



GSKI 2021

# **PROGRAM BOOK**

**December 17<sup>th</sup>-19<sup>th</sup>, 2021**

**Tencent Meeting**



# Conference

9th Annual International Conference on Geo-Spatial Knowledge and Intelligence [GSKI2021] will be held on December 17<sup>th</sup>-19<sup>th</sup>.

The conference official website is: <http://www.gskiei.org/>.

# **9th Annual International Conference on Geo-Spatial Knowledge and Intelligence [GSKI2021]**

December 17<sup>th</sup>-19<sup>th</sup>, 2021  
<http://www.gskiei.org/>

9th Annual International Conference on Geo-Spatial Knowledge and Intelligence [GSKI 2021] is the Ninth annual academic conference in a series held one year. The conference attracts participants in a diverse range of fields, including geographic information science, ecological and environmental sciences, and resource management and policy. GSKI 2021 continues the conference series' unique blend of topics focusing on geo-spatial analyses and technologies and their applications in natural and societal resource management in the context of restoring sustainable ecosystems.

9th Annual International Conference on Geo-Spatial Knowledge and Intelligence [GSKI 2021] aims to bring researchers, engineers, and students to the areas of Geo-Informatics in Resource Management & Sustainable Ecosystem. GSKI 2021 features unique mixed topics of smart city, spatial data acquisition, processing and management, modeling and analysis, and recent applications in the context of building healthier ecology and Resource Management. The conference will provide a forum for sharing experiences and original research contributions on those topics. Researchers and practitioners are invited to submit their contributions to GSKI 2021.

We look forward to welcome you in GSKI2021 and wish you a fruitful and enjoyable stay in.

Contact:

Email: [gskiei@vip.163.com](mailto:gskiei@vip.163.com);

Tel: (+86) 15342741712 (WeChat number)

# SCHEDULE OF THE CONFERENCE

Due to the COVID-19 situation and travel restrictions, GSKI2021 will be converted into a virtual conference, which will be held via the Tencent Meeting.

**December 17th, 2021 (Friday) 14:00-22:00 (GMT+8:00, BEIJING)**

**December 18th, 2021 (Saturday) 8:00-22:00 (GMT+8:00, BEIJING)**

**December 19th, 2021 (Sunday) 8:00-12:30 (GMT+8:00, BEIJING)**

**Tencent Meeting**

**Meeting ID: 576 947 887**

**Join conference via weblink**

**<https://meeting.tencent.com/dm/qUDF9pyyP60d>**

December 17th, 2021, Friday	14:00-14:10	Open Ceremony
	14:10-14:50	Keynote Speech I Prof. Thomas Blaschke
	14:50-15:30	Keynote Speech II Prof. Xiaodong Liu
	15:30-16:00	Keynote Speech III Prof. Andrii Bieliatynskiy
	16:00-16:30	Keynote Speech IV Prof. Hui-Mi Hsu
	16:30-17:00	Keynote Speech V Prof. Shuisen Chen
	17:00-22:00	Oral Presentation

December 18th, 2021, Saturday	8:00-12:30	Oral Presentation
	14:00-22:00	Oral Presentation
December 19th, 2021, Sunday	8:00-12:30	Poster Presentation

# 会议日程

2021年12月17日, 周五 14:00-22:00 (GMT+8:00, 北京时间)

2021年12月18日, 周六 8:00-22:00 (GMT+8:00, 北京时间)

2021年12月19日, 周日 8:00-12:30 (GMT+8:00, 北京时间)

腾讯会议

会议 ID: 576 947 887

点击链接入会, 或添加至会议列表

<https://meeting.tencent.com/dm/qUDF9pyyP60d>

2021.12.17 星期五	14:00-14:10	开幕式
	14:10-14:50	主讲人演讲 I Prof. Thomas Blaschke
	14:50-15:30	主讲人演讲 II Prof. Xiaodong Liu
	15:30-16:00	主讲人演讲 III Prof. Andrii Bieliatynskyi
	16:00-16:30	主讲人演讲 IV Prof. Hui-Mi Hsu
	16:30-17:00	主讲人演讲 V Prof. Shuisen Chen
	17:00-22:00	口头报告
2021.12.18 星期六	8:00-12:30	口头报告
	14:00-22:00	口头报告

2021.12.19 星期日	8:00-12:30	海报展示
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**PS:**在线会议时间上不能精确控制，参会人员请一直在线（特别是需要演讲的人员，在指定人员演讲之间，组委会短信和邮件通知）

## Open Ceremony (December 17th, 2021 14:00-14:10)

### Keynote speakers

Time Converter: <https://www.timeanddate.com/worldclock/meeting.html>

Beijing (China - Beijing Municipality) Friday, December 17th, 2021 14:10-14:50

Salzburg (Salzburg, Austria) Friday December 17th, 2021, 7:10AM-7:50AM

### Keynote Speaker I



#### **Prof. Thomas Blaschke, University of Salzburg, Austria**

**Biography:** His research interests include methodological issues of the integration of GIS, remote sensing and image processing also with aspects of participation and human-environment interaction. Prior positions comprise several lecturer, senior lecturer and professor positions in Germany, Austria and the UK as well as temporary affiliations as guest professor and visiting scientists in Germany and the US including about 115 journal publications. He is author, co-author or editor of 17 books, received several academic prizes and awards including the Christian-Doppler Prize 1995 and was elected as a corresponding member of the Austrian Academy of Sciences in 2015. He has been and is project leader in various international and national research projects and serves on various editing boards of international journals, conference committees and for a dozen national research councils.

**Speech Title:** Digital Earth: from a Concept to High Precision Digital Twins of the Earth

**Abstract:** Earth observation (EO) data – including satellite-borne, airborne or drone-based imagery - help to understand flows of rivers, how weather and climate conditions or to model future conditions and events. EO and Geoinformatics play a critical role in observing and understanding our environment and, ultimately, our lives. A metaphor and framework is the vision of “Digital Earth”. I will elucidate recent initiatives and conceptual frameworks for digital twins of the Earth. Such digital twins aim to create an interactive model of the Earth, which arises from the integration of individual models that accurately reflect diverse physical aspects of our planet and orchestrate reliable information about past, present, and future changes in the Earth system. The underlying models are based on measurements and observations while being complemented with state-of-the-art analytical techniques such as artificial intelligence (AI).



## Keynote Speaker II

Time Converter: <https://www.timeanddate.com/worldclock/meeting.html>

Beijing (China - Beijing Municipality) Friday, December 17th, 2021 14:50-15:30

Edinburgh (Edinburgh, UK) Friday December 17th, 2021, 6:50AM-7:30AM



### **Prof. Xiaodong Liu, Edinburgh Napier University, UK**

**Biography:** Xiaodong Liu is a Professor in the School of Computing, Edinburgh Napier University, UK. He received his PhD in Computer Science from De Montfort University and joined Edinburgh Napier University in 1999. He received his MSc in Information Systems, Renmin University of China in 1991 and his BEng in Software Engineering, Xi'an Jiaotong University in 1988. He is currently leading the Intelligence-Driven IoT and Smart Systems research group in Edinburgh Napier University. Prof Liu is an active researcher in software engineering with leading expertise, focusing on its emerging themes including smart pervasive systems (Internet of Things), Cyber-Physical Systems, software architecture, microservices, semantic data modelling and analysis, quantum software engineering. He has led 12 externally funded projects as the Principal Investigator, and published 150 papers in many top-tier international journals and established international conferences and 5 book chapters. He is the inventor of 1 patent registered in UK and USA and the founder of a spin-out company. He has been the chair or co-chair of a number of IEEE International Conferences. He is the associate editor of 1 international journal, the editorial board member of 4 international journals, editor of 3 research books and 5 journals special issues. He is a senior member of IEEE Society and a member of ACM and British Computer Society.

**Speech Title:** Challenges in the Next Generation IoT and Context-Active Resilience in Cyber Physical Systems

**Abstract:** Cyber-physical systems (CPS) refer to novel hardware and software compositions creating smart, autonomously acting devices, enabling efficient end-to-end workflows and new forms of user-machine interaction. A resilient CPS system is one that maintains state awareness and an accepted level of operational normalcy in response to disturbances, including threats of an unexpected and malicious nature. Due to its interdisciplinary and sophisticated nature, although resilience is critically desired in CPS, existing approaches and tools are only able to support limited resilience in a non-dynamic manner, i.e., fail to consider and respond to a comprehensive profile of the current states and needs of the devices and human users, which are always dynamically changing during the running of a CPS. We define such a profile as the context of a CPS, and advocate that a CPS should adapt itself actively and even proactively for the optimal functions and Quality of Services (QoS) according to this dynamic context. This is a new level of resilience, which has not been aimed at by previous work, and we define it as “Context-Active Resilience (CAR)”. We aim to develop a novel approach to context-active resilience in CPS, which ensures the best matching and optimal

functions and QoS of the CPS in real-time during the running of the CPS.

## Keynote Speaker III

Beijing (China - Beijing Municipality) Friday, December 17th, 2021 15:30-16:00



### **Prof. Andrii Bieliatynskiy, North Minzu University, Ukraine**

**Biography:** Prof., Hb.-Dr. Bieliatynskiy Andii, Date of birth: December 24, 1970. Nationality: Ukrainian.

He has graduated with a distinction from the Kyiv Automotive-Road Institute on the specialty "Highways and Airfields" (1988-1993). On completion of the Institute he worked as a road master of Gaivoronskyi district road -repair-building area. From 1993 to 2004 he worked at the National Transport University:

as a graduate student (1993-1996), Senior Researcher (1996-1999), as a person working for Doctor's Degree of the Chair of Bridges and Tunnels (1999-2004). Since 2004 to 2020 Mr. Bieliatynskiy has been working at the National Aviation University: as a Prof. of the Chair of Airports and Motorways Reconstruction (2004-2008); since 2008 to 2020 he heads this Chair, being simultaneously Deputy Director on Science of the Institute of Municipal Economy (2006-2008), Acting Director of the Institute of Municipal Economy (2008). Since 2009 to 2020 he has been taking up the position of a Deputy Director on Science of the Institute of Airports of the National Aviation University.

Mr. Andrii Bieliatynskiy is a Prof. of the North Minzu University (2020), Yinchuan, Ningxia-Hui Autonomous Region, People's Republic of China, academician of the Ukrainian Academy of Civil Engineering (2020), academician of the Transport Academy of Ukraine (2003), academician of the Engineering Academy of Ukraine (2008), honorary road worker of Ukraine (2008). Expert of the Thousand Talents Program in China. Honorary Prof. of Yinchuan University (China), honorary Prof. of Northwestern Polytechnic University (China), honorary Prof. of Harbin Institute of Technology (China), honorary Prof. of Shandong Transport University (China), member of an International Association of Specialists of Industrial Hydraulics and Pneumatics, Doctor of Engineering Sciences (2005). Awards: Insignia of the Institute of Ecology and Design of the National Aviation University (2005), a breastplate the "Honoured Road-worker of Ukraine" (2008), a Medal "For Zealous Labour"(2009), Big Silver Medal of the Ukrainian Academy of Civil Engineering (2014), Medal "Distinction of friendship between China and Ukraine, 70 years of formation of the people's Republic of China" (2019).

**Speech Title:** Hydrological Investigation of Bridge Passages by Using of Remote Earth Sounding.

**Abstract:** The thesis is relevant to a problem of use space shooting and airborne techniques for hydrological survey of bridge passages. There has been developed a new valid approach to hydrological survey of bridge passages, based on use of remote Earth sounding methods, which are accomplished from an artificial satellite, an airplane or another aircraft. The GIS of drain process have been elaborated using space information for the purpose of the overall

estimation of surface run-off conditions, study drainage network and storage basins characteristics as well as impound flood-lands forecasting and prevention. The high trustworthiness of identification of objects, engineering constructions, drainage network elements and under flooding boundaries is reached at photo interpretation. The remote sounding from an airplane can be used successfully for determination of the calculated probabilistic values such as levels, water consumption, streams rates, stream jets directions, quantity and structure of solid material transferred by water flow, river-bed modification. The functional dependence for determination of the overall and local values of offshore motion of sediments, backwater etc. on basis of aerial photography has been developed by means of a bridge passage GIS. The schemes for realization of aerial hydrometric measurements have been elaborated.

## Keynote Speaker IV

Beijing (China - Beijing Municipality) Friday, December 17th, 2021 16:00-16:30



**Prof. Hui-Mi Hsu, National Dong Hwa University and National Ilan University, Taiwan**

**Biography:** 2017 — Now Vice President

2016 — Now Dean of general Affairs, National Dong Hwa University

2016 — 2020 Guest Professor, Southwest Jiatong University, Chengdu, China

2015 — 2016 Dean of Engineering School, National Ilan University

2015 — 2017 Chairman of Honor, Eastern Taiwan Dept., Construction Management Association

2015 — 2018 Guest Professor, Xidian University, Xi`an, China

2014 — 2016 Chairman, Sustainable Development Committee, Chinese Institute of Civil and Hydraulic Engineering

2014 — 2015 General Consultantl, National Ilan University

2014 — 2016 Chairman, Eastern Taiwan Dept., Chinese Institute of Civil and Hydraulic Engineering

2010 — 2015 Chairman, Eastern Taiwan Dept., Construction Management Association

2007 — 2008 Visiting Professor, Yantai University, Shandong, China

2007 — 2014 Chairman, Institute of Sustainable Development Engineering

2006 — 2008 Director, Chinese GIS Association

2006 — 2009 General Consultant, Yilan County Government

2005 — 2008 Chairman, Yilan Information Software Association

2002 — 2006 Chairman, Eastern Taiwan Dept., Chinese Institute of Civil and Hydraulic Engineering

2002 — 2005 Dean of General Affairsl, National Ilan University

**Speech Title:** Study on Permeability and Micro-structures of Non-cement Blended Composites

**Abstract.** This study aimed to conduct in the mixture of non-cement blended materials using the combination of CFB co-fired fly ash and ground-granulated blast furnace slag without alkali activator. The effect of water/binder ratio, fly ash content and slag content on mechanical properties and microstructures has investigated. Test methods include flowability, compressive strength, absorption, non-steady-state chloride migration test, x-ray diffraction analysis (XRD) and scanning electron microscope observation were performed and analyzed. The results indicated that the compressive strength of non-cement fly ash/slag blended mortar is similar to that of ordinary Portland mortar. The specimens using 50% co-fired fly ash combined with 50% slag reflected completely hydration and had highest compressive strength up to 38 MPa as well as lower coefficient of chloride diffusion. XRD results expected that  $\text{Ca}(\text{OH})_2$  reacted with  $\text{SiO}_2$  or  $\text{Al}_2\text{O}_3$  to form C-S-H or C-A-S-H colloids, which was a major source of strength development in the non-cement blended materials. Being able to utilize industrial by-products in production of non-cement blended materials is significant in giving alternatives in the conservation of construction raw materials.

## Keynote Speaker V

Beijing (China - Beijing Municipality) Friday, December 17th, 2021 16:30-17:00



### **Prof. Shuisen Chen, Guangdong Academy of Sciences, China**

**Biography:** Dr. Shuisen Chen is a remote sensing expert and geographer with expertise in remote sensing of environment and precision agriculture. He is appointed as Deputy Chairman of the Environmental Remote Sensing Branch of the China Remote Sensing Application Association. He predominantly works in estuary and coast, and on water quality of rivers and reservoirs, and crop growth monitoring and nutrient remote sensing. His research focuses on remote sensing inversion of surface parameters and analysis of environment process and effects using remote sensing Big Data. He is appointed as doctoral Supervisor in Chinese Academy University of Sciences, Chief Expert of "Remote Sensing Big Data and Precision Agriculture" of Guangdong Modern Agricultural Industry Technology System Innovation Team, Guangdong Province Overseas High-level Talents (Having worked or as senior research Visiting Fellows in the United States and United Kingdom). He has hosted more than 30 national, provincial and ministerial-level research projects (15 key projects), published more than 100 papers (more than 60 in SCI / EI indexed publications), won 2 provincial-level scientific and technological progress second prizes. He has served as project review experts of national funds, Talents and journals for many years.

**Speech Title:** Current Situation of Global Water System Connectivity and its Evaluation

**Abstract.** Assessments of total suspended substances (TSS) are important to environmental management and risk analysis of ecosystems. In this study, we discuss the developed process of a two bands TSS remote sensing model for water quality monitoring. The model has been validated by different remote sensing sensors, such as Landsat TM, MODIS. The model has been applied in estuaries and coasts of United States and China including water bodies with different turbidities. The application is also produced on evaluation of water quality effects on Chinese White Dolphin habitat in Pearl River Estuary and coral reef in southwest of Leizhou peninsula of south China.

## Session #1 List of Keynote Speech:

(40 mins for every Keynote Speech)

December 17th, 2021 14:10—17:00

<b>Session #1</b>	<b>Time</b>	<b>Speech Title</b>	<b>Keynote Speaker</b>
<b>Keynote Speech I</b>	14:10-14:50	Digital Earth: From a concept to high precision digital twins of the Earth	Prof. Thomas Blaschke
<b>Keynote Speech II</b>	14:50-15:30	Challenges in the Next Generation IoT and Context-Active Resilience in Cyber Physical Systems	Prof. Xiaodong Liu
<b>Keynote Speech III</b>	15:30-16:00	Hydrological investigation of bridge passages by using of remote Earth sounding	Prof. Andrii Bieliatynskyi
<b>Keynote Speech IV</b>	16:00-16:30	Study on Permeability and Micro-structures of Non-cement Blended Composites.	Prof. Hui-Mi Hsu
<b>Keynote Speech V</b>	16:30-17:00	Current Situation of global water system connectivity and its evaluation	Prof. Shuisen Chen

## Session #2 List of Oral Presentation:

(10 min presentation and 5 min question time)

December 17th 17:00—22:00

Session #2	Time	Paper Title	Author
G367	17:00-17:15	Wheat Powdery mildew ( <i>Blumeria graminis</i> f. sp. <i>tritici</i> ) Estimation with In-Situ Hyperspectral Data Based on Random Forest	Jinling Zhao, Hao Yan, Guomin Chu, Lei Hu and Linsheng Huang
G371	17:15-17:30	Fishing Ground Forecasting Model of Yellowfin Tuna in the South Pacific based on XGBoost Algorithm	Cong Zhang, Weifeng Zhou and Wei Fan
G1107	17:30-17:45	Technological Innovation, Technology Import and Green Economic Growth in the Yangtze River Economic Belt	Shuguang Liu, Lei Song and Baojie Yang
DE1100	17:45-18:00	An Evaluation of the Environmental Kuznets Curve of Water Desalination Technology Development on Environmental Pollution in Iran	Soniya Falahatdoost, Xingping Wang and Hiva Asadikia
Q1147	18:00-18:15	Effect of Parameters in Porous Medium Evaporator on the AGDD Performance	Peng Xu, Ping Wang, Xuan Zhang, Jie Ma and Yuyan Hou
D216	18:15-18:30	Study on Microwave Treatment of Nitrate in High Concentration Wastewater	Shuguang Li, Zijing Wang, Shixiang Lu and Wenguo Xu
D221	18:30-18:45	Aquatic Ecosystem Health Assessment of the Zhangweinan Canal	Miaomiao Yang and Zhilin Li



D222	18:45-19:00	Evaluation and Suggestions for "Three-waters" System of Zhuozhang River	Zhilin Li and Miaomiao Yang
D219	19:00-19:15	A Research About the Overall Evaluation of Implementation of Current National Marine Functional Zoning in China	Linzhe Liu, Qinglin Zhu, Nanan Liu, Qi Yue and Taitian An
G362	19:15-19:30	Multi-Pose Image Recognition of Smoke Box Based on Neural Network	Shunkai Sun, Jie Li, Qi Xu, Yizhen Lin, Weilin Cao, Xue Shen and Haobo Cui
G369	19:30-19:45	Application of the Multisensor Integrated Measurement System in Island Surveying and Mapping	Jie Li, Qiuhua Tang, Changda Liu, Zhengyang Wang and Yanguang Fu
G382	19:45-20:00	Improvement and Study of Ant Colony Algorithm in Smart City	Yijing Huang, Bin Yang, Lin Zhou, Guangming Xiang, Zhigang Wu and Jianjun Wu
Z529	20:00-20:15	A Source Tracing System of Tobacco Based on Alliance Chain	Xi Qu, Huiying Zheng and Baohua Huang
Z540	20:15-20:30	Construction and Optimization of Regional Intelligent Agriculture Integrated Platform Model Based on Platform Economy Theory and Computer Application Technology	Mengtian Zhang and Zhiqiang Luan
Z1106	20:30-20:45	Research on Motion Planning Algorithm of Minimum Attitude Disturbance for NRFFSR	Huazhong Li and Yanbing Zhou
N1170	20:45-21:00	The Rules and Studies in Design Pattern	Yuxuan Wang and Yue Wu

N1183	21:00-21:15	The Forecasting of Air Quality Based on an Adaptive Multi-channel Temporal Convolution Network	Dun Ao, Yuning Yang and Fei Lei
N106	21:15-21:30	A Method for Composite Faults Diagnosis of Roller Bearing Based on SVM&VMD Blind Source Separation	Xinyong Qiao, Ying Jin and Yanbin Liu
N113	21:30-21:45	Design of Intelligent Reversing Radar System Based on Single Chip Microcomputer	Yong Wang, Fengyang Zhao, Chenyang Li and Zhiyang Gao
N119	21:45-22:00	Development and Application of Digital Management System for Smart Sheep Farm	Zhiyu Yuan, Yunhui Zhao, Zhuo Zhao, Jingliang Zhu, Yujin Wu, Geng Chen, Yiyao Cheng, Mingxin Zhang and Chunxin Wang

**December 18th 8:00—12:30; 14:00—22:00**

<b>Session #2</b>	<b>Time</b>	<b>Paper Title</b>	<b>Author</b>
A811	8:00-8:15	A Fast Attention-based LSTM Method for Ceramic Text Description Classification	Zhouren Shi
A843	8:15-8:30	Degree of Knowledge Niche Overlap in Integrated Innovation of High-tech Clusters	Guangjun Ou, Qin Shi, Lin Lei and yanqing Ke
A847	8:30-8:45	Study on Innovative Internal Accounting Supervision Practices based on Blockchain Technology	Shipeng Yang and Bin Gu
DE1106	8:45-9:00	Effect of Termite Passageways on Water and Salt Transport in NaCl-laden Soil Barrier of An Earth Dam	Ying Li and Dongzi Pan
DE1115	9:00-9:15	Water Allocation Performance Evaluation through the Entropy TOPSIS: A Case Study from the Yellow River	Yuxin Chen and Hashim M
DE1120	9:15-9:30	Sustainable Three-dimensional Agricultural Irrigation Model for Water Resources in the Xilingol League	Xi Zhou, Yajing Li and Dexiang Deng
DE1129	9:30-9:45	A High-order Nonlinear Discrete Scheme for the Rosenau-Burgers Equation	Boyu Fan, Ling Yu and Yixiu Zhao
DE1138	9:45-10:00	A New Implicit Discrete Scheme for the Rosenau-Kawahara-RLW Equation	Ling Yu, Boyu Fan and Xueyan Pan
DE1122	10:00-10:15	Water Quality Protection of Baiyangdian based on Reed Culture Inheritance and Innovative use of Resources	Xi Zhou, Xiaoqing Guan and Dexiang Deng
DE134	10:15-10:30	Research on Green Building Construction Technology of Huangshan Century Square with Hot Summer and Cold Winter	Weishu Zhao and Yuting Chen

DE135	10:30-10:45	Research on Application Technology of Renewable Energy Buildings in Hefei	Weishu Zhao and Weixiang Zhao
IT153	10:45-11:00	Automatic Low-cost Water Level Indicator for Tanks and Hand Washing Water Dispensers in Kitui; Kenya during the Covid 19 Pandemic	Juma Mary Atieno and Sammy Kuya
S437	11:00-11:15	Impact of Climate Change on Planting Structure-Based on a Survey of 320 Villages in 9 Provinces in China	Yanrong Li, Hongbo Deng, Lizhen Xue, Jia Zang, Lijun Bo and Rong Yang
S447	11:15-11:30	Rice Blast Identification Based on Deep Convolution Neural Network and Transfer Learning	Lin Li, Baoguo Shen, Jinyue Dai and Xinhua Wei
M394	11:30-11:45	Stress Fields of Centre Cracked Anisotropic Plate	Yongyong Suo, Purong Jia and Gang Wang
B157	11:45-12:00	Research on Adaptive 10kV Main Transformer Auto-Switch-on Device	Xinhai Li, Haixin Luo, Dehe Fan, Heng Zhou and Yongyin Lu
B158	12:00-12:15	Research on Auto-Switch-on Device Strategy for Ring Connection of Single-bus and Double-section Four-section Bus Bar	Xinhai Li, Tianyi Qiu, Dehe Fan, Haixin Luo and Lingcheng Zeng
B159	12:15-12:30	Research on Standby Automatic Switching Strategy of Three-section Ring Connection in 10kV Single-Bus	Xinhai Li, Xing Xiao, Xiongfeng Lin, Chenxu Meng and Heng Zhou
D210	14:00-14:15	Risk Assessment of Debris Flow in a Valley of the Upper Yellow River Based on Entropy Method	Wenjuan Chang, Shuwu Li, Biyang Wang, Yaocheng Lv, Furong Zhang and Chenhui Yao

D215	14:15-14:30	Research on Carbon Emission Reduction Strategy for Fresh Food Online Supermarket Based on System Dynamics Model under Carbon Emission Peaking	Zhenyu Wu and Yongqiang Shi
G368	14:30-14:45	Development of A Smart Sanitation Big Data Monitoring Platform Based on GIS+IOT	Tianping Bi and Xue Zeng
G370	14:45-15:00	Research on Intelligent Creation and Splitting Technology of Precast Slab Based on Revit	Tianping Bi and Xiaowei Zhao
G376	15:00-15:15	Research on the Simulation of Cell Action Potential based on Ion Channel	Qing Zhang, Cui Zhang, Fang Dong, Guangchun Gao and Yuanyuan Wang
G377	15:15-15:30	Attention Detection Based on YoloV3	Pengfei Song, Lina Shang and Yuanyuan Wang
G378	15:30-15:45	A COST-Based Atmospheric Correction Algorithm Applied to Landsat-8 OLI Imagery	Jun Yu, Yan Fang, Sijia Zhang and Jinling Zhao
G379	15:45-16:00	Solving for Environment Management Model of Cleaner Production Assessment	Li Yu and Hui Wang
G380	16:00-16:15	Overview of Algorithm Development of Active Contour Model	Yong Hou, Jian Fang, Shan Qiao, Kai Xiong and Cui Zhang
G381	16:15-16:30	On the Temporal and Spatial Distribution of Ancient Buildings in Mainland China	Fangxin Ouyang
G387	16:30-16:45	Cigarette Contour Detection and its Application based on L-CNN Model	Lu Haihua, Chen Sixiao, Sun shunkai and Cao Weilin
G388	16:45-17:00	Research on the Air Volume Balance Control System in the Wind Wire Feeding System Based on Fuzzy RBF	Haihua Lu, Shunkai Sun, Weilin Cao, Sixiao Chen and Yiteng Hu

G389	17:00-17:15	Mechanical Evolution Mechanism of Deformation and Failure of Roof Surrounding Rock in Stope with Variable Length of Low Permeability Thick Coal Seam	Xinfeng Wang, Zhaofeng Wang, Rui Wei and Youyu Wei
G390	17:15-17:30	Design of Motor Speed Regulation System Based on PID Algorithm	Hui Long, Jiabao Xu, Hui Chen and RuHua Lu
G391	17:30-17:45	Research on Control Strategy Based on LED Light Output Characteristic	Jingwei Fei, Mo Zhang and Feiling Yang
G392	17:45-18:00	Micro-architecture Side Channel Detection for ARM/INTEL Platform	Wenlu Li, Zhen Wu, Chunling Xiang, Zhibo Du and Min Wang
G393	18:00-18:15	Recruitment Data Analysis Platform Based On Web Crawler	Ruhua Lu, Shuangwei Wang, Jie Kuang and Hui Long
Q1921	18:15-18:30	Research on Development Characteristics of Oil Layer Fractures	Ming Yan
Q1922	18:30-18:45	Hydrocarbon Accumulation Conditions Analysis of Volcanic Rock in Xuxi Slope Belt of Xujiaweizi Fault Depression	Jiajun Liu
Q1923	18:45-19:00	Characteristics and Genetic Mechanism of Pyroclastic Reservoir in Hailar Basin	Haibo Wu
Q1807	19:00-19:15	Source System Analysis of Shahezi Formation in Xuxi-xunan Area of Xujiaweizi Depression	Qi Wang, Axiang Sun and Hongzhi Liu
Q1858	19:15-19:30	Alternative Injection Cycle Optimization of Polymer Flooding in Reservoirs with Different Permeability Ratio	Han Jing

Q1860	19:30-19:45	Analysis of Typical Sand Body Types and Sand Control Mechanism in Chagannuoer Depression, Hailar Basin	Huaye Liu
Q1865	19:45-20:00	Genesis of High Tuffaceous Clastic Reservoir in Oil Rich Sag of Central Hailar Basin and its Significance for Petroleum Exploration	Yue Zou
Q1903	20:00-20:15	Ground Simulation Test Method of Spacecraft Exterior Materials Exposed to Space Energetic Particles	Yu Li, Qizheng Jia, Zicai Shen, Yi Li, Yue Wang, Pingbing Zuo and Shijin Wang
Q1904	20:15-20:30	The Influence of the Space Radiation Environment Model Uncertainty on the Solar Absorption Evaluation of ACR-1 White Paint	Kunbo Xu, Qizheng Ji, Zicai Shen, Yanqi Hu, Yue Wang, Pingbing Zuo and Shijin Wang
Y192	20:30-20:45	Large Deviations Fluctuations of the Stochastic Delay Mosquito Population Model	Yuanquan Tao
Y200	20:45-21:00	Personal MicroLoan Evaluation Research Based on Deep Learning	Jiayue Zhang
Z541	21:00-21:15	Non-stationary Online Learning by Combining Incremental Discretization and Incremental Clustering	Qinyuan He and Hualong Yu
Z543	21:15-21:30	Discontinuous Deformation Analysis of Underground Powerhouse of Pumped Storage Power Station	Jianyong Li, Cong Cheng, Jianglong Guo and Haining Liu
Z544	21:30-21:45	Structural Dynamic Analysis Based on Meshless Galerkin Method	Shuyang Feng, Jianhui Si, Jiebin Chen, Shixiong Qiu and Yao Guo

Z545	21:45-22:00	Machine Learning Classification Prediction Based on Weighted Kernel Principal Component Analysis Dimension Reduction Algorithm	Wenbo Liu, Shengnan Liang, Zaijun Zhang, You Chang and Xiwen Qin
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## Session #3 List of Poster Presentation:

December 19th 8:00—12:30

(10 min presentation)

Session #3	Time	Paper Title	Author
DE132	8:00-8:10	Released Effect of Reflux on Inhibition of Free Ammonia and Free Nitrous Acid in the Anammox Process	Weiqliang Wang, Jinghai Zhu, Deqi Xiong, Yang Su, Yehui Li and Jinxiang Fu
S406	8:10-8:20	Paleoenvironment and climate in late Pleistocene Between Class II - III Terraces of the Ake River in Western Sichuan	Ting Zhu, Zhenjing Yang, Yongqiang Yang, Sensen Guan and Yuting Zhu
D217	8:20-8:30	The Developmental Potential of Marine Fishery Carbon Sinks may be Overestimated	Shoubing Wang
G366	8:30-8:40	Multifield Coupled Mud-Shale Rheological Model	Ping Wang, Tianli Gu, Jiayong Fan, Hai Huang, Zhan Qu, Qiang Han and Zongxiao Ren
G373	8:40-8:50	Neural Development Network and The Fashion Industry	Jingyu Dai, Yutong Xie and Xiangyu Dai
G383	8:50-9:00	A DEM-based Approach for Road Earthwork Volume Calculation of Wind Power Plant in Mountainous Area	Yongzhi Zhang, Xingyang Ye, Ling Long, Delu Tan, Jitao She, Lei Shu, Zhaohu Zhang and Qiuwen Zhang
N1134	9:00-9:10	Review on Intellectual Property Protection of Neural Network Models	Tian Ma, Yan Yang and Huimin Zhao

N1139	9:10-9:20	A Novel Matrix Model for Calculation of the Oil-Bearing Ratio in Rock Samples Using CUDA	Yunheng Yi, Chaoqun Zhang, Wenjuan Zhou, Wenwu Liu and Weidong Qin
N1151	9:20-9:30	Consumer Word-of-Mouth Forecasting of Brand Agriculture Products: Comparing Multiple Machine Learning Approaches	Xiaoping Zheng, Qiuyi Huang, Mengjie Zhang and Xiaoshuan Zhang
N1164	9:30-9:40	Design of Garment Color Change System Based on Improved Boundary Distance Transformation	Yiying Wang, Lvfang Jin, Chenghua Fan, Bingbing Chen, Doudou Chai and Gang Chen
N104	9:40-9:50	Assessment of Stroke Motor Dysfunction Based on Resting State Functional Connectivity in the Prefrontal Cortex	Richong Pang, Dan Wang, Hucheng Chen, Jianbin Liang, Kecheng Yan, Jinyan Sun and Aoran Yang
N105	9:50-10:00	Remote Sensing Image Enhancement Based on Gradient and Intensity Entropy Histogram and Discrete Cosine Transform	Tieqiao Chen, Haiwei Li, Xiuqin Su, Xiangpeng Feng, Jia Liu and Yihao Wang
N115	10:00-10:10	Image Captioning Algorithm with Integrated Spatial Attention Mechanism	Tuanshan Zhang, Ya Liu and Enzhi Wang
N116	10:10-10:20	Fabric Surface Defect Detection Using SE-SSDNet	Tuanshan Zhang, Enzhi Wang and Ya Liu
A842	10:20-10:30	Research on Follow-up Management Information System Based on Data Mining	Zhibiao Li, Mincai Jiang, Huayong Zhao and Chunhua Liao

A841	10:30-10:40	Ensemble Clustering Based on Density Peaks and Micro-clusters	Chen Yan, Youlong Yang and Tong Ning
A1137	10:40-10:50	Xiong'an New Area Freight Subway Design by the Information Age Design	Zesong Wei, Shicun Sun, Zhaochen Sun, Chang Sun and Haoyu lan
Z1188	10:50-11:00	Fairness Resource Allocation Based on Delayed CSI in Vehicular Communication	Like Wang, Zhuangzhuang Li, Chunyue Wang, Leizhen Huang, Ziling Shi and Taohan Sun
N1142	11:00-11:10	Study on the Mathematical Model of Ice Regime by Water Temperature Regulation in the Middle Route of South to North Water Diversion Project	Haijing Zhao, Xuezhi Liu, Jun He and Minghai Huang
N1197	11:10-11:20	An Intelligent Approach Considering Parameters Uncertainty in Pollution Source Identification	Fei Lei, Jiahao Ou and Shuhan Li
N128	11:20-11:30	A General Distributed Expansion Method of Industrial Time Series Database	Chun Zhou, ShuSong Jiang and ShaoLei Wang
N129	11:30-11:40	Web Page Content Extraction Algorithm Based on Weighted Row Block Distribution Function	Bingyan Wang, Mengli Dai and Shengnan Zhang
N130	11:40-11:50	On Opening Healthcare Data Integration Solution Using Prolog	Wei Wang, Xufeng Jiang, Jing Chen, Yanan Yu and Ruofan Wang
N131	11:50-12:00	Research on the Image Recognition of Garment Patterns Based on Invariant Moments	Xiaohe Qin, Zhengdong Liu and Boxiang Xiao

N132	12:00-12:10	Chinese Medical Question and Answer Matching Model Based on MultiCNNs and Sequence Inference	Qian Tang, Chunlong Yao, Xu Li and Lan Shen
N143	12:10-12:20	Research on China's Population Problem and Economic GDP on Regression Model and Granger Causality Test	Chun-Te Lee, Zheng Tao, Meili Liu and Jeng-Eng Lin
G394	12:20-12:30	Construction and Experimental Simulation of Home Environment Monitoring System	Ruhua Lu, Benxin Zhou and Wenfen Zhang

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