**ECE 3204: Digital Signal Processing Laboratory**

**Experiment 3:** Explore the fundamental characteristics of FIR filters and analyze the frequency responses of noisy and enhanced samples by designing user-defined functions (Open Ended Project)

PROJECT PROPOSAL

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| Group No: B3  Roll No: 1909043,1909044,1909045,1909046,1909047,1909048 | Date: 18/9/23 |

Please provide the following specifications for your proposed FIR filter:

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| Filter type | Band Pass Filter |
| Passband (Hz) | 1500-2750Hz |
| Stopband (Hz) | Lower stopband 0-1KHz  Upper Stopband 3.5-4.5KHz |
| Sampling rate (Hz) | 8KHz |
| Passband Ripple (dB) | 0.5dB |
| Stopband Ripple (dB) | 40dB |
| Input Signal | x(t)= sin(0.06πt) + 3sin(0.14πt) + noise signal |