YEA

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ENGINEERING

Engineerning Services

from Design to Manufacturing

ADAS-HIL Platform

ADAS-HIL Platform allows Automotive OEM and Tier 1 companies to test their ADAS Systems in a controlled in-lab environment, thus minimizing the time and money spent on real-world drive tests. Our platform is used by Automotive Tier1 and OEM companies for verification and validation of their ADAS system.

Automotive Radar Signal Analyzer

Automotive Radar Signal Analyzer allows you to analyze the frequency-modulated continuous wave (FMCW) signals generated by different types of radars, particularly by automotive radars with up to 200 MHz of bandwidth.

Environment Simulator for Automotive LiDARs - SimLas

SimLas is a novel system for developing, calibrating and testing LiDARs. The system is designed for reproducible simulation of a dynamic environment, including simulation of surrounding objects

In-Vehicle Data Logger

The Industrial Data Logger is intended for data acquisition and logging from different types of analog and digital input modules. The Logger is based on Compact RIO chassis and modules by National Instruments Company. The Logger is a multichannel data logging system.

High-Performance Demodulator Library in FPGA

Single carrier modulations are widely used in modern wireless communication receivers for data transmission and reception. We have developed Demodulation Library for FPGA that performs high speed BPSK, QPSK, 8PSK, 16PSK, 8QAM, 16QAM and OQPSK demodulation with symbol rate up to 40MSPS.
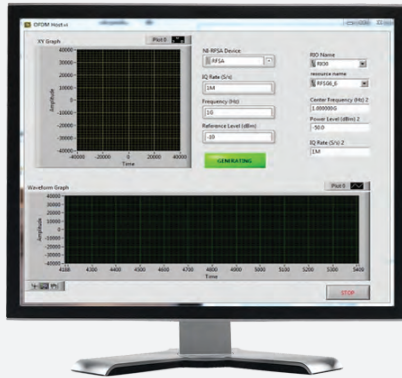
OFDM Modem Library with Hopping for FPGA

Orthogonal frequency-division multiplexing (OFDM) is a method of encoding digital data on multiple carrier frequencies. OFDM is a frequency-division multiplexing (FDM) scheme used as a digital multi-carrier modulation method.

Software Panel for Multichannel USRP

The Software Panel for Multichannel USRP has been designed to assist the operator in configuring the 16-channel USRP RIO system, transmitting and receiving signals, controlling the frequency, adjusting the output power and generation mode for the transmitters.
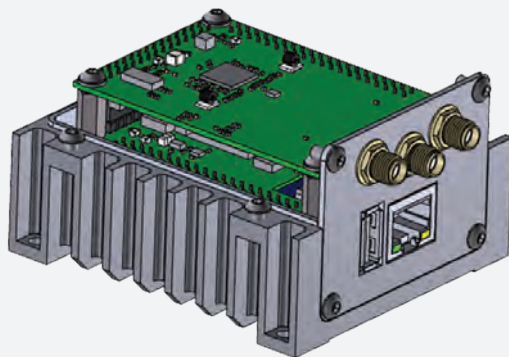
Programmable Transmitter/Receiver

Receiving range: 50 km Channel loss model: LOS Platform: Xilinx FPGA + Arm Processor Maximum transfer and reception rate: 80 Mbps Maximum signal band: 26 MHz Synchronization type: GNSS Channel coding: RS and Interlace with interleaving.

TS Digital

The TSDigital tester is a budget software and hardware system for performing functional control, measuring the static and dynamic parameters of digital integrated circuits and systems in a wide range of assemblies.

Wafer Level Reliability Test Toolkit

Wafer-Level Reliability Test (WLR Test) Toolkit along with National Instruments PXI SMU modules are used for semiconductor device reliability estimation at the extreme ends of the device specifications (voltage and temperature).

High-Power Transistor Tester

Automated test and measurement system for high-power semiconductor devices (hereinafter referred to as tester) designed for automated measurement and control of static and dynamic parameters of high-power semiconductor devices at the various stages of semiconductor production such as wafer and final testing.
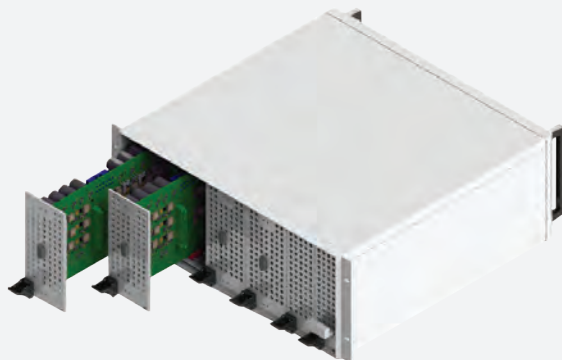
High Power SMU MVMC-200

The MVMC-200 is a high-power precision source and measurement unit (SMU) optimized for building ATE systems both for production and R&D purposes.
The hardware and software features of the MVMC- 200 enable to speed up the ATE system development process and decrease the total effort.

MIMO Acquisition & Generation Measurement System

The developed system works in an automatic mode and supports signal generation measurements up to 10GHz. The system provides accurate and repeatable measurements and reduces the test time by 10 times.

Wideband Directional Antennas

Wideband Directional Antenna (LPDA) for Communication and Surveillance Parameter Value Band 200-1000 MHz VSWR <2 Gain 8 dBi Beamwidth (E) 58o Beamwidth (H) 112o

RF Bench

RF Bench is an All in one instrument for RF engineers that combines vector signal generator, vector signal analyzer, vector network analyzer, power meter, software-controlled DC power supply and digital I/O.

X Band Up/Downconverter

This X Band Up/Downconverter is specifically designed to operate in X Band. X Band Up/Downconverter is controlled using digital lines. When Digital lines are used faster switching speed and more reliable control can be achieved.

TeamViewer IoT Toolkit

The TeamViewer IoT Toolkit provides developers with APIs to interface their real-time LabVIEW applications to TeamViewer IoT services to monitor and control industrial assets.
By using the toolkit, you can create data channels and metrics on the TeamViewer IoT dashboard to store and visualize your measurement and sensor data online.

Data Logger with Satellite Transmitter for INSAT C3

Developing a motherboard with an RF transmitter, 16-bit ADCs, and extremely low power consumption for a Single-Board RIO device. To meet the timing accuracy requirement, we used a GNSS receiver with an RTC that can be calibrated.

Machine Learning Prototyping Platform

Machine Learning gained more popularity in the industrial applications in the past couple of years. This course helps students and engineers working in the field to learn and try the algorithms that are being used in industry.

Predictive Analytics Prototyping Platform for IIoT

The prototyping platform of predictive analytics for the industrial IoT is intended to test, verify and validate new technologies related to the industrial IoT in the laboratory to determine a set of scientific theories, algorithms and practical tools for applying these technologies in current industrial problems.
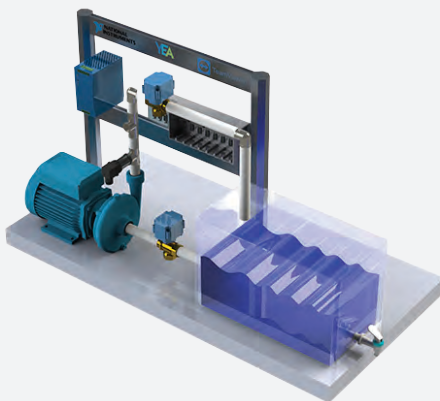
Extension board for NI 9651 (Marathon)

The Marathon is designed to control beam pumps to significantly reduce costs and increase oil production. It controls and diagnoses the beam pumps unit, calculates flow rate without need to install additional flow meter, builds and analyzes dynagraphs, measures electricity consumption.

Relays Test System

The system is designed to test relays. The system combines a wide range of measurement capabilities.

Sensors Test System

The system is designed to set and control the testing parameters of pressure, temperature and humidity analog/digital sensors, which allows to generate the script steps of the process controlling the measuring system parameters and the process of measuring the sensors parameters according to standards.

Bundled Cables Test System

The system is designed for automated testing of bundled cables by checking the continuity of wires and measurement of insulation quality. It is based on the NI PXI platform and uses software developed in the NI LabVIEW graphical programming environment.

Electronics Engineering Lab

The "Electronics Engineering" lab is based on the NI Educational Laboratory Virtual Instrumentation Suite (NI ELVIS II) platform. The software is developed in the LabVIEW graphical programming environment.
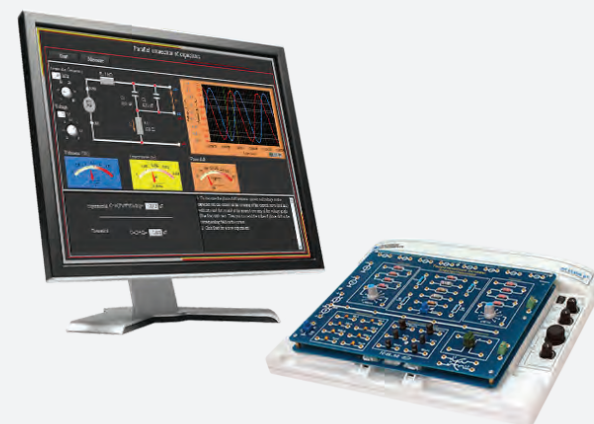

Mechatronics Lab

The Mechatronics lab system is designed for laboratory and practical study using automation line model. The system allows to combine and synchronize all stations, design new automation systems, estimate manufacturing processes, and also program the system for operating in different modes.
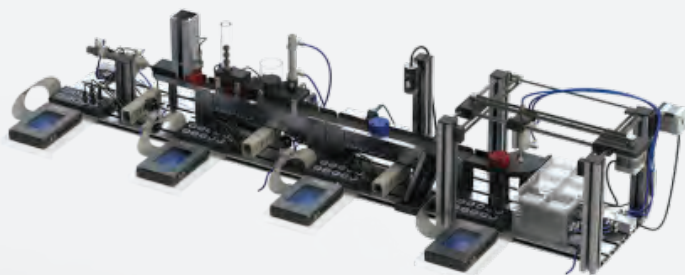
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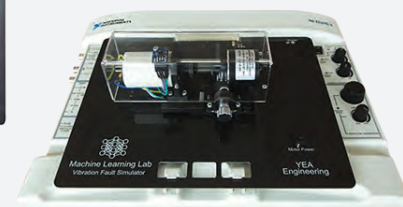
Electronic Components Characterization Prototyping Platform

The Electronic Components Characterization Prototyping Platform is based on the NI VirtualBench platform. The software is developed in the NI LabVIEW graphical programming environment. The platform is used to perform laboratory works on «Electronics», «Measurement technology», «Automated testing systems» and «Information and measurements systems».

Electronics Assembly & Test

Products Assembly & Test

Build-to-Print Manufacturing

Machine Tooling & Prototyping

"YEA Engineering" was formed by a group of companies with different know-hows and expertise that came together to collaborate in providing engineering services in the converging technologies of advanced industrial applications.

We provide a full range of engineering services from design to manufacture of devices, systems, and automated test equipment for advanced industrial applications.

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