QUALIFICATION FILE: Certificate course in DSP Using MATLAB

Annexure -II

Course Curriculum

1: *Matlab& Simulink*

Duration: 80 Hours

Objective

This course aims to provide students with an in depth hands on demonstration and practical sessions, within a stimulating environment. This lab will introduce you to MATLAB as a tool for designing and evaluating digital filters, prior to implementing them in hardware.

Course Description

Introduction to MATLAB
Introduction to MATLAB
       History
       Toolbox
       Command Window
       Script .m-file
       Function
       MATLAB Documentation
       Uses of MATLAB
Basic Mathematics Using MATLAB
       Data types
       Matrix
       Differentiation
       Integration
Logic Operations Using MATLAB
       Conditional Operators
       For loop
       While loop
       While loop
Graph
       Plotting of linear variables
       Plotting of signals
Image Processing
       Image Processing Toolbox
       Types of Image
       Image Resizing
Color Filtering
       Image Restoration
MATLABSimulink
Mini project

Learning Outcomes

After successful completion of the module, the students shall be able to:

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- Implement DSP algorithms using MATLAB.

Text Books:
1. DSP using MATLAB. SanjitK.Mitra
2. Digital Signal Processing, Third Edition, Sanjit K. Mitra, Tata McGRWA Hill