

DETAILED PROGRAM

RECPAD 2022

28TH PORTUGUESE CONFERENCE ON PATTERN RECOGNITION

LEIRIA, OCTOBER 28TH, 2022

09:00 Registration (D Building)

09:30 Welcome session (D Building, auditorium D1)

09:45 Invited talk (D Building, auditorium D1)

Deep learning and its application in horticulture and agriculture

Jochen Hemming, Wageningen University & Research (WUR), Netherlands

10:45 Coffee break

11:30 Oral presentations (D Building, auditorium D1)

Multi-Optimized Drug Design using Transformers

Ana Catarina Machado, Nelson Monteiro, Maryam Abbasi and Joel Arrais

Approaches for Sentiment Analysis in Portuguese Dialogues

Isabel Carvalho, Hugo Gonalo Oliveira and Catarina Silva

Towards Safe Exploration using Demonstrations

Andr  Correia and Lu s A. Alexandre

Using Twitter Data and Natural Language Processing to Generate Wildfire Heat Maps

Jo o Cabral Pinto, Catarina Silva, Hugo Gonalo Oliveira and Alberto Cardoso

12:30 Lunch

14:00 Poster session 1 (Jos  Saramago Library)

An evaluation of filter and wrapper methods for feature selection in chronotype profiles

Mariana Ramos, Andr  Silva, Ana Tom , Pedro Bem-Haja and Isabel Santos

Deep Learning for Segmentation of the Left Ventricle in Echocardiography

Sofia Ferraz, Miguel Coimbra and Jo o Pedrosa

Evaluating mutual information between deep features and lung tumor semantics

Francisco Silva, H lder Oliveira and T nia Pereira

Automatic contrast generation from contrastless computed tomography

R ben Domingues, Francesco Renna and Jo o Pedrosa

COVID-19 Chest X-Ray classification and the impact of Data Augmentation

Carlos Manso, In s Domingues and Ver nica Vasconcelos

Impact of Class Balancing Techniques in the Classification of Skin Lesions

Cátia Loureiro, Lio Gonçalves and Vitor Filipe

Automatic Pericardial Segmentation in Computed Tomography Images

Rúben Baeza, Miguel Coimbra, Francesco Renna and João Pedrosa

Breast Cancer Detection in MRI using a Faster R-CNN model

João Nuno Centeno Raimundo, João Pedro Fontes and Miguel Angel Guevara Lopez

From Easy to Hard: A Curriculum Learning Approach for Breast Lesion Classification

Eduarda Caldeira, Eduardo Meca Castro and Tiago Gonçalves

A survey on computational tools for human viral genomes reconstruction

Maria João Sousa and Diogo Pratas

Deep learning glaucoma detection models in retinal images capture by mobile devices

Roberto Rezende, Ana Coelho, Rodrigo Fernandes, José Camara, Alexandre Neto and António Cunha

Improving the compression of a complete Telomere-to-Telomere (T2T) human genome sequence

Maria João Sousa, Rita Ferrolho, Tiago Fonseca, Armando J Pinho and Diogo Pratas

How Coherence of CT Annotations and Data Augmentation with Domain Knowledge Can Help Improve Lung Segmentation

Joana Sousa, Tania Pereira, Inês Neves, Francisco Silva and Hélder P. Oliveira

Active Learning for Biomedical Image Segmentation: A case study

Diogo Silva, Lio Gonçalves, Pedro Gonçalves, Bruno Colaço, Sofia Pimenta, Mário Ginja, Manuel Ferreira and Vitor Filipe

Semi-supervised learning for gastric landmark detection

Inês Lopes, Miguel Coimbra and Francesco Renna

An Inherently Interpretable Classifier for Automatic Skin Lesion Diagnosis

Cristiano Patrício, Nuno Pereira, João Neves and Luís Teixeira

Automatic detection of calcifications in mammography images using Mask-RCNN

Carolina Ferreira, Verónica Vasconcelos and Inês Domingues

Machine Learning models for the detection of ex vivo colorectal cancer in biophotonic data

Luís Fernandes, Sónia Carvalho, Isa Carneiro, Rui Henrique, Valery V. Tuchin, Luís Oliveira and Hélder Oliveira

Privacy-Preserving Case-Based Explanations for Medical Image Analysis

Helena Montenegro, Wilson Silva and Jaime Cardoso

Novel Graph Neural Network architecture to predict HIV inhibitors

Pedro Quesado dos Santos, Joel P. Arrais, Luis H. M. Torres, Maryam Abbasi and Bernardete Ribeiro

Deep Feature-Based Automated Chest Radiography Compliance Assessment

Matilde Costa, Sofia C. Pereira, João Pedrosa, Ana Maria Mendonça and Aurélio Campilho

Augmented reality on campus

Pedro Rito, Teresa Rocha and Nuno Martins

Towards Biometrically-Morphed Torsos for Improved Shared Decision-Making Process in Breast Cancer Patients

Mariana F. Nunes, Maria Carvalho, Wilson Silva, Maria J. Cardoso and Jaime S. Cardoso

15:00 Poster session 2 (José Saramago Library)

Crowd Counting with Conformalized Quantile Regression

Martim Sousa, Ana Tomé and José Moreira

Detection of vehicles and buildings in Drone aerial images

Rita Amante, Daniel Canedo, Jose Silvestre Silva and António J. R. Neves

Key Performance Indicators MOTA and HOTA for multi-object tracking

Pedro V Leite and Andre R S Marçal

Clustering methods for the H3D LiDAR Dataset - Preliminary results

Mafalda Inês Teixeira Oliveira and André R S Marçal

Face Morphing Attack Detection

João Isidoro and Paulo Correia

3D object detection for self driving vehicles aided by object velocity

Leandro Alexandrino, Pétia Georgieva, Miguel Drummond and Hadi Zahir

Image-based Fish Freshness Estimation

Tomás Rosário, Paulo Correia and Osvaldo Pacheco

Mobile App using Object Detection for Car Driving

Filipe Campos, Francisco Cerqueira, Vasco Alves and Ricardo Cruz

Detecting Archaeological Sites From Airborne LiDAR Data With YOLOv5

Fabricio Botelho, Daniel Canedo, Petia Georgieva, António Neves, João Fonte, Rita Dias, Tiago Pereiro, Luis Seco, Marta Vázquez, João Hipólito and José Machado

A Benford's Law Based method to Detect Manipulated Digital Photos

Pedro Fernandes and Mário Antunes

3D Reconstruction using Images Acquired by Unmanned Aerial Vehicle

Alexandre Yu Jin, Jose Silvestre Silva and Alexandre Bernardino

An evaluation of Deep Learning Methods for Long-Term Forecasting Traffic Flow

Ana Almeida, Susana Brás and Susana Sargento

Intrusion detection: Influence of dataset balancing methods

Hugo Almeida and Carlos Grilo

Facial Recognition in a non-cooperative environment

Ruben Menino, Jose Silvestre Silva and António J. R. Neves

Efficient Neuromorphic Architectures for Visual Perception in Autonomous Driving Systems

Marcelo Carvalho, João Nunes and Jaime Cardoso

Analysis on 3D Reconstruction in Traffic Accident Investigation

Pedro Valério, Jose Silvestre Silva and António J. R. Neves

Finding Driver Styles on Driver Behavior Data with Unsupervised Learning

Luis Loureiro, Artur Ferreira and André Lourenço

Eye-Tracking Data Reconstruction in Chest Radiography Screening

Rui Santos, João Pedrosa, Ana Maria Mendonça and Aurélio Campilho

Electric Vehicle Driving Range Prediction: an Approach with Machine Learning

David Albuquerque, Artur Ferreira and David Coutinho

Explainable deep learning for metaplasia detection in upper gastrointestinal endoscopy

Alexandre Neto, Sofia Ferreira, Diogo Libânio, Mário Dinis Ribeiro, Miguel Coimbra and António Cunha

On the Generalization of Masked Face Recognition Models to Occluded Face Recognition

Ana F. Sequeira, Pedro C. Neto and Jaime S. Cardoso

16:00 Coffee break (José Saramago Library)

16:30 Poster session 3 (José Saramago Library)

Interpretability-Guided Human Feedback During Neural Network Training

Pedro Serrano E Silva, Ricardo Cruz, Tiago Gonçalves and Asm Shihavuddin

Natural Language Processing in the Classification of Dialog Act

Patrícia Ferreira, Daniel Martins, Hugo Gonçalo Oliveira, Catarina Silva and Ana Alves

Intelligence Artificial approaches for credit scoring & coded biases ecosystem

Aline Silva, Catarina Silva and Marcelo Augusto Vieira Graglia

Optimized European Portuguese Speech-To-Text using Deep Learning

Leonel Corado, Eduardo Medeiros, Luís Rato, Paulo Quaresma and Pedro Salgueiro

Can we rely on clustering for approximating intents and dialog acts?

Daniel Martins, Patrícia Ferreira, Hugo Oliveira, Catarina Silva and Ana Alves

Latent Noise Augmentation: On the applicability of noise as an augmentation in the latent space

Rafael Mamede, Mafalda Oliveira, Pedro C. Neto, Ana F. Sequeira and Jaime S. Cardoso

Ensembles and Wearable Sensors for Stroke Classification

Miguel Santos, Joana Costa, Catarina Silva, Telmo Fernandes and Sérgio Faria

Preliminary Study on Deep Iterative Semantic Segmentation

Diana Teixeira E Silva, Ricardo Cruz and Tiago Gonçalves

Automatic Data Model Conversion

Jaime Marques, Catarina Silva and João Garcia

Bitcoin Price Prediction using Natural Language Processing, Technical Analysis and Machine Learning Models

Vasco Oliveira and Ana Alves

IoT Forensic Framework: An Initial Approach

Erica Wallberg, Gonçalo Carnaz and Inês Domingues

Regularization Techniques for Transformers Based Models

Hugo S. Oliveira Oliveira

A deep learning approach for automatic counting of bedbugs and grape moth

Ana Cláudia Teixeira, Raul Morais, Joaquim J. Sousa, Emanuel Peres and António Cunha

Startups' Twitter activity analysis: the case of Portuguese IT Startups

Ana Rita Peixoto, Nuno António and Ana Maria de Almeida

Knowledge-based model for object recognition: The importance of linking archaeological knowledge with geoinformation

Ariele Câmara, Ana de Almeida and João Pedro Oliveira

An High-Level View Of Pest Detection Using Computer Vision and IoT

Bruno Cardoso, Catarina Silva, Joana Costa and Bernardete Ribeiro

Grapevine Varieties Identification Using Vision Transformers

Gabriel Carneiro, Luís Pádua, Emanuel Peres, Raul Morais, Joaquim Sousa and António Cunha

Engenhos.INFO Platform

Lorena Pinteá, Gonçalo Carnaz and Inês Domingues

Machine Learning for the Identification of Material Constitutive Model Parameters

Armando Marques, Bernardete Ribeiro and Pedro Prates

17:30 Awards and closing session (José Saramago Library)

