



BUILDING YOUR CAREER IN DIGITAL SIGNAL PROCESSING

Signals are all around us! They range from audio signals from people talking on their phones that are then transmitted via radio waves to streaming video being sent over the internet. Digital signal processing is where computers are involved in the acquisition, processing, and distribution of these signals.

Digital signal processing is fundamental to sensor processing in biomedical engineering, remote sensing, and human/machine interaction. DSP is widely used in contemporary video, audio, music, and entertainment industries, as well as in machine learning, encryption/decryption, and computer security.

WHAT IS THE FOCUS OF DIGITAL SIGNAL PROCESSING?

WHICH INDUSTRIES USE DIGITAL SIGNAL PROCESSING?

The telecommunications industry heavily uses digital signal processing. Industries that acquire signals from sensors need DSP expertise to process these signals. These industries include aerospace, robotics, and manufacturing.

HERE ARE A FEW COMPANIES THAT FREQUENTLY HIRE MSU GRADUATES WITH DIGITAL SIGNAL PROCESSING EXPERTISE

- Advanced Electronic Design (MT)
- Bose
- Dolby
- General Dynamics

- Motorola
- Northrup Grumman
- Raytheon

ADVISERS FOR CAREERS IN DIGITAL SIGNAL PROCESSING

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EE ADVISING GUIDE: DIGITAL SIGNAL PROCESSING

LAUNCH-PAD COURSES FOR CAREERS IN DIGITAL SIGNAL PROCESSING



DIGITAL SIGNAL PROCESSING

EELE 308	Signals and Systems Analysis (4 credits)	Fall/Spring	<input type="checkbox"/>
M 221	Introduction to Linear Algebra (3 credits)	Fall/Spring/Summer	<input type="checkbox"/>
EELE 477	Digital Signal Processing (4 credits)	Spring	<input type="checkbox"/>
EELE 468	SoC FPGAs II (4 credits)	Spring	<input type="checkbox"/>
EELE 417	Acoustics/Audio Engineering (3 credits, alt. even years)	Fall	<input type="checkbox"/>



RELEVANT NON-ECE ELECTIVES

CSCI 232	Data Structures and Algorithms (4 credits)	Fall/Spring/Summer	<input type="checkbox"/>
CSCI 347	Data Mining (3 credits)	Spring	<input type="checkbox"/>
CSCI 447	Machine Learning (3 credits, alternating even years)	Fall	<input type="checkbox"/>

DID YOU KNOW?

The highest performing DSP processors are Field Program Gate Arrays that can have thousands of multipliers and adders running in parallel.