



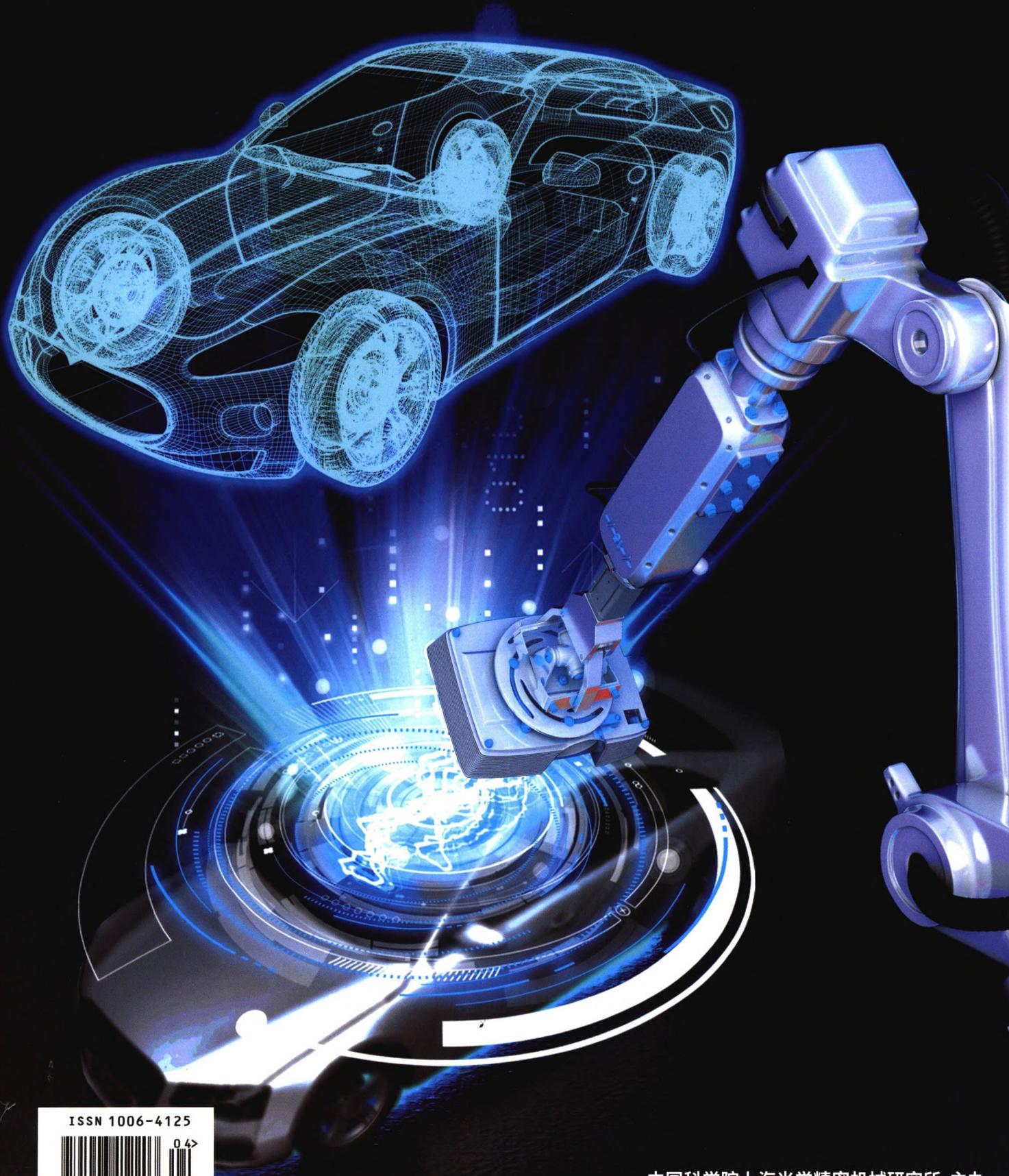
激光与光电子学进展

第 57 卷
第 4 期

Laser & Optoelectronics Progress

[总第663期]

2020.2(下)



激光与光电子学进展

—先进成像—

第 57 卷 第 4 期 2020 年 2 月

(总第 663 期)

目 次

· 综述 ·

机器人视觉三维成像技术综述 (封面文章, 特邀综述) 卢荣胜, 史艳琼, 胡海兵 040001

基于深度学习的点云语义分割综述 张佳颖, 赵晓丽, 陈正 040002

基于深度学习的扩散光学层析成像重建综述 王慧泉, 吴念, 赵喆, 等 040003

· 图像处理 ·

基于新三步法的运动估计技术及 FPGA 实现 雷稳, 沈卫强, 郭信江 041001

基于矢量分解和混沌随机相位掩模的图像加密 陶珊, 唐晨, 雷振坤 041002

改进型自适应双边滤波算法 白晓东, 舒勤, 杜小燕, 等 041003

基于二维经验模态分解的合成孔径雷达目标识别方法 柳小文, 雷军程, 伍雁鹏 041004

结合鲁棒主成分分析和非下采样轮廓波变换的红外与可见光图像的压缩融合 苏金凤, 张贵仓, 汪凯 041005

重点区域注意力学习的空对地目标检测算法 张萌, 王仕成, 杨东方 041006

基于深度学习的光学遥感图像飞机检测算法 董永峰, 仇长涛, 汪鹏, 等 041007

基于体素下采样和关键点提取的点云自动配准 张彬, 熊传兵 041008

刑事案件现场图自动分类算法 王凯旋, 李卓容, 王晓宾, 等 041009

基于迁移学习的卷积神经网络森林火灾检测方法 富雅捷, 张宏立 041010

基于灰色关联分析的卷积神经网络模型裁剪方法 黄世青, 白瑞林, 草高鄂 041011

基于多级通道注意力的遥感图像分割方法 余帅, 汪西莉 041012

C-3D 可变形卷积神经网络模型的肺结节检测 阮宏洋, 陈志澜, 程英升, 等 041013

基于蚁狮优化的极限学习机的网格分割方法 杨晓文, 尹洪红, 韩燮, 等 041014

基于注意力机制的遥感图像分割模型	刘航, 汪西莉	041015
基于有效区域筛选的复杂背景植物图像识别方法	宋晓宇, 金莉婷, 赵阳, 等	041016
基于多核学习-密度峰值聚类的基础矩阵估计	王剑峰, 王宏伟, 同学勤	041017
结合卷积受限玻尔兹曼机的 CV 图像分割模型	李晓慧, 汪西莉	041018
基于正交化正弦散斑的计算鬼成像	闫国庆, 杨风暴, 王肖霞, 等	041019
基于图和多特征传播的图像显著性检测	张莹莹, 葛洪伟	041020
针对目标检测任务的基础网络	宋雅麟, 庞彦伟	041021
· 机器视觉 ·		
基于双线性卷积神经网络的视觉目标跟踪算法	张春婷	041501
基于卷积神经网络的特征融合视频目标跟踪方法	刘美菊, 曹永战, 朱树云, 等	041502
室内移动机器人双目视觉全局定位	李鹏, 张洋洋	041503
基于残差通道注意力和多级特征融合的图像超分辨率重建	席志红, 袁昆鹏	041504
基于显著性强度和梯度先验的多尺度图像盲去模糊	陈晨, 许金鑫, 危才华, 等	041505
基于双目视觉与切面向量的曲面物体位姿估计	刘玉珍, 张嘉蓉, 林森	041506
采用非参模型的线阵 CCD 内参校准方法	吴军, 徐鳌, 李雁玲, 等	041507
基于高斯输出约束的上下文相关滤波跟踪	许敬祥, 伍雪冬, 杨开运	041508
面向无人机飞控平台的实时道路目标深度神经网络检测方法	黄涛, 赵栓峰, 拜云端, 等	041509
基于改进的 RANSAC 的场景分类点云粗配准算法	王鹏, 朱睿哲, 孙长库	041510
基于多特征描述子自适应权重的文物碎片分类	陆正杰, 李纯辉, 耿国华, 等	041511
融合 FHOG 和 LBP 特征的尺度自适应相关滤波跟踪算法	刘晓悦, 王云明, 马伟宁	041512
基于卷积神经网络局部特征融合的人脸表情识别	姚丽莎, 徐国明, 赵凤	041513
基于改进粒子群算法的相机内参优化方法	徐呈艺, 刘英, 肖轶, 等	041514
基于改进 Faster RCNN 的马克杯缺陷检测方法	李东洁, 李若昊	041515

• 遥感与传感器 •

图像滤波算子在土壤盐渍化信息提取中的应用 王等, 张飞, 张贤龙, 等 042801

本刊电子版彩色效果请详见中国光学期刊网 www.opticsjournal.net

Laser & Optoelectronics Progress

— Advanced Imaging —

Vol.57, No.4 (Series No.663) February 2020

CONTENTS

• Reviews •

Review of Three-Dimensional Imaging Techniques for Robotic Vision (Cover Paper, Invited)	..... <i>Lu Rongsheng, Shi Yanqiong, Hu Haibing</i> 040001
Review of Semantic Segmentation of Point Cloud Based on Deep Learning	..... <i>Zhang Jiaying, Zhao Xiaoli, Chen Zheng</i> 040002
Diffuse Optical Tomography Reconstruction Based on Deep Learning	..... <i>Wang Huiquan, Wu Nian, Zhao Zhe, et al.</i> 040003
• Image Processing •	
Field-Programmable Gate Array Implementation and Motion Estimation Technology Based on New Three-Step Method	..... <i>Lei Wen, Shen Weiqiang, Guo Xinjiang</i> 041001
Image Encryption Based on Vector Decomposition and Chaotic Random Phase Mask	..... <i>Tao Shan, Tang Chen, Lei Zhenkun</i> 041002
Improved Adaptive Bilateral Filtering Algorithm	..... <i>Bai Xiaodong, Shu Qin, Du Xiaoyan, et al.</i> 041003
Synthetic Aperture Radar Target-Recognition Method Based on Bidimensional Empirical Mode Decomposition	..... <i>Liu Xiaowen, Lei Juncheng, Wu Yanpeng</i> 041004
Compressed Fusion of Infrared and Visible Images Combining Robust Principal Component Analysis and Non-Subsampled Contour Transform	..... <i>Su Jinfeng, Zhang Guicang, Wang Kai</i> 041005
Air-to-Ground Target Detection Algorithm Based on Attention Learning in Key Areas	..... <i>Zhang Meng, Wang Shicheng, Yang Dongfang</i> 041006
Airplane Detection of Optical Remote Sensing Images Based on Deep Learning	..... <i>Dong Yongfeng, Zhang Changtao, Wang Peng, et al.</i> 041007
Automatic Point Cloud Registration Based on Voxel DownSampling and Key Point Extraction	..... <i>Zhang Bin, Xiong Chuanbing</i> 041008
Automated Classification Method for Crime Scene Sketches	..... <i>Wang Kaixuan, Li Zhuorong, Wang Xiaobin, et al.</i> 041009
Forest Fire Detection Method Based on Transfer Learning of Convolutional Neural Network	..... <i>Fu Yajie, Zhang Hongli</i> 041010
Method of Convolutional Neural Network Model Pruning Based on Gray Correlation Analysis	..... <i>Huang Shiqing, Bai Ruilin, Qin Gaoe</i> 041011
Remote Sensing Image Segmentation Method Based on Multi-Level Channel Attention	..... <i>Yu Shuai, Wang Xili</i> 041012
Detection of Pulmonary Nodules Based on C-3D Deformable Convolutional Neural Network Model	..... <i>Ruan Hongyang, Chen Zhilan, Cheng Yingsheng, et al.</i> 041013
Mesh Segmentation Based on Optimizing Extreme Learning Machine with Ant Lion Optimization	..... <i>Yang Xiaowen, Yin Honghong, Han Xie, et al.</i> 041014
Remote Sensing Image Segmentation Model Based on Attention Mechanism	..... <i>Liu Hang, Wang Xili</i> 041015

Plant Image Recognition with Complex Background Based on Effective Region Screening	..... Song Xiaoyu , Jin Liting , Zhao Yang , et al . 041016
Fundamental Matrix Estimation Based on Multiple Kernel Learning-Density Peak Clustering	..... Wang Jianfeng , Wang Hongwei , Yan Xueqin 041017
CV Image Segmentation Model Combining Convolutional Restricted Boltzmann Machine	..... Li Xiaohui , Wang Xili 041018
Computational Ghost Imaging Based on Orthogonal Sinusoidal Speckle	..... Yan Guoqing , Yang Fengbao , Wang Xiaoxia , et al . 041019
Image Saliency Detection Based on Graph and Multi-Feature Diffusion	..... Zhang Yingying , Ge Hongwei 041020
Backbone Network for Object Detection Task	..... Song Yalin , Pang Yanwei 041021
• Machine Vision •	
Visual Object Tracking Based on Bilinear Convolutional Neural Network	..... Zhang Chunting 041501
Feature Fusion Video Target Tracking Method Based on Convolutional Neural Network	..... Liu Meiju , Cao Yongzhan , Zhu Shuyun , et al . 041502
Global Localization for Indoor Mobile Robot Based on Binocular Vision	..... Li Peng , Zhang Yangyang 041503
Super-Resolution Image Reconstruction Based on Residual Channel Attention and Multilevel Feature Fusion	..... Xi Zhihong , Yuan Kunpeng 041504
Multi-Scale Image Deblurring Based on Salient Intensity and a priori Gradient	..... Chenchen , Xu Jinxin , Wei Caihua , et al . 041505
Pose Estimation of Curved Objects Based on Binocular Vision and Vectors of the Tangent Plane	..... Liu Yuzhen , Zhang Jiarong , Lin Sen 041506
Internal Calibration Method of Linear Array CCD Using Nonparametric Model	..... Wu Jun , Xu Jun , Li Yanling , et al . 041507
Context-Aware Correlation Filter Tracking Based on Gaussian Output Constraint	..... Xu Jingxiang , Wu Xuedong , Yang Kaiyun 041508
Method of Real-Time Road Target Depth Neural Network Detection for UAV Flight Control Platform	..... Huang Tao , Zhao Shuanfeng , Bai Yunrui , et al . 041509
Point Cloud Coarse Registration Algorithm with Scene Classification Based on Improved RANSAC	..... Wang Peng , Zhu Ruizhe , Sun Changku 041510
Classification of Cultural Fragments Based on Adaptive Weights of Multi-Feature Descriptions	..... Lu Zhengjie , Li Chunhui , Geng Guohua , et al . 041511
Scale-Adaptive Correlation Filter Tracking Algorithm Based on Fhog and Lbp Features	..... Liu Xiaoyue , Wang Yunming , Ma Weinling 041512
Facial Expression Recognition Based on Local Feature Fusion of Convolutional Neural Network	..... Yao Lisha , Xu Guoming , Zhao Feng 041513
Optimization Method for Camera Intrinsic Parameters Based on Improved Particle Swarm Algorithm	..... Xu Chengyi , Liu Ying , Xiao Yi , et al . 041514
Mug Defect Detection Method Based on Improved Faster RCNN	..... Li Dongjie , Li Ruohao 041515
• Remote Sensing and Sensors •	
Application of Image Filtering Operator in Extraction of Soil Salinization Information	..... Wang Zheng , Zhang Fei , Zhang Xianlong , et al . 042801



CALL FOR PAPERS

Optics Frontier: The 12th International Conference
on Information Optics and Photonics

CIOP2020

27 - 30 July 2020 Beijing, China

| GENERAL CHAIRS



Guofan Jin
Tsinghua University, China



James Harris
Stanford University, USA

| TECHNICAL PROGRAM CHAIRS



Xi-Cheng Zhang
University of Rochester, USA



Chao Lu
The Hong Kong Polytechnic University, China



Zhiyi Wei
Institute of Physics, CAS, China

| TOPICS

- SC1 Light-Matter Interactions
- SC2 Plasmonics and Metamaterials
- SC3 Ultrafast and Nonlinear Phenomena
- SC4 Solid State, Fiber, and Other Laser Sources
- SC5 Silicon Photonics
- SC6 Microwave Photonics
- SC7 Micro and Nanophotonics
- SC8 Optical Materials
- SC9 Optical Measurement and Metrology
- SC10 Infrared and Terahertz Technologies
- SC11 Optical Imaging, Display, and Storage
- SC12 Optical Communications and Networks
- SC13 Optical Fiber and Waveguide Technologies
- SC14 Biophotonics and Optofluidics
- SC15 Optical Sensors and Systems
- SC16 Atomic Physics, Quantum Photonics, and Quantum Information

| HOST



| CONTACT US

ciop@siom.ac.cn 86-21-69918426

| TECHNICAL COSPONSOR

SPIE.



SCAN
TO VIEW
CONFERENCE WEBSITE.
www.ciop.com.cn