

Accepted Papers

COMPOSITIONAL DATA ANALYSIS OF TYPE 1 DIABETES DATA	
Lyvia Biagi, Arthur Bertachi, Josep Antoni Martín-Fernández and Josep Vehí	8
ANALYSIS OF PATIENT DOMESTIC ACTIVITY IN RECOVERY FROM HIP OR KNEE REPLACEMENT SURGERY: MODELLING WRIST-WORN WEARABLE RSSI AND ACCELEROMETER DATA IN THE WILD	
Mike Holmes, Hao Song, Emma Tonkin, Miquel Perello Nieto, Sabrina Grant and Peter Flach	13
DETECTING BEHAVIOUR CHANGES IN ACCELEROMETER DATA	
Claudio Diaz and Kalina Yacef	21
CLASSIFICATION OF MOVEMENT QUALITY IN A WEIGHT-SHIFTING EXERCISE	
Elise Klaebo Vonstad, Xiaomeng Su, Beatrix Vereijken, Jan Harald Nilsen and Kerstin Bach	27
MONITORING HEALTH IN SMART HOMES USING SIMPLE SENSORS	
Stewart Massie, Glenn Forbes, Susan Craw, Lucy Fraser and Graeme Hamilton	33
USING FEATURES FROM PRE-TRAINED TIMENET FOR CLINICAL PREDICTIONS	
Priyanka Gupta, Pankaj Malhotra, Lovekesh Vig and Gautam Shroff	38
TOWARDS DATASET CREATION AND ESTABLISHING BASELINES FOR SENTENCE-LEVEL NEURAL CLINICAL PARAPHRASE GENERATION AND SIMPLIFICATION	
Viraj Adduru, Sadid A. Hasan, Joey Liu, Yuan Ling, Vivek V Datla, Kathy Lee, Ashequl Qadir and Oladimeji Farri	45
AUTOMATIC NURSING CARE TRAINER BASED ON MACHINE LEARNING	
Ankita Agrawal and Wolfgang Ertel	53
THE OHIO T1DM DATASET FOR BLOOD GLUCOSE LEVEL PREDICTION	
Cindy Marling and Razvan Bunescu	60
AUTOMATIC BLOOD GLUCOSE PREDICTION WITH CONFIDENCE USING RECURRENT NEURAL NETWORKS	
John Martinsson, Alexander Schliep, Björn Eliasson, Christian Meijner, Simon Persson and Olof Mogren	64
DILATED RECURRENT NEURAL NETWORK FOR SHORT-TIME PREDICTION OF GLUCOSE CONCENTRATION	
Jianwei Chen, Kezhi Li, Pau Herrero, Taiyu Zhu and Pantelis Georgiou	69
A DEEP LEARNING ALGORITHM FOR PERSONALIZED BLOOD GLUCOSE PREDICTION	
Taiyu Zhu, Kezhi Li, Pau Herrero, Jianwei Chen and Pantelis Georgiou	74

PREDICTING GLYCEMIA IN TYPE 1 DIABETES PATIENTS: EXPERIMENTS WITH XG-BOOST	
Cooper Midroni, Peter Leimbigler, Gaurav Baruah, Maheedhar Kolla, Alfred Whitehead and Yan Fossat	79
PREDICTION OF BLOOD GLUCOSE LEVELS AND NOCTURNAL HYPOGLYCEMIA USING PHYSIOLOGICAL MODELS AND ARTIFICIAL NEURAL NETWORKS	
Arthur Bertachi, Lyvia Biagi, Iván Contreras, Ningsu Luo and Josep Vehí	85
USING GRAMMATICAL EVOLUTION TO GENERATE SHORT-TERM BLOOD GLUCOSE PREDICTION MODELS	
Ivan Contreras, Arthur Bertachi, Lyvia Biagi, Josep Vehi and Silvia Oviedo	90
BENCHMARK MACHINE LEARNING APPROACHES WITH CLASSICAL TIME SERIES APPROACHES ON THE BLOOD GLUCOSE LEVEL PREDICTION CHALLENGE	
Jinyu Xie and Qian Wangl	95