

Digital Signal Processing

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Abstract

Digital signal processing (DSP) is integral to many of the computational tools we use in our everyday lives. Ranging from voice assistants, sensor data processing, to even data compression, digital processors are used regularly to perform various signal processing methods. Data is sampled in the time, space, or frequency domain and utilize linear transformations to appropriately filter and adjust the signal to specification. DSP can be seen in voice assistants such as Siri, Alexa, or Google Assistant. Voice, an analog signal, is converted with an analog-to-digital converter after data sampling, which then characterized as various commands (ie. "yes" or "no") utilizing DSP. Similarly, file and data compression software utilizes linear transformations to digitally process data to fit a smaller file size.

1 TEMPORARY

For example, I may have written a book. [1]. Or I may have viewed a website. [2].

References

- [1] Write the author of the book here, *Write the title of the book here*, Write the publisher of the book here, Write the year the book was published.
- [2] Write the author of the webpage, *Write the title of what they wrote*, Write the year the page was published. Write the date that you accessed the page.