

2021 International Conference on Culture-oriented Science & Technology (ICCST 2021)

ICCST 2021 Program

Nov. 19, 2021

Time	Program
9:00-9:10	Opening Ceremony
9:10-9:40	Keynote Speaker: Dongdong Weng, Professor, Beijing Institute of Technology Title: TBA
9:40-10:10	Keynote Speaker: Pei-Yu Guo, Professor, Academy of Broadcasting Science, National Radio and Television Administration Title: AI for Animation: Opportunities and Challenges
10:10-10:40	Keynote Speaker: Chunshui Wang, Associate Professor, Beijing Film Academy Title: Digital Twin for Large-scale Events
10:40-11:10	Keynote Speaker: Chien Aun Chan, Honorary Fellow, The University of Melbourne Title: Towards an Effective and Safe Edge Computing System for Next Generation Media Content Delivery
11:10-11:40	Keynote Speaker: Zhi Zeng, Associate professor, Institute of Automation, Chinese Academy of Sciences Title: Some Thoughts on the Development of Metaverse

Online platform: Tencent meeting

Time: 2021/11/19 09:00-12:00

Link: <https://meeting.tencent.com/dm/hkEzZsMUYPw>

Meeting ID: 451 336 997

ICCST 2021 Program

Session 1. Integration technology and system in the cultural field I

-- Cultural performing arts, Cultural equipment, Cultural tourism

Nov. 19, 2021, 14:00-17:00

Online platform: Tencent meeting

Time: 2021/11/19 14:00-17:00

Link: <https://meeting.tencent.com/dm/TsglOkIpc2dm>

Meeting ID: 580 5347 6320

No.	Title	Authors
1-1	Analysis and Optimization of Urban Tourism Spatial Behavior Path—Taking Nanjing City as an example	Fengping Lu, Jun Zhang and Ying Yang
1-2	Discussion on Conceptual Form of The Third Generation Camera Robot System	Jingjie He, Shitou Liu, Yixin Zhao, Qiang Liu and Yixue Dou
1-3	3D Panorama Based Scene Construction System for Digital Culture Centers	Qishun Liang, Hanxi Wang
1-4	3D-VRVT: 3D Voxel Reconstruction from A Single Image with Vision Transformer	Xi Li and Ping Kuang
1-5	Multi-Robot Cooperative Exploration Based On Geometric-Topological Scene Map	Yanqing Wang, Yongquan Li and Wenjun Lu
1-6	Research on 3D Modeling Design Scheme of Cultural Relics Based on Crowdsourcing Mode	Yanyan Guo, Huabiao Li and Yuyang Zhou
1-7	Design of Mobile Augmented Reality System Based on SLAM	Yanyan Song, Jun Qin, Lihua Dong and Ying Zhao
1-8	Calculation and simulation of loudspeaker power based on cultural complex	Zhen Li, Pengyan Ji, Lifeng Wu, Hui Ren, Yuqing Chen
1-9	Comparison of 3D Scene Construction Technologies in Virtual Tourism	Yishuxun Wang, Hanxi Wang
1-10	Relative Pose Estimation for RGB-D human input scans via human completion	Pengpeng Liu, Guixuan Zhang, Hu Guan, Jie Liu, Shuwu Zhang and Zhi Zeng
1-11	A Study of Delivery Route Optimization for Artistic Lighting Systems for Cultural Tourism in High-altitude Cold Areas at Night	Tong Li, Hanxi Wang

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Session 2. Immersion technology in the cultural field

-- AR / VR, Virtual simulation, Intelligent interaction

Nov. 19, 2021, 14:00-17:00

Online platform: Tencent meeting

Time: 2021/11/19 14:00-17:00

Link: <https://meeting.tencent.com/dm/2rCxFmdLVCLI>

Meeting ID: 440 5748 6644

No.	Title	Authors
2-1	A Study on the Application of Virtual Reality in the Marketing of Rural Cultural Tourism in Hubei Province	Chen Guo and Hanxi Wang
2-2	On the Status Quo and Application of Online Virtual Art Exhibition Technologies	Chunshu Wang, Hanxi Wang
2-3	An Augmented Reality Design Method Based on ARKit for the Fusion of Hierarchical Traditional Media and Real Scenes and real scenes	Guotong Di, Haokun Li, Jie Xu
2-4	Method for Creation of Original Music by the VR Panorama Based Virtual Instrument	Hao Wang, Hanxi Wang
2-5	Research on Finite-time Control of Motor Systems: Application to Small-scale Cultural Service Complex	Jiabin Hu, Hongjie Ni, Li-Feng Wu and Dan Zhang
2-6	Research and Realization of the Virtual Reality System of the Red Culture Exhibition Hall in Colleges	Jing Gao, Xinyu Zhou, Hongjiang Wang and Yang Gao
2-7	Evaluation of Height and Speed Effects on the Comfort of VR Motion Picture Display	Tianyi Cui, Yu Yang and Yunhai Guo
2-8	Research on the Development and Application of Virtual Reality Simulation Technology in Investigation and Research Courses	Xing Fang, Kim Un and Xi Zhang
2-9	Intelligent Yoga Coaching System Based on Posture Recognition	Xiangjie Huang, Da Pan, Yiming Huang, Junli Deng, Pengyu Zhu, Ping Shi, Ruisi Xu, Zelu Qi, Jingqian He
2-10	Investigation on the Influence of Virtual Reality Displays on People's Interaction	Yaqing Liang and Yiqi Wang
2-11	Current Status and Prospects of Mobile AR Applications	Yaxi Wang, Yuyang Wang and Zhen Fan

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Session 3. Basic service technology and Cultural communication I

-- Cultural big data, Digital copyrights services, Recommendation algorithm

Nov. 19, 2021, 14:00-17:00

Online platform: Tencent meeting

Time: 2021/11/19 14:00-17:00

Link: <https://meeting.tencent.com/dm/oLedTBCaQCVM>

Meeting ID: 645 9713 0661

No.	Title	Authors
3-1	Neural Collaborative Filtering Recommendation Algorithm Based on Popularity Feature	Cheng Zhang and Chen Li
3-2	Influence Evaluation of Network Content Resource Creation Group Based on PageRank	Feiyan Guo, Bin Cheng and Lin Qi
3-3	MovieEmotion-IMG: An Emotion Distribution Dataset of Movie Scene Images	Jingjing Zhang, Chen Lin, Chunxiao Wang, Yicong Dong and Wei Jiang
3-4	An “embedded” access mode of copyright resources in knowledge aggregation service portal	Lijuan Zhou, Xinran Zhao, Xiaoyan Fu, Zhao Wu, Baorui Mei and Gaoqing Nie
3-5	Research on the new form learning model based on knowledge services	Lijuan Zhou, Zhongju Liang, Zhao Wu, Baorui Mei and Gaoqing Nie
3-6	Research on the Innovative Application of Ancient Chinese Official Hat Cultural Elements in the Design of Daily Necessities	Nuo Pang, Jiahong Pang, Yiqi Wang
3-7	Construction of Scenic Spots Knowledge Map under the Integration of Culture and Tourism	Ying Wang, Xinyue Li, Mandie Liu, Xin Liu, Shengli Deng
3-8	Information propagation based on information value	Yu Gao and Ping Kuang
3-9	Evolutionary Game Propagation Model on Social Networks	Zeya Song, Chunling Dong and Peiyan Du
3-10	Research on Opinion Targets Extraction of Travel Reviews Based on RoBERTa Embedded BiLSTM-CRF Model	Zeyu Li, Tianhe Yu and Hao Shen
3-11	A Spread Spectrum Based Audio Watermarking Method with Embedding Positions Adaption Using Predominant Local Pulse Extraction	Shiqiang Wu, Ying Huang, Hu Guan, Shuwu Zhang and Jie Liu

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Session 4. Basic service technology and Cultural communication II

-- Cultural value mining, statistics and surveys, Recommendation algorithm

Nov. 19, 2021, 14:00-17:00

Online platform: Tencent meeting

Time: 2021/11/19 14:00-17:00

Link: <https://meeting.tencent.com/dm/CyCJ3XRK0r2m>

Meeting ID: 415 2816 4564

No.	Title	Authors
4-1	Research on the Evaluation of Program Influence Based on PageRank Algorithm	Feng Qing, Yan Wang and Yantong Zhang
4-2	Research on the Method of Cross-modal Affective Association in Audiovisual	Jian Jiang, Hua Zhang
4-3	A Price Prediction Method Based on CatBoost	Tie Wang, Yutian Wang and Mingzhe Liu
4-4	Multimodal Emotion Recognition in Deep Learning: a Survey	Xin Gu, Yinghua Shen, Jie Xu
4-5	Joint Extraction of Entities and Relations from Ancient Chinese Medical Literature	Xueting Wang, Fang Miao, Huixin Liu, Guoting Zhang and Libiao Jin
4-6	A Dynamic Classification Method of Time-Series Data Based on Multidimensional Shapelets	Yan Wang, Lingling Tian, Di Liu, Aiping Tan and Jiaqi Hu
4-7	Knowledge Graph-Based MOBA-Game Champion Recommendation	Yihong Shen, Jing Zhou and Weiguo Lin
4-8	Research on the problem of image multi-classification	Zelin Song, Xiaoyu Wu and Jiayao Qian
4-9	A Survey on Graph Neural Networks for Recommendation	Zijian Liang, Hui Ding, Wenlong Fu
4-10	Temporal Integration of Emotion Perception for Cross-Cultural and Multi-Emotion Music	Zongxia Zhang, Lingyun Xie and Zhijun Zhao
4-11	Movie Scene Argument Extraction with Trigger Action Information	Qian Yi, Guixuan Zhang, Jie Liu and Shuwu Zhang

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Session 5. Intelligent technology in the cultural field I

-- Visual intelligence, Image processing

Nov. 20, 2021, 09:00-12:00

Online platform: Tencent meeting

Time: 2021/11/20 09:00-12:00

Link: <https://meeting.tencent.com/dm/TsglOkIPC2dm>

Meeting ID: 580 5347 6320

No.	Title	Authors
5-1	Research and Development of Copyright Registration and Monitoring System Based on Digital Watermarking and Fingerprint Technology	Bowen Ning, Baoning Niu, Hu Guan, Ying Huang and Shuwu Zhang
5-2	An Improved Robust Digital Image Watermarking Algorithm based on two-level DCT	Huijuan Guo, Baoning Niu, Ying Huang, Hu Guan, Fangpeng Lan and Fei Lin
5-3	Details Enhancement In Low Contrast Region Of Inspection Image Based On Fuzzy Rough Set	Junbao Zheng, Junpeng Ji and Xiu Liu
5-4	Multi-Iterative Superpixel Segmentation based on Local brightness and darkness Information	Junbao Zheng, Sizhe Zhang and Chenke Xu
5-5	A Robust Stochastic Quasi-Newton Method with the Application in Machine Learning	Lin Wu, Tuo Shi, Yongbin Wang, Huiming Chen and Wong-Hing Lam
5-6	Image difference watermarking algorithm based on Contourlet high frequency region	Xiaomei Zhang, Hu Guan, Ying Huang and Shuwu Zhang
5-7	Analysis on Impact Force of Rhythmical Body Movement on Temporary Spectator Stand	Yitu Huang, Mengqi Jin, Jiahui Wei, Shuailong Yang, Jiale Li, Jian Feng, Hanxi Wang
5-8	A Movie Score Prediction Model Based on XGBoost Algorithm	Yiying Wang, Zhe Yan and Lidong Xing
5-9	Establishment of Chinese Speech Emotion Database of Broadcasting	Zhongwen Tu, Bin Liu, Wei Zhao and Baoyu Cao
5-10	A Robust video watermarking approach based on QR code	Zhuojie Gao, Zhixian Niu, Baoning Niu, Hu Guan, Ying Huang and Shuwu Zhang
5-11	A Survey on Original Video-based Watermarking	Zhongze Lv, Hu Guan, Ying Huang and Shuwu Zhang

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Session 6. New technologies and services in web culture

-- Media convergence, Network audiovisual, Knowledge services

Nov. 20, 2021, 09:00-12:00

Online platform: Tencent meeting

Time: 2021/11/20 09:00-12:00

Link: <https://meeting.tencent.com/dm/2rCxFmdLVCLI>

Meeting ID: 440 5748 6644

No.	Title	Authors
6-1	Subjective Evaluation and Objective Analysis of Timbre Fusion of Chinese and Western Musical Instruments	Jingyu Liu, Can Ran, Yuqu Chen, Huiling Xiang, Jiayu Lin, Yongzhan Huang and Wei Jiang
6-2	Perceptual Attribute Analysis of Objective Acoustic Parameters of Musical Instrument Timbre	Jingyu Liu, Yuqu Chen, Can Ran, Yongzhan Huang and Wei Jiang
6-3	Research on Soundscape of Urban Tourism Based on Acoustic Ecology	Jun Zhang, Fengping Lu and Ying Yang
6-4	An Improved Spectrum Allocation Algorithm Based on System Throughput Maximization	Naiqian Zhang, Qichun Liao and XinJian Wang
6-5	Non-parallel and Many-to-One Musical Timbre Morphing using DDSP-Autoencoder and Spectral Feature Interpolation	Yi Zou, Jingyu Liu, Wei Jiang
6-6	Chinese Musician Playlist Co-occurrence Network of Power-Law Distribution	Yuanke Li and Yizhen Cao
6-7	Design and Realization of Dialect Interaction System Based on VAD	Zixin Liu, Ling Lei, Xinyu Huang, Xinyu Li and Hongjian Liu
6-8	Sentiment Analysis of Comment Texts on Converged Media Platforms based on BERT Model	Haifeng Liang, Baihui Tang and Sanxing Cao
6-9	Data-driven Construction of Rural Persona Based on Text Mining and Knowledge Association	Xi Zeng, Jiang Wu and Zheng-Hao Liu
6-10	Metafunction Analysis of Net Language	Xia Sun, Rui Zhao and Yifan Gong
6-11	Named Entity Recognition of traditional architectural text based on BERT	Yifu Li, Wenjun Hou and Bing Bai

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Session 7. Intelligent technology in the cultural field II

-- Visual intelligence

Nov. 20, 2021, 09:00-12:00

Online platform: Tencent meeting

Time: 2021/11/20 09:00-12:00

Link: <https://meeting.tencent.com/dm/oLedTBCaQCVM>

Meeting ID: 645 9713 0661

No.	Title	Authors
7-1	Improved Semantic-aware StyleGAN-based Real Face Editing Model	Fangxin Wang, Xianliang Wang and Fanjun Meng
7-2	Visual Saliency Detection Based on Frequency Band Compensation	Gongxun Huang, Zhijun Zhao and Lingyun Xie
7-3	Full-Reference Video Quality Assessment Based on Spatiotemporal Visual Sensitivity	Huiyuan Fu, Da Pan and Ping Shi
7-4	Video Retrieval based on CNN Feature and Scalar Quantization	Junlin Che, Guixuan Zhang and Shuwu Zhang
7-5	An Improved Efficient Convolutional Neural Network for Weed Seedlings Detection	Mengqiu Dou, Zhiguo Hong and Minyong Shi
7-6	Rural Scenic Spots Retrieval through Deep Learning Picture Information	Pei Chen, Jiang Wu and Qian Wang
7-7	An Inverse Tone Mapping Algorithm Based on Multi-scale Dual-branch Network	Tianyu Chen and Ping Shi
7-8	Health rumors detection based on deep learning	Wei Zhao, Qian Zhan and Yu Yan
7-9	A Pointer Instrument Reading Approach Based On Mask R-CNN Key Points Detection	Xiaolong Wang, Junyan Chen and Huyong Wang
7-10	Dynamic Imitation Learning Algorithm Based on Surrounding Vision	Yanqing Wang, Ruyu Sheng and Xu Zhao
7-11	Lightweight Image Super-Resolution via Dual Feature Aggregation Network	Shang Li, Guixuan Zhang, Zhengxiong Luo, Jie Liu, Zhi Zeng and Shuwu Zhang

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Session 8. Basic service technology in the cultural field I

-- Analysis, Study, Development of Culture-oriented Sci. & Tech.

Nov. 20, 2021, 09:00-12:00

Online platform: Tencent meeting

Time: 2021/11/20 09:00-12:00

Link: <https://meeting.tencent.com/dm/CyCJ3XRK0r2m>

Meeting ID: 415 2816 4564

No.	Title	Authors
8-1	Simulation Study of Multi-public Opinion Communication Based on Government Intervention	Baike Chen and Pei Deng
8-2	A Review on Internet of Things Based Smart Home	Jie Wang, Yu Chun Zhang
8-3	The Application of VIS Culture Elements in Fashion Creative Design of the Large-scale Activity	Ning He, Xuesong Wang, Jiaying Li, Dan Qiao
8-4	On the interdisciplinary education among undergraduate students majoring in E-sports	Wenjing Lu, Guanchu Xu, Xiao Gong, Qian Chen
8-5	Customer Value Co-creation and Perception in Museum Cultural and Creative Product Design	Yuan Zhu, Shijian Luo, Zuyao Zhang and Menglin Fan
8-6	Emotional Expression of Weibo Users in China during the COVID-19	Heyang Su
8-7	The Developments and Prospects of Integration of Culture and Sci-tech in China	Jinguo Zhang, Shuwu Zhang, Zhi Wang
8-8	Taking the standardized management of Wushu resource files to improve the efficiency of asset library	Lihui Xie, Jie Sha, Xiaohui Wu, Yan Li and Danyan Li
8-9	Overall Situation of Academic Studies on “Pan-Tilt Zoom” in China	Qingde Wang, Hanxi Wang
8-10	Why do people suffering from depression seek online health information: An exploratory study	Xueyan Cao, Xingbin Chao, Liqun Liu
8-11	Research on the Development Trend of Cultural and Creative Products under 3D Digital Technology	Yang Shan

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Session 9. Integration technology and system in the cultural field II

-- Cultural equipment and system, Cultural performing arts

Nov. 20, 2021, 14:00-17:00

Online platform: Tencent meeting

Time: 2021/11/20 14:00-17:00

Link: <https://meeting.tencent.com/dm/TsglOkIPC2dm>

Meeting ID: 580 5347 6320

No.	Title	Authors
9-1	A Probe into the High-tech Equipment System of Culture and Tourism Integration Industry	Hailong Fan, Bin Zhou, Hanxi Wang
9-2	Research on Fast Switching Scheduling of Special Equipment in Cultural Complex	Hui Ren, Xiaojun Jia, Xiaochen Shen and Mengnan Li
9-3	Space Transformation of Small-Cultural Service Complex Based on Finite State Machine	Kaidi Xiang, Hongjie Ni, Zhen Liu and Dan Zhang
9-4	A Digital Hormone Regulation based Approach for Bio-inspired Manufacturing System Modeling	Kun Zheng, Zhi-Wei Lian, Yu-Guo Wang, Xin-Yan Gu, Chang-jian Zhu and Xuan Liu
9-5	Progress in Research on Temporary Stage Techniques	Mengqi Jin, Jiahui Wei, Hanxi Wang
9-6	A Comparative Analysis of Lighting Design Software	Mingyang Su, Jingbing Wu, Hanxi Wang
9-7	Research on Stage Automatic Light-following System Based on Trajectory Prediction	Shilei Bai and Jiabin Zhang
9-8	Load Measurement of Temporary Stage Based on Fiber Bragg Grating	Tie Li, Mengqi Jin and Hanxi Wang
9-9	Comparison of Technical Systems between Outdoor Live Performance Stage and Indoor Theater Stage	Xiao Yan, Hanxi Wang
9-10	A Noncustom Virtual Simulation System for Performing Arts	Xinquan Luo, Zhengdong Han and Xiangjie Huang
9-11	Necessity of Establishing the Stage Technical Standards for Outdoor Live Performance Theater	Ziyi He, Xiao Yan and Hanxi Wang

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Session 10. Basic service technology in the cultural field II

-- Analysis, Study, Development of Culture-oriented Sci. & Tech.

Nov. 20, 2021, 14:00-17:00

Online platform: Tencent meeting

Time: 2021/11/20 14:00-17:00

Link: <https://meeting.tencent.com/dm/2rCxFmdLVCLI>

Meeting ID: 440 5748 6644

No.	Title	Authors
10-1	Research on the Status Quo of Intangible Cultural Heritage and Its Spreading Strategies in the Context of Consolidating Poverty Alleviation	Guobin Peng, Jiajia Zhang, Xudong Pi
10-2	Research on the Transformation and Upgrading of Traditional Book Publishing to Standardized Digital Publishing	Lijuan Zhou, Haoqi Sun, Xiaoyan Fu, Yunhui Wen and Jiefeng Cao
10-3	An empirical analysis of neo-Piagetian theory in programming education	Shuaishuai Han, Zhe Li, Peiyao Su, Simin Li and Yumeng Wang
10-4	Research on virtual competitive form based on E-sports games	Xiao Gong, Guanchu Xu, Huan Chen and Qian Chen
10-5	The intelligent transformation path of Cultural Industrial Parks under science and technology empowerment	Yihui Zhang, Binhe Lu and Jin Chen
10-6	A Survey upon College Students' Consumption Behavior on Short Video Platforms	Caiwen Zhao, Gu Wang, Guowei Li and Li Ding
10-7	An Exploratory Qualitative Survey upon Self-perception of Future Aging Life within Chinese Homosexual Youths	Jie Zhang, Lanxiao Xin and Wei Lv
10-8	Collective Action of the "Fandom Girls" in Fighting the Epidemic ——Based on the perspective of social identity theory	Jun Kou
10-9	Construction of Technical Specifications for Virtual Cultural Services Contents of Digital Cultural Centers	Mengjuan Li, Hanxi Wang
10-10	Future Development of the Water/Cloud Screen Projection Imaging Technology	Qingxin Zhang, Hanxi Wang
10-11	The Influence of Urban Waterfront Space Landscape Form on the User's Physiology	Yuanyuan Zhou, Yi-xi Liu and Xiu-Ping Ge

ICCST 2021 Program

Session 11. Basic service technology in the cultural field III

-- Analysis, Study, Development of Culture-oriented Sci. & Tech.

Nov. 20, 2021, 14:00-17:00

Online platform: Tencent meeting

Time: 2021/11/20 14:00-17:00

Link: <https://meeting.tencent.com/dm/oLedTBCaQCVM>

Meeting ID: 645 9713 0661

No.	Title	Authors
11-1	Research on Poverty Alleviation Path of Film and Television Design in the Context of Media Convergence	Guobin Peng, Xudong Pi and Jiajia Zhang
11-2	Teaching practice and exploration of creative manual printing and dyeing based on the inheritance of Jingchu textile intangible cultural heritage	Ni Wang, Xin Wei and Yufei Dong
11-3	Research on User Stickiness of Mobile Games	Wei Lu, Pei Deng and Zihan Shen
11-4	Research on the Service Evaluation System of Radio, Television and Network Audiovisual Media under the Background of Convergent Development	Yan Wang, Haozhan Li, Wanlan Li
11-5	Research on the effect of Game as a Service on future game industry based on Users view	Yu He
11-6	A Discussion of the Necessity of Constructing Tourism Service Standards to Cope with Altitude Sickness in the High-Altitude Cold Area	Jie Zhang, Ziyi He, Hanxi Wang and Jie Xu
11-7	The Identity and Construction of the Elderly in Digital Back-feeding	Lanxiao Xin and Zhixiang Fang
11-8	A Study on the Expression of Jingchu Cultural Heritage	Ning He, Jiaying Li, Ke Wang and Li Guo
11-9	Research on Virtual Resource Construction Software of Digital Cultural Center	Xinyan Li and Zhao Peng
11-10	Construction of Open Creation Model for Digital Cultural Center	Yuejian Zhu, Hanxi Wang
11-11	The Construction and Impact of Mobile Game Players Community: A Study on "Honor of Kings"	Gu Wang, Li Ding, Caiwen Zhao and Guowei Li

ICCST 2021 Program

Session 12. Intelligent technology in the cultural field III

-- Visual intelligence, Data intelligence, Deep learning

Nov. 20, 2021, 14:00-17:00

Online platform: Tencent meeting

Time: 2021/11/20 14:00-17:00

Link: <https://meeting.tencent.com/dm/CyCJ3XRK0r2m>

Meeting ID: 415 2816 4564

No.	Title	Authors
12-1	Intelligent research and application of product image design decision optimization system	Lei Xue and Xiaobo Lu
12-2	Digital Style Design of Nanjing Brocade Based on Deep Learning	Xuelin Qiu, Jue Hou, Ying Sun and Zheng Liu
12-3	Visual Saliency Computing with Color Feature Integration Based on Psychological Experiment	Shuang Wang, Man Yao, Wei Jiang and Aixia Tang
12-4	Marvel Cinematic Universe Semantic Question Answering System Based on Ontology	Xue Zhao, Chunfang Li and Minyong Shi
12-5	Text Based Video Retrieval among Video Clips	Chi Zhang, Guixuan Zhang and Shuwu Zhang
12-6	New Advances in Remote Heart Rate Estimation and Its Application to DeepFake Detection	Yuezheng Xu, Ru Zhang, Cheng Yang, Yana Zhang, Zhen Yang and Jianyi Liu
12-7	Fine-grained Traffic Sign Detection and Matching Algorithm	Jiayi Gao, Xiaoyu Wu, Jiayao Qian, TingTing Li
12-8	Commodity Image Retrieval Method Based on CNN and Score Fusion	Zihao Liu, Xiaoyu Wu, Jiayao Qian and Zhiyi Zhu
12-9	Single Image HDR Reconstruction Using Generative Adversarial Networks	Zhaoshan Wei and Jiangbo Xu
12-10	Design and Implementation of COVID-19 Assistant Diagnostic System Based on Deep Learning	Xiaoying Bai, Zhiguo Hong and Minyong Shi
12-11	A prohibited object detection and recognition system for X-ray images	Yang Zheng, Jie Liu and Shuwu Zhang