



# CUE2015-Applied Energy Symposium and Summit 2015:

### Low carbon cities and urban energy systems

www.applied-energy.org/cue2015





### Preliminary Program at-a-Glance

#### CUE2015, Fuzhou, China, Nov. 15-17, 2015

Registration: Nov. 14: 15:00-17:00; Nov. 15: 8:00-17:00; Nov.16: 9:00-12:00; Nov. 17: 8:30-12:00				
		Day 1: Nov 15		
9:00-9:10		Opening		
9:10-9:50		chwegler, Director of Disney Chi tructure: A New Way to Design I		
9:50-10:30		Jin, Academician of Chinese Aca Energy System for Sustainable I	•	
10:30-11:10		Prof. Jiang Wu, Vice President of Tongji University Planning towards a Green City: Shanghai as a Case		
11:10-11:30		TEA/COFFEE BREAK		
11:30-12:00		Poster session I		
12:00-13:00		LUNCH		
Sessions	1-A1	1-B1	1-C1	
13:00-14:40	Energy management of electric vehicle	Energy management in sectoral level	Power grid and distributed generation	
14:40-15:00	TEA/COFFEE BREAK			
Sessions	1-A2 1-B2 1-C2			
15:00-17:00	Drive system of electric vehicle	Urban energy management, policy and economics	Renewable power generation	

	Day 2: Nov 16				
Sessions	2-A1	2-B1	2-C1		
8:20-10:00	Energy and water nexus	Energy simulation and optimization	National energy economics		
10:00-10:20		TEA/COFFEE BREAK			
Sessions	2-A2	2-B2	2-C2		
10:20-12:00	Energy and environmental emissions	Advanced energy processes	National energy policy		
12:00-13:00		LUNCH			
Sessions	2-A3	2-B3	2-C3		
13:00-14:40	Occupant behavior and energy use of buildings	Low carbon city practices	Cutting edge of battery		
14:40-15:00		TEA/COFFEE BREAK			
14:50-15:30	Poster session II				
Sessions	2-A4 2-B4 2-C4				
15:30-17:10	Energy management of building system	Sustainable development of cities	Fuel cells and energy storage		
18:30	Banquet				

Day 3: Nov 17		
9:00-9:20	Opening	
9:20-9:50	Prof. Hao Wang, Academician of Chinese Academy of Engineering	
9.20-9.50	Developing Sustainable Water urban Systems in China	
09:50-10:20	Mr. Jianxin Hu, Chief Sustainability Officer of China Merchants Property Development	
09.50-10.20	Green Wisdom and Smart Transformation	
10:20-10:40	Tea/Coffee break	
10:40-12:10	Panel I: Future Urban Energy Systems-10KM2	
12:10-13:00 LUNCH		
13:00 -15:30	Panel II: Clean Energy Innovations	



## Preliminary Program of CUE2015 Fuzhou, China, Nov. 15-17, 2015

TIME	DAY 1: NOVEMBER 15		
	OPENING		
9:00-9:10	Welcome from the CUE2015 Conference Chairs		
	Prof. S. K. Chou and Prof. Jinyue Yan		
	Keynote: Integrated Infrastructure: A New Way to Design Low Carbon Cities		
9:10-9:50	Prof. Ben Schwegler		
	Director of Disney China Research		
	Keynote: Distributed Energy System for Sustainable Urbanization		
9:50-10:30	Prof. Hongguang Jin		
	Academician of Chinese Academy of Sciences		
10:30-11:10	Prof. Jiang Wu, Vice President of Tongji University		
10.50-11.10	Planning towards a Green City: Shanghai as a Case		
11:10-11:30	TEA/COFFEE BREAK		
11:30-12:00	Poster session I		
12:00-13:00	LUNCH		

Room: The First Meeting Room				
Session name: Energy management of electric vehicle				
Session chair: Junqiu Li, Hongwen He				
Time	ID	Author	Paper title	
13:00-13:20	8	Jun-Qiu Li, Xin Jin and Rui Xiong	MULTI-OBJECTIVE OPTIMAL ENERGY MANAGEMENT STRATEGY AND ECONOMIC ANALYSIS FOR A RANGE-EXTENDED ELECTRIC BUS	
13:20-13:40	19	Wang Wenwei, Yu Quanqing, Lin Cheng, Cao Dongjiang and Sun Fengchun	A STOCHASTIC MODEL PREDICTIVE CONTROL STRATEGY FOR EXTENDED RANGE ELECTRIC BUS	
13:40-14:00	30	Zhen Wei, John Xu and Dunant Halim	HEV ENERGY MANAGEMENT FUZZY CONTROL FOR URBAN DRIVING BASED ON DRIVING PATTERN RECOGNITION	
14:00-14:20	78	Hongwen He, Jieli Zhang and Gaopeng Li	MODEL PREDICTIVE CONTROL FOR ENERGY MANAGEMENT OF A PLUG-IN HYBRID ELECTRIC BUS	
14:20-14:40	90	Chun Wang, Hongwen He, Rui Xiong and Yongzhi Zhang	A NOVEL EFFICIENCY MODELING METHOD FOR A DC-DC CONVERTER IN THE HYBRID ENERGY STORAGE SYSTEM FOR ELECTRIC VEHICLES	
14:40-15:00			TEA/COFFEE BREAK	
Room: The Fir	st Mee	eting Room		
Session name	: Drive	system of electric vehicle		
Session chair:	Wenw	ei Wang, Zhenpo Wang		
Time	ID	Author	Paper title	
15:00-15:20	34	Li Zhai, Xinyu Zhang, Xinjie Gao, Guangzhao Lee, Ming Zou and Tianmin Sun	IMPACT OF DISTRIBUTED PARAMETERS ON CONDUCTED EMI IN ELECTRIC VEHICLES MOTOR DRIVE SYSTEM	
15:20-15:40	37	Li Zhai, Guangzhao Lee, Xinjie Gao, Xinyu Zhang, Zhongli Gu and Ming Zou	IMPACT OF ELECTROMAGNETIC INTERFERANCE FROM POWER INVERTER DRIVE SYSTEM ON BATTERIES IN ELECTRIC VEHICLES	
15:40-16:00	58	Pan Zhang, Yong Chen, Muyi Lin and Bin Ma	OPTIMUM MATCHING OF ELECTRIC VEHICLE POWERTRAIN	
16:00-16:20	84	Zhifu Wang, Jingzhe Yang, Chuang Cao and Zhongli Gu	PHASE-PHASE SHORT FAULT ANALYSIS OF PERMANENT MAGNET SYNCHRONOUS MOTOR IN ELECTRIC VEHICLES	
16:20-16:40	117	Cheng Lin, Xingqun Cheng, Hong Zhang and Xinle Gong	ESTIMATION OF CENTER OF GRAVITY POSITION FOR DISTRIBUTED DRIVING ELECTRIC VEHICLE BASED ON	



			COMBINED H∞—EKF METHOD
16:40-17:00	9	Junqiu Li, Yihe Wang and Jianwen Chen	RESEARCH OF APU DYNAMIC CHARACTERISTICS MODELING AND COORDINATION CONTROL IN ELECTRIC VEHICLES

Room: The Second Meeting Room				
Session name: Energy management in sectoral level				
Session chair: Fredrik Wallin, Peng Zhou				
Time	ID	Author	Paper title	
13:00-13:20	10	Tie Chen and Yanhong Yin	PUBLIC BUS TRANSPORT REFORM AND SERVICE CONTRACT IN ARAO	
13:20-13:40	29	Fanxin Meng, Gengyuan Liu, Zhifeng Yang and Sergio Ulgiati	ASSESSMENT OF URBAN TRANSPORTATION METABOLISM FROM LIFE CYCLE PERSPECTIVE: A MULTI-METHOD STUDY	
13:40-14:00	100	Gengyuan Liu	THE EVOLUTION OF CITIES: "BRAINS" OR "PARASITES" OF SUSTAINABLE PRODUCTION AND CONSUMPTION PROCESSES IN CHINA	
14:00-14:20	143	Steven Jige Quan, Zhongming Shi, Tianren Yang and Perry Pei-Ju Yang	URBAN FORM AND BUILDING ENERGY PERFORMANCE IN SHANGHAI NEIGHBORHOODS	
14:20-14:40	149	Subhrajit Guhathakurta, Wenwen Zhang and Catherine Ross	TRENDS IN AUTOMOBILE ENERGY USE AND GHG EMISSIONS IN SUBURBAN AND INNER CITY NEIGHBORHOODS: LESSONS FROM METROPOLITAN PHOENIX, USA	
14:40-15:00			TEA/COFFEE BREAK	
Room: The Sec	ond Me	eting Room		
Session name:	Urban e	energy management, policy ar	nd economics	
Session chair: E	<mark>rik D</mark> ah	lquist, Qie Sun		
Time	ID	Author	Paper title	
15:00-15:20	144	Perry Pei-Ju Yang and Jinyue Yan	MODELING URBAN DESIGN WITH ENERGY PERFORMANCE	
15:20-15:40	77	Stephen Read and Erik Lindhult	TECHNOLOGY AND TRANSITION: 'PROGRESSIVE' EVOLUTION OF REGIMES AND THE CONSEQUENCES FOR ENERGY REGIME CHANGE	
15:40-16:00	150	Jiahong Liu, Silan Chen, Hao Wang, Pietro Elia Campana and Jinyue Yan	EVOLUTION OF CHINA'S URBAN ENERGY CONSUMPTION STRUCTURE AND ITS IMPACT ON CARBON EMISSIONS—A CASE STUDY IN BEIJING	
16:00-16:20	153	Javier Campillo, Erik Dahlquist, Erik Lindhult and Iana Vassileva	TECHNOLOGY CAPACITY ASSESSMENT FOR DEVELOPING CITY ACTION PLANS TO INCREASE ENERGY EFFICIENCY IN MID-SIZED CITIES IN EUROPE	
16:20-16:40	67	Wenhui Chen, Yalin Lei and Dongyang Pan	FACTORS AFFECTING ENERGY-RELATED CARBON EMISSIONS IN BEIJING'S TRANSPORT SECTOR: A PATH-KAYA MODEL	
16:40-17:00	178	Tommy Kovola, Fredrik Wallin and Anette Hallin	FACTORS INFLUENCING INDUSTRIAL EXCESS HEAT COLLABORATIONS	
17:00-17:20	137	Tianren Yang, Haisu Chen, Yisha Zhang, Shihao Zhang and Fan Feng	TOWARDS LOW-CARBON URBAN FORMS: A COMPARATIVE STUDY ON ENERGY EFFICIENCIES OF RESIDENTIAL NEIGHBORHOODS IN CHONGMING ECO-ISLAND	



Room: International Conference Hall					
	Session name: Power grid and distributed generation				
	-	g Yang, Jianzhong Wu			
Time	ID	Author	Paper title		
13:00-13:20	128	Ali Al-Wakeel and Jianzhong Wu	K-MEANS BASED CLUSTER ANALYSIS OF RESIDENTIAL SMART METER MEASUREMENTS		
13:20-13:40	21	Shuai Deng, Ligai Kang, Hui Wang, Yunfei Mu, Dan Wang and Ying Zhang	SCOPING THE FIELD: IDENTIFYING FOUR EMERGING RESEARCH TOPICS IN DISTRIBUTED ENERGY SYSTEM		
13:40-14:00	47	Z Xu	CASE STUDY: DYNAMIC PERFORMANCE OF A MTDC NETWORK IN ZHOUSHAN		
14:00-14:20	60	Xiaolong Jin, Yunfei Mu, Hongjie Jia, Tao Jiang, Houhe Chen and Rufeng Zhang	AN OPTIMAL SCHEDULING MODEL FOR A HYBRID ENERGY MICROGRID CONSIDERING BUILDING BASED VIRTUAL STORAGE SYSTEM		
14:20-14:40	179	Marco Antonelli, Andrea Baccioli, Marco Francesconi and Umberto Desideri	DYNAMIC CONTROL STRATEGIES FOR DISTRIBUTED MICROGENERATION AND WASTE HEAT RECOVERY POWER PLANTS		
14:40-15:00		-	TEA/COFFEE BREAK		
Room: Internat	ional C	onference Hall			
Session name:	Renewa	able power generation			
Session chair: L	Jmbert	o Desideri, Dan Wang			
Time	ID	Author	Paper title		
15:00-15:20	53	Taehoon Hong, Kwangbok Jeong, Cheolwoo Ban, Jaeyoung Oh, Choongwan Koo, Jimnim Kim and Minhyun Lee	A PRELIMINARY STUDY ON THE 2-AXIS HYBRID SOLAR TRACKING METHOD FOR SMART PHOTOVOLTAIC BLINDS		
15:20-15:40	164	Yang Zhang, Anders Lundblad, Pietro E. Campana and Jinyue Yan	STUDY ON EMPLOYING BATTERY STORAGES TO INCREASE PHOTOVOLTAIC SELF SUFFICIENCY IN A RESIDENTIAL BUILDING OF SWEDEN		
15:40-16:00	165	Worrada Nookuea, Pietro Elia Campana and Jinyue Yan	EVALUATION OF SOLAR PV AND WIND ALTERNATIVES FOR SELF RENEWABLE ENERGY SUPPLY: CASE STUDY OF SHRIMP CULTIVATION		
16:00-16:20	127	Min Ye, Xiaogang Yi and Shengjie Jiao	ENERGY OPTIMAZATION BY PARAMETER MATCHING FOR A TRUCK-MOUNTED CONCRETE PUMP		
16:20-16:40	79	Siyang Hu, Dennis C.Y. Leung and Michael Z.Q. Chen.	IMPACT OF GUIDE WALL GEOMETRY ON THE POWER OUTPUT OF A SOLAR CHIMNEY POWER PLANT		
16:40-17:00	51	Taehoon Hong, Kwangbok Jeong, Choongwan Koo, Jimin Kim and Minhyun Lee	A PRELIMINARY STUDY FOR DETERMINING PHOTOVOLTAIC PANEL FOR A SMART PHOTOVOLTAIC BLIND CONSIDERING USABILITY AND CONSTRUCTABILITY ISSUES		
17:00-17:20	56	Zhang Bai, Qibin Liu, Hui Hong and Hongguang Jin	THERMODYNAMICS EVALUATION OF A SOLAR-BIOMASS POWER GENERATION SYSTEM INTEGRATED A TWO-STAGE GASIFIER		



TIME	DAY 2: NOVEMBER 16				
Room: The First Meeting Room					
Session name:	Session name: Energy and water nexus				
Session chair: I	ixin Tia	n, Dao-Yi Huang			
Time	ID	Author	Paper title		
8:20-8:40	146	Jin Yang	ENVIRONMENTAL AND CLIMATE CHANGE CO-BENEFITS ANALYSIS OF WIND POWER GENERATION IN CHINA		
8:40-9:00	26	Jürgen-Friedrich Hake, Holger Schlör, Karin Schürmann and Sandra Venghaus	ETHICS, SUSTAINABILITY AND THE WATER, ENERGY, FOOD NEXUS APPROACH - A NEW INTEGRATED ASSESSMENT OF URBAN SYSTEMS		
9:00-9:20	45	Cuiping Tan and Qiang Zhi	THE ENERGY-WATER NEXUS: LITERATURE REVIEW ON THE DEPENDENCE OF ENERGY ON WATER		
9:20-9:40	108	Shibao Lu and Jianhua Wang	URBAN WATER SECURITY EVALUATION BASED ON THE VAGUE SET SIMILARITY MODEL		
9:40-10:00	167	Pietro Elia Campana, Steven Quan, Federico Robbio, Anders Lundblad, Yang Zhang and Jinyue Yan	SPATIAL OPTIMIZATION OF RESIDENTIAL URBAN DISTRICT - ENERGY AND WATER PERSPECTIVES		
10:00-10:20		· · · · ·	TEA/COFFEE BREAK		
Room: The Firs	t Meeti	ng Room			
Session name:	Energy	and environmental emissions			
Session chair: I	Bin Cher	n, Jiahong Liu			
Time	ID	Author	Paper title		
10:20-10:40	80	Hanyan Li, Haobing Liu, Yanzhi Xu, Michael Rodgers and Randall Guensler	PERFORMANCE OF MULTIPLE EMISSIONS REDUCTION ALTERNATIVES FOR TRANSIT FLEETS: A REAL-WORLD OPERATIONS PERSPECTIVE		
10:40-11:00	104	Dan Song and Bin Chen	EXTENDED EXERGY ACCOUNTING FOR ENERGY CONSUMPTION AND CO2 EMISSIONS OF CEMENT INDUSTRY—A BASIC FRAMEWORK		
11:00-11:20	63	Xiaoqing Hao and Haizhong An	IMPORT COMPETITION PRESSURE AND PATTERN EVOLUTION: A NETWORK ANALYSIS OF GLOBAL CRUDE OIL TRADE		
11:20-11:40	154	Hong Zhou and Daniel Castro-Lacouture	INTEGRATED ECOLOGICAL ASSESSMENT OF ENGINEERING PROJECTS BASED ON EMERGY ANALYSIS		
11:40-12:00	156	Jonas Sonnenschein	CONDITIONS FOR THE COST EFFECTIVE COMBINATION OF EMISSIONS TRADING AND RENEWABLE ENERGY SUPPORT POLICIES		

Room: The Second Meeting Room Session name: Energy simulation and optimization			
	0,	n Sun, Roland Span	
Time	ID	Author	Paper title
8:20-8:40	24	Yimo Luo, Hongxing Yang and Yi Chen	APPLICATION OF CFD MODEL IN ANALYZING THE PERFORMANCE OF A LIQUID DESICCANT DEHUMIDIFIER
8:40-9:00	49	Chan-Joong Kim, Taehoon Hong, Jaemin Jeong, Jimin Kim, Choongwan Koo, Kwangbok Jeong and Minhyun Lee	FRAMEWORK FOR THE DEVELOPMENT OF THE MINIMUM CV(RMSE) USING ENERGY SIMULATION AND OPTIMIZATION TOOL
9:00-9:20	54	Ligai Kang, Junhong Yang, Shuai Deng, Qingsong An, Jun Zhao, Hui Wang and Dan Wang	ENERGY, ECONOMICAL AND ENVIRONMENTAL EVALUATION OF A GSHP-CCHP SYSTEM BASED ON CARBON TAX AND ELECTRIC FEED IN TARIFF



9:20-9:40	69	Jan Wiedemann and Roland Span	SIMULATION OF AN EXHAUST HEAT DRIVEN RANKINE-CYCLE FOR HEAVY-DUTY DIESEL ENGINES
9:40-10:00	71	Jasmine Malinao, Florian Judex, Tim Selke, Gerhard Zucker, Henry Adorna, Jaime Caro and Walter Kropatsch	ROBUSTNESS DIAGRAM WITH LOOP AND TIME CONTROLS FOR SYSTEM MODELLING AND SCENARIO EXTRACTION WITH ENERGY SYSTEM APPLICATIONS
10:00-10:20			TEA/COFFEE BREAK
Room: The Seco	ond Me	eting Room	
Session name:	Advance	ed energy processes	
Session chair: P	ietro Ca	ampana, Anders Lundblad	
Time	ID	Author	Paper title
10:20-10:40	25	Yi Chen, Hongxing Yang and Yimo Luo	PARAMETER SENSITIVITY ANALYSIS OF INDIRECT EVAPORATIVE COOLER (IEC) WITH CONDENSATION FROM PRIMARY AIR
10:40-11:00	55	Ming Liu and Ben Schwegler	SOLID OXIDE FUEL CELLS FOR COMBINED COOLING, HEATING AND POWER GENERATION: RECENT DEVELOPMENT AND FUTURE PERSPECTIVES
11:00-11:20	64	Sang C. Lee	ANALOGICAL UNDERSTANDING OF THE RAGONE PLOT AND NEW CATAGORAZATION OF ENERGY DEVICES
11:20-11:40	105	Hong Yang, Jipeng Chang, He Wang and Dengyuan Song	POWER DEGRADATION CAUSED BY SNAIL TRAILS IN PHOTOVOLTAIC POWER PLANT
11:40-12:00	109	Xiaohu Yang, Wenbin Wang, Shangsheng Feng, LiwenJin, Tian Jian Lu and Yue Chai	ANALYTICAL ANALYSIS OF COLD STORAGE: THE ROLE OF POROUS METAL FOAM

Room: VIP Meeting Room			
Session name: National energy economics			
Session chair: C		ng, Ali Cheshmehzangi	
Time	ID	Author	Paper title
8:20-8:40	32	Rufeng Zhang, Houhe Chen, Tao Jiang, Hongjie Jia, Yunfei Mu and Xiaolong Jin	SECURITY-CONSTRAINED ECONOMIC DISPATCH FOR INTEGRATED NATURAL GAS AND ELECTRICITY SYSTEMS
8:40-9:00	159	Lars Strupeit	STREAMLINING PHOTOVOLTAIC DEPLOYMENT: THE ROLE OF LOCAL GOVERNMENTS FOR REDUCING SOFT COSTS
9:00-9:20	57	Mei Sun, Juan Li, Cuixia Gao and Dun Han	RESEARCH ON THE US ELECTRICITY MARKET BASED ON PRICE FLUCTUATIONS
9:20-9:40	42	Shupei Huang, Haizhong An, Xiangyun Gao and Xuan Huang	FLUCTUATION AND CO-MOVEMENT OF THE CRUDE OIL PRICE AND THE STOCK RETURNS IN CHINA
9:40-10:00	174	Jingjing Song, Fredrik Wallin, Hailong Li and BjörnKarlsson	PRICE MODELS OF DISTRICT HEATING IN SWEDEN
10:00-10:20			TEA/COFFEE BREAK
Room: VIP Mee Session name: Session chair: F	Nationa		
Time	ID	Author	Paper title
10:20-10:40	5	Huajiao Li, Haizhong An, Wei Fang, Yue Wang, Weiqiong Zhong and Lili Yan	GLOBAL ENERGY INVESTMENT STRUCTURE BASED ON THE SHAREHOLDING RELATIONSHIPS OF GLOBAL LISTED ENERGY COMPANIES
10:40-11:00	16	Jagruti Thakur and Basab Chakraborty	SUSTAINABLE NET METERING MODEL FOR DIVERSIFIED INDIA
11:00-11:20	102	Delin Fang and Bin Chen	WATER-ENERGY CONTROL RELATIONSHIP IN SOCIO-ECONOMIC SYSTEM
11:20-11:40	121	Shuai Gao and Can Wang	SECTORAL CREDITING MECHANISM: HOW TO WORK IN CHINA



11:40-12:00	157	Catherine Ross, Elliot Sperling and Subhrajit Guhathakurta	ADOPTING A NEW ENERGY ECONOMY IN THE UNITED STATES
12:00-13:00	LUNCH		



Room: The First Meeting Room				
Session name: Occupant behavior and energy use of buildings				
Session chair: Peiter De Wield, Guhathakurta S				
Time	ID Author		Paper title	
13:00-13:20	81	Rory Jones, Steve Goodhew and Pieter de Wilde	MEASURED INDOOR TEMPERATURES, THERMAL COMFORT AND OVERHEATING RISK: POST-OCCUPANCY EVALUATION OF LOW ENERGY HOUSES IN THE UK	
13:20-13:40	91	Cheol Soo Park and Ki-UhnAhn	DIFFERENT OCCUPANT MODELING APPROACHES FOR BUILDING ENERGY PREDICTION	
13:40-14:00	103	Sayanthan Ramakrishnan, Xiaoming Wang, MorshedAlam, Jay Sanjayan and John Wilson	APPLICATION OF PHASE CHANGE MATERIALS TO IMPROVE OCCUPANT COMFORT DURING EXTREME HEAT WAVES IN AUSTRALIAN DWELLINGS	
14:00-14:20	Song Pan, Chuanqi Xu, Shen Wei, Tarek Hassan, Lang Xie		IMPROPER WINDOW USE IN OFFICE BUILDINGS: FINDINGS FROM A LONGITUDINAL STUDY IN BEIJING, CHINA	
14:20-14:40	135	Zheng Yang and Burcin Becerik-Gerber	HOW DOES BUILDING OCCUPANCY INFLUENCE ENERGY EFFICIENCY OF HVAC SYSTEMS?	
14:40-15:00			TEA/COFFEE BREAK	
15:00-15:30 Poster session II				
Room: The First	: Meetii	ng Room		
Session name: I	Energy	management of building system	1	
Session chair: T	aehoon	Hong, Cheol Soo Park		
Time	ID	Author	Paper title	
15:30-15:50	72	Huanhuan Feng, Xue Tian, Sunliang Cao, Jun Zhao and Shuai Deng	MATCH PERFORMANCE ANALYSIS FOR A SOLAR-DRIVEN ENERGY SYSTEM IN A NET ZERO ENERGY BUILDING	
15:50-16:10	Taehoon Hong, Minhyun 76 Lee, Choongwan Koo, Jimin Kim and KwangbokJeong		ESTIMATION OF THE AVAILABLE ROOFTOP AREA FOR INSTALLING THE ROOFTOP SOLAR PHOTOVOLTAIC (PV) SYSTEM BY ANALYZING THE BUILDING SHADOW USING HILLSHADE ANALYSIS	
16:10-16:30	126	Xi Chen and Hongxing Yang	AN EXHAUSTIVE PARAMETRIC STUDY ON MAJOR PASSIVE DESIGN PARAMETERS OF A TYPICAL HIGH-RISE RESIDENTIAL BUILDING IN HONG KONG	
16:30-16:50	Pengfei Si, YuexiaLv, Xichen 140 Liu, Xiangyang Rong and Ya Feng		AN OPTIMIZATION MODEL APPLIED TO ACTIVE SOLAR ENERGY SYSTEM FOR BUILIDINGS IN COLD PLATEAU AREA	
16:50-17:10	155	Shipeng Luo and Daniel Castro-Lacouture	HOLISTIC MODELING OF MICROALGAE FOR POWERING RESIDENTIAL COMMUNITIES	

Room: The Second Meeting Room					
	Session name: Low carbon city practices				
Session chair: P	erry Pe	i-Ju Yang, Ronald Wennersten			
Time	ID	Author	Paper title		
13:00-13:20	65	Guochang Fang, Lixin Tian, Min Fu, Mei Sun, Ruijin Du and Menghe Liu	INVESTIGATION OF CARBON TAX PILOT IN YRD URBAN AGGLOMERATIONSANALYSIS AND APPLICATION OF A NOVEL ESER DYNAMIC EVOLUTION SYSTEM WITH CARBON TAX CONSTRAINTS		
13:20-13:40	122	Ali Cheshmehzangi	FEASIBILITY STUDY OF SONGAO'S LOW CARBON TOWN PLANNING, CHINA		
13:40-14:00	172	Hong Ting Ma, Wen Qian Lu, Li Hui Yin and Xiao Peng Shen	PUBLIC BUILDING ENERGY CONSUMPTION LEVEL AND INFLUENCING FACTORS IN TIANJIN		



14:00-14:20	162	Meirong Su, Mingqi Zhang, Ying Zheng and Xuemei Yin	PRACTICE OF LOW-CARBON CITY IN CHINA: THE STATUS QUO AND PROSPECT
14:20-14:40	148	lana Vassileva, Erik Dahlquist and Javier Campillo	THE CITIZENS ROLE IN ENERGY SMART CITY DEVELOPMENT
14:40-15:00			TEA/COFFEE BREAK
15:00-15:30			Poster session II
Room: The Seco	ond Me	eting Room	
Session name: S	Sustaina	able development of cities	
Session chair: N	lei Sun	, Hongbo Ren	
Time	ID	Author	Paper title
15:30-15:50	152	Erik Lindhult, Javier Campillo, Erik Dahlquist and Stephen Read	INNOVATION CAPABILITIES AND CHALLENGES FOR ENERGY SMART DEVELOPMENT IN MEDIUM SIZED EUROPEAN CITIES
15:30-15:50 15:50-16:10	152 101	Campillo, Erik Dahlquist and	ENERGY SMART DEVELOPMENT IN MEDIUM SIZED
		Campillo, Erik Dahlquist and Stephen Read	ENERGY SMART DEVELOPMENT IN MEDIUM SIZED EUROPEAN CITIES
15:50-16:10	101	Campillo, Erik Dahlquist and Stephen Read Yi Lu and Bin Chen	ENERGY SMART DEVELOPMENT IN MEDIUM SIZED EUROPEAN CITIES ENERGY-WATER NEXUS IN URBAN INDUSTRIAL SYSTEM DOMINANT SECTOR OF EMBODIED PARTICULATE

#### Room: VIP Meeting Room Session name: Cutting edge of battery

Session chair: John Xu, Ya Feng

Time	ID	Author	Paper title	
	Mingsen Zheng, Mocao Cai,		APPLICATION OF HIERARCHICAL NANOSPHERES	
13:00-13:20	6	Linlin Qin and Qihui Wu	FE2O3/GRAPHENE COMPOSITE IN LITHIUM-ION	
			BATTERY AS AN ANODE MATERIAL	
13:20-13:40	23	Hao Mu, Rui Xiong and	A NOVEL MULTI-MODEL PROBABILITY BASED BATTERY	
13:20-13:40	23	Fengchun Sun	STATE-OF-CHARGE FUSION ESTIMATION APPROACH	
		Zhiwan linna Qiana Mana	LATTICE BOLTZMANN SIMULATION OF ION AND	
13:40-14:00	41	Zhiyuan Jiang, Qiong Wang	ELECTRON TRANSPORT IN LITHIUM ION BATTERY	
		and Zhiguo Qu	POROUS ELECTRODE DURING DISCHARGE PROCESS	
			RESEARCHES ON MODELING METHODS OF BATTERY	
14:00-14:20	93	Jun Qiu Li, Xin Jin, Puen Wu and Xiaopeng Zhang	CAPACITY DECLINE BASED ON CELL VOLTAGE	
			INCONSISTENCY AND PROBABILITY STATISTICS	
		Zhao Lu, Xiangzhao Meng,		
14:20-14:40	119	Lichuan Wei, Wangyang Hu,	FORCED AIR COOLING STRATEGY OF EV BATTERY BOX	
14:20-14:40		Lianying Zhang, Liwen Jin	PACKED WITH CYLINDRICAL LI-ION BATTERIES	
	and Yong Qi			
14:40-15:00			TEA/COFFEE BREAK	
15:00-15:30	Poster session II			
Room: VIP Mee	ting Ro	om		
Session name: F	<sup>-</sup> uel cel	Is and energy storage		
Session chair: R	ui Xion	g, Min Ye		
	1	Γ		
Time	ID	Author	Paper title	
15:30-15:50	40	Xu Lu, Dennis Y.C. Leung,	A SWITCHABLE PH-DIFFERENTIAL REACTOR WITH HIGH	
10.00 10.00		Huizhi Wang and Jin Xuan	REACTIVITY AND EFFICIENCY FOR CO2 UTILIZATION	
15:50-16:10	70	Sang C. Lee	GRAPHICAL ANALYSIS OF A DC-DC CONVERTER EFFECT	
15.50 10.10	,0		ON FUEL CELL: D-TRANSFORMATION	
16:10-16:30	131	Meng Cheng, Saif Sami and Jianzhong Wu	VIRTUAL ENERGY STORAGE SYSTEM FOR SMART GRIDS	



16:30-16:50	151	Yujie Wang, Chenbin Zhang and Zonghai Chen	MODEL-BASED STATE-OF-ENERGY ESTIMATION OF LITHIUM-ION BATTERIES IN ELECTRIC VEHICLES
16:50-17:10	177	Marco Antonelli, Umberto Desideri, Romano Giglioli, Fabrizio Paganucci and Gianluca Pasini	LIQUID AIR ENERGY STORAGE: A POTENTIAL LOW EMISSIONS AND EFFICIENT STORAGE SYSTEM



	Poster session I Nov. 15, 11:30-12:00				
ID	Author	Paper title			
4	Wang Zhenpo and Sun Peikun	RESEARCH OF THE RELATIONSHIP BETWEEN LI-ION BATTERY CHARGE PERFORMANCE AND SOH BASED ON MIGA-GPR METHOD			
12	Yanhong Yin and Tie Chen	ENERGY CONSUMPTION AND QUALITY OF LIFE: ENERGY EFFICIENCY INDEX			
13	Jing Zeng, Nianping Li, Jianlin Cheng, Yang Zhang and Chen Wang	EVALUATION OF THE SENSIBLE HEAT STORAGE AIR SOURCE HEAT PUMP FOR RESIDENTIAL HEATING IN CENTRAL-SOUTH CHINA			
15	Huang Mian Li	IN-SITU GOLD DECORATED 3D BRANCHED ZNO NANOCOMPOSITE AND THEIR ENHANCED ABSORPTION AND PHOTOOXIDATION PERFORMANCE FOR REMOVING OF ARSENIC FROM WATER			
17	Zhimin Hu, Zhifu Wang, Yang Zhou and Guangzhao Lee	THE SLIDING MODE CONTROL ABOUT ASR OF VEHICLE WITH FOUR INDEPENDENTLY DRIVEN IN-WHEEL MOTORS BASED ON THE EXPONENT APPROACH LAW			
18	Saleh Khamlich, TouhamiMokrani, BakangMothudi, Mokhotjwa Dhlamini and Malik Maaza	MICROWAVE SYNTHESIS OF SIMONKOLLEITE NANOPLATELETS ON 3D NICKEL FOAM-GRAPHENE FOR SUPERCAPACITOR APPLICATIONS			
20	Peng Jin and Yang Li	OPTIMIZED SECONDARY CONTROL FOR DISTRIBUTED GENERATION UNDER UNBALANCED CONDITIONS			
22	Jianyuan Zhang, Li Zhao, Jue Wen and Shuai Deng	AN OVERVIEW OF 200KW SOLAR POWER PLANT BASED ON ORGANIC RANKINE CYCLE			
27	Dao-Yi Huang and Jer-Huan Jang	IMPROVEMENT IN HYDROGEN PRODUCTION WITH PLASMA REFORMER SYSTEM			
28	Rama Sumanta, Muhammad Ramdhani and Fitrianita	GEOTHERMAL PROSPECTING DISTRIBUTION IN JAVA, INDONESIA			
31	Wei Liu, Hongwen He and Zexing Wang.	A COMPARISON STUDY OF ENERGY MANAGEMENT FOR A PLUG-IN SERIAL HYBRID ELECTRIC VEHICLE			
35	Song Qiang and Jia Chao	ROBUST SPEED CONTROLLER DESIGN FOR PERMANENT MAGNET SYNCHRONOUS MOTOR DRIVES BASED ON SLIDING MODE CONTROL			
36	Lu Wang, Xiao-Kai Chen and Qing-Hai Zhao	MUTI-OBJECTIVE TOPOLOGY OPTIMIZATION OF AN ELECTRIC VEHICLE'S TRACTION BATTERY ENCLOSURE			
38	Bo Ning, Jun Xu, Binggang Cao, Bin Wang and Guangcan Xu.	A SLIDING MODE OBSERVER SOC ESTIMATION METHOD BASED ON PARAMETER ADAPTIVE BATTERY MODEL			
39	Bin Wang, Jun Xu, Binggang Cao, Qiyu Li and Qingxia Yang.	ADAPTIVE MODE CONTROL STRATEGY OF A MULTIMODE HYBRID ENERGY STORAGE SYSTEM			
44	Yeyanran Ge and Qiang Zhi	LITERATURE REVIEW: GREEN ECONOMY, CELAN ENERGY POLICY AND EMPLOYMENT			
46	Xilian Luo.	AN ENERGY EFFICIENT STRATEGY FOR LOCAL ENVIRONMENT CONTROL OF RELICS PRESERVATION IN ARCHAEOLOGY MUSEUMS WITH FUNERARY PITS			
48	Z Xu and Zhen Wei	A RAPID FAULTS DETECTION METHOD FOR CONTROLLING MULTI-TERMINAL HIGH VOLTAGE DC GRIDS UNDER AC GRID CONTINGENCIES			



52	Wenlong Sun and Xiaokai Chen	ANALYSIS OF ENERGY SAVING AND EMISSION REDUCTION OF VEHICLES USING LIGHTWEIGHT MATERIALS
59	Kejia Yang, Yalin Lei and Yue Huang	THE CARBON DIOXIDE MARGINAL ABATEMENT COST CALCULATION OF CHINESE PROVINCES -BASED ON STOCHASTIC FRONTIER ANALYSIS
61	Le He, Ling Zhang and Yan Xu	THE CITIES SOCIAL DEVELOPMENT EVALUATION IN THE SOUTH OF JIANGSU BASED ON BI-TOPSIS METHOD
62	Lianying Zhang, Yuanyuan Liu, Liwen Jin, Xing Liu, Xiangzhao Meng and Qunli Zhang	ECONOMIC ANALYSIS OF GRAVITY HEAT PIPE EXCHANGER APPLIED IN COMMUNICATION BASE STATION
66	Xinyang Rui and Jian Meng	DYNAMIC FREQUENCY REGULATION METHOD BASED ON THERMOSTATICALLY CONTROLLED APPLIANCES IN THE POWER SYSTEM
68	Hong Yang, Enyu Wang and He Wang	INDUSTRIAL TECHNOLOGY OF PASSIVATED EMITTER AND REAR CELLS(PERC) WITH SILICON OXYNITRIDE AND SILICON NITRIDE AS REAR PASSIVATION
82	Wenwei Wang, Sheng Yang, Fengchun Sun and Quanqing Yu	THE CLAY-LIKE MECHANICS MODEL OF CYLINDRICAL LITHIUM-ION BATTERY CELLS UNDER RADIAL COMPRESSION
83	Shaopeng Guo, Jun Zhao, Jinyue Yan, Guang Jin and Xiaotong Wang	ECONOMIC ASSESSMENT OF MOBILIZED THERMAL ENERGY STORAGE FOR DISTRIBUTED USERS: A CASE STUDY IN CHINA
85	Zhifu Wang, Yupu Wang and Yinan Rong	RESEARCH ON CONTROL STRATEGY OF THE BIDIRECTIONAL FULL-BRIDGE DC/DC CONVERTER USED IN ELECTRIC VEHICLES
86	Zhifu Wang, Yupu Wang, YinanRong and Fantao Lin	STUDY ON THE OPTIMAL CHARGING METHOD FOR LITHIUM-ION BATTERIES USED IN ELECTRIC VEHICLES
87	Tharaka Rathnaweera, L Romain and Ranjith Pathegama	DEFORMATION MECHANICS AND ACOUSTIC PROPAGATION IN RESERVOIR ROCK UNDER BRINE AND OIL SATURATION: AN EXPERIMENTAL STUDY
88	Shuangquan Shao, Weijia Zhang, Hainan Zhang and Changqing Tian	PERFORMANCE CHART: A NOVEL METHOD FOR PERFORMANCE ANALYSIS OF MULTI-UNIT AIR CONDITIONERS
89	Wang Wenwei, Hou Rui, Yu Quanging and Lin Cheng	COMPARATIVE RESEARCH ON TRANSMISSION FORM OF PURE ELECTRIC BUS
92	Xinjie Gao, Donglin Su, Li Zhai and Xinyu Zhang	DIAGNOSIS METHOD OF RADIATED EMISSION FROM BATTERY MANAGEMENT SYSTEM FOR ELECTRIC VEHICLE
94	Fantao Lin, Yupu Wang, Zhifu Wang, Haibo Yu and Yinan Rong	THE DESIGN OF ELECTRIC CAR DC/DC CONVERTER BASED ON THE PHASE-SHIFTED FULL-BRIDGE ZVS CONTROL
95	Caiping Zhang, Jiuchun Jiang, Yang Gao, Weige Zhang, Qiujiang Liu and Xiaosong Hu	POLARIZATION BASED CHARGING TIME AND TEMPERATURE RISE OPTIMIZATION FOR LITHIUM-ION BATTERIES
96	Rui Hou, Junzhi Zhang and Cheng Lin	NEW APPROACH OF COMPREHENSIVE SHIFT SCHEDULE BASED ON ELECTRIC DRIVE AUTOMATED MECHANICAL TRANSMISSION
98	Shaoqing Chen and Bin Chen	SYSTEMIC MODELLING OF CARBON METABOLISM FOR CITIES: THEORY AND METHODS
99	Hongbo Ren, Qiong Wu and Liuliang Qiu	THEORETICAL ANALYSIS ON THE ENVIRONMENTAL PERFORMANCE OFDISTRIBUTED COMBINED HEAT AND POWER SYSTEM
106	Hong Yang, Ao Wang, He Wang and Dengyuan Song	STUDY ON THE THERMAL STRESS DISTRIBUTION OF CRYSTALLINE SILICON SOLAR CELLS UNDER TEMPERATURE FIELD



107	Qiong Wu, Hongbo Ren and Weijun Gao	ECONOMIC ASSESSMENT OF MICRO-CHP SYSTEM FOR RESIDENTIAL APPLICATION IN SHANGHAI, CHINA
110	Chong Zhang, Kuang Cheng, Jinbo Wang and Xinhua Xu	NUMERICAL EVALUATION OF HEAT RECOVERY PERFORMANCE OF A SWITCHABLE EXHAUST AIR WINDOW
112	Yizhong Wang, Qunwei Wang and Ye Hang	DRIVING FACTORS OF SO2 EMISSIONS IN 13 CITIES, JIANGSU, CHINA
113	Le Feng and Bin Chen	SCARCE WATER FOOTPRINT OF ENERGY PRODUCTION IN CHINA
114	Lu Yi, Hongwen He and Jiankun Peng.	HARDWARE-IN-LOOP SIMULATION FOR THE ENERGY MANAGEMENT SYSTEM DEVELOPMENT OF A PLUG-IN HYBRID ELECTRIC BUS
115	Shouyang Wei, Yuan Zou, Fengchun Sun and Onder Christopher	ENERGY MANAGEMENT OPTIMIZATION FOR A HYBRID TRACKED VEHICLE USING THE RADAU PSEUDOSPECTRAL METHOD
		Poster session II Nov.16, 14:50-15:30
116	Shiyu Ji and Bin Chen	LCA-BASED CARBON FOOTPRINT OF A TYPICAL WIND FARM IN CHINA
124	Muhammad Wakeel and Bin Chen	OVERVIEW OF ENERGY PORTFOLIO IN PAKISTAN
125	Jiangjiang Wang and Tianzhi Mao.	CONFIGURATION OPTIMIZATION WITH OPERATION STRATEGY OF SOLAR-ASSISTED BCHP SYSTEM TO MINIMIZE ENERGY CONSUMPTION
129	Ting Yang and Jincheng Wu.	THE LOAD CONTROL STRATEGY OF DATACENTER
130	Yizi Shang, Jianhua Wang, Hongwang Shi and Yong Zhao	MAJOR FACTORS IN INDUSRIAL WATER USE CHANGES IN TIANJIN AND THE IMPACT ASSESSMENT
133	Binyue Zhang and Bin Chen	EMERGY-BASED COST-BENEFIT ANALYSIS FOR URBAN BIOGAS PROJECT
134	Shihao Zhang, Zhi Zhuang, Baoshun Yang and Hongwei Tan	APPLICABILITY STUDY ON A HYBRID RENEWABLE ENERGY SYSTEM FOR NET-ZERO ENERGY HOUSE IN SHANGHAI
138	C Zhang and Zhuang Xu	ANALYTICAL MODELS OF CONDUCTION AND SWITCHING LOSSES OF A THREE PHASE AC-DC MATRIX RECTIFIER FOR HYBRID ELECTRIC VEHCLES
139	FeiTeng, Yunfei Mu, Hongjie Jia, Jianzhong Wu, Pingliang Zeng and Goran Strbac	CHALLENGES OF PRIAMRY FREQUENCY CONTROL AND BENEFITS OF PRIMARY FREQUENCY RESPONSE SUPPORT FROM ELECTRIC VEHICLES
141	Xin Wang, Cheryl Chi and Perry Pei-Ju Yang	GLOBAL CITY INDICATORS: TOWARDS A HOLISTIC VIEW OF LOW CARBON CITY DIMENSIONS
142	Chuang Wang, Da Yan and Xiaoxin Ren	MODELING INDIVIDUAL'S LIGHT SWITCHING BEHAVIOR TO UNDERSTAND LIGHTING ENERGY USE OF OFFICE BUILDING
145	Jahangir Soomro, Bin Chen and Muhammed Wakeel	EXTENDED EXERGY ACCOUNTING FOR KARACHI
147	Xiaofeng Ding, Min Du, Tong Zhou, Hong Guo, Chengming Zhang and Feida Chen	COMPREHENSIVE COMPARISON BETWEEN SIC-MOSFETS AND SI-IGBTS BASED ELECTRIC VEHICLE TRACTION SYSTEMS UNDER LOW SPEED AND LIGHT LOAD
161	Cuncun Duan and Bin Chen	WATER EMBODIED IN INTERNATIONAL ENERGY TRADE OF CHINA
163	Kirubajiny Pasupathy, Marita Berndt, Rajeev Pathmanathan and Jay Sanjayan	DURABILITY PERFORMANCE OF CONCRETE STRUCTURES BUILT WITH LOW-EMBODIED-CARBON CONSTRUCTION MATERIAL



166	Saige Wang and Bin Chen	ACCOUNTING OF SO2 EMISSIONS FROM COMBUSTION IN INDUSTRIAL BOILERS
169	Zhicong Shi	SPINEL OXIDE CATHODE MATERIAL FOR HIGH POWER LITHIUM ION BATTERIES FOR ELECTRICAL VEHICAL
170	Yan Lu, Yanan Wang and You Lu.	HEAT MODES ANALYSIS OF LOW ENERGY RESIDENTIAL BUILDINGS IN TIANJIN
171	Xue Tian, Jun Zhao, Shuai Deng and Mengjun Yang	A STUDY ON OPERATIONAL STRATEGY OF GROUND –SOURCE HEAT PUMP SYSTEM WITH FOCUS ON VARIATION OF BUILDING LOAD
173	Hong Ting Ma, Wei Ye Zhou, Xin Yu Lu, ZeQun Ding and Yang Cao	APPLICATION OF LOW COST ACTIVE AND PASSIVE ENERGY SAVING TECHNOLOGIES IN AN ULTRA-LOW ENERGY CONSUMPTION BUILDING
175	Yuexia Lv, Pengfei Si, Xichen Liu, Xiangyang Rong, Ya Feng and Jinyue Yan	OPTIMIZATION MODEL FOR SOLAR THERMAL COLLECTOR BASED ON A NEW CONCEPT OF EFFECTIVE HEAT COLLECTION
176	Hongting Ma, Yang Cao, Xinyu Lu, Zequn Ding and Weiye Zhou	PYROLYSIS AND ENERGY CONVERSION OF TYPICAL MUNICIPAL SOLID WASTES
180	Marcus Budt, Daniel Wolf, Roland Span and Jinyue Yan	COMPRESSED AIR ENERGY STORAGE - AN OPTION FOR MEDIUM TO LARGE SCALE ELECTRICAL ENERGY STORAGE
181	Qiyan Wu, Xiaoling Zhang, Jingwei Sun and Zhifei Ma	LOCKED POST-FOSSIL CONSUMPTION OF URBAN DECENTRALIZED SOLAR PHOTOVOLTAIC ENERGY: A CASE STUDY OF AN ON-GRID PHOTOVOLTAIC POWER SUPPLY COMMUNITY IN NANJING, CHINA