

Resource Summary Report

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DEAPdataset

RRID:SCR_001586

Type: Tool

Proper Citation

DEAPdataset (RRID:SCR_001586)

Resource Information

URL: <http://www.eecs.qmul.ac.uk/mmv/datasets/deap/>

Proper Citation: DEAPdataset (RRID:SCR_001586)

Description: Multimodal dataset for emotion analysis using EEG, Physiological and Video Signals of human affective states. The electroencephalogram (EEG) and peripheral physiological signals of 32 participants were recorded as each watched 40 one-minute long excerpts of music videos. Participants rated each video in terms of the levels of arousal, valence, like/dislike, dominance and familiarity. For 22 of the 32 participants, frontal face video was also recorded. A novel method for stimuli selection was used, utilizing retrieval by affective tags from the last.fm website, video highlight detection and an online assessment tool. The dataset is made publicly available and other researchers are encouraged to use it for testing their own affective state estimation methods.

Abbreviations: DEAPdataset

Synonyms: DEAP: A Dataset for Emotion Analysis using EEG Physiological and Video Signals, DEAPDataset: A Dataset for Emotion Analysis using EEG Physiological and Video Signals

Resource Type: data set, data or information resource

Keywords: emotion, analysis, eeg, physiological, video, signal, affective state, physiological recording, video recording

Funding: European Community's Seventh Framework Program (FP7/2007-2011) grant agreement 216444;
BrainGain Smart Mix Programme ;
Swiss National Foundation for Scientific Research ;

NCCR Interactive Multimodal Information Management

Availability: Public, End User License Agreement, Account required

Resource Name: DEAPdataset

Resource ID: SCR_001586

Alternate IDs: nlx_153824

Record Creation Time: 20220129T080208+0000

Record Last Update: 20250428T052859+0000

Ratings and Alerts

No rating or validation information has been found for DEAPdataset.

No alerts have been found for DEAPdataset.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 16 mentions in open access literature.

Listed below are recent publications. The full list is available at [FDI Lab - SciCrunch.org](#).

Su Y, et al. (2024) A review of artificial intelligence methods enabled music-evoked EEG emotion recognition and their applications. *Frontiers in neuroscience*, 18, 1400444.

Wu X, et al. (2024) FC-TFS-CGRU: A Temporal-Frequency-Spatial Electroencephalography Emotion Recognition Model Based on Functional Connectivity and a Convolutional Gated Recurrent Unit Hybrid Architecture. *Sensors (Basel, Switzerland)*, 24(6).

Candia-Rivera D, et al. (2022) Cardiac sympathetic-vagal activity initiates a functional brain-body response to emotional arousal. *Proceedings of the National Academy of Sciences of the United States of America*, 119(21), e2119599119.

Yue W, et al. (2022) Potential diagnostic biomarkers for schizophrenia. *Medical review* (2021), 2(4), 385.

An Y, et al. (2021) Electroencephalogram Emotion Recognition Based on 3D Feature Fusion and Convolutional Autoencoder. *Frontiers in computational neuroscience*, 15, 743426.

Almarri B, et al. (2021) Automatic subject-specific spatiotemporal feature selection for subject-independent affective BCI. PloS one, 16(8), e0253383.

Chen D, et al. (2021) Sparse Granger Causality Analysis Model Based on Sensors Correlation for Emotion Recognition Classification in Electroencephalography. Frontiers in computational neuroscience, 15, 684373.

Bizzego A, et al. (2021) Deep Neural Networks and Transfer Learning on a Multivariate Physiological Signal Dataset. Bioengineering (Basel, Switzerland), 8(3).

Ni T, et al. (2021) A Domain Adaptation Sparse Representation Classifier for Cross-Domain Electroencephalogram-Based Emotion Classification. Frontiers in psychology, 12, 721266.

Chen J, et al. (2021) Dual-Threshold-Based Microstate Analysis on Characterizing Temporal Dynamics of Affective Process and Emotion Recognition From EEG Signals. Frontiers in neuroscience, 15, 689791.

Chen DW, et al. (2020) Sparse Logistic Regression With L 1/2 Penalty for Emotion Recognition in Electroencephalography Classification. Frontiers in neuroinformatics, 14, 29.

Cao R, et al. (2020) EEG Functional Connectivity Underlying Emotional Valance and Arousal Using Minimum Spanning Trees. Frontiers in neuroscience, 14, 355.

Gao Z, et al. (2019) Recognition of Emotional States Using Multiscale Information Analysis of High Frequency EEG Oscillations. Entropy (Basel, Switzerland), 21(6).

Chao H, et al. (2018) Recognition of Emotions Using Multichannel EEG Data and DBN-GC-Based Ensemble Deep Learning Framework. Computational intelligence and neuroscience, 2018, 9750904.

Zangeneh Soroush M, et al. (2018) A novel approach to emotion recognition using local subset feature selection and modified Dempster-Shafer theory. Behavioral and brain functions : BBF, 14(1), 17.

Cavanagh JF, et al. (2017) The Patient Repository for EEG Data + Computational Tools (PRED+CT). Frontiers in neuroinformatics, 11, 67.