



Vishnu Waman Thakur Charitable Trust's  
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## Department of Electronics and Telecommunication Engineering

**Topic Name:** Wireless/Mobile Communication Toolbox  
**Name of the Guest Speaker:** Mr. Kunal Khandelwal ,  
**Designation:** Instructor  
**Organization/Institution:** Design Tech System Pvt Ltd  
**Date:** 16/09/2022  
**Time:** 10.00 am Onwards  
**Number of Students:** 50

### Photos :

The image shows a Zoom meeting interface. On the left, a MATLAB Simulink model of an OFDM system is visible, including blocks for OFDM Modulator, AWGN Channel, and OFDM Demodulator. On the right, a grid of participant avatars is shown, with 'KUNAL KHAND...' highlighted. Below the Zoom window, a browser window displays the MATLAB website. In the foreground, a MATLAB Spectral Analyzer plot shows the frequency spectrum of the signal, with a peak at approximately 0.5 MHz. The plot includes a legend for 'OFDM Modulator Output', 'Multipath Channel Output', and 'AWGN Channel Output'. The command window shows the following code:

```
specAn = dsp.SpectrumAnalyzer('SpectralAveragingMethod','ChannelAveragingMethod','ShowLegend',true);  
specAn(ofdmModOut,mpChanOut,chanOut);
```

The workspace window shows the following variables:

| Name     | Value          | Size   | Class            |
|----------|----------------|--------|------------------|
| BER      | 0.0350         | 1x1    | double           |
| bitsPer  | 4              | 1x1    | double           |
| chanOut  | 8224x1 complex | 8224x1 | double (complex) |
| chanPref | 30             | 1x1    | double           |
| eqOut    | 7167x1 complex | 7167x1 | double (complex) |
| modOrder | 16             | 1x1    | double           |
| mpChan   | 17x1 double    | 17x1   | double           |
| mpChan   | 7167x1 complex | 7167x1 | double (complex) |
| mpChan   | 8224x1 complex | 8224x1 | double (complex) |