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ARS ARCHITECTURE
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Studiere Stadt der Zukunft!

BEUTH HOCHSCHULE
FÜR TECHNIK
BERLIN
University of Applied Sciences

FACHBEREICH IV ARCHITEKTUR
UND GEBÄUDETECHNIK
Department IV Architecture
and Building Services Engineering

FERNSTUDIENINSTITUT
Institute of Distance Learning

A VIRTUAL SUMMER SCHOOL ON

SUSTAINABLE DESIGN FOR LOW CARBON BUILDINGS & CITIES

PROGRAM AND TIMETABLE

A Virtual Summer School on
Sustainable Design for Low Carbon Buildings & Cities

PROGRAM AND TIMETABLE

TIME	TOPIC	SPEAKER
Day 1: Monday, 30/08/2021 **Opening events and keynote speeches**		*Moderator: Prof. Dr. Florian Schindler* *Beuth University, Institute of Distance Learning*
2 - 2:30 pm	**Welcome:** Opening Speech Welcome and very brief presentation of participating countries	Prof. Dr.-Ing. Werner Ullman, *President Beuth University* Prof. Dr. Florian Schindler, *Beuth University, Institute of Distance Learning* Prof. Dipl.-Ing. Gerd Sedelies, Beuth University, *Dean of Department for Architecture and Building Services*
2:30 - 3:30 pm	**Keynote 1** Perspectives on the global energy transition - challenges and opportunities	Rana Adib, *Executive Director, REN21 Paris*
4 - 5 pm	**Keynote 2** Masterplan Solarcity Developments in Berlin: Roadmap to a climate-neutral city	Franz-Wilhelm Garske, *Head of Service Entity for Facility Management in Berlin Tempelhof-Schöneberg* Prof. Alexander Kader, *German University of Technology in Oman (GUtech)*
5 - 6 pm	**Student Project** Introduction to student project and organization	Prof. Dr.-Ing. Felix Wellnitz, *Beuth University* Prof. Dr.-Ing. Doreen Kalz, *Beuth University*
Day 2: Tuesday, 31/08/2021 **Post-carbon cities of tomorrow**		*Moderator: Dr. André Deschan* *Beuth University, Institute of Distance Learning*
1:45 pm	Introduction Beuth University of Applied Sciences, Berlin, Germany	Prof. Dr. Florian Schindler, *Beuth University, Director of the Institute of Distance Learning*
2 - 2:45 pm	Urban energy challenges: energy demand, supply constraints, air and water quality management	Vinod Ramanarayanan, *International Climate Protection Fellowship, Alexander von Humboldt Foundation*

2:45 - 3:30 pm	Energy Challenges in Cities, Ankara as an example	Duygu Başoğlu, *Ekodenge, Ankara/London*
4 -5:30 pm	Cities of tomorrow: challenges, visions, ways forward	Prof. Rüdiger Ebel, *Beuth University*

Day 3: Wednesday, 01/09/2021 **Shaping an integrated renewable energy system**		*Moderator: Prof. Dr.-Ing. Doreen Kalz* *Beuth University*
1:45 pm	Introduction University of Fluminense, Niteroi, Brazil	
2 - 3 pm	Concepts of regional energy transition	Dietrich Schmidt, *Fraunhofer IEE Kassel, Abteilungsleiter Strom-Wärme-Systeme*
3 - 4 pm	Renewable energy options in urban spaces	Oliver Zernahle, *Green Urban Energy Berliner Stadtwerke, E.ON*
4:30 - 5.30 pm	Renewable energy in district heating and cooling networks	Prof. Dr.-Ing. Doreen Kalz, *Beuth University*
5:30 - 6 pm	**Student Project** Q&A session	Prof. Dr.-Ing. Felix Wellnitz, *Beuth University* Prof. Dr.-Ing. Doreen Kalz, *Beuth University*

Day 4: Thursday, 02/09/2021 **Integration of renewable energies into buildings**		*Moderator: Prof. Dr.-Ing. Doreen Kalz* *Beuth University*
1:45 pm	Introduction LaSalle University, Niteroi, Brazil	
2 - 3 pm	**Lab Tour** Virtual tour solar simulator and live experiment in the lab	Prof. Dr.-Ing. Kohlenbach, *Beuth University*
3:30 - 5 pm	Building integrated photovoltaics: current state and visions	Craig Wong, *Photovoltaik Institute Berlin AG*
5 - 5:30 pm	Cooling and heating residential and office buildings using renewable energies	Prof. Dr.-Ing. Doreen Kalz, *Beuth University*

Day 5: Friday, 03/09/2021 **Sustainable design for low carbon architecture**		*Moderator: Prof. Dr.-Ing. Felix Wellnitz* *Beuth University*
1:45 pm	Introduction Middle East Technical University (METU), Ankara, Turkey	
2 - 3:30 pm	Integral methods for conceptual building design	Prof. Dr.-Ing. Susan Draeger, *BTU Cottbus*

4 - 5:30 pm	Towards energy efficient buildings: State-of-the art and visions	David Russell, *Carbon Futures, Glasgow/ Edinburgh, UK*

Day 6: Monday, 06/09/2021 **Sustainable design for low carbon architecture**		*Moderator: Prof. Dr.-Ing. Felix Wellnitz* *Beuth University*
2 - 3:30 pm	Innovative building materials and innovative facade concepts	Prof. Henning von Wedemeyer, *Beuth University*
4 - 5:30 pm	Techniques for sustainable building construction	Prof. Dr.-Ing. Felix Wellnitz, *Beuth University*

Day 7: Tuesday, 07/09/2021 **Circular economy & life cycle analysis**		*Moderator: Dr. André Deschan* *Beuth University, Institute of Distance Learning*
1:45 pm	Introduction German University of Technology (GUtech), Muscat, Oman	Prof. Alexander Kader, *German University of Technology in Oman*
2 - 2:45 pm	A circular approach to life cycle assessment of buildings and settlements	Dr. Cihan Kayaçetin, *Middle East Technical University (METU), TR*
2:45 - 3:30 pm	Cradle to cradle	Andrea Heil, *München, Architects for Future*
4 - 6 pm	**Workshop 1:** Pre-dimensioning building integrated photovoltaics	Craig Wong, *Photovoltaik Institute Berlin AG*
4 - 6 pm	**Workshop 2:** Pre-dimensioning technical building services	Prof. Dr.-Ing. Doreen Kalz, *Beuth University*
4 - 6 pm	**Workshop 3:** Basis thermal simulation of a building zone	Prof. Dr.-Ing. Felix Wellnitz, *Beuth University*
4 - 6 pm	**Workshop 4:** Pre-evaluation of energy consumption and CO2 emission of building over entire life cycle	Prof. Dr. Ali Murat Tanyer, *Middle East Technical University (METU), TR* Prof. Dr. Mehmet Koray Pekeriçli, *Middle East Technical University (METU), TR*

Day 8: Wednesday, 08/09/2021 **Student Project**		
	Student Project	Prof. Dr.-Ing. Doreen Kalz, *Beuth University* Prof. Louise Lomardo, *Universidade Federal Fluminense, BR* Prof. Dr. Ali Murat Tanyer, *Middle East Technical University (METU), TR*

	Collaborative design exercise	
2 -3 pm	**Consultation for student project, chats with experts (parallel):**	
	Architecture and integral design	Prof. Dr. Ali Murat Tanyer
	Architecture, urbanism and building construction	Prof. Louise Lomardo, Prof. Caetano, Prof. Nazif
	Architecture building construction	Prof. Dr.-Ing. Felix Wellnitz
	Technical building services	Prof. Dr.-Ing. Doreen Kalz
	Life cycle analysis	Prof. Dr. Mehmet Koray Pekeriçli

Day 9: Thursday, 09/09/2021
Student Project

	Student Project	Prof. Dr.-Ing. Doreen Kalz, *Beuth University* Prof. Louise Lomardo, *Universidade Federal Fluminense, BR* Prof. Dr. Ali Murat Tanyer, *Middle East Technical University (METU), TR*
	Collaborative design exercise	
2 - 3 pm	**Consultation for student project, chats with experts (parallel):**	
	Architecture and integral design	Prof. Dr. Ali Murat Tanyer
	Architecture, urbanism and building construction	Prof. Louise Lomardo, Prof. Caetano, Prof. Nazif
	Architecture building construction	Prof. Dr.-Ing. Felix Wellnitz
	Technical building services	Prof. Dr.-Ing. Doreen Kalz
	Photovoltaics and BIPV	Craig Wong
	Life cycle analysis	Prof. Dr. Mehmet Koray Pekeriçli

Day 10: Friday, 10/09/2021
Student Project

	Student Project	Prof. Dr.-Ing. Doreen Kalz, *Beuth University* Prof. Louise Lomardo, *Universidade Federal Fluminense, BR* Prof. Dr. Ali Murat Tanyer, *Middle East Technical University (METU), TR*
	Collaborative design exercise	

2 -3 pm	**Consultation for student project, chats with experts (parallel):**	
	Architecture and integral design	Prof. Dr. Ali Murat Tanyer
	Architecture, urbanism and building construction	Prof. Louise Lomardo, Prof. Caetano, Prof. Nazif
	Architecture building construction	Prof. Dr.-Ing. Felix Wellnitz
	Technical building services	Prof. Dr.-Ing. Doreen Kalz
	Photovoltaics and BIPV	Craig Wong
	Life cycle analysis	Prof. Dr. Mehmet Koray Pekeriçli

Day 11: Monday, 13/09/2021 **Closing Event**		*Moderator: Prof. Dr. Florian Schindler* *Beuth University, Institute of Distance Learning*
2 - 4 pm	**Presentation of student projects**	Jury: Prof. Dr. Florian Schindler, *Beuth University, Institute of Distance Learning* Prof. Dr.-Ing. Doreen Kalz, *Beuth University* Prof. Dr.-Ing. Felix Wellnitz, *Beuth University* Prof. Louise Lomardo, *Universidade Federal Fluminense, BR* Prof. Dr. Ali Murat Tanyer, *Middle East Technical University (METU), TR* Prof. Alexander Kader, *German University of Technology in Oman (GUtech), OMN*
4:30 – 5:30 pm	**Award of projects and closing event**	

Technical Guidelines for the Summer school

- Sessions take place via web meeting.
- The technical instructions and the access code will be provided before the summer school on the platform of Beuth University's learning management system.
- Time refers to the European summer time (UCEST).
- If you have technical problems before or during the sessions, please contact Mrs. Lorillu via Jessica.Lorillu@beuth-hochschule.de .
- Consultations sessions for the student project are voluntarily and take place upon request.

Contact

Beuth University of Applied Sciences
Institute of Distance Learning
Please contact us via https://projekt.beuth-hochschule.de/summerschool-ars/