Supplementary materials

Supplementary material 1

Complete list of classifiers, their corresponding names in WEKA and their parameter settings used to generate predictions for UFP and PM1.0 levels in WEKA.

Classifier	WEKA name	Parameter settings	Notes
Naïve Bayes	NaiveBayesSimple	Default	
Bayesian network	BayesNet	Default	
SVM	SMO	Kernel=linear	
		Kernel=polynomial, exponent=2	
		Kernel=polynomial, exponent=3	
		Kernel=polynomial, exponent=5	
		Kernel=polynomial, exponent=8	
		Kernel=polynomial, exponent=10	Computation becomes prohibitively time consuming
		Kernel=RBF, gamma=0.01	
		Kernel=RBF, gamma=0.1	
		Kernel=RBF, gamma=1	
		Kernel=RBF, gamma=10	
		Kernel=RBF, gamma=50	
		Kernel=RBF, gamma=100	
Neural Network	MultilayerPerceptron	Default	
RBF Network	RBFNetwork	Default	
K-nearest Neighbour	IBk	k varied, rest assigned to default values	k between 1 and 20 selected using cross-validation on training set
RIPPER (Rule-based)	JRip	Default	
Decision Tree	J48	Default	
Alternating Decision Tree	ADTree	Default	Only applicable to binary classification
Random Forest	RandomForest	No. of trees=10	
		No. of trees=30	
		No. of trees=50	
		No. of trees=70	
		No. of trees=100	
		No. of trees=120	

Supplementary material 2

Complete evaluation results obtained for the prediction of UFP and PM1.0 levels using all classifiers listed in Appendix 1(see attached excel spreadsheet). Each table of this excel spreadsheet contains all evaluation measures for binary or ternary classifications of UFP or PM1.0 using class labels generated at the corresponding thresholds.