Front Matter: Volume 12342


Event: Fourteenth International Conference on Digital Image Processing (ICDIP 2022), 2022, Wuhan, China
## Contents

xiii  Conference Committee

### Part One

#### SESSION 1  FEATURE EXTRACTION AND FUSION

| 12342 02 | RSFS: A soft biometrics-based relative support features set for person verification [12342-136] |
| 12342 03 | LDAM: line descriptors augmented by attention mechanism [12342-72] |
| 12342 04 | Stochastic recursive gradient descent optimization-based on foreground features of Fisher vector [12342-152] |
| 12342 05 | An evaluation method of aggregate morphological characteristics based on two-dimensional digital image technique [12342-148] |
| 12342 06 | Semantic segmentation of road scene based on multi-scale feature extraction and deep supervision [12342-158] |
| 12342 07 | Dynamic spectral–spatial multiscale feature extraction network for hyperspectral image classification [12342-27] |

#### SESSION 2  TARGET DETECTION

| 12342 08 | An improved approach for two-stage detection model [12342-20] |
| 12342 09 | Multi-task model for human pose estimation and person detection [12342-139] |
| 12342 0A | Ship target detection method based on improved CenterNet in synthetic aperture radar images [12342-106] |
| 12342 0B | Lane detection with position embedding [12342-102] |
| 12342 0C | SAR target image edge detection based on CNN [12342-43] |
| 12342 0D | Ship detection in optical remote sensing images based on saliency and rotation-invariant feature [12342-98] |
| 12342 0E | Dock detection method in remote sensing images based on improved YOLOv4 [12342-17] |
A defect detection method for plastic gears based on deep learning and machine vision [12342-83]

Face tampering detection based on spatiotemporal attention residual network [12342-153]

Ship target detection based on multitask learning [12342-129]

Detecting of plant protection spraying by excited luminescence [12342-173]

Deformation convolution and self-attention for fabric defect detection [12342-154]

Using Sentinel-2 imagery for detecting oil spills via spatial roughness of mixed normalized difference index [12342-155]

Breast cancer detection from ultrasound images using attention U-nets model [12342-49]

RF2Net: salient object detection using level set loss and reverse attention fusion feed network [12342-36]

Detecting roads from high-resolution aerial images: a position iteration algorithm for linear target detection [12342-161]

Pre-rotation only at inference-time: a way to rotation invariance [12342-119]

SlowFast with DropBlock and smooth samples loss for student action recognition [12342-109]

Spatio-temporal dual-attention network for view-invariant human action recognition [12342-41]

Lightweight graph convolutional network with fusion data for skeleton based action recognition [12342-65]

Masked facial region recognition using human pose estimation and broad learning system [12342-14]

Fine-grained birds recognition based on lightweight bilinear CNN with Additive Margin Softmax [12342-74]

A sample diversity and identity consistency based cross-modality model for visible-infrared person re-identification [12342-103]

Application of artificial neural networks in recognizing carrier based on the color of raspberry powders obtained in the spray-drying process [12342-172]

DIRA: disjoint-identity resolution adaptation for low-resolution face recognition [12342-77]
Deep learning techniques for image recognition of counterfeited luxury handbags materials [12342-156]

A joint feature aggregation method for robust masked face recognition [12342-51]

Identification and localisation of multiple weeds in grassland for removal operation [12342-85]

Rotated target recognition of sonar images via convolutional neural networks with rotated inputs [12342-142]

SESSION 4 3D MODEL AND IMAGE RECONSTRUCTION

FEAFA+: an extended well-annotated dataset for facial expression analysis and 3D facial animation [12342-48]

Grad-CAM based visualization of 3D CNNs in classifying fMRI [12342-62]

Single image 3D scene reconstruction based on ShapeNet models [12342-168]

ARO-DeepSFM: deep structure-from-motion with alternating recursive optimization [12342-105]

Autism spectrum disorder analysis by using a 3D-ResNet-based approach [12342-97]

3D face alignment and face reconstruction based on image sequence [12342-138]

PointIt3D: a benchmark dataset and baseline for pointed object detection task [12342-170]

Enabling deep reinforcement learning autonomous driving by 3D-LiDAR point clouds [12342-108]

Reference-driven undersampled MRI reconstruction using automated stopping deep image prior [12342-86]

Identifying Alzheimer’s disease from 4D fMRI using hybrid 3DCNN and GRU networks [12342-135]

SESSION 5 IMAGE SEGMENTATION

Subcortical brain segmentation with convolutional neural networks [12342-32]

An improved U-shape neural network for soft exudate segmentation [12342-101]

Hyperspectral remote sensing image semantic segmentation using extended extrema morphological profiles [12342-13]
<table>
<thead>
<tr>
<th>Session 6</th>
<th>Image Analysis and Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>12342 1E</td>
<td>FSC-UNet: a lightweight medical image segmentation algorithm fused with skip connections [12342-104]</td>
</tr>
<tr>
<td>12342 1F</td>
<td>Optic disc segmentation in retinal fundus images using improved CE-Net [12342-30]</td>
</tr>
<tr>
<td>12342 1G</td>
<td>Super-resolution for semantic segmentation [12342-16]</td>
</tr>
<tr>
<td>12342 1H</td>
<td>PDNet: an advanced architecture for polyp image segmentation [12342-39]</td>
</tr>
<tr>
<td>12342 1I</td>
<td>Automatic heart segmentation based on convolutional networks using attention mechanism [12342-38]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Session 6</th>
<th>Image Analysis and Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>12342 1J</td>
<td>Generative image inpainting with residual texture prior and cross-layer contextual attention [12342-167]</td>
</tr>
<tr>
<td>12342 1K</td>
<td>Metrical age assessment using image analysis and artificial neural networks [12342-6]</td>
</tr>
<tr>
<td>12342 1L</td>
<td>Feature attention network (FA-Net): a deep-learning based approach for underwater single image enhancement [12342-140]</td>
</tr>
<tr>
<td>12342 1M</td>
<td>Weakly supervised deep learning for cervical histopathology images analysis [12342-90]</td>
</tr>
<tr>
<td>12342 1N</td>
<td>Surface defect sample generation method based on GAN [12342-145]</td>
</tr>
<tr>
<td>12342 1O</td>
<td>Implementation of stereo matching algorithm based on Xavier edge computing platform [12342-113]</td>
</tr>
<tr>
<td>12342 1P</td>
<td>Orthogonal matching pursuit with adaptive restriction for sparse subspace clustering [12342-93]</td>
</tr>
<tr>
<td>12342 1Q</td>
<td>Mineralization information extraction of metal mining area based on Landsat images [12342-46]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Session 7</th>
<th>Image Classification and Algorithms</th>
</tr>
</thead>
<tbody>
<tr>
<td>12342 1R</td>
<td>Comparison of different classification methods for autism spectrum diagnosis [12342-127]</td>
</tr>
<tr>
<td>12342 1S</td>
<td>RHDDNet: multi-label classification-based detection of image hybrid distortions [12342-45]</td>
</tr>
<tr>
<td>12342 1T</td>
<td>Improved video classification method based on non-parametric attention combined with self-supervision [12342-18]</td>
</tr>
<tr>
<td>12342 1U</td>
<td>Compressing CNN by alternating constraint optimization framework [12342-57]</td>
</tr>
</tbody>
</table>
Weakly-supervised attention mechanism via score-CAM for fine-grained visual classification [12342-122]

Classification of fundus diseases based on meta-data and EB-IRV2 network [12342-75]

Hyperspectral image classification based on dual-branch attention network with 3-D octave convolution [12342-76]

Fine-grained classification of natural scene grape images based on deep convolution networks [12342-71]

Multi-visual information fusion and aggregation for video action classification [12342-96]

Part Two

SESSION 8  VIDEO ENCODING AND PROCESSING

Hardware-friendly fast rate-distortion optimized quantization algorithm for AVS3 [12342-5]

Multi-modal transformer for video retrieval using improved sentence embeddings [12342-58]

Deep learning video analytics solutions for ocean surveillance systems [12342-23]

Texture based adaptive computational resource allocation for fast AVS3 inter coding [12342-88]

A foreground detection based video stabilization method and its application in aerospace measurement and control [12342-146]

Video stabilization based on GMS and warping transform [12342-91]

Semi-supervised multiple image transformation network for metastatic lymph node diagnosis from CT [12342-157]

No-reference stereoscopic video quality assessment based on Tchebichef moment [12342-160]

A hardware architecture of skip/direct mode for AVS3 [12342-8]

SESSION 9  MACHINE VISION AND APPLICATIONS

Real-time ranging of traffic signs for smart car environment perception [12342-25]

End-to-end audiovisual feature fusion for active speaker detection [12342-63]
12342 2B  An effective anti-interference visual tracking method [12342-70]

12342 2C  AVR: attention based salient visual relationship detection [12342-131]

12342 2D  Predicting good features using a hybrid feature for visual geolocation system [12342-169]

12342 2E  Comparative analysis of feature-based methods and direct methods for unmanned system's vision navigation [12342-12]

12342 2F  Infrared and visual image fusion via iterative quadtree decomposition and Bézier interpolation [12342-82]

12342 2G  Measuring system for elongation at break of cable insulation sheath based on machine vision [12342-24]

SESSION 10  OPTICAL AND IMAGING SYSTEMS

12342 2H  Modelling and simulation of lateral jet infrared radiation based on the light of sight method [12342-61]

12342 2I  Infrared and visible images fusion method based on unsupervised learning [12342-68]

12342 2J  Study on aero optical effect for space infrared detection system [12342-118]

12342 2K  Spectrogram-based speech enhancement by spatial attention generative adversarial networks [12342-115]

12342 2L  Segmentation based lidar odometry and mapping [12342-81]

12342 2M  LSTM-SENet: category decoding model with an attention mechanism [12342-147]

12342 2N  Temperature imaging network based on swin transformer for TDLAS tomography [12342-40]

12342 2O  Accurate neuroanatomy segmentation using 3D spatial and anatomical attention neural networks [12342-126]

12342 2P  A NSST-based infrared and visible image fusion method focusing on luminance effect [12342-69]

12342 2Q  Generative adversarial networks based on MLP [12342-141]

12342 2R  Fusion of infrared and visible sensor images based on anisotropic diffusion and fast guided filter [12342-143]
### SESSION 11  IMAGE QUALITY AND IMAGE SECURITY

| 12342 2S | No-reference video quality assessment using data dimensionality reduction and attention-based pooling [12342-60] |
| 12342 2T | A new zero-watermarking algorithm based on deep learning [12342-10] |
| 12342 2U | Blind image quality assessment based on transformer [12342-44] |
| 12342 2V | To sharpen or not to sharpen? On the effect of sharpening filters applied to magnified images [12342-166] |
| 12342 2W | Coverless image steganography based on neural style transfer [12342-11] |
| 12342 2X | Quality evaluation of dried carrot obtained in different drying conditions using deep convolutional neural networks [12342-171] |
| 12342 2Y | Improvement of attention modules for image captioning using pixel-wise semantic information [12342-162] |
| 12342 2Z | An efficient image encryption scheme based on variable row-columns scrambling and selective block diffusion [12342-159] |
| 12342 30 | Self-supervision based super-resolution approach for light field refocused image [12342-22] |
| 12342 31 | Reversible data hiding simultaneously using substitution of MSB and compression of LSB of encrypted image [12342-56] |

### SESSION 12  IMAGE TRANSFORMATION AND COMPUTATION

| 12342 32 | Real-time image distortion correction based on FPGA [12342-130] |
| 12342 33 | Haze removal using a hybrid convolutional sparse representation model [12342-37] |
| 12342 34 | Cluster-based point cloud attribute compression using inter prediction and graph Fourier transform [12342-67] |
| 12342 35 | An improved method of image enhancement based on fuzzy theory [12342-125] |
| 12342 36 | An algorithm for facial mask area repair based upon deep learning [12342-92] |
| 12342 37 | DWT denoising for multi-variate time series forecasting [12342-114] |
### SESSION 13  DIGITAL IMAGE PROCESSING AND APPLICATIONS

<table>
<thead>
<tr>
<th>Session</th>
<th>Title</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>12342 38</td>
<td>Track initiation algorithm for bearing-only target tracking in complex background</td>
<td>[12342-42]</td>
</tr>
<tr>
<td>12342 39</td>
<td>Makeup transfer model based on BeautyGAN</td>
<td>[12342-111]</td>
</tr>
<tr>
<td>12342 3A</td>
<td>Solar panel fault diagnosis method based on improved YOLOv3</td>
<td>[12342-79]</td>
</tr>
<tr>
<td>12342 3B</td>
<td>Indoor target tracking with deep learning-based YOLOv3 model</td>
<td>[12342-165]</td>
</tr>
<tr>
<td>12342 3C</td>
<td>Rapid identification of mature Xanthoceras sorbilium bunge</td>
<td>[12342-134]</td>
</tr>
<tr>
<td>12342 3D</td>
<td>Monocular inertial indoor location algorithm considering point and line features</td>
<td>[12342-164]</td>
</tr>
<tr>
<td>12342 3E</td>
<td>Automated osteoporosis prediction system using artificial intelligence to calculate cortical thickness index from hip X-rays</td>
<td>[12342-137]</td>
</tr>
<tr>
<td>12342 3F</td>
<td>Attention-guided feature fusion network for crowd counting</td>
<td>[12342-7]</td>
</tr>
<tr>
<td>12342 3G</td>
<td>Deformable voxel grids for shape comparisons</td>
<td>[12342-174]</td>
</tr>
</tbody>
</table>

### SESSION 14  COMPUTER GRAPHICS AND DIGITAL PHOTOGRAPHY

<table>
<thead>
<tr>
<th>Session</th>
<th>Title</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>12342 3H</td>
<td>Correction of images projected on non-white surfaces based on deep neural network</td>
<td>[12342-87]</td>
</tr>
<tr>
<td>12342 3I</td>
<td>Identifying recaptured images using deep hybrid correlation network</td>
<td>[12342-9]</td>
</tr>
<tr>
<td>12342 3J</td>
<td>ECA-based generative adversarial network for multi-focus colour image fusion</td>
<td>[12342-52]</td>
</tr>
<tr>
<td>12342 3K</td>
<td>High-speed videogrammetric technique for displacement measurement of floating offshore wind turbine model</td>
<td>[12342-28]</td>
</tr>
<tr>
<td>12342 3L</td>
<td>A parallel change detection method for spatiotemporally multi-temporal SAR image based on Q-Learning and wavelet</td>
<td>[12342-151]</td>
</tr>
<tr>
<td>12342 3M</td>
<td>Dynamic three-dimensional measurement using convolution neural network and binocular structured light system</td>
<td>[12342-123]</td>
</tr>
<tr>
<td>12342 3N</td>
<td>Coordinate transformation and three-dimensional backprojection algorithm for multiple receiver synthetic aperture sonar motion compensation</td>
<td>[12342-29]</td>
</tr>
<tr>
<td>Session 15</td>
<td>Computer and Electronic Engineering</td>
<td></td>
</tr>
<tr>
<td>------------</td>
<td>-------------------------------------</td>
<td></td>
</tr>
<tr>
<td>12342 3O</td>
<td>Radio frequency interference suppression based on two-dimensional frequency domain notch for P-band ultra-wideband SAR [12342-31]</td>
<td></td>
</tr>
<tr>
<td>12342 3P</td>
<td>Estimating lower extremity joint angles during gait using reduced number of sensors count via deep learning [12342-59]</td>
<td></td>
</tr>
<tr>
<td>12342 3Q</td>
<td>Tobacco plant disease dataset [12342-89]</td>
<td></td>
</tr>
<tr>
<td>12342 3R</td>
<td>An one-dimensional signal based object detection network for apnea and hypopnea locating [12342-55]</td>
<td></td>
</tr>
<tr>
<td>12342 3S</td>
<td>A collaborative spectrum sensing algorithm for cognitive radio based on related vector machine [12342-150]</td>
<td></td>
</tr>
<tr>
<td>12342 3T</td>
<td>Concepts encoding via knowledge-guided self-attention networks [12342-117]</td>
<td></td>
</tr>
<tr>
<td>12342 3U</td>
<td>Low frequency ultra-wideband BSAR electromagnetic scattering characteristic [12342-107]</td>
<td></td>
</tr>
</tbody>
</table>
Conference Committee

General Chairs

Lizhe Wang, China University of Geosciences (China)
Ji Wu, Tsinghua University (China)
Hiroshi Fujita, Gifu University (Japan)

Conference Chairs

Xudong Jiang, Nanyang Technological University (Singapore)
Wenbing Tao, Huazhong University of Science and Technology (China)
Deze Zeng, China University of Geosciences (China)

Program Chairs

Mrinal Mandal, University of Alberta (Canada)
Christine Fernandez-Maloigne, University of Poitiers (France)
Jindong Tian, Shenzhen University (China)
Chang Tang, China University of Geosciences (China)
Kun Sun, China University of Geosciences (China)

Regional Chairs

Hong Zhang, Georgia Southern University (United States)
Chang-Tsun Li, Deakin University (Australia)
Alessandro Rizzi, University of Milan (Italy)
Lyudmila Mihaylova, The University of Sheffield (United Kingdom)
Habib Zaidi, University of Geneva (Switzerland)
Syed Abdul Rahman Syed Abu Bakar, Universiti Teknologi Malaysia (Malaysia)
Andrew Beng Jin Teoh, Yonsei University (South Korea)
Raju Shrestha, Oslo Metropolitan University (Norway)

Local Committee

Weitao Chen, China University of Geosciences (China)
Liangxiao Jiang, China University of Geosciences (China)
Fudong Ge, China University of Geosciences (China)
Awards Chairs

Jun Li, China University of Geosciences (China)
Yuri Rzhanov, University of New Hampshire (United States)
Zhaohui Wang, Hainan University (China)

Steering Committee

Victor Sanchez, University of Warwick (United Kingdom)

Publicity Chairs

Krzysztof Koszela, Poznan University of Life Sciences (Poland)
Sabah A. Jassim, University of Buckingham (United Kingdom)
Jiande Sun, Shandong Normal University (China)
Qian Huang, Hohai University (China)
Gabriele Gianini, The University of Milan (Italy)
Yi Xie, Wuhan University (China)

Doctoral Consortium Chairs

Linlin Shen, Shenzhen University (China)
Binjie Qin, Shanghai Jiao Tong University (China)

Website Chair

Hongjun Su, Georgia Southern University (United States)

Technical Committee

Chris Pollett, San Jose State University (United States)
Davide Aguiari, Università di Bologna (Italy)
Gniewko Niedbala, Poznan University of Life Sciences (Poland)
Guo Cao, Nanjing University of Science and Technology (China)
Hanaizumi Hiroshi, Hosei University (Japan)
Hatanaka Yuji, Oita University (Japan)
Hengnian Qi, Huzhou University (China)
Houjin Chen, Beijing Jiaotong University (China)
Jianxin Zhang, Dalian University (China)
José María Massa, Buenos Aires Center Province National University (Argentina)
Ke Lu, University of Chinese Academy of Sciences (China)
Liguo Wang, Harbin Engineering University (China)
Luis Gomez Deniz, University of Las Palmas de Gran Canaria (Spain)
Mostafa Abdel-Azeem, Arab Academy for Science Technology and Maritime Transport (Egypt)
Pedro Furtado, Universidade de Coimbra (Portugal)
Piotr Boniecki, Poznan University of Life Sciences (Poland)
Li Congli, Army Academy of Artillery and Air Defense (China)
Lin Bai, Chang’an University (China)
Liu Bingxin, Dalian Maritime University (China)
Liu Gang, Harbin Engineering University (China)
Mohamed Moustafa, The American University in Cairo (Egypt)
Nan Zhu, Xi’an Technological University (China)
Orachat Chitsobhuk, King Mongkut’s Institute of Technology Ladkrabang (Thailand)
P.J. Herrera, Universidad Nacional de Educación a Distancia (Spain)
Peishun Liu, Ocean University of China (China)
Peng Chen, Tongji University (China)
Roman Dremliuga, Far Eastern Federal University (Russia)
Sergey Kravtsov, Southern Federal University (Russia)
Shouhong Wan, University of Science and Technology of China (China)
Shruti Bhargava Choubey, Sreenidhi Institute of Science & Technology (India)
Su-Kil Tang, Macao Polytechnic Institute (Macao, China)
Vinicius Oliveira, Federal University of Rio Grande (Brazil)
Wen-Ze Shao, Nanjing University of Posts and Telecommunications (China)
Xia Geng, Shandong Agricultural University (China)
Xiaoli Zhang, Jilin University (China)
Xiaoming Hu, Beijing Institute of Technology (China)
Xin Jin, Yunnan University (China)
Xin Li, Beijing Institute of Technology (China)
Xin Liao, Hunan University (China)
Yanguo Wang, China Academy of Railway Sciences Corporation Limited (China)
Yanmei Yu, Sichuan University (China)
Yi Zheng, Shandong Technology and Business University (China)
Ying Zhang, The Third Research Institute of Ministry of Public Security (China)
Yoshitaka Kameya, Meijo University (Japan)
Yuan Guowu, Yunnan University (China)
Yue Fan, Central China Normal University (China)
Yukinobu Miyamoto, Kobe Gakuin University (Japan)
Yunping Zheng, South China University of Technology (China)
Zhuhua Hu, Hainan University (China)
Dyah Erny Herwindiati, Universitas Tarumanagara (Indonesia)
Jianqiang Huang, Qinghai University (China)
Łukasz Gierz, Poznan University of Technology (Poland)
Maciej Zaborowicz, Poznan University of Life Sciences (Poland)
Qin Liu, Nanjing University (China)
Ruiheng Zhang, Beijing Institute of Technology (China)
Shen Cai, Donghua University (China)
Silvia Mirri, University of Bologna (Italy)
Tao Ma, China Academy of Engineer Physics (China)
Wei Gao, Peking University (China)
Xie Haoran, Japan Advanced Institute of Science and Technology (Japan)
Tiehua Du, Nanyang Polytechnic (Singapore)
Alaa Alzoubi, University of Buckingham (United Kingdom)
Anusha Achuthan, Universiti Sains Malaysia (Malaysia)
Bo Qu, Xi’an Institute of Optics and Precision Mechanics (China)
Esa Prakasa, National Research and Innovation Agency (Indonesia)
Hongshun Chen, Beijing Normal University (China)
Huinan Guo, Xi’an Institute of Optics and Precision Mechanics (China)
Hung Nguyen, Japan Advanced Institute of Science and Technology (Japan)
Jiajie Dong, China Institute for Radiation Protection (China)
Justin Joseph, Indian Institute of Technology (India)
Keng Wah Choo, Nanyang Polytechnic (Singapore)
Leonardo Emmendorfer, Federal University of Rio Grande (Brazil)
Leslie Ching Ow Tiong, Korea Institute of Science and Technology (South Korea)
Olivier Rukundo, Norwegian University of Science and Technology (Norway)
Paul Stynes, National College of Ireland (Ireland)
Pramod Pathak, National College of Ireland (Ireland)
Shengliang Pu, East China University of Technology (China)
Suphongsa Khetkeeree, Mahanakorn University of Technology (Thailand)
Teressa Longjam, National Institute of Technology Manipur (India)
Usman Sheik, Universiti Teknologi Malaysia (Malaysia)
Wenjun Lu, Anhui Sanlian University (China)
Yong Tian, Shenzhen University (China)
Zhaoying Liu, Beijing University of Technology (China)
Zhuqing Yuan, Tsinghua University (China)
Zuofeng Zhou, Xi’an Institute of Optics and Precision Mechanics (China)

Session Chairs

1  Video Encoding and Processing
   Xiaorong Xue, Liaoning University of Technology (China)

2  Pattern Recognition
   Yanmei Yu, Sichuan University (China)
   Feng Zhang, China University of Geosciences (China)
3 Machine Vision
Gabriele Gianini, The University of Milan (Italy)

4 Computer Graphics and Digital Photography
Syed Abdul Rahman Syed Abu Bakar, Universiti Teknologi Malaysia (Malaysia)

5 Image Quality and Image Security
Tao Zhou, North Minzu University (China)
Zhaohui Wang, Hainan University (China)

6 Image Classification and Algorithms
Xiaojun Wu, Harbin Institute of Technology (China)

7 Target Detection
Yoshito Mekada, Chukyo University (Japan)

8 Image Segmentation
Dong Li, Shenzhen University (China)
Chuanqi Cheng, Engineering University of PAP (China)

9 Image Analysis and Methods
Sabah Jassim, University of Buckingham (United Kingdom)

10 Optical Imaging and Systems
Krzysztof Koszela, Poznan University of Life Sciences (Poland)

11 Computer and Electronic Technology
Hong Zhang, Georgia Southern University (United States)
Peishun Liu, Ocean University of China (China)

12 Digital Image Processing and Application
Jingjing Zhang, China University of Geosciences (China)

13 Image Transformation and Computation
Xiaoli Zhang, Jilin University (China)

14 3D Model and Image Reconstruction
Hongbo Fu, City University of Hong Kong, (Hong Kong, China)
15 Target Detection  
Victor Sanchez, University of Warwick (United Kingdom)  
Raju Shrestha, Oslo Metropolitan University (Norway)  

16 Feature Extraction and Fusion  
Alessandro Rizzi, University of Milan (Italy)  
Tiehua Du, Nanyang Polytechnic (Singapore)