**DSP SYSTEM TOOLBOX MATLAB PROJECTS**

RECOMMENDED LINKS:

[DSP System Toolbox Matlab Projects for Students (matlabsimulation.com)](https://matlabsimulation.com/dsp-system-toolbox-matlab-projects/)

Abstracts:

DSP System Toolbox MATLAB Projects create a speaking output for your thoughts. The Digital Signal Processing is in short as DSP. This toolbox design is support for signal analysis by means of sampling, feature extraction, and then analysis. As a matter of fact, it helps with both analog and digital from the fields of communication, biomedical, and some more.

Chiefly, it builds Multi-rate filters for signal in our [DSP System Toolbox MATLAB Projects](https://matlabsimulation.com/dsp-projects/). This also can be embedded on smart devices via embedded coder C and C++ and HDL coder VHDL and Verilog. This toolbox also provisions with the use of fuzzy logic, deep learning, and others.

REAL-TIME DIGITAL SIGNAL PROCESSING APPLIED ON

1. Radar and cellular communication
2. Implant medical devices
3. Internet of things
4. Image processing with computer vision
5. Monitor brain functions
6. Virtual reality
7. Speech and word recognition
8. Unmanned aerial vehicle
9. Optical communication system
10. Bicyclist and pedestrian detection

This toolbox is a combination of MATLAB functions and MATLAB system object. By this means, it allows us to support streaming signals. The [DSP system toolbox](https://www.phddirection.com/phd-research-topics-in-dsp/) is available on the following versions, such as R2020a, R2019 a & b, R2018 a & b, and R2017 a&b.

TWO AREAS FROM DSP SYSTEM TOOLBOX MATLAB PROJECTS

**DSP SYSTEM IN MEDICAL FIELD**

1. EEG signal quantity assessment
2. Intensity characterization
3. Epileptic seizure detection
4. Lung auscultations prediction
5. Systolic blood pressure monitor
6. Heart rate measurement and so on

**DSP SYSTEM IN COMMUNICATION FIELD**

1. Spectrum analyzer
2. Signal modulation and demodulation
3. Encoding and decoding
4. Denoising the signal
5. Fault detection
6. Waveform segmentation
7. MU with multiple antenna and also many more

 This MATLAB toolbox adapts to operate on the Priori signals from the field in the form of a dataset. It is able to process with living as well as datasets based signals. In this way, we have tracked over all the areas, and hence you are the course topper. For instance, at this point, we gain a lot of datasets for EEG that is here down.

**Datasets for EEG Processing**

* EEG-IO, EEG-VV and EEG-VR –  To detect eye blinks
* Psychophysics – To identify visual attention
* Epilepsy – For prediction of disorder in brain
* DEAP and Interface ‘06 – To recognize emotion
* EID-M and EID-S – For identifying eye movements
* BCI Competition –To pick out abnormal EEG