



**“Waste Management and Circular Economy”**

**International Forum**

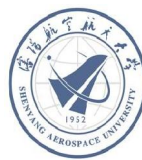
**-2<sup>nd</sup> “RISKCYCLE” Workshop-**

**“ 循环经济与废物管理 ” 国际论坛**

**暨欧盟第七框架项目“RISKCYCLE” 第 2届研讨会**

**会议手册**

**Conference Handbook**



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## 1. Conference Guide

### Distinguished delegates:

Warmly welcome to Shenyang!

It’s our honor to serve you. We hope that all the participants will have a good time in Shenyang. To serve you better, the related matters are as following:

### Weather Forecast for Shenyang

Date		Weather		Temperature	Wind direction	Wind power
Nov. 15 (Mon.)	Daytime		Sunny	Max. 4	southwest	breeze
	Night		Sunny	Min. -6	southwest	breeze
Nov. 16(Tues.)	Daytime		Sunny	Max. 6	southwest	breeze
	Night		Sunny	Min. -6	North	breeze
Nov. 17(Wed.)	Daytime		Sunny	Max. 9	southwest	breeze
	Night		Sunny	Min. -4	southwest	breeze
Nov. 18(Thurs.)	Daytime		Sunny	Max. 11	southwest	breeze
	Night		Cloudy	Min. 1	southwest	breeze
Nov. 19(Fri.)	Daytime		Cloudy	Max. 10	southwest	breeze
	Night		Cloudy	Min. 1	southwest	breeze

### Conference Venue

The Library International Conference Hall of Shenyang Aerospace University

### Dining Venue



Dining		Location
Nov. 15	Welcome Dinner	Table dining: 1 <sup>st</sup> floor , Qing Cultural dinner room of Li Yang International Restaurant
Nov. 16	Lunch	Buffet: XIANG Yu Hotel
	Dinner	Table dining: 1 <sup>st</sup> floor , Dinner Urban Oasis Hotel
Nov. 17	Lunch	Buffet: XIANG Yu Hotel
	Dinner	Table dining : 2 <sup>nd</sup> floor, Xiang Yu Hotel
Nov. 18	Lunch	Buffet: 1 <sup>st</sup> floor , You Yi Restaurant
	Dinner	Table dining: 3 <sup>rd</sup> floor , Kanto courtyard Restaurant
Nov. 19	Lunch	Refer to the travel agency
	Dinner	

Each representative enters cafeteria by meal ticket of Conference Team.

## **Transportation Information**

Pick-up point & time: in front of Crowne Plaza, around 8: 15 am.

### **Cautions**

- n Please the people who attend the conference take part in the activities based on schedule.
- n Please turn off the cellular phones or set the cellular phones in the vibrating state during the conference. 
- n There is non-smoking in conference hall. 
- n Please keep all valuables with you.
- n Please keep warm in cold weather.
- n Please return your GUEST ROOM CARD to the hotel reception desk directly on your departure.

### **Others**

- n Please contact us in time if you feel physical discomfort or have any other questions.
- n If there is an adjustment to the schedules of each activity in special cases, do as being notified.

### **Contact US**

Rundong LI: 13998263797

Xin KE: 13604060062

Tingting BI: 15140221355

## 2. Conference Background and Topics

Scientific waste management not only can solve the environmental problems causing by solid waste pollution, but also reduce the waste of resources and promote sustainable economic development. Circular economy is one of new model of economic development, which core contents include high efficiency of resource utilization and recycling. The main principles of circular economy are reduction, reuse and resource, while it characteristics include low consumption, low discharging, and high efficiency. So scientific waste management is one of most links in the circular economy, and it is very meaningful for our country economy sustainable development, lower resource waste and ecological environment protection.

The technology of waste resource utilization and pollution control in china, comparing with developed country, is relative lag. So it is very urgent to strengthen communication with developed country and import advance technology. Therefore, we sponsored and organize this waste management and circular economy forum. The objective of this forum is to improve the level of waste management and circular economy, promote sustainable and healthy development of economy, and reduce the waste of resource and protection the ecological environment.

**General topics include:**

Circular economy and low carbon city

Municipal solid waste management and resource utilization

Hazardous waste management and environmental risk assessment

### 3. Conference Agenda

#### Agenda in 16<sup>th</sup> Nov 2010

#### “Waste Management and Circular Economy”

TIME	ISSUE	LOCATION	WHO
09: 00—10: 00	Opening ceremony	1.Introduce guests 2.Welcome speech of Shenyang Aerospace University 3.Welcome speech of Liaoning EPB Take Photo /Tea break	All
		Library International Conference Hall  In front of Library / International Conference Hall	
<b>Session 1. Circular economy and low carbon city</b>			
10: 00	Low Carbon Economy-CCS, CCRS, GMC. Systems Integration	Library International Conference Hall	Academician Yong JIN Tsinghua University
11: 00	The development of the Circular Economy in Germany to zero waste	Library International Conference Hall	Prof. Bilitewski Dresden University of Technology
11: 40	Solid waste management in china -- State and trend	Library International Conference Hall	Prof. Hua TAO China Association of Urban Environmental Sanitation
12: 20-13:30	Lunch	Xiang Yu Hotel	All
<b>Session 2. Municipal solid waste management and resource utilization</b>			
13: 30	Waste-to-energy in china	Library International Conference Hall	Prof. Yong CHI Zhejiang University

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<b>TIME</b>	<b>ISSUE</b>	<b>LOCATION</b>	<b>WHO</b>
14: 00	Refuse stabilization and recycling of aged refuse in landfills	Library International Conference Hall	Prof. Youcai ZHAO Tongji University
14: 30	Biological Treatment of Organic Waste in Hong Kong	Library International Conference Hall	Prof. Jonathan Wong Hong Kong Baptist University
15: 00	Resource utilization of MSW by source separation	Library International Conference Hall	Prof. Rundong LI Shenyang Aerospace University
15:30	Tea break	Library International Conference Hall	All
<b>Session 3. Hazardous waste management and environmental risk assessment</b>			
15: 50	Environmental and human health risk assessment of Perfluorinated Compounds.	Library International Conference Hall	Prof. Damià Barceló Cullerés Chemical and Environmental Research Institute, Spain
16: 20	Eco-risk assessment of HMs in soil-plant systems	Library International Conference Hall	Prof. Lina SUN Shenyang University
16: 50	Small-scale Decentralized Wastewater Treatment Using SWIS	Library International Conference Hall	Prof. Haibo LI Shenyang University
17:20	Discussion	Library International Conference Hall	All
18: 00	Dinner	Urban Oasis Hotel	All

**Agenda in 17th Nov 2010**

**The 2nd “RISKCYCLE” Workshop**

TIME	ISSUE	LOCATION	WHO
<b>Session 1: Introduction - Moderator: Prof. Dr. Bernd Bilitewski (TUD)</b>			
09: 00	Welcome speech	Library International Conference Hall	Prof. Rundong LI Shenyang Aerospace University
09: 05	Introduction: aims and objectives of the project	Library International Conference Hall	Prof. Dr.-Ing.habil. Dr. h .c. Bernd Bilitewski Dresden University of Technology
<b>Session 2: Fate and behaviour of chemicals and products - Moderator: Prof. Dr. Damià Barceló (CSIC)</b>			
09: 20	RISKCYCLE Work package 3: aims achieved and future goals	Library International Conference Hall	Antoni Ginebreda Chemical and Environmental Research Institute, Barcelona
09: 40	The state of recycling technologies for plastics in china: a review	Library International Conference Hall	Prof. Jinhui LI Basel Convention Coordinating Center for Asia and the Pacific Tsinghua University
10: 10	Human Exposure to Brominated Flame Restardants and Dioxin-Related Compounds in Vietnamese E-waste Recycling Sites	Library International Conference Hall	Prof. Pham Hung Viet Hanoi University of Science
10: 30	Tea break	Library International Conference Hall	All
11: 00	Reuse potential of a chemical sludge-a hazardous waste in textile dyeing process	Library International Conference Hall	Col. Rakesh Johri The energy and resources institute, New Delhi

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<b>TIME</b>	<b>ISSUE</b>	<b>LOCATION</b>	<b>WHO</b>
<b>Session 3: Alternative testing methods (toxicity, chemical properties) - Moderator: Diego Baderna (IRFMN)</b>			
11: 20	Alternative methods: an updated point of view	Library International Conference Hall	Diego Baderna Istituto di Ricerche Farmacologiche Mario Negri; Milan
11: 40	Evaluation of integrated toxicities of chemical compounds based on QSAR and PCA	Library International Conference Hall	Prof. Jingwen CHEN Dalian University of Technology
12: 10-13:30	Lunch	Xiang Yu Hotel	All
<b>Session 4: Risk assessment methodologies - Moderator: Rosa Mari Darbra (UPC)</b>			
13: 30	RISKCYCLE Work package 5: aims achieved and future goals	Library International Conference Hall	Rosa-Maria Darbra Universitat Politècnica de Catalunya; Barcelona
13: 50	Use of hybrid uncertainty theories to analyse the risk of exposure to Bisphenol A	Library International Conference Hall	Gaël Bellenfant Bureau de recherches géologiques et minières; Orléans
14: 10	Environmental residues and ecotoxicity of chemicals and their risk assessment	Library International Conference Hall	Prof. Qixing ZHOU Nankai University
14: 40	Risk assessment methodologies: Usetox	Library International Conference Hall	Marta Schuhmacher Universitat Rovira i Virgili, Reus
15: 00	An integrated approach to assess health risks for toxic chemicals by linking multimedia environmental and PBEK models	Library International Conference Hall	Taku Tanaka University Cattolica del Sacro Cuore, Piacenza
15: 20	Tea break	Library International Conference Hall	All

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<b>TIME</b>	<b>ISSUE</b>	<b>LOCATION</b>	<b>WHO</b>
<b>Session 5: Life cycle assessment applied to additives - Moderator: Henrik Fred Laren</b>			
15: 40	Life Cycle Assessment and additives: state of knowledge	Library International Conference Hall	Henrik Fred Laren Technical University of Denmark, Copenhagen
16: 00	Life cycle assessment of chemical hazardous waste in china	Library International Conference Hall	Prof. Jinhui LI Basel Convention Coordinating Center for Asia and the Pacific Tsinghua University
<b>Session 6: Socio-economic aspects related to chemical risks - Moderator: Tomas Rydberg (IVL)</b>			
16: 30	RISKCYCLE Work package 7:aims achieved and future goals	Library International Conference Hall	Tomas Rydberg Sewedish Environment Research Institute
16: 50	Spatial analysis of recyclable materials at the regional level	Library International Conference Hall	Prof. Yong GENG Institute of Applied Ecology, Chinese Academy of Sciences
17: 20	Final Discussion	Library International Conference Hall	Prof. Dr. Li Rundong Prof. Dr.-Ing.habil. Dr. h .c. Bernd Bilitewski Prof. Dr. Damià Barceló Cullerés
18: 00	Dinner	Kanto Da Yuan	All

## 4. Conference Organizing Committee

### Chairman

Yang Fengtian,	Shenyang Aerospace University	President Academician
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### Members

Yang Fengtian,	Shenyang Aerospace University	President Academician
SUN Tieheng	Shenyang University	President Academician
RUI Xiaomiao	Shenyang Aerospace University	Vice President Professor
Wang Mingyou	Shenyang University	Vice President Professor
Tong Gang	Party and Government Affairs of Shenyang Aerospace University	Office Director Professor
WANG Qi	Scientific Research Division of Shenyang Aerospace University	Director Professor
CHEN Yongqing	International Cooperation Division of Shenyang Aerospace University	Director Professor
Ai Yanting	College of Power and Energy Engineering of Shenyang Aerospace University	Dean Professor
Li Rundong	College of Power and Energy Engineering of Shenyang Aerospace University	Vice Dean Professor

### Others

The staff of functional offices of Shenyang Aerospace University and the staff of Institute of Clean Energy and Environmental Engineering

## **5. Conference Academic Committee**

### **President of Faculty**

JIN Yong	Tsinghua University	Academician
SUN Tieheng	Shenyang University	President Academician

### **Deputies of Academic Committee**

JIN Yong	Tsinghua University	Academician
SUN Tieheng	Shenyang University	President Academician
DING Dewen	State Oceanic Administration People’s Republic of China	Academician
Bernd Bilitewski	Dresden University of Technology	Professor
Damià Barceló Cullerés	Chemical and Environmental Research Institute	Professor
Emilio Benfenati	Istituto di Ricerche Farmacologiche Mario Negri; Milan	Professor
Ester Van der Voet	University of Leiden	Professor
Jonathan Wong	Hong Kong Baptist University	Professor
LI Jinhui	Tsinghua University	Professor
CHI Yong	Zhejiang University	Professor
TAO Hua	China Association of Urban Environmental Sanitation	Professor
ZHOU Qixing	Nankai University	Professor
JIA Yongfeng	Institute of Applied Ecology, Chinese Academy of Sciences	Professor
GENG Yong	Institute of Applied Ecology, Chinese Academy of Sciences	Professor
CHEN Jingwen	Dalian University of Technology	Professor
XI Beidou	Chinese Research Academy of Environmental Sciences	Professor
SUN Lina	Shenyang University	Professor
Li Rundong	Shenyang Aerospace University	Professor

## **6. Attending Leaders and Experts**

<b>Name</b>	<b>University/Institute</b>	<b>Position/Title</b>
<b>Attending Forum's Leaders</b>		
WANG Wei	Shenyang Aerospace University	Party Secretary
YANG Fengtian	Shenyang Aerospace University	President
RUI Xiaomiao	Shenyang Aerospace University	Vice President
WANG Qi	The Science and Technology Shenyang Aerospace University	Director
CHEN Yongqing	International Cooperation Division of Shenyang Aerospace University	Director
LI Mengling	Shenyang University	Party Secretary
SUN Tieheng	Shenyang University	President
WANG Shaohong	Shenyang University	Vice President
TIAN Liwei	The Science and Technology Shenyang University	Director
WANG Lining	Shenyang Association for Science and Technology	Chairman
XU Tianwei	Liaoning Provincial Environmental Protective Industrial Association	Secretary
WANG Liyan	Liaoning Provincial Development and Reform Commission	Vice Inspector
SHAO Chunyan	Shenyang Academy of Environmental Sciences	Vice President
HU Cheng	Liaoning Academy of Environmental Sciences	Professor
YANG Sheng	Shenyang Environmental Protection Bureau of China	Director
LIU Tongwu	Shenyang Construction Bureau	Prof. Engineering
<b>Attending Forum's Chinese Experts and Foreign Experts</b>		
JIN Yong	Tsinghua University	Academician
DING Dewen	State Oceanic Administration People's Republic of China	Academician
TAO Hua	China Association of Urban Environmental Sanitation	Professor
CHI Yong	Zhejiang University	Professor
JI Lanzhu	Institute of Applied Ecology, Chinese Academy of Sciences	Professor
Jonathan Wong	Hong Kong Baptist University	Professor
Bernd Bilitewski	Dresden University of Technology	Professor
Damià Barceló Cullerés	Chemical and Environmental Research Institute	Professor
CHEN Jingwen	Dalian University of Technology Dean	Professor

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<b>Name</b>	<b>University/Institute</b>	<b>Position/Title</b>
ZHOU Qixing	Nankai University	Professor
LI Jinhui	Tsinghua University	Professor
GENG Yong	Institute of Applied Ecology, Chinese Academy of Sciences	Professor
Veit Grundmann	Dresden University of Technology	Doctor
Antoni Ginebreda	Chemical and Environmental Research Institute	Doctor
Daniel Guillén	Chemical and Environmental Research Institute	
Diego Baderna	Istituto di Ricerche Farmacologiche Mario Negri	
Rosa-Maria Darbra	Universitat Politècnica de Catalunya	
Thomas Rydberg	Swedish Environmental Research Institute-IVL	
Marta Schuhmacher	Universitat Rovira i Virgili	
Ettore Capri	University Cattolica del Sacro Cuore	Professor
Taku Tanaka	University Cattolica del Sacro Cuore	
Henrik Fred Larsen	Technical University of Denmark	
Gaël Bellenfant	Bureau De Recherches Géologiques et Minières	Doctor
Claudio Fernando Mahler	Universidade Federal do Rio de Janeiro	Professor
Col. Rakesh Johri	The Energy and Ressources Institute -TERI	
Suneel Pandey	The Energy and Ressources Institute -TERI	
Nguyen Thi Diem Trang	Hanoi University of Science	Professor
Pham Hung Viet	Hanoi University of Science	Professor
Susanne Heise	Hamburg University of Applied Sciences (HAW)	Professor
Stefan Rydin	NORDEConsult Sweden AB	
habil. Uwe Lahl	Kommunikation und Projektsteuerung GmbH BZL	Professor
ZHAO Youcai	Tongji University	Professor
SUN Lina	Shenyang University	Professor
LI Haibo	Shenyang University	Professor
HU Xiaojun	Shenyang University	Professor
FENG Guohui	Shenyang Jianzhu University	Professor
HAN Xiaori	Shenyang Agricultural University	Professor
WEI Dezhou	Northeastern University	Professor
CAI Jiuju	Northeastern University	Professor
HU Xiaomin	Northeastern University	Professor

## 7. Shenyang Aerospace University Introduction

Characterized by aeronautics and astronautics, Shenyang Aerospace University (SAU) is a multi-disciplinary university, which, while focusing on engineering, also covers such areas as science, liberal arts and management. Founded in 1952, the university was initially administered by the National Ministry of Aeronautical & Astronautical Industry, and later by the China General Corporation of Aeronautical Industry. Since 1999, SAU has been under the administration of the Liaoning Provincial Government, and is the only university owned by the China Industry and Information Technology Ministry and the Liaoning Provincial Government. It is also one of the eight universities constructed by the former China National Defence Ministry and local provincial governments. In addition, it is the only university of aeronautical and astronautical engineering in Liaoning Province.



Since its foundation, the university has been striving to further its development under the guidance of national education policies. Its ongoing focus on innovation has ensured its status as an organization making a valued contribution to the enhancement of China's modern construction, especially to the aeronautical and astronautical industry. At present, the university comprises 17 schools, with over 900 lecturers, including 400 professors and associate professors. There are 20,000 full-time students in SAU. The university has over 50,000 graduates, whose competence, loyalty and achievements have been well accepted by the society. A great number of them are now working as senior engineers or executives. The recent employment of the graduates has been maintained at the average of 95.7%.

The innovative spirit of the university could be traced back as early as the 1950s, when its independently developed aircraft Shenghang No.1 flew into the sky successfully. Since 1990s, SAU has been successively awarded the Torch Research-oriented University by Shenyang Municipal Government.

Aiming at developing the students' full potentials, the university actively establishes outstanding clubs and takes part in a variety of high-level scientific activities, which results in the students' achievements in various contests, such as the Aircraft Model Contest, Mathematics Modeling Contest, Challenge Cup, Mechanical Design Contest, Electronic Design Contest, English Speaking Contest, Environment Art Design Contest and Industrial Design Contest.



Every year, the university sends lecturers abroad for study, academic exchanges and scientific cooperation. Close academic and cooperative ties have thus been established between SAU and foreign institutions, which extends more than 30 universities from different countries, such as the USA, UK, Russia, Australia, Korea, Japan, etc.

The university derives a great sense of pride from its 60 years' history. We've endured the pain and reaped the rewards. Now the university is marching towards the future filled with hope and challenge. The people of SAU will devote their wisdom, courage and energy to ensure the university's success over the long term.

## 8. ICEEE Introduction

The Institute of Clean Energy & Environmental Engineering (ICEEE) was founded at Shenyang Aerospace University in 2003. The aim of ICEEE is to protect human and environmental health and establish an environmentally sensitive economy as part of a sustainable society. In order to better meet the requirements of the current situation and future challenges, the Liaoning Province Key Laboratory of Clean Energy was established in 2006.

### International Cooperation

ICEEE places strong emphasis on cooperation and communication at both the national and international level. It has established sound collaboration with research institutes, universities and enterprises, especially in EU countries and regions, i.e. Bauhaus Universität Weimar, Germany, and Technische Universität Dresden, Germany. Professor Bernhard Raninger and Professor Martin Gehring, from the centre for international migration and development (CIM), will be guest professors of ICEEE in the long term.



### Team Composition

Rundong Li, Vice Dean of Power and Energy Engineering at Shenyang Aerospace University, serves as the director of ICEEE. Academic Kefa Cen has been appointed as the Director of the Academic Committee. Currently ICEEE has 20 members, including 3 professors, 7 professors, 2 EU experts and a number of engineers and postgraduates. Prof. Li has been awarded the "Hundred, Thousand, Ten Thousand Talent" and "New Century Excellent Talent by the Ministry of Education" and appraised as an excellent specialist of Liaoning Province. Prof. Bernhard Raniger was presented with the National Friendship Award, the highest ranking prize a foreigner can receive from the China government. The ICEEE research team was named the “Outstanding Innovation Research Team of Liaoning Province” (2007).

### Base Construction

ICEEE consists of four pilot testing centers, three analytical laboratories and two wastewater treatment laboratories with a total area of 2000 m<sup>2</sup>. The four pilot testing centers are: a CFB incinerator centre; a hazardous material melting treatment centre; a landfill simulation centre; and an anaerobic digestion centre. The ICEEE environmental laboratory includes a broad spectrum of entities such as basic, organic and inorganic sample pre-treatment; wet chemical analysis; organic trace pollutant analysis; solid waste treatment; water and wastewater treatment; biotechnological and

thermal waste treatment as well as a number of thermal treatment pilot plant stations. The equipment for determining trace pollutants includes High-Performance Liquid Chromatography (HPLC), Gas Chromatography-Mass Spectrometry (GC-MS), Flame Atomic Absorption Spectrometry (F-AAS) and Thermal Gravimetry-Differential Thermal Analysis (TG-DTA). ICEEE’s environmental laboratory plans to introduce a quality management system aimed at ISO 17025 certification and subsequent accreditation.

### **Research Field**

ICEEE’s research fields are as following: (1) Treatment and reuse of municipal solid waste, (2) Biomass energy utilization, (3) Sludge treatment technologies, (4) Hazardous waste treatment and disposal technologies, (5) Hydrogen energy technologies, (6) Clean coal technology, (7) Distributed energy resource technologies, (8) Pollution control technologies.



### **Major Achievements**

ICEEE has undertaken about more than 50 international, national and municipal projects, including 1 subproject of national science and technology major projects, 1 subproject of 973 item, 1 subproject of 863 item, 1 new century excellent researcher award program, 3 National Natural Science Foundation projects and more than 10 international cooperative projects; won 10 provincial and municipal awards, including 1 Liaoning provincial scientific and technological progress award, 1 Liaoning provincial natural science advancement award, 3 Shenyang city scientific and technological progress awards. ICEEE has applied for 11 patents and four of them were granted; ICEEE has published more than 150 papers in the most famous academic publications, in which there are about 50 papers indexed by SCI, EI and ISTP.

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沈阳航空航天大学  
SHENYANG AEROSPACE UNIVERSITY