BUILD THE MOST POWERFUL HARDWARE IMAGINABLE

Register: www.vicilologic.com

viciLearn: Self-paced learning/assessment of digital systems
Fundamentals of Digital Electronics course

viciLab: Rapid remote/local prototyping of FPGA hardware design and Graphical User Interface (GUI) creation
Download viciLab application and view quickstart video guides

For further information please contact Fearghal Morgan, Ph.D, fearghal@vicilologic.com

12/08/2015
viciLogic Overview

**viciLearn**
- Self-paced, directed training and assessment in digital logic systems and computer architecture
- Gold-standard, next generation Technology Enhanced Learning
- Courseware and user control and probe inside real remote integrated circuit hardware operating in the Cloud
- Control/visualise hardware behaviour in real time
- Automatic assessment
- User-progress analytics and user/group administration
- Peer/tutor support
- Smart online course builder, with text and audio
- Collaborative learning

**viciLab**
- Rapid prototyping of Reconfigurable Computing (FPGA) hardware and Graphical user interface (GUI) creation
- Develop sophisticated applications which integrate local sensor/actuator devices with remote (or local) FPGA
- Does not require local hardware to develop prototypes
- Uses industry-standard CAD tools/design-to-hardware processes
- Supports collaborative projects

**CloudFPGA**
- Scalable array of remote FPGA hardware in the Cloud
- Not a simulator

**Stats**
- Used in 13 courses since 2011
- >30,000 viciLogic interactions with remote FPGAs (Feb 14 – Aug 15)

**Future**
- Reconfigurable System on Chip (SoC) support
- Course localisation
viciLogic User Experience and Feedback (May 2015)

Strengths of viciLogic / what you liked most in class

- “Great concept, will be great for future students to have access to”
- “Great tool to work with to learn”
- “Accessibility, Detailed”
- “Ability to use the system quickly and efficiently”
- “helps understand difficult/complex nature of the SCC (single cycle computer), which leaves us with the ‘easer’ task of writing assembly code”
- “Being able to see code working”
- “Showed what was happening / what Fearghal was describing”
viciLogic Related Publications


Tutorials:

1. Field Programmable Logic and Applications 2014 (FPL2014), Munich, Sept 5th 2014

Upcoming Presentations / Workshops

Charles Darwin University, Australia, September 2015

Presentation
“Technology Enhanced Learning: viciLogic online learning, assessment, FPGA prototype and Graphical User Interface (GUI) implementation platform for digital systems”
Presenter: Dr Fearghal Morgan, National University of Ireland, Galway
Tues 8/09/15, 14:30 - 15:15 (duration: 45 mins)
Venue: Building Purple 12, Level 1, Room 15.
Fearghal Morgan Google Scholar Profile (Peer reviewed publications, conference proceedings editorships, patents)

Workshop “viciLab rapid remote FPGA prototype creation and GUI implementation platform”
Presenter: Dr Fearghal Morgan, National University of Ireland, Galway
Wed 9/09/15, 13:00 - 15:30 (duration: 2.5 Hours)
Venue: Building Purple 12, Level 1, Room 15.
Workshop description:
• Attendees will gain expertise in using viciLab, through a series of hands-on exercises to:
• implement a number of digital logic applications using FPGAs in the Cloud (or local FPGA)
• develop interactive GUIs which provide control and visualisation of signals within the remote/local FPGA hardware in real time
• interface local sensor and actuators with the operating remote/local FPGA