**DSP PROJECTS**

Recommended link:

[Recent Trending DSP Digital Signal Processing Projects (matlabsimulation.com)](https://matlabsimulation.com/dsp-projects/)

Abstract:

DSP Projects envisioned to transfer our over brainpower to the PhD/MS entrants. Digital Signal Processing ([DSP Projects](https://matlabsimulation.com/dsp-matlab-projects/)) deals with analyzing signals via linear or non-linear functions. Application areas of DSP Projects are wide together with *Audio Recognition, Biomedical*, and so on. Hence, it becomes an unavoidable arena in real-time use cases.

**UPCOMING APPLICATION BASED DSP PROJECTS**

1. Modulation recognition through DSP
2. Speech recognition for image retrieval
3. Anomaly detection in optical networks
4. Multimedia signal processing in Multi-RAT
5. Health monitoring from physiological signals

At this moment, 5G based [DSP Projects](https://phdtopic.com/mtech-dsp-projects-matlab/) have broad value. To cope with this wide area, DSP also covers vast techniques as well as methods. In any method, signal features are vital. In usual, feature extraction methods are there for this purpose. On the positive side, feature extraction reduces the time of signal processing.

WHAT ARE THE KEY FEATURES?

1. Frequency variations
2. DCT coefficients
3. Power spectrum amplitudes
4. Log of FFT. DFT and also IDFT
5. Mean, variance and also skewness

HOW TO EXTRACT THE FEATURES?

1. TFD, FFT. Eigenvector and also wavelet transform
2. Multifactor dimensionality reduction
3. Linear and non-linear ICA
4. PCA, kernel-PCA and also ISOMAP and much more.

The above techs are useful for all DSP Projects. In that, feature extraction is one of the processes in DSP. Besides, we need to study a variety of processes in DSP. Find some more processes in DSP below,

PREPROCESSING

1. Filters
2. Transformers
3. Converters

FEATURE EXTRACTION AND SELECTION

1. Decision making
2. Optimization
3. Statistic approaches

SIGNAL ANALYSIS

1. Machine learning
2. Deep learning
3. Reinforcement learning

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