers
Generation 2022



Sahar Babazadeh

**Georgios Koilaridis** 

Taskforce



# Friday, October 20th, 02:00 p.m.

- → Class Speakers
- → Task force member
- → Newsletter coordinator
- → WIM coordinator
- → Photo Session for our homepage and poster
- → Student Advisors from International Center
- → Further important academic information from the study dean Prof. Andreas Kronenburg

We are looking forward to seeing you there!

#### **AGENDA**





# **Get-together: Ice breaker**





# **Hiking / Excursion – Schloss Solitude**

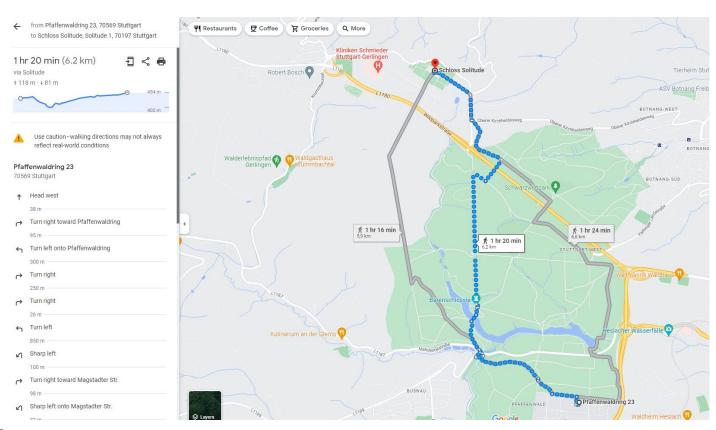




 $Source: Ralf \ Keller \ (Obtained \ from \ \underline{https://www.fotocommunity.de/photo/schloss-solitude-ralfkeller/41919046})$ 

## Hiking / Excursion – Schloss Solitude





Source: Google Maps

# **Hiking / Excursion – Schloss Solitude**







# Thank you!



M.Sc. WASTE Office

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fax +49 (0) 711 685-63491

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