

## APPENDIX

### **Function explanation:**

#### **Freqz:**

Computes the frequency response of the given filter by taking filter coefficients and order as the input.

$[x,y]=\text{freqz}(b,a,n)$

b – Input row vector containing the numerator polynomial coefficients

a – Input row vector containing the denominator polynomial coefficients

n – Input scalar containing the order of the filter.

x – Output frequency response of the filter returned as a row vector.

y - Output angular frequencies of the filter returned as a row vector.

#### **Phasez:**

Computes the phase response of the given filter from the coefficients and order.

$[x,y]=\text{phasez}(b,a,n)$

b – Input row vector containing the numerator polynomial coefficients

a – Input row vector containing the denominator polynomial coefficients

n – Input scalar containing the order of the filter.

x – Output phase response of the filter returned as a row vector.

y - Output frequency of the filter returned as a row vector.

#### **Figure:**

Used to create a new figure window to plot the response.