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2024 IEEE Smart World Congress (SWC)

SWC 2024

(2024 IEEE Ubiquitous Intelligence & Computing, Autonomous & Trusted Computing, Digital Twin, Metaverse, Privacy Computing & Data Security, Scalable Computing & Communications)

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| Enhanced Small Target Detection via Multi-Modal Fusion and Attention Mechanisms: A YOLOv5 Approach | 1886 |
| <i>Xiaoxiao Ma (Northwestern Polytechnical University, China) and Junxiong Tong (University of Science and Technology of China, China)</i> | |

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| <i>Siva Ariram (University of Oulu, Finland), Veikko Pekkala (University of Oulu, Finland), Timo Mäenpää (University of Oulu, Finland), Antti Tikänmaki (University of Oulu, Finland), and Juha Röning (University of Oulu, Finland)</i> | |
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| <i>Qaiser Anwar (University of Tokyo, Japan), Muhammad Hanif (Ghulam Ishaq Khan Institute of Engineering Sciences and Technology (GIKI), Pakistan), Daisuke Shimotoku (University of Tokyo, Japan), and Hill H Kobayashi (University of Tokyo, Japan)</i> | |
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| <i>Qiming Du (Nanjing University of Science and Technology, China) and Lidong He (Nanjing University of Science and Technology, China)</i> | |
| An Adaptive Weight Mechanism for Recognizing Unknown Samples in Remote Sensing Scene Images | 1919 |
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| <i>Feifei Zhang (Guangdong University of Education, China), Jianhui Xu (Guangzhou Institute of Geography, China), Ruqi Zhou (Guangdong University of Education, China), Yilin Wu (Guangdong University of Education, China), Xiongyong Zhu (Guangdong University of Education, China), and Guoming Chen (Guangdong University of Education, China)</i> | |

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| <i>Panyang Zhou (Guangzhou University, China), Xiaofei Xing (Guangzhou University, China), Xiao Wang (Guangzhou University, China), Tian Wang (Beijing Normal University, China), Yuheng Zhang (Guangzhou University, China), and Guojun Wang (Guangzhou University, China)</i> | |
| SAR and Optical Satellite Image Matching Incorporating Category-Supervised Semantic Features | 1949 |
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| SSL-DDS: Integrating SSL Encryption Into DDS Communication Framework for UAV Security ... | 1955 |
| <i>Yuan Gao (Northwestern Polytechnical University, China), Yang Li (Northwestern Polytechnical University, China), Quan Pan (Northwestern Polytechnical University, China), and Shihao Wu (Northwestern Polytechnical University, China)</i> | |

Workshop Papers

EOAuto: Workshop on Evolutionary Optimization and Its Applications in Autonomous Driving and Systems

TrustRL: Workshop on Trustworthy in Reinforcement learning

IPLearn: Workshop on When Image Processing Meets Novel Learning Techniques: Opportunities and challenges

BridgeXT: Workshop on Bridging the Gap: Exploring Explainability in Autonomous and Trusted Computing

AT4Safe: Workshop on Advanced Technologies for Safety Detection and Quality Control of Grain

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| Safety-Violation Scenarios Search for ADS via Multi-Objective Genetic Algorithm | 1961 |
| <i>Haoxin Zong (East China Normal University, China), Zhonglin Hou (East China Normal University, China; University of New South Wales, Australia), and Hong Liu (East China Normal University, China; Shanghai Uni-Sentry Intelligent Technology Co., Ltd, China)</i> | |
| RSBO Based LSTM Network for Pulsed eddy Current Steel wall-Thinning Inspection | 1967 |
| <i>Zhenyue Lin (Fuzhou University, China), Huade Zeng (Fuzhou University, China), Ruochen Huang (Fuzhou University, China), Wancheng Dang (State Grid Fujian Ningde Electric Power Supply Company, China), Zihan Xia (The University of Manchester, U.K.), and Wuliang Yin (The University of Manchester, U.K.)</i> | |

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| Low-Light Optical Flow Estimation by Enhancing Reflection Component With Global Attention . | 1973 |
| <i>Zhaolin Xiao (Xi'an University of Technology, China), Ke Gui (Xi'an University of Technology, China), Kunyu Wang (Xi'an University of Technology, China), Haiyan Jin (Xi'an University of Technology, China), Haonan Su (Xi'an University of Technology, China), and Fengyuan Zuo (Xi'an University of Technology, China)</i> | |
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| <i>Georg Borges (Saarland University, Germany)</i> | |
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| Identification of Starch Types by Using Terahertz Time-Domain Spectroscopy Combined With SG-KNN | 1993 |
| <i>Heng Wang (Henan University of Technology, China), Tao Wei (Henan University of Technology, China), Yuying Jiang (Henan University of Technology, China), Chunyan Guo (Henan University of Technology, China), and Wenhui Zhou (Henan University of Technology, China)</i> | |
| Research Progress and Challenges in Grain Storage Temperature Detection | 1998 |
| <i>Bo Feng (Henan University of Technology, China), Xuejing Lu (Henan University of Technology, China), Yuying Jiang (Henan University of Technology, China), Heng Wang (Henan University of Technology, China), Chunyan Guo (Henan University of Technology, China), and Hao Chen (Henan University of Technology, China)</i> | |

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| Smart DCU Digital Twin: Towards Autism-Friendly Universities | 2002 |
| <i>Jaime B. Fernandez (Dublin City University), Iryna Osadcha (Kaunas University of Technology), Andrius Jurelionis (Kaunas University of Technology), Kieran Mahon (Dublin City University), Noel E. O'Connor (Dublin City University), and Muhammad Intizar Ali (Dublin City University)</i> | |
| Building a Digital Twin Framework for EEG Neurofeedback in Cricket Batting Motor Imagery Using Simulated Data | 2010 |
| <i>Devanka Pathak (Bath Spa University, UK), Ronald Herrema (Bath Spa University, UK), Naomi Heffer (Bath Spa University, UK), and Hongji Yang (University of Leicester, UK)</i> | |
| Consideration of Road Feature Extraction Using Low-Cost LiDAR Mounted in a Vehicle | 2018 |
| <i>Jin Yamamoto (Hosei University, Japan), Ryuichi Imai (Hosei University, Japan), Kenji Nakamura (Osaka University of Economics, Japan), Yoshinori Tsukada (Reitaku University, Japan), and Yoshimasa Umehara (Setsunan University, Japan)</i> | |

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| Basic Study on Improving the Efficiency of Pantograph Slider Inspection Operations Using SfM | 2033 |
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