How Signal Processing Affects Our Daily Lives

Signal processing touches our daily lives in more ways than we realize. There are countless applications and devices that utilize signal processing to make our technologies work.

1948

The IEEE Signal Processing Society, established in 1989, has roots in the IRE Audio Group, founded in 1948.

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1954

Signal processing enables the transistor radio, the most popular communication device in history, to be produced.

It analyzes audio signals, allowing you to hear the vibrations of a potato-chip bag through sound-proof glass **15 feet away.**

It helps mine data from social networking feeds, enabling you to discover trending topics and share new ideas.

Signal processing techniques make the invisible, visible. It helps us see through walls, and identify geological structures and oil under miles of ocean.

Rapidly evolving areas of biometric recognition include measuring hand geometry, signatures, facial expressions, and vein and ear shape, thanks to signal processing.

The sound quality of video streaming websites, smart phones and gaming devices has improved because of signal processing.

Signal processing is vital for the technology behind the 3 million hearing aids sold annually in the U.S.

Signal processing drives insight from wearables used to track fitness and health data - a market expected to cross **$8B in 2018.**

Signal processing helps remove background noise, increase audio quality and make way for voice recognition technology.

Digital signal processing improves the image quality and resolution in important medical imaging technologies like x-rays, CT scans and MRIs while reducing the power of the illuminating signal.

2020

Automakers are partnering with tech powerhouses with ambitions to produce affordable autonomous cars – driven by signal processing – **by 2020.**

2021

The FAA estimates as many as **7,500** small commercial drones, which utilize signal processing, could be operational within five years in U.S. airspace.

Signal processing helps measure earthquakes, detects tsunamis and over the past two years, has helped locate missing planes.

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Want to learn more about the science behind our digital lives? Visit signalprocessingsociety.org

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