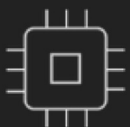# Engineering Teaching Solutions

Teachers who care about students experiencing real-world applications choose NI and Digilent.

Engineering Topics paired with Digilent and NI Solutions

Use Digilent and NI hardware in conjunction with compatible software to up-level your student's learning.

	Analog Discovery 3	Analog Discovery Studio	Analog Discovery Pro 5000 Series	Basys 3	Nexys A7	Zybo Z7	NI USRP
Analog	X	X	X				
Digital	X	X	X	X	X		
Power	X	X	X				
Robotics		X		X	X	X	
Controls		X		X	X	X	
Computer Architecture		X		X	X	X	
Projects	X	X	X	X	X	X	X
Communications							X

Built On Industry Standards

Using Digilent and NI, for both software and hardware, equips students for real-world roles and applications.

Engaging and Hands-on Learning

Bringing theory and textbook learning into the real-world with hands-on labs and personal project use.

Higher Student Success Rates

Students who use Digilent and NI tools benefit from higher graduation and hiring rates than those who don't.

Versatile Coding Platforms

From application software to text-based coding, students can learn how to control hardware with LabVIEW, Python, HDL, and more.

Engineering Solutions for the Classroom

Hardware, Software, and guided materials for engineering class and labs

Hardware Options from Digilent

Use with software and curriculum for a full engineering course solution.

Engineering on-the-go.

Analog Discovery 3   (NI myDAQ Replacement)

Portable all-in-one hardware with access to 10+ test instruments (oscilloscope, waveform generators, etc.), trigger pings, and digital I/O. Great for student designs and projects.

Most Versatile and Portable Circuits Laboratory.

Analog Discovery STUDIO (NI ELVIS III Replacement)

Equipped with 13 instruments such as Oscilloscope, Logic Analyzer, Spectrum Analyzer, Waveform Generator, and more. Combined with a removable breadboard, it's perfect for lab work.
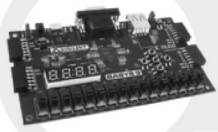
One Station Measurement System

Analog Discovery PRO (ADP5250)

Combination of performance analog and digital channels, external triggering, and a built-in programmable DMM and a tri-output power supply capable of up to 25 V. Great for lab work, student design, and projects.

FPGA Trainer Board

BASYS 3*

Create and interact with a variety of combinatorial digital logic circuits, from basic gates to adders, comparators, and multipliers. An ideal platform for teaching fundamental digital design principles.
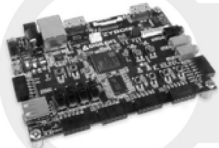
FPGA Trainer Board

NEXYS A7*

Best for computer architecture courses. Ready-to-use digital circuit development platform that brings industry applications into the classroom environment and allows students to start learning right away.

FPGA Development Board

ZYBO Z7*

Integrates a programmable FPGA and a dual-core ARM Cortex-A9 processor to provide an ideal starting point for hands-on learning and experimentation in system-on-chip (SoC) architecture.

*PMOD - Peripheral I/O Module

Extend the capabilities of the programmable logic and embedded control boards with small digital I/O boards including sensors, displays, motor controllers, and other I/O devices.
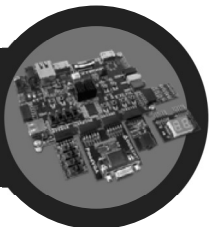
Prototype Wireless Communications Systems
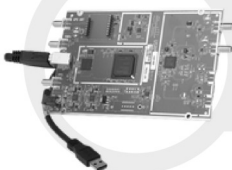
Universal Software Radio Peripheral (USRP B200)

Designed for low-cost experimentation. It combines a fully integrated direct conversion transceiver with up to 56MHz of real-time bandwidth, an open and reprogrammable Spartan6 FPGA, and fast bus-powered USB 3.0 connectivity.

ni.com/academic