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Revolutionizing Artificial Intelligence Approaches in Image Processing

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ABSTRACTED

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Preface

We are thrilled to announce the organization of a special issue within the Turkish Journal of Electrical Engineering and Computer Sciences. As guest editors, our commitment has been unwavering in the curation of a special issue under the title, “Revolutionizing Artificial Intelligence Approaches in Image Processing.” This issue profoundly explores the groundbreaking influence of artificial intelligence approaches within the domain of image processing.

The continuous evolution of technology and its profound impact on diverse facets of human existence have played a pivotal role in raising living standards and societal expectations. Progress in industrial sectors has not only elevated the quality of life but has also contributed to an increase in life expectancy. A prevailing social consensus is that the integration of artificial intelligence in demanding job roles and complex processes will further elevate these living standards. Presently, artificial intelligence-based approaches are being effectively deployed across a wide array of domains, spanning from production and healthcare to tourism and sports. In this special issue, we present pioneering artificial intelligence-based solutions for applications in image and signal processing.

We have delineated an extensive array of topics for consideration, encompassing Explainable AI, Image Translation, and a variety of subjects including Graph Neural Networks, Multi-Head Attention, Time-Dependent Algorithms, Diffusion-Based Models, Federated Learning, Deep Metric Learning, Contextual Learning, Content-Based Image Retrieval, and more.

In our dedicated efforts to compile this special issue, we have closely collaborated with the editorial team of the Turkish Journal of Electrical Engineering and Computer Sciences. We express our heartfelt appreciation to the journal’s Editor-in-Chief, Associate Editors-in-Chief, diligent reviewers who provided invaluable feedback, and our esteemed contributing authors. Our gratitude also extends to the journal’s administrative staff for their support.

This special issue offers a comprehensive exploration of captivating facets associated with Revolutionizing Artificial Intelligence Approaches in Image Processing.” We eagerly anticipate that our readers will integrate the findings from this special issue into their work in both industrial and academic realms.

With warm regards,

David MORATAL, Technical University of Valencia, Spain

Şaban ÖZTÜRK, Amasya University, Türkiye

Muhammet UZUNTARLA, Gebze Technical University, Türkiye

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CONTENTS

Multi-view brain tumor segmentation (MVBTS): An ensemble of planar and triplanar attention UNets	908
Snehal RAJPUT, Rupal A KAPDI Mehul S RAVAL, Mohendra ROY	
CCCD: Corner detection and curve reconstruction for improved 3D surface reconstruction from 2D medical images	928
Mriganka SARMAH, Arambam NEELIMA	
Hybrid machine learning model to predict chronic kidney diseases using handcrafted features for early health rehabilitation	951
Amjad Rehman, Tanzila Saba, Haider Ali Narmine El Hakim, Noor Ayesha	
Enhancing exploration-exploitation in harmony search for airborne hyperspectral imaging band selection (E3HS)	969
Mohammed Abdulmajeed MOHARRAM, Divya Meena SUNDARAM	
A unique hybrid domain hand-crafted feature to classify colorectal tissue histopathological images using multiheaded CNN	992
Anurodh KUMAR, Amit VISHWAKARMA, Varun BAJAJ	
Focal modulation network for lung segmentation in chest X-ray images	1006
Şaban Öztürk, Tolga Çukur	
Infrared imaging segmentation employing an explainable deep neural network	1021
Xinfei LIAO, Dan WANG, Zairan LI, Nilanjan DEY	
Cognitive digital modelling for hyperspectral image classification using transfer learning model	1039
Mohammad SHABAZ, Mukesh SONI	
Classification of chronic pain using fMRI data: Unveiling brain activity patterns for diagnosis	1061
Rejula VIJEYKUMAR, Anitha JEEVANAYAGAM Belfin ROBINSON	
TRCaptionNet: A novel and accurate deep Turkish image captioning model with vision transformer based image encoders and deep linguistic text decoders	1079
Serdar YILDIZ, Abbas MEMİŞ, Songül VARLI	
YOLO and LSH-based video stream analytics landscape for short-term traffic density surveillance at road networks	1099
K LAVANYA, Stuti TIWARI, Rahul ANAND, Jude HEMANTH	
Deep feature extraction, dimensionality reduction, and classification of medical images using combined deep learning architectures, autoencoder, and multiple machine learning models	1113
Ahmet Hidayet KİRAZ, Fatime OUMAR DJIBRILLAH Mehmet Emin YÜKSEL	
Feature distillation from vision-language model for semisupervised action classification	1129
Aslı ÇELİK, Ayhan KÜÇÜKMANİSA Oğuzhan URHAN	