

Complementary information A

Reference	Year	Database	Signal	Preprocessing	Extracted Features	Extraction Method	Classifier	Model
[23]	2019	SEED	EEG	Filtering; DT-CWT	MAV; PSD; FD; DE	MAV method; FFT; Higuchi method; DE method	SRU models	Dimensional
[24]	2016	DEAP	EEG	-	PSD	FFT	SVM	Discrete
[25]	2020	DEAP	EEG	-	PSD	FFT	CNN and RNN models	Dimensional
[26]	2016	DEAP	EEG	-	IMFs entropies	EMD	SVM	Dimensional
[27]	2019	DEAP	EEG	-	PSD of IMF; first difference of IMF	VMD	DNN	Dimensional

Table A.1 - Review of related studies using EEG for emotion recognition.

Reference	Year	Database	Signal	Preprocessing	Extracted Features	Extraction Method	Classifier	Model
[20]	2010	Proprietary Database	ECG	-	R wave location; Statistical features; amplitude of P, R, S waves; HRV; PSD of HRV	DWT	Fisher KNN classifier	Discrete
[28]	2015	Proprietary Database	ECG	-	Statistical features of RR intervals; LF and HF of HRV; Kurtosis and Skewness of HRV	FFT	Simple separation classifier	Discrete
[29]	2017	Proprietary Database	ECG	Band pass filter; Notch filter; Band stop filter	R wave peak mean; R peak standard deviation; mean distance of two R peak points; RR standard deviation; R beat counts; HRV mean	-	SVM; Naïve Bayes; KNN; Gaussian classifier	Discrete
[30]	2018	Proprietary Database	ECG	-	MP coefficients; statistical features of MP	MP method; PCA; Kernel PCA	PNN	Dimensional

Table A.2 - Review of related studies using ECG for emotion recognition.

Reference	Year	Database	Signal	Preprocessing	Extracted Features	Extraction Method	Classifier	Model
[31]	2018	Proprietary Database	EDA	-	Wavelet coefficients	CWT	SVM	Discrete
[32]	2019	DEAP	EDA	Low pass buttworth filter	Frequency domain and wavelet features	WPT	MLP	Dimensional
[33]	2020	DEAP	EDA	-	Time and frequency domain features	STFT	CNN	Dimensional

Table A.3 - Review of related studies using EDA for emotion recognition.

Reference	Year	Database	Signal	Preprocessing	Extracted Features	Extraction Method	Classifier	Model
[34]	2014	Proprietary Database	RSP	-	Statistical features; PSD	Burg algorithm	KNN; SVM; RF; MLP	Discrete
[35]	2017	DEAP; Augsburg University affective database	RSP	-	-	SAE	SAE + Logistic regression	Dimensional

Table A.4 - Review of related studies using RSP for emotion recognition.

Reference	Year	Database	Signal	Preprocessing	Extracted Features	Extraction Method	Classifier	Model
[37]	2010	Augsburg University affective database	EMG	-	Wavelet coefficients	CWT	SVM	Discrete
[38]	2011	Augsburg University affective database	EMG	-	Maximum and minimum of wavelet coefficients	WT	ANN / SVM / L-M Algorithm	Discrete
[36]	2013	Proprietary Database	EMG	Notch filter Smoothing	Mean and standard deviation	HOS	KNN	Discrete
			ECG	-	R peak	HOS		
[39]	2014	Proprietary Database	EMG	-	Wavelet coefficients	WT	SVM	Dimensional

Table A.5 - Review of related studies using EMG for emotion recognition.