DTLTI Systems, Transfer Functions, and the Z-transform

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DTLTI Systems

Explanation of Discrete-Time Linear Time-Invariant Systems.

Impulse and Step Response

Impulse and Step Response, the Kronecker delta function, the Heaviside step function, and their properties.

Convolutions

The definition of the convolution operator, some of its properties, and DTLTI transformations as a convolution with the impulse response.

The Z-transform

Derivation and properties of the Z transform.