

Advanced Design Concepts and Practice ADCP 2017 Workshop

Special Track of ICMD 2017



Beijing Friendship Hotel, Beijing
November 19th-21st, 2017

<http://adcp2012.com>,

<http://www.chinamdi.org/ICMD/2017.htm>

Chairs

Prof. Ji Linhong
Tsinghua University

Prof. Michel van Tooren
University of South Carolina

Organizers

Tsinghua University
Mechanical Design Institution of Chinese
Mechanical Engineering Society
Beijing Institute of Technology

Keynote/Invited speakers

Professor Xie You-bai	Academician of Chinese Academy of Engineering
Professor Liu Guanzhong	The Academy of Arts & Design, Tsinghua University
Professor Michel van Tooren	University of South Carolina, USA
Professor Chen Liping	Huanzhong University of Science and Technology
Professor Yong Zeng	Concordia University, Canada
Professor Li Yan	Sichuan University
Dr. Ni Xiaojun	Chinese Academy of Sciences

Program

	language: English/Chinese
Nov. 19th: 2.00-6.00pm:	Keynote/invited presentations Panel discussion
Nov. 20th: 8.30-6.00pm	Keynote presentations Session presentations
Nov. 21st: 8.30-6.00pm	Keynote presentations Session presentations

Goal: ADCP workshop series offers a forum for presentation and discussion to bring advanced theories and technologies to the design and simulation of complex equipment and products, with a focus on computational design and evaluation methods and tools. ADCP2017 will be held as a special track of the 2017 International Conference of Mechanical Design & the 19th Mechanical Design Annual Conference (ICMD 2017). The theme of ADCP2017 is Design inspired by Biology and Nature.

Topics:

- Design process and algorithms inspired by biology and nature
- Design for programmable behaviors and structures and DNA origami
- Knowledge based engineering (KBE)
- Design agents
- Design grammar and design language
- Design of Intelligent systems
- Design modeling of cyber physical systems
- New generation design systems

Contact

Dr. Hou Yuemin
Room 1043, Lee Shau Kee S&T Building, Tsinghua University
Tel: 86(10) 62773470
Email: hym01@mails.tsinghua.edu.cn

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Program (language: English/Chinese)

Sunday 19th, 2017		14.00 -6.00pm
Time	Topics	Speakers
2.00-2.30 pm	Registration	
2.30-2.45	Welcome and Introduction	Prof. Ji Linhong, Tsinghua University
Session 1		
2.45-3.30pm	Do you believe "Seeing is Believing?"	Keynote speaker Prof. Liu Guanzhong The Academy of Arts & Design Tsinghua University, China
3.30-4.00pm	To come	Invited speaker Prof. Chen Liping, Huazhong University of S&T
4.00-4.20	Registration/Break	
Session 2		
4.20-4.50pm	A science of design for studying design activities: object of study, axioms, and research methodologies	Invited speaker Prof. Yong Zeng Concordia University, Canada
4.50-5.20 pm	Multidisciplinary design and simulation of a magnetic confinement fusion device-Tokamak	Invited speaker Dr. Ni Xiaojun Institute of Plasma Physics, Chinese Academy of Sciences
5.20-5.25pm	Break	
5.25-6.15pm	Panel discussion: Design for future inspired by biology/nature/X	Chair Prof. Yong Zeng Concordia University, Canada
6.30m	Dinner	

Monday 20th, 2017

8.30-12.00 am	Session 3: Keynote speakers	
	Cognize Design Science, Study Design Science	Professor Xie You-bai Academician of Chinese Academy of Engineering
	Non-conventional Materials for Advanced Structures: Better structures by mixing, curving, printing, stirring and monitoring-Design and Manufacturing Aspects	Professor Michel Van Toore University of South Carolina, USA
12.00am	Lunch	
2.00-4.00 pm	Session 4	Chair Prof. Chen Liping, Huazhong Science and Technology University
2.00-2.30pm	2KM Journey of innovation: cognition and Practice	Dr. Zhang Zhinan, Shanghai Jiaotong University
2.30-3.00pm	The Structure-Property Theory: Constructing the Design	XU Qian, Professor LI Yan, LI Song, Sichuan University
3.00-3.30pm	4D Design towards a descriptive design model	Dr Hou Yuemin, professor Linhong, Tsinghua University; professor Michel van Toore University of South Carolina
4.00-4.30pm	Reflect on Design Science from Two Perspective of Academia and Industry	Dr. Li Xiang SysGraph Lab
3.30-4.00	Coffee/tea break	
4.00-6.00pm	Session 5	Chair Professor Ji Linhong
4.00-4.30pm	Design Knowledge Service Model Based On Distributed Resource Environment	Dr. Dai Xudong, Auye Design Knowledge Service Net, China
4.30-5.00pm	Development and optimization of unpowered energy-stored exoskeleton	Dr. Guan Xinyu, Tsinghua University
5.00-5.30pm	Implementation and validation of engagement monitoring in an engagement enhancing rehabilitation system	Dr. Li Chong, Tsinghua University
5.30-6.00pm	General discussion	Chair professor Ji Linhong
6.30pm	Dinner	

Tuesday 21st, 2017, Keynote speakers /Session presentation, see ICMD program