ADI University Programs

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ANALOG DEVICES

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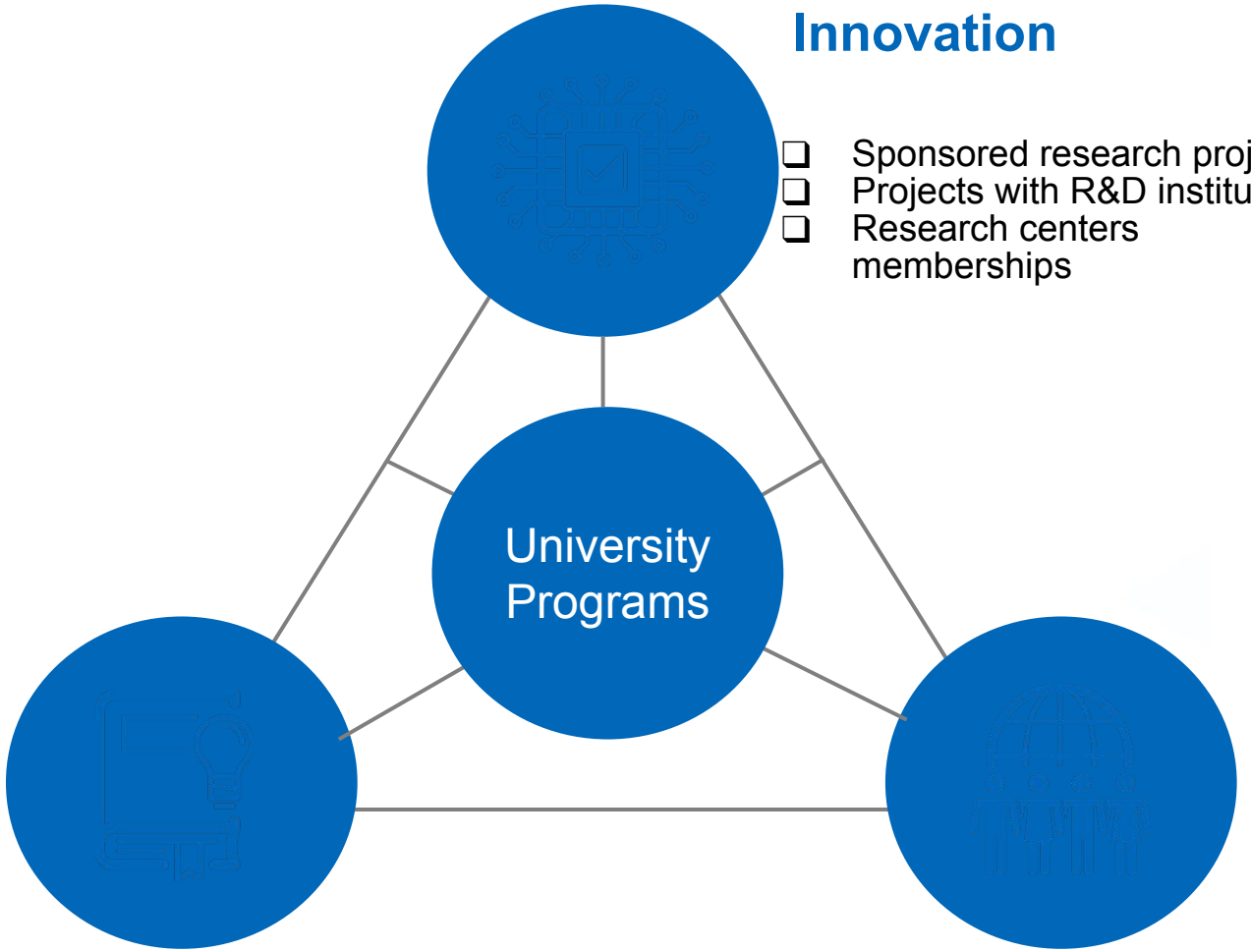
University Programs Focus



Innovation

- ❑ Sponsored research projects
- ❑ Projects with R&D institutes
- ❑ Research centers memberships

Education

- ❑ Lab sponsorships
- ❑ Active learning modules
- ❑ Teaching materials
- ❑ Conference sponsorship
- ❑ Design competitions

Talent

- ❑ Sponsored research students
- ❑ Internship program
- ❑ Co-op opportunities
- ❑ Campus recruiting

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Education

Develop leading active learning modules (development kits) strategy for worldwide deployment

Organize design competitions to foster creativity using ADI technology

Sponsor laboratories at strategic universities

Sponsor key technical events with strong ADI participation

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Tools evolve as student understanding increases

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Secondary Schools	First Year University: General Technology	Second/Third Year University: Electrical Engineering	Fourth Year/MSc University: Electrical Engineering	PhD Students: Practicing Electrical Engineers

Static Voltage/Current

Time varying signals

Impedance Measurements

Frequency Domain

Mechatronics / Controls

Network Analysis

High Frequency & Specialized

Tools for Explorations & Understanding

Introductory Instrumentation

Advanced PC Based Instrumentation

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Search
Simulation Models
Reference Designs
Evaluation Hardware & Software
Packaging, Quality, Symbols & Footprints
Circuit Design Tools & Calculators
- Amplifier & Linear
- Clock & Timing
- Data Converter
- **LTspice**
- Power Management

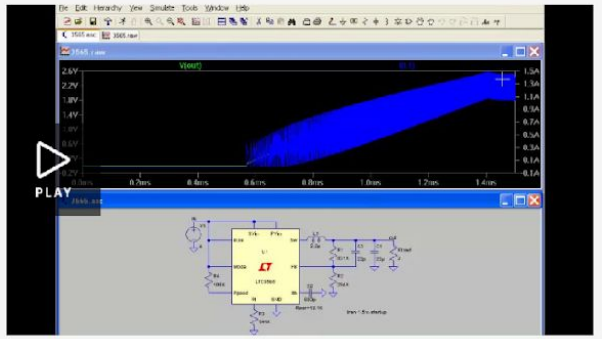
LTspice

LTspice® is a high performance SPICE simulation software, schematic capture and waveform viewer with enhancements and models for easing the simulation of analog circuits. Included in the download of LTspice are macromodels for a majority of Analog Devices switching regulators, amplifiers, as well as a library of devices for general circuit simulation.

Contact Technical Support for assistance

Benefits of using LTspice

Our enhancements to SPICE have made simulating switching regulators extremely fast compared to normal SPICE simulators, allowing the user to view waveforms for most switching regulators in just a few minutes. This video provides an overview of the advantages of using LTspice in an analog circuit design and how easy it is to get started.



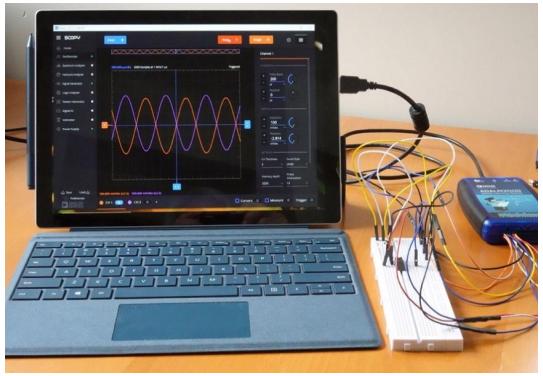
Pandemic Could Forever Change Higher Education

Spring 2020 - China

Emergency remote teaching

Summer 2020 - US

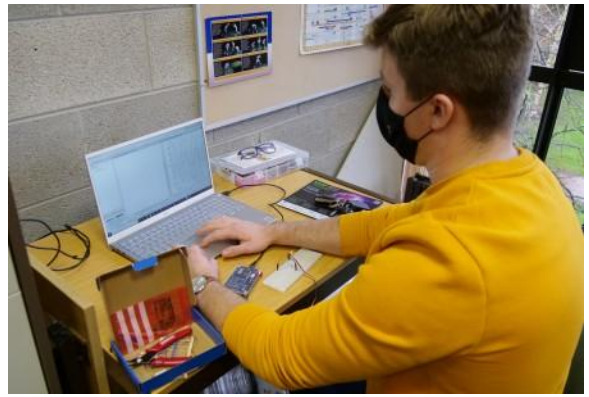
Emergency remote teaching



RPI Pandemic-Proof Pedagogy

Fall 2020

LAB@Home University of Limerick



US engineering schools

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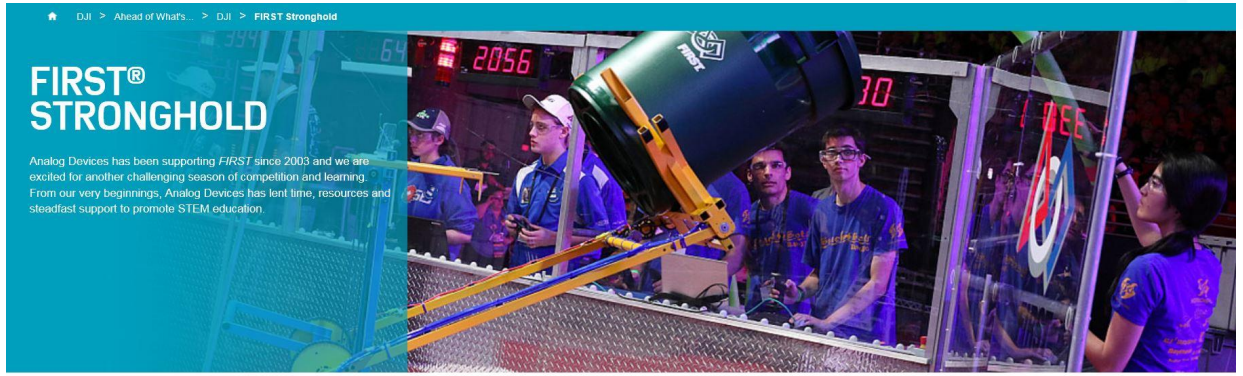
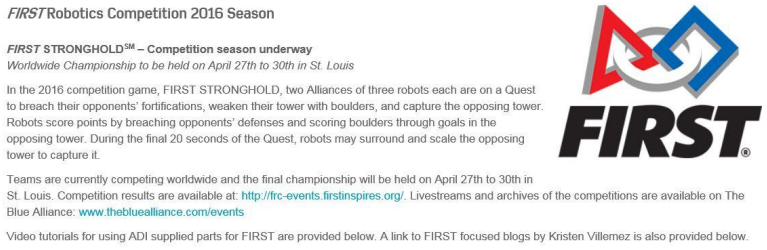
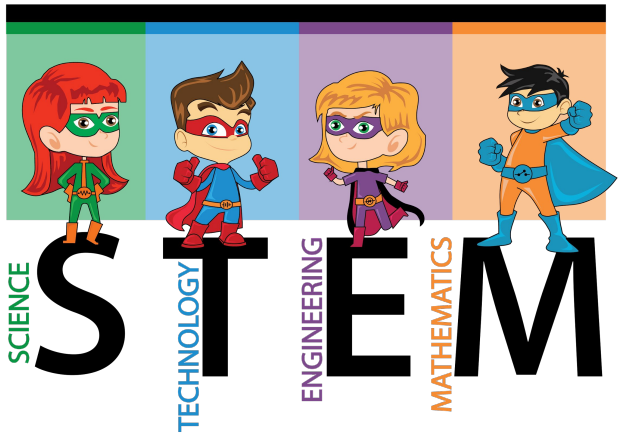
Early STEM education







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Comments to workshop questions

- VLSI jobs are increasingly global
- Concentration of activity close to vibrant eco-system due to complexity
- Multiple venues to engage students: internships, co-ops, sponsored research
  - Different level of skills across design process
  - Strong focus on DEI
- Student skills: fundamentals important, greater expectation for graduate students
- Path to tapeout: depends on the technology
  - Internal shuttles
  - External programs
- Heterogenous integration and packaging even more challenging than tapeouts

- Challenges (confirmed at the first day of workshop)
  - Student interest: talent and workforce
  - Huge difference in curriculum across universities
  - Critical mass of expertise (faculty, support)
  - How to scale approach at national level
  - Cost structure
  - ALL POINTING TO NEW INFRASTRUCTURE MODEL

How can we work together ?

New models of funding and structuring leading research and education

Opportunities for “long stay” exchanges

Establishing common areas with complementary expertise in research domains

Access to academic researchers and educators to fast pace technological advances (process nodes, heterogenous integration, packaging, modules etc)

Path to continuous learning

Education approach: fundamentals or popular topics

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