Harnessing the Efficiencies of Industry-Standard Tools in the Electronics Laboratory

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— Powerful and flexible computer-based tools have generated impressive productivity gains in the industrial sector. These innovations allow users to simulate the functionality of applications before they are built, to create custom integrated circuits on-the-fly, and to automate data acquisition. While these tools promise similar efficiency gains to student learning in educational settings, many physics classes have been slow to exploit them. This talk will illustrate how a number of these advances have been incorporated into an undergraduate electronics laboratory class. Special emphasis will be given to those tools that are low-cost and intuitive.