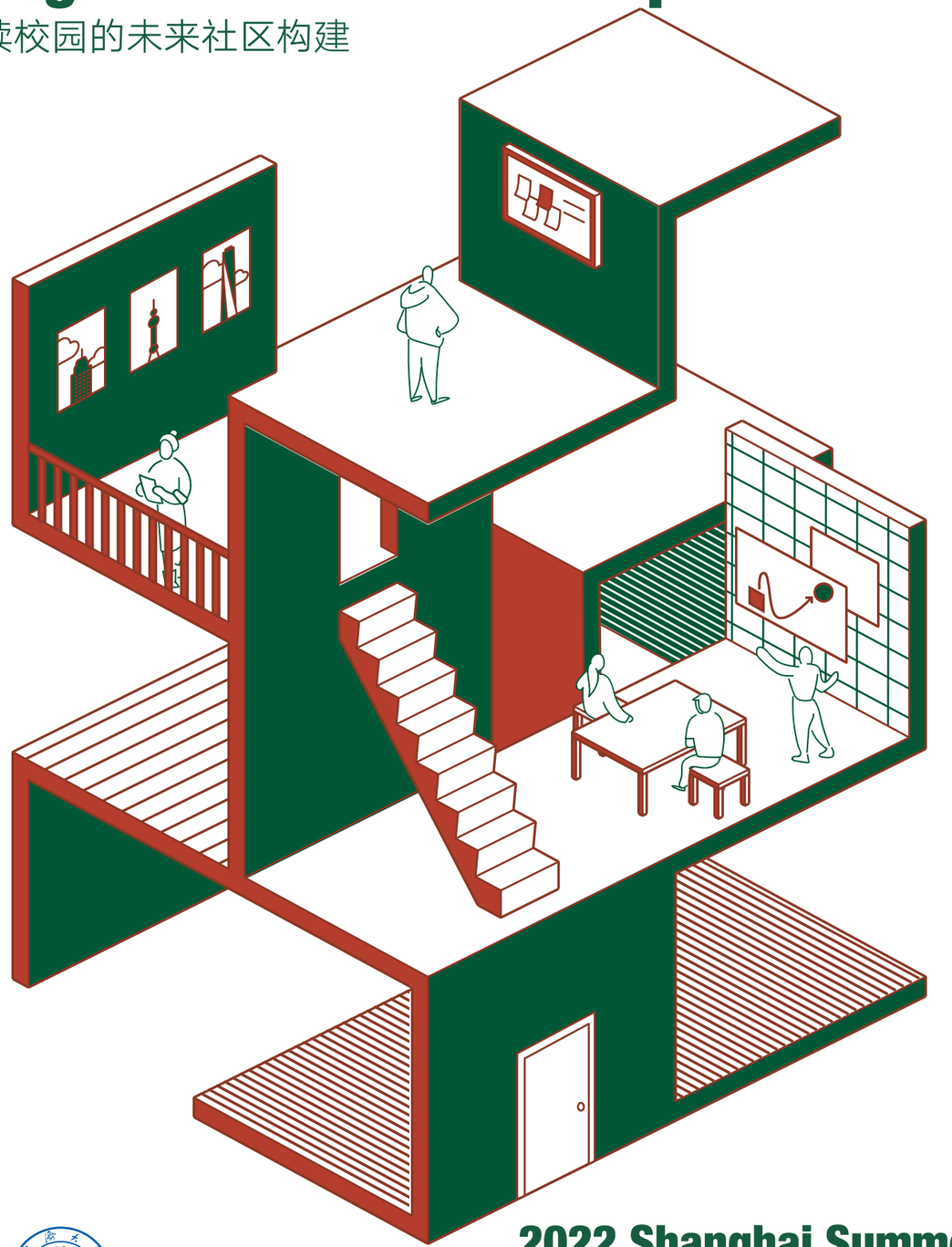
Shaping the Community of the Future through a Sustainable Campus

可持续校园的未来社区构建



2022 Shanghai Summer School (SSS)

Host
Tongji University

Organizer
Sino Italian Campus of Tongji University

Language
English

Cost
Free of charge

Certificate
A certificate of completion of the Shanghai Summer School will be awarded to students who have completed all the courses and final project.

SUMMER SCHOOL SHANGHAI

同济大学中意学院
SINO-ITALIAN CAMPUS

2022 Shanghai Summer School (SSS)

July 3rd-29th, 2022

About Shanghai Summer School (SSS) 2022

The Shanghai Summer School (SSS) is sponsored by Shanghai Municipal Education Commission and organized by Tongji University annually since 2011.

In 2022, the summer school will be hosted by the Sino-Italian Campus of Tongji University, and students from Europe and China will be invited to participate in the program online.

The theme of the program will be “Shaping the Community of the Future through a Sustainable Campus”, which engages multifaceted perspectives and interdisciplinary studies across the fields of environmental studies, architecture, design, social governance, intellectual property rights, and intelligent information technology.

The program will rethink the practice of the concept of green and sustainable development as well as the application of a system comprising new technology, interaction, service, and education in the process of building a sustainable campus for the future community. It will explore the possibility of a future community that meets the requirements of socio-economic development and infuses the concept of sustainability into campus culture. Experts and professors from universities and industry will be invited to the program for teaching and tutoring. In the summer school, you’ll also have the Chinese courses and cultural programs.

Application and Deadline

We expect students

1. Fully registered undergraduate or graduate students at a European university
2. Majored in engineering, architecture, art, economics and management, law, sociology, medicine, and other related fields

Application documents

1. Application form (see appendix)
2. Documentary photo within the last six months
3. The bio-data page of your passport or identification card
4. Proof of enrollment in a European university

How to register

1. Please send application documents via email to: ***sinoitaliancampus@tongji.edu.cn*** and title your email “2022SSS+Name+University+major/background+study level”.
3. Contact person: Ms. Guannan XU,
email: xuguannan@tongji.edu.cn
4. Contact number: +86 2165983721 / +86 13524140605

Deadline

1. Early Bird application deadline: June 12th, 2022
2. For more information, please follow our website: https://tjsic.tongji.edu.cn

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Topics of the Workshops

Design for Health

Tutor: Prof. LIU Kan

The vision of Shanghai 2035 aims at upgrading Shanghai's appeal as a city of innovation, humanity, and ecology, and a modern metropolis with global influence. In face of the huge challenges brought to human health in the urbanization process, healthy cities and healthy architecture have become the new focus of the global urban construction agenda. The vigor and creativity of design need urgently be stimulated through global wisdom and innovative thinking. The common ground of enhancing the health of man should be firmly maintained in response to global issues such as urban space quality improvement, dual-carbon targets, climate change, food safety, etc. The International Union of Architects (UIA) has designated the year 2022 as the Year of Design for Health, a commitment to call on global architects and other design experts, scholars, and students to lay emphasis on healthy cities and healthy architecture, explore how innovative design thinking can contribute to man's health and well-being up-to-date, and work together to guard the life and health of the people, protect our home planet, and construct a sanitary community of the human race.

Re-We Symbiotic Campus

Tutor: Prof. LIU Jia

-Resource

There are many resources in the campus. Try to find different plant species in the campus, and dig it out to observe the root system. What can you see, and what you can't see?

-Energy

Different sources of energy are jointly used in the campus and in your city. Could you list some clean energy? Can we use different biomass to produce biofuel and other clean energy?

-Waste

Many kinds of wastes are produced daily in the campus. What kinds of methods can be applied to purify the wastewater? Waste is a misplaced resource. Shall we extract resource or energy from the wastewater?

-Ecosystem

We live in a symbiotic ecosystem. What are the main elements in a typical ecological ecosystem? How to enhance the evolution of a specific symbiotic ecosystem? Do you agree with the theory of "unity of the human and man"?

Future Smart Campus

Tutor: Prof. SU Yunsheng

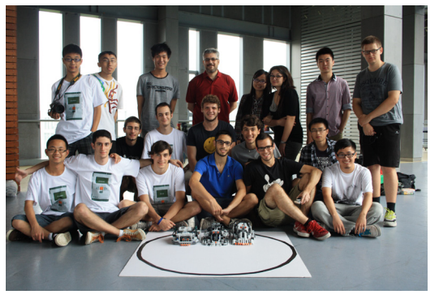
Starting from the analysis of the built environment, operation and daily use of the campus, through the introduction of principles and methods, establish the strategies and technologies for zero-carbon campus in response to climate change, and put forward innovative technical proposals from the perspective of new energy and carbon sequestration. Integrated development of green roof and roof photovoltaic technologies for carbon peak targeting, use of three-dimensional garden compounding and regenerative recycling technologies, real-time monitoring of carbon emission and absorption capacity of the campus through the campus eco-twin platform and IoT data back transmission, etc.

The Sustainability of a Sustainable Campus: Social Learning for Designing a Responsible Innovation

Tutor: Prof. Filippo Fabrocini

The notion of Sustainable Campus defines sustainability in an inclusive way, encompassing human and ecological health, social justice, and secure livelihoods for all generations according to the guidelines of the Sustainable Development Goals (SGD). In particular, the concept of a sustainable university should comprise the three realms of sustainable development: environmental protection, economic performance, and social cohesion. As it is obvious, each of these realms implies a call for creative innovation. Yet, universities are as well locations in which research and innovation are by definition carried out. One main dimension of a sustainable campus should be therefore anticipating the outcomes, the impacts, and the side-effects of the research projects carried out inside the university campus itself. A university campus will be sustainable only to the extent that the outcomes of its own research projects will also be sustainable. The course will explore the main dimensions of a Responsible Research and Innovation (RRI) by taking into account two main disciplines: Artificial Intelligence and Biotechnology. The sustainability of a sustainable campus will show up mainly in an approach according to which research and innovation move from a vision in which science and technology are embedded in the society to a vision in which science and technology are for the society and with the society. A variety of examples of will be illustrated during the course.

2022
In the Summer School



You will

Meet your peers from different academic backgrounds, both from Europe and China and co-create in an inter-disciplinary platform.

Perceive the campus in a different approach; develop your solutions to a better sustainable campus with the strong support from the tutor team and your team members.

Explore our cosmopolitan city of Shanghai.

Get a chance to learn more about the Chinese language and Chinese culture.

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Some of Our Tutors

(In the alphabetical order of the family name)

Fabrizio Bonani

Full Professor of Electronics at the Department of Electronics and Telecommunications of Politecnico di Torino

Fabrizio Bonani received the Master (summa cum laude) and PhD degrees from Politecnico di Torino, Italy, in 1992 and 1995, respectively. His research interests are mainly devoted to the physics-based and compact modeling of semiconductor devices for microwave and power applications, with an emphasis on noise and variability simulations, to exploring non-conventional computation paradigms, to the thermal analysis of power circuits and devices, and to the analysis and simulation of nonlinear circuits and dynamical systems. He published more than 200 papers in international journals and peer reviewed international conferences, and he co-authored two books. He served in the Modeling and Simulation committee for the IEEE International Electron Device Meeting (IEDM) for the 2010-2011 term. From 2013 he is a member of the Technical Program Review Committee for the IEEE International Microwave Symposium (IMS). He served as an Associate Editor for the IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems from 2016 to 2022, and, since 2022, he is a member of the Editorial Board of Memories - Materials, Devices, Circuits and Systems, and an Associate Editor for the IEEE Transactions on Electron Devices in the area “Device and Process Modeling”.

CHENG Yiheng

Adjunct professor of Tongji University, Member of Club of Rome, Fellow of World Academy of Arts and Science

He graduated from Karlsruhe Institute of Technology, Germany, used to work as regional head of various multinational chemical and construction material companies in the field of sales, marketing and EHS. He is now a senior consultant to international financial institutions in clean coal technology and hydrogen production as well as carbon neutrality strategy.

DONG Nannan

Associate Professor and Vice Director of Department of Landscape Studies, CAUP, Tongji University

Expert of Greening Engineering Technology Research Center of Shanghai Urban Challenging Sites; Member of Shanghai Vertical Greening Professional Association; Member of Association of Landscape Architecture of Shanghai; Expert Member of Vertical Greening Group of Green Building Committee of Chinese Society for Urban Studies. Besides coordinating series of Sino-German BMBF projects, Dr.Ing.Dong Nannan has been focusing on the R&D of interdisciplinary green technology for Chinese low carbon development.

Filippo Fabrocini

Full Professor, College of Design & Innovation, Tongji University
Director of the Sustainable AI Lab & Co-founder of the Tongji AI Art Center

His main areas of interest are AI Art, Computational Art, AI for Design, Ethical AI, Machine Learning, and Quantum Machine Learning. Prof. Fabrocini has won multiple awards, including two IBM Outstanding Technology Awards and one IBM Client-Value Outstanding Technical Achievement Award. He also received an Honor Award from the Italian Prime Minister S. Berlusconi in recognition of his contribution to the design of a knowledge management/text mining system. Currently, he is a member of the Italian Ministry of Economic Development "Task Force China" (Group: Artificial Intelligence), and also a member of the Association for the Advancement of Artificial Intelligence (AAAI) and of the Cognitive Science Society (CSS).

LIU Chang

Postdoctoral fellow at Tongji University

She has been selected for Shanghai Super Postdoctoral Fellow, and Shanghai Pujiang Talent Program. Her research areas include community regeneration, digital design and sustainable development. She holds a Ph.D. from the University of Hong Kong, a master’s degree from Columbia University, and a bachelor's degree from Tongji University.

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LIU Jia

Professor and doctoral supervisor at Tongji University
Deputy director of the National Experimental Teaching Center of Environmental Science and Engineering

She is mainly engaged in research and teaching in industrial pollution reduction and low carbon energy-saving technology, compound contamination multi-media interface process, effect and regulation of compound pollution, and carbon emission accounting and carbon-neutral pathway of typical industries. She is the head of innovation and entrepreneurship training in peak disciplines of Environment and Ecology in Shanghai. She is also the invited academic editor of the Journal of Environmental Engineering, member of the Youth Committee of the International Water Association, and member of the Environmental Branch of the Shanghai Chemical Industry Association.

LIU Kan

Associate Professor at College of Architecture and Urban Planning, Tongji University

Member of the Architectural Society of China; secretary and board member of the Architectural Review Academic Committee of the ASC; and the board member of the Architectural Culture Academic Committee of the ASC.
He is researcher of the Urban and Architecture Theory & Criticism - UATC lab of the Shanghai Summit Project and researcher in Institution of Architecture and Urban Space – IAUS of Tongji University. In academic experience, he is member of the reviewer of the Journal of Urban Planning and Development (ASCE), Journal of Architecture (RIBA) and guest editor of the Journal of Time + Architecture. His studies are mainly on Urban and Architecture Criticism, Computational Design Research, Urban Computing, History and Theory of Shanghai`s Architecture and Urban Regeneration.

Patrizia Lombardi

Full Professor of economic evaluation of plans and projects
Vice Rector for Sustainable campus and communities
Politecnico di Torino, President of The Italian University Network for Sustainable Development

She is an established figure in the field of Evaluating Sustainable Development and has been active in the field for over 25 years. She has coordinated or served as lead partner in several Pan-European Projects on urban sustainability, cultural heritage and Information Technologies . She is member of several International Scientific Committees and association, including SYDIC, Urban@IT, SIEV, and author and editor of a number of national and international books in the field of Sustainable development evaluation and has published over two hundreds of papers in specialized textbooks and international journals.

SU Yunsheng

Executive Dean Assistant of College of Design and Innovation, Tongji University;
Executive Vice-Dean of Shanghai International Institute of Design and Innovation, Tongji University

Professor of Practice, Doctoral Advisor, PhD in Urban Planning, Registered planner; Part-time Professor of University of Damstein, Germany; Chief designer of anti-pandemic isolation space products represented by Huo-Yan Air Laboratory featuring membrane structure and negative pressure.
Dr. Su has been active in cross-disciplinary, cross-scale planning of AI city and the innovative design of urban products and service systems. He owns a number of global landing cases, patents and applications in areas including smart home design centering on green ecology and sustainability, modular building construction and supply chain integration.

SUN Yiwu

Associate professor in Shanghai University of Political Science and Law

He is an expert on intellectual property law as well as on cyber law. His main research interests are in the area of copyright law, trademark law, IP clinic and data compliance.
He has led and worked on funded projects by the National Social Science Fund of China and other institutions. He is a special researcher of Fudan IP research centre and an arbitrator in Wenzhou Arbitration Committee, he also served as a part-time lawyer in Shanghai, and delivers training programs for companies, and regulation authorities.
He holds a JM (Fudan) and PhD in International Law (Fudan) and has conducted research at Antwerp University (Belgium). He has authored and co-authored more than 3 books, more than 40 articles and 5 chapters.

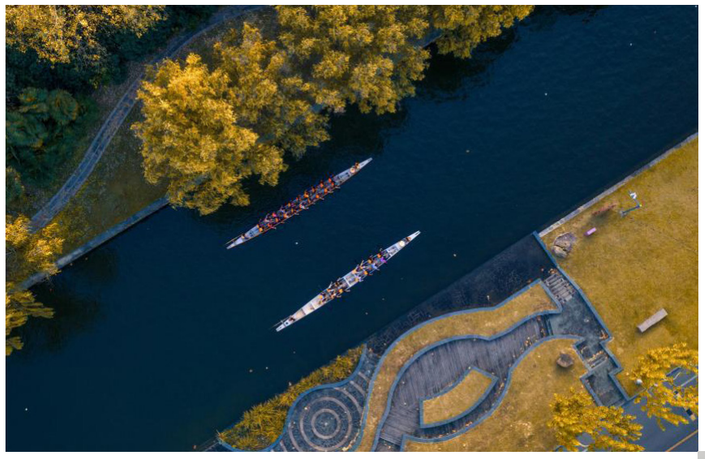
YAO Jiawei

Assistant Professor, International School of Tongji University

Serves as the teacher of Chinese prior courses and MTCSOL courses.
Director of MTCSOL in Tongji University.
She was Chinese teacher in Confucius Institute at J.E. Oberlin University (Japan) from 2012 to 2015 and delegated to the Confucius Institute by NOCFL.

About Tongji University

Tongji University, one of China's earliest national key universities, is a prestigious institution of higher education that is directly under the Ministry of Education (MOE) and is supported by the Shanghai Municipality. The history of Tongji can be traced back to 1907 when it was founded as a German medical school. Already in its second centenary, the University has grown into a comprehensive and research-intensive university with distinctive features and an international reputation. The University was among the 36 Class A universities in the list of Double First Class University Plan released by the central government of China in 2017. Tongji University Ranks #211 in QS World University Rankings 2022 worldwide and #8 in China's mainland.



Having taken an active role in international cooperation since its establishment, the University has been in partnership with over 200 international universities and co-founded research centers with Volkswagen, Siemens, Bayer, IBM, and many other multinational enterprises.

It has established 11 international cooperation platforms in cooperation with Germany, France, Italy, Finland, Spain, and United Nations agencies. The University initiated the "China Green University Network (CGUN)" and the "International Green Campus Alliance (IGCA)", and served as the first President. It was also elected as the League President of Global Universities Partnership on Environment for Sustainability (GUPES) under the United Nations Environment Programme and became the first university in Asia to win the "Excellence in Campus Award" at the meeting organized by International Sustainable Campus Network.

Tongji University has established 29 schools/colleges locating in four campuses of Siping, Jiading, Huxi, and Hubei, 8 affiliated hospitals, and 6 affiliated primary and secondary schools.

Currently, there are in total 39,323 students, among whom 5,246 are Doctoral students, and 3,468 are international students. The University has 2,814 faculty members.

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