



(Final) Notice of University Alliance of the Silk Road (UASR) Virtual Summer Courses 2021

Based on the successful operation of UASR Virtual Summer Courses 2020, UASR Secretariat along with member Universities and sub-alliances, will continue the endeavor this year, and roll out the UASR Virtual Summer Courses 2021 to provide high-quality international education resources for teachers and students of University Alliance of the Silk Road (UASR). The courses are open for free to university teachers and students.

● Duration

From July 19 to July 30, 2021 (the course *Traditional Chinese Culture* will be a live course streamed on July 15 and 19, 2021)

● Platform

The program is technically supported by International Knowledge Centre for Engineering Sciences and Technology under the Auspices of UNESCO (IKCEST). The majority of courses will be registered and accessed through IKCEST System, except for the following courses: *International Heritage Research at the University of Liverpool*, *Chinese Culture: Tradition, Transformation and Interaction* and *Traditional Chinese Culture*. **The process of participation (through IKCEST) includes following steps:**

1. Register for an IKCEST account (open for registry from now on)

http://ikcest.org/my/register.htm?returnUrl=http://ikcest.org/my/training_userlist.htm&type=srst

Please register only through this link. DO NOT register through other URLs.



2. Select the courses through the **Verify Codes**

3. Take the courses (July 19-30, 2021)

4. Finish the survey and take the exam for each course

5. Get the E-certificate (applicable to courses learning exclusively on IKCEST)



● **Teaching Faculties**

Well-known experts and scholars from the world who focus on frontier and leading-edge industry knowledge

● **Course Information in details**

Innovation and Design: The Italian Way

Platform: IKCEST

Verify Code: S25380

No.	Lecture	Lecturer	University
1	Design-Driven Innovation: Meaning as a Source of Competitive Advantage	Assoc. Prof. Claudio Dell' Era	Politecnico di Milano
2	Innovation and Design the Italian Way	Paolo Bartoli	
3	Innovation in Cultural Heritage: the Italian Way	Assoc. Prof. Deborah Agostino	
4	INNOVATING FASHION BY DESIGN. The Italian Fashion between cultural roots and future developments.	Prof. Full Paola Bertola	
5	Design for Food & Food for Design: Culture and Social Innovation	Prof. Dr. Anna Meroni	
6	Materials for Sustainability	Prof. Marinella Levi	
7	Market, Trend And Research In Yacht Industry	Assoc. Prof. Andrea Ratti	
8	Innovation Capacity And The City: A Design Driven Approach To Smartness.	Assoc. Prof. Grazia Concilio	
9	Interior Design: the Italian Way	Alessandro Biamonti	
10	Italian Industrial Districts	Prof. Lucia Piscitello	



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Innovation and Technology Management in Tourism & Hospitality
Platform: IKCEST
Verify Code: S25473

No.	Lecture	Lecturer	University
1	An Introduction to IT in the Hospitality & Tourism Industry	Dr. Dan Wang	The Hong Kong Polytechnic University
2	Information Technology Adoption & Applications		
3	Value Creation through IT and Innovation		
4	Innovation Strategy Through Mobile Technology and Social Media in Hospitality & Tourism Industry		
5	Review		
6	IT-based Innovation in Marketing and Operation		
7	Business Analytics for Data-based Decision Making in Hospitality and Tourism Organizations		
8	“Designing Storytelling Online Campaigns for Brand Co-Creation and Co-Promotion”		
9	Technology Development and the Future of Hospitality and Tourism Organizations		
10	Review		

丝绸之路大学联盟常设秘书处 Permanent Secretariat of University Alliance of the Silk Road

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Han-Tang Civilization in Museums and Legal Protection
Platform: IKCEST
Verify Code: S25570

No.	Lecture	Lecturer	Institution
1	Sustainable Development and Innovation of China's World Heritage sites	Shu guang Liu	Chinese Museums Association
2	The World's Earliest Tea Leaves Unearthed in Hanyang Mausoleum	Bo CHEN	The Exhibition Han in Yangling Museum
3	An analysis of the legal problems and protection paths of museum creation	Assoc. Prof. Lina Liu	Xi'an Jiaotong University
4	Traditional Chinese Medicine Culture on the Silk Road	Prof. Zhiguo Ma	Xi'an Jiaotong University
5	Chang'an-the Start of the Silk Road	Prof. Xiaojun YANG	Shaanxi History Museum
6	Inheritance and protection of China's intangible cultural heritage	Prof. Fang Zhou	Xi'an Jiaotong University
7	Nanhai I Shipwreck: A Perspective on Chinese Underwater Archaeology	Prof. Bo JIANG	ICOMOS-CHINA

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**Towards a Carbon Neutrality Future by Understanding Thermal Fluid
Flow in Energy and Power Engineering**

Platform: IKCEST

Verify Code: S25636

No.	Lecture	Lecturer	University
1	Study on Reynolds number independence for turbulent flow in atmosphere boundary layer	Prof. Wen-Quan Tao	Xi'an Jiaotong University
2	Introduction to thermo-fluid dynamics of two-phase flow	Dr. Takashi Hibiki	Purdue University
3	Modeling of boiling flows - active nucleation site density		
4	On Thermal Management of Batteries	Prof. Bengt Sundén	Lund University
5	Thermochemical methods for the treatment of municipal sludge	Dr. Donghai Xu	Xi'an Jiaotong University
6	Recent advances in understanding of dynamics of premixed flames and DDT	Dr. Damir Valiev	Tsinghua University
7	Carbon capture and utilization – high temperature applications	Dr. Chunfei Wu	Queen's University Belfast
8	An introduction to transmission electron microscopy	Prof. Dr. Mark H. Rummeli	Polish Academy of Sciences
9	An introduction to transmission electron microscopy and analytics		



State-of-the-Art Sensor and Actuator Technology
Participation Method I (Watch online real time presentation)

Online Platform (Live) : VooV meeting

VooV Meeting can be downloaded from the link below.

<https://voovmeeting.com/df/zh-CN/download-center.html?from=1001>

Meeting Time: 2021/07/19-2021/07/30 **16:00-17:30**(GMT+08:00)

Meeting ID: 756 7962 2079

Participation Method II (Watch recorded presentation video)

Online Platform: IKCEST and the registration link is below.

http://ikcest.org/my/register.htm?returnUrl=http://ikcest.org/my/training_userlist.htm&type=srst

Verify Code: S25705

No.	Lecture	Lecturer	University
1	Introduction to the Summer Course on MEMS	Prof. Xueyong Wei	Xi'an Jiaotong University
2	Frequency stability and nonlinear dynamics of MEMS resonators	Prof.Valentina Zega	Politecnico di Milano
3	Nonlinear MEMS and Its Applications	Prof. Xueyong Wei	Xi'an Jiaotong University
4	Wireless Networked Sensors for Agriculture and Life Innovation	Prof. Maeda Ryutaro	AIST, Japan
5	Application of nanomaterials in biosensors	Prof.Yi Sun	Technical University of Denmark
6	Polymer Materials for Flexible Sensors and Actuators	Prof. Zicai Zhu	Xi'an Jiaotong University
7	Ionic-EAP actuators and sensors	Prof. Takushi Sugino	AIST, Japan
8	Piezoelectric MEMS and the Applications	Prof. Maeda Ryutaro	AIST,Japan
9	Small robotics for biomedical engineering	Prof. Yajing Shen	City University of Hong Kong
10	Stimuli-Responsive Smart Polymer Composite Materials and their Bio-Inspired Applications, Fabrication and Integration	Prof. Alvo Aabloo	University of Tartu



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Frontiers in Medicine 2021
Platform: IKCEST
Verify Code: S25813

No.	Lecture	Lecturer	University
1	Magnetic surgery	Dr. Rongqian Wu	Xi'an Jiaotong University
2	Gut microbiota in cardiometabolic disease	Dr. Yanan Wang	
3	Placenta previa	Dr. Yue Teng	
4	The challenge and future of multidrug resistance in bacterial infection	Dr. Yurong Wen	
5	Shoulder anatomy, injury and treatment	Prof. Dr. Zhanhai Yin	
6	Knee anatomy, injury and treatment		
7	Acupuncture Therapy on the Common Diseases (I)	Dr. Yi Liu	
8	Acupuncture Therapy on the Common Diseases (II)		
9	The neurodegenerative disease - how could we “see”them?	Dr. Gao Rui	

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Frontiers in Materials Research
Platform: IKCEST
Verify Code: S25912

No.	Lecture	Lecturer	University
1	Low dimension electronic materials synthesis and characterization	Prof. Yi Pan	Xian Jiaotong University
2	Landau theory of martensitic and ferroelastic phase transitions	Prof. Ekhard Salje	University of Cambridge
3	Introduction to Thermal Spray Coatings Research Advances and their Applications	Prof. Changjiu Li	Xian Jiaotong University
4	1. Introduction of laser applications 2. Modeling and simulation of laser materials processing	Prof. Na Suck Joo	Xian Jiaotong University
5	3D printed superalloy single crystals and heat treatment	Prof. Kai Chen	Xian Jiaotong University
6	Beauty of materials' structural defects	Prof. Haijun Wu	Xian Jiaotong University
7	A framework for pitting corrosion based on pit growth stability	Prof. Gerald S. Frankel	Ohio State University
8	An introduction to advanced ceramics and composites	Assoc. Prof. Jiping Wang	Xian Jiaotong University
9	Two-dimensional materials for supercapacitors	Asst. Prof. Farshad Boorbor Ajdari	University of Kashan, Kashan, Iran
10	Recent advances in fabrication and applications of superhydrophobic surfaces	Asst. Hejie Yang	Xian Jiaotong University
11	Nano-materials based sensors and its applications	Asst. Shafa Mohammad	Xian Jiaotong University



Progress on Energy and Carbon Nexus Influenced by Chemical Engineering

Platform: IKCEST

Verify Code: S26048

No.	Lecture	Lecturer	University
1	On Thermal Issues in Batteries and Fuel Cells	Prof. Bengt Sundén	Lund University
2	Influence of Defects on H ₂ Sorption Behavior of Mg-Based Hydrides	Dr. Nikola Novaković, Dr. Jasmina Grbović Novaković	University of Belgrade
3	Supercritical Fluid Technology	Dr. Motonobu Goto	Nagoya University
4	Thermo-electrochemical cell, a thermoelectric conversion using redox equilibrium, past, present and future	Prof. Dr. Teppei Yamada	The University of Tokyo
5	Process Integration for Carbon Constrained Energy Planning	Professor Dominic C. Y. Foo	University of Nottingham Malaysia
6	Onboard Hydrogen Production in Internal Combustion Engines – benefits and challenges	Dr. Leonid Tartakovsky	The Technion – Israel Institute of Technology
7	CFD modeling and performance analysis of a twin screw hydrogen extruder	Dr. Senthil Kumar Arumugam	VIT University
8	Chemistry of Hello: Lithium Ion Batteries and Cathode Materials	Dr. Weibo Hua, Professor	Xi'an Jiaotong University
9	Boiling heat transfer enhancement in microgravity and normal gravity	Dr. Yonghai Zhang	Xi'an Jiaotong University
10	Synergetic pyrolysis of biomass and coal: mechanism and system	Dr. Zhiqiang Wu	Xi'an Jiaotong University



Traditional Chinese Culture

Provide by the School of Humanities and Social Science, Xi'an Jiaotong University, the course gives a glimpse into Traditional Chinese Culture, of which three lectures are incorporated into the UASR Summer Courses, focusing primarily on Traditional Chinese Art.

No.	Lecture	Lecturer	Time (Beijing Time)
1	Traditional Chinese Art Aesthetics (Chinese)	Prof. Li Li	8:30-11:30 am July 15
2	Traditional Chinese Painting Spirit (Chinese)	Prof. Liming Zhou	14:30-17:30 pm July 15
3	The Art of Calligraphy (Chinese)	Prof. Jin Wang	8:30-11:30 am July 19

Notes:

【Joining Instruction】

All participants need to register **by 15:00 of July 15, 2021**. Those who register before the class open will obtain the link for live stream. The registration link is <https://www.wjx.cn/vm/Ybskwps.aspx>, or scan the following QR code:



【Kindly Reminders】

- The course will be a live course streamed on July 15 and 19, 2021, before the overall Summer Courses begin. Please take note of the schedule. The course will be taught in Chinese, **with no English subtitle**.
- If you have any problems or suggestions, please feel free to contact us via uasr@xjtu.edu.cn.
- The course will not provide certificate granted by IKCEST System.



International Heritage Research at the University of Liverpool

This course will take the form of a 90min webinar featuring 6 experts from University of Liverpool presenting a small selection of UoL's wide-ranging international Heritage research, covering built landscapes, material culture, intangible heritage, memory and commemoration and the importance of heritage for social, cultural and political identities in the present.

Note: This course will not be present on IKCEST, but will be accessed directly through the Summer Courses website. Therefore, the course will not provide certificate granted by IKCEST System.

Chinese Culture: Tradition, Transformation and Interaction

The course showcases 15 experts in Chinese Culture led by the Hong Kong Polytechnic University, composed of 3 compact courses:

1. Chinese Culture: Tradition
2. Chinese Culture: Transformation
3. Chinese Culture: Interaction

Notes: This course is provided by the Hong Kong Polytechnic University and will not be available on IKCEST, but can be accessed through edX:

<https://www.edx.org/course/chinese-culture-tradition>

As a collaborative program with the UASR Summer Courses 2021, the course will not provide the certificate granted on IKCEST system, but will provide certificate according to rules on the edX system.

● **Contact information**

For enquiries about courses, please feel free to contact UASR Secretariat

E-mail: uasr@xjtu.edu.cn Tel: 86-29-82668532/82668230

For enquires related to IKCEST platform, please contact Mr. Du via srst@ikcest.org