RECPAD 2021: Detailed Program

5 de Novembro de 2021





08:45 Registration

09:15 Open Cerimony

09:30 Poster session 1

#	Title	Authors
2	Prostate Cancer Aggressiveness Prediction using CT Images	Bruno Mendes, Inês Domingues and João Santos
5	Detection of EGFR-related patterns in lung cancer CT images: a holistic approach	Francisco Silva, Tania Pereira, António Cunha and Hélder Oliveira
8	Machine learning approach for perfusion assessment of synthetic myocardial SPECT images	Sérgio Figueiredo, Ana Fred and João Sanches
9	Comparison of bladder segmentation techniques in CT scans	Ana Couto, Inês Domingues and João Santos
12	Segmentation of optic disc and cup for glaucoma analysis using cup-to-disc ratio	Alexandre Neto, José Camara, Sérgio Oliveira, Ana Cláudia and António Cunha
13	Detection of polyps in colonoscopy images	Sara Nobrega, José Ribeiro and António Cunha
16	Preliminary Study on the Impact of Attention Mechanisms for Medical Image Classification	Tiago Gonçalves and Jaime Cardoso
21	False-positives attenuation of automatically detected hotspots on bone scintigraphy images using image analysis techniques	Laura Providência, Inês Domingues and João Santos
22	Analysis of classification tradeoff in deep learning for gastric cancer detection	Gabriel Lima, Miguel Coimbra and Francesco Renna
23	Improving spatial resolution of myocardial T1-mapping using a model- based super-resolution reconstruction	Francisco Cachado, Andreia Gaspar and Rita Nunes
26	Deep Convolutional Neural Network for gastric landmark detection	Inês Lopes, Miguel Coimbra, Augusto Silva and Francesco Renna
29	Segmentation of US fetus images based on particle swarm optimization and k-means clustering	Lio Goncalves, Paulo Salgado and Paulo Afonso
32	Anonymising Case-based Explanations for Medical Image Analysis	Helena Montenegro, Wilson Silva and Jaime S. Cardoso
38	Automatic Lung Field Segmentation on Chest Radiography Images	Rui Magalhães, Ricardo Brioso, Joana Rocha, Sofia Cardoso Pereira, João Pedrosa, Ana Maria Mendonça and Aurélio Campilho
40	A semi-supervised approach for colorectal cancer diagnosis from H&E whole slide images	Sara P. Oliveira, Pedro C. Neto, Diana Montezuma, Liliana Ribeiro, Ana Monteiro, Isabel Macedo Pinto and Jaime Cardoso

10:30 Coffee break

11:00 Poster session 2

#	Title	Authors
3	Pest detection: Can we beat the technicians?	Bruno Cardoso, Abdellahi Brahim, Catarina Silva, Joana Costa and Bernardete Ribeiro
14	Evaluation of different depth cameras technologies in transparent and semitransparent scenes	Eva Curto and Helder Araujo
17	Order is the key: Deep focus assessment in Whole Slide Images	Tomé Albuquerque, Ana Moreira and Jaime Cardoso
20	Question Answering from Technical Portuguese Documents	Sara Inácio, Hugo Gonçalo Oliveira and Catarina Silva
30	Sentinel 2 Image Scene Classification: A Comparison Between Bands and Spectral Indices	Kashyap Raiyani, Teresa Goncalves and Luis Rato
31	caPAD - A context aware model for face presentation attack detection	Pedro C.Neto, Ana F. Sequeira and Jaime S. Cardoso
35	Predicting soil electro-condutivity using Sentinel-1 Images	Eduardo Medeiros, Sajib Ahmed, Teresa Gonçalves and Luís Rato
36	Complementary and case-based explanations for clinical decision support	Wilson Silva and Jaime S. Cardoso
1 3/	Real-Time Head Movement Analysis in Teleconsultation for Depression Disorder	Diogo Ramalho, Vasco Duarte, Hugo Silva, Miguel Constante and João Sanches
39	Face Detection and Alignment Using On-the-Wild Multispectral Images	Pedro Roque Martins, Jose Silvestre Silva and Alexandre Bernardino
41	An Initial Approach to Self-Supervised Underwater Fish Detection	Ricardo Veiga, Jorge Semião and João M. Rodrigues
43	Sketch-to-Photo Matching Enforcing Realistic Rendering Generation	Leonardo Capozzi, João Ribeiro Pinto, Jaime Cardoso and Ana Rebelo
45	From Captions to Explanations: Towards In-Model Unsupervised Natural Language Explanations	Isabel Rio-Torto, Luís F. Teixeira and Jaime Cardoso
46	Estimation of Pose Accuracy Based on Relative Pose	Helder Araujo and Francisco Lourenço

12:00 Keynote talk

Title	Invited Speaker
Multi-objective search with evolving fitness functions for solving scheduling problems	Keshav Dahal, University of the West of Scotland
will investigate multi-objective and weighted single objective approaches to a real world workforce scheduling problem. The computational experiments show that multi-objective genetic algorithms can create solutions whose fitness is close to that of the solution created by the genetic algorithms using weighted sum objectives even though the multi-objective approaches know nothing of the weights. In second part of the talk will discuss the variable fitness function approach to enhance the metaheuristic approaches by evolving weights for each of the multiple objectives. The results show that the variable fitness function	Biography: Professor Keshav Dahal is a Professor of intelligent systems and the leader of the Artificial Intelligence, Visual Communications and Network (AVCN) Research Centre, University of the West of Scotland, Paisley, U.K. He received his Masters and Ph.D. degrees from the University of Strathclyde, UK. He also worked at the University of Bradford and the University of Strathclyde. His research interests lie in the areas of applied AI, trust and security modelling in distributed systems, Blockchain technology and scheduling/optimization problems. He has been principal investigator or coinvestigators on more than 25 externally funded projects, and supervised over 30 PhD and postdoctoral researchers. He has published over 170 papers in his research fields with award winning publications and has sat on organizing/program committees of over 60 international conferences. He is a Senior Member of IEEE.

13:00 Lunch Break / APRP meeting (starting at 13:30)

14:30 Poster session 3

#	Title	Authors
1	An Exploratory Study on ECG Biometric Bias Using Compression Algorithms	João Carvalho, Susana Brás and Armando Pinho
4	Evaluating the Performance of Zero-Shot Learning Methods using Low- Power Devices	Cristiano Patrício and João Neves
7	Evaluating GANs for Dataset Augmentation	Francisco Fernandes, Catarina Silva and Bernardete Ribeiro
11	Real-time pulse rate variability for remote autonomic assessment	Pedro Constantino, João Sanches, Hugo Silva and Miguel Constante
18	Organization of Information in Feed-Forward Neural Networks	Ricardo Coke and Paulo Salgado
19	Adaptive body interface to control devices using KNX protocol	Jedid Jah D. Santos, Ivo Martins and João M.F Rodrigues
24	Biometric identification and authentication based on electrocardiogram	Bruna Alves and Raquel Sebastião
27	Low-Cost Pulse Oximetry and Infra-Red Temperature Device for COVID-19 Patients	Afonso Raposo, Francisco Melo, João Sanches and Hugo Silva
33	Improving Federated Learning Protection with Digital Envelopes	Mario Dib, Pedro Prates and Bernardete Ribeiro
42	Road Accident Predictions as a Classification Problem	Madhulika Agrawal, Teresa Gonçalves and Paulo Quaresma
44	Contour Estimation and Delineation using Adaptive Periodic Cubic Splines	Paulo Salgado and Pedro Couto
	Regressing Autonomous Guided Vehicle Localization from Non-Visual Sensor Data	Bruno Carneiro da Silva and Luís Alexandre
49	Ultrasound denoising using the pix2pix GAN	Afonso Raposo, António Azeitona, Manya Afonso and João Sanches
50	Archaea Taxonomic Classification	Jorge Miguel Silva, Diogo Pratas, Tânia Caetano and Sérgio Matos

15:30 Oral session

#	Title	Authors
6	Hybrid Deep Learning - Hidden Markov Model for Heart Sound Segmentation	Francesco Renna, Miguel Martins and Miguel Coimbra
10	Using Knowledge Distillation to Interpret Credit Score Modeling	Tiago Faria, Bernardete Ribeiro and Catarina Silva
15	xECG: Using Interpretability to Understand Deep ECG Biometrics	João Ribeiro Pinto and Jaime Cardoso
25	MOSNet: A light-weight Moving Object Segmentation Network for Autonomous Driving	Gopi Krishna Erabati and Helder Araujo

16:30 Coffee Break / Historic visit to University of Évora

17:15 Awards and Closing

WiFi Access

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