**International Joint Seminar**

**Towards the Digital Urban Era**

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PARTICIPATING TEACHERS | **TUD:** Dr.-Ing. Xiaoping XIE (course instructor), Prof. Dr. Frank H.P. FITZEK (presenter), Prof. Dr. Udo BUSCHER (presenter), Prof. Dr. Werner ESSWEIN (presenter), Ms. Dorothee DUBRAU (external presenter) | **KYUSHU:** Prof. Dr. Chika TAKATORI (course instructor), Prof. Dr. Takeshi KUROSE (presenter), Prof. Dr. Shigeru TAKANO (presenter), Prof. Dr. Hiroyuki KANEKIYO (presenter), Prof. Dr. Yuriko HAYABUCHI (presenter), Prof. Dr. LOH Wei Leong (presenter), Prof. Dr. Masaaki IWAMOTO (presenter) | **NTNU:** Dr.-Ing. Yu WANG (course instructor), Prof. Annemie WYCKMANS (presenter), Mr. Kristian MJØEN (external presenter), Mr. Gunnar Edwin CRAWFORD (external presenter), Mrs. Michelle SNARBERG (external presenter) | **ZJU:** Prof. Dr. HE Yong (course instructor), Prof. Dr. LI Yonghua (presenter), Prof. Dr. DING Liang (external presenter), Prof. Dr. CHEN Xiaowei (external presenter)

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The seminar is funded by the German Federal Ministry of Education and Research (BMBF) and the Free State of Saxony within the framework of the Excellence Strategy of German Federal Government and the States.

**GENERAL TOPIC**

**Towards the Digital Urban Era**

**SUBTOPICS**

**Technology | Industry 4.0 and the Productive City | Technische Universitaet Dresden**

**Society | Society 5.0 and the Built Environment | Kyushu-University**

**Co-Creation | Co-creative Urban Innovation | Norwegian University of Science and Technology**

**Countryside | The countryside of the Digital Urban Era | Zhejiang University**

**OBJECTIVES**

The joint seminar aims to utilize the educational platforms of the four internationally renowned universities to enable students to gain in-depth knowledge of the various facets of the Digital Urban Era across cultural and socio-economic boundaries.

The seminar will be conducted in a virtual learning environment that enables timely interaction between teachers and students across university boundaries and overcomes the time and space constraints for collaborative teaching and learning on the Asian and European continents. Taking advantage of the virtual education technologies, students will learn in an international working environment, which will broaden their scientific view to a global perspective and strengthen their personal ability for international collaborative working.

The seminar aims to enhance students’ interest and motivation for in-depth study of this challenging topic through interactive collaborative learning. Under the didactic concept of participatory learning, students will be involved in the seminar as learners of knowledge about the Digital Urban Era . Moreover, they will participate in the shaping the contents of survey with their perspective as a mainstream group of the Digital Urban Era . Students will gain training in international comparative studies through the participation in local questionnaire survey on site and subsequent joint evaluation, so that they will enhance their interest and ability in dealing with unfamiliar physical and socio-cultural environments.

It is planned to develop the joint seminar into a long-term seminar series through a MoU between the four partners and to integrate it into the teaching framework of each university.

**TIMELINE FOT WINTER SEMESTER 2021/22 | AUTUMN SEMESTER 2021**

**Kick-off:** September 30th, 2021, 9:00-10:30 (CET) | 15:00-16:30 (CHINA) | 16:00-17:30 (JAPAN)

**Core time of the joint serminar:** September 30th, 2021 – December 20th, 2021

**Fermentation and Incubation Phase**: NTNU: August 1st – November 21st, 2021; KYUSHU | TUD | ZJU: September 30th - November 21st, 2021

**Develop by Doing Phase:** November 22nd – December 20th, 2021

**Final Prasentation:** December 20th, 2021, 8:00-11:00 (CET) | 14:00-17:00 (CHINA) | 15:00-18:00 (JAPAN)

**BACKGROUND**

By 2050, the world’s urban population is expected to nearly double, making urbanization one of the twenty-first century’s most transformative trends [New Urban Agenda - Habitat III, p.3]. Against this background, the concept of the urban century is sweeping the world. On the other hand, the increasing abundance of data, improved computing power, and advanced digital communications technologies have accelerated the digital transformation in all global societies. The proliferation of digital technologies has brought about a profound transformation in the labor market, bringing new skill requirements to traditional occupations while at the same time creating new job opportunities. Against this background, architectural and planning professions require practitioners with a broader range of skills that can adapt to the needs of the Digital Urban Era. Education in these professions must therefore adapt to train the learners with a global perspective and visionary thinking, while being realistic and familiar in dealing with local challenges.

The opening remarks of the greatest contemporary architectural thinker, Rem Koolhaas, in his talk at the 2014 EU High Level Group meeting on Smart Cities in Brussels addressed a crucial challenge currently facing the architectural and planning professions.

[*I had a sinking feeling as I was listening to the talks by these prominent figures in the field of smart cities because the city used to be the domain of the architect, and now, frankly, they have made it their domain. This transfer of authority has been achieved in a clever way by calling their city smart – and by calling it smart, our city is condemned to being stupid.]*

How to encourage students’ interest and train their ability to deal with the built environment in the Digital Urban Era is a common challenge facing contemporary education of architectural and planning departments across countries. Agsint this background, international comparative studies in the related fields are becoming increasingly important because these: (1) shows more precisely variables work differently in a variety of settings, (2) affords us a better chance to understand how the discovery of anomalies within different social systems can be refined and ultimately enhance theoretical understanding, and (3) provides contrast models that point up crucial distinctions within a given set of findings. [Kantor & Savitch 2005] In order to meet this challenge, it is necessary to overcome physical limitations in time and place, as well as barriers in understanding different cultural and socio-economic conditions. In this regard, the internationally joint course programmes, with advancing technology for virtual teaching and learning provide opportunities to achieve educational improvement.

**COURSE DESIGN**

This joint seminar programme will be conducted virtually and is initially planned for one year, also in the winter semester 2021/2022 and summer semester 2022 of KYUSHU, TUD and ZJU, and in the autumn semester 2021 and spring semester 2022 of NTNU. Within the general topic of **Towards the Digital Urban Era**, each of the four universities will take on one aspect, i.e. TUD for **‘Technology’**, Kyushu for **‘Society’**, NTNU for **‘Co-Creation’** and ZJU for the **‘Countryside’**.

Since the semester schedules of the four universities are different, the courses are designed as a two-stage structure. The first stage is called **‘Fermentation and Incubation’** and will be conducted individually in the four universities according to own semester structure. In this stage, students will learn topic-related knowledge from open lectures (webinars) given by scientists from various disciplines and experts from different fields. At the same time, students and teachers will discuss the contents of the lectures in the online course forum and exchange ideas there. In this way, students will incubate relevant knowledge in their minds and at the same time have a collision of ideas (brainstorming) based on discussions and exchanges in the course forum, thus fermenting the feelings of being a participatory member of the seminar course group.

The second stage is defined as the **‘develop by doing’** phase. In this stage, all students and teachers will participate in an intensive collaborative working month. In the first week, an online discussion session is planned to first identify the most relevant issues related to the Digital Urban Era and the subtopics of this seminar course in a participative manner. Based on this, four cross-university working groups will be formed to address the four subtopics ‘Technology’, ‘Society’, ‘Co-Creation’ and ‘Countryside’. Each working group will then hold their own online discussion rounds to develop questionnaires that focus on their subtopic. Two types of questionnaire will be developed, one for the expert interviews and another one addresses the ordinary citizens. In the second and third week, students from each university will conduct the questionnairy survey locally on site, i.e. in their own city and region. In the fourth week, all the results of the questionnaire survey will be compiled. All teachers and students will compare, analyse and evaluate the results of the questionnaire survey together. The one-month “develop by doing” training aims to broaden the students’ scientific view to a cross-cultural perspective and to strengthen their personal ability for international collaborative working, in particular for international comparative analysis.

To maximise the knowledge dissemination impact of this international joint seminar, it is planned to make the public lectures available to a global audience so that people interested in the field of Digital Urban Era can gain insights through the public lectures held in the framework of this joint seminar. Taking into account the time difference of 6-8 hours between Asia and Europe, it is planned to conduct the seminar in a hybrid model. The course instructor of each university will participate all of the webinars and virtual joint seminar sessions personally. The lectures given by presenters will be recorded in advance and prepared for individual using by each university in their own seminar courses on site.

**REFERENCES**

Kantor, P. & Savitch, H.V. (2005): How to study comparative urban development politics: A research note. International Journal of Urban and Regional Research, 29 (1), pp. 135-151.

UN (2016): New Urban Agenda – Habitat III, http://habitat3.org/wp-content/uploads/NUA-English.pdf.

**AGENDA OF THE KICK-OFF SESSION (DRAFT)**

**Time:**

September 30th, 2021

9:00-10:30 (CET) | 15:00-16:30 (CHINA) | 16:00-17:30 (JAPAN)

**Location:**

Virtual (Youtube?) (to be confirmed)

**Moderation:**

Dr.-Ing. Xiaoping XIE

**9:00-9:10:**

Openning remarks by Prof. Dr. Ursula M. STAUDINGER, Rector of TUD

**9:10-9:20:**

Openning remarks by Prof. Dr. Guoqiang SHEN, Head of Regional and Urban Planning Department of ZJU

**9:20-9:30:**

Openning remarks by Prof. Dr. Masakazu TANI, Dean of Faculty of Design of KYUSHU

**9:30-9:40:**

Openning reamrks by Prof. Annemie WYCKMANS, Head of NTNU Smart Sustainable Cities of NTNU

**9:40-9:50:**

Openning remarks by Prof. Dr. Jürgen STAMM, Head of School of Civil and Environmental Engineering of TUD

**9:50-10:10:**

Keynote by Prof. Dr. Frank H.P. FITZEK, Deutsche Telekom Chair of Communication Networks, TUD

**10:10-10:30:**

Introduction of the course structure by the four course instructors