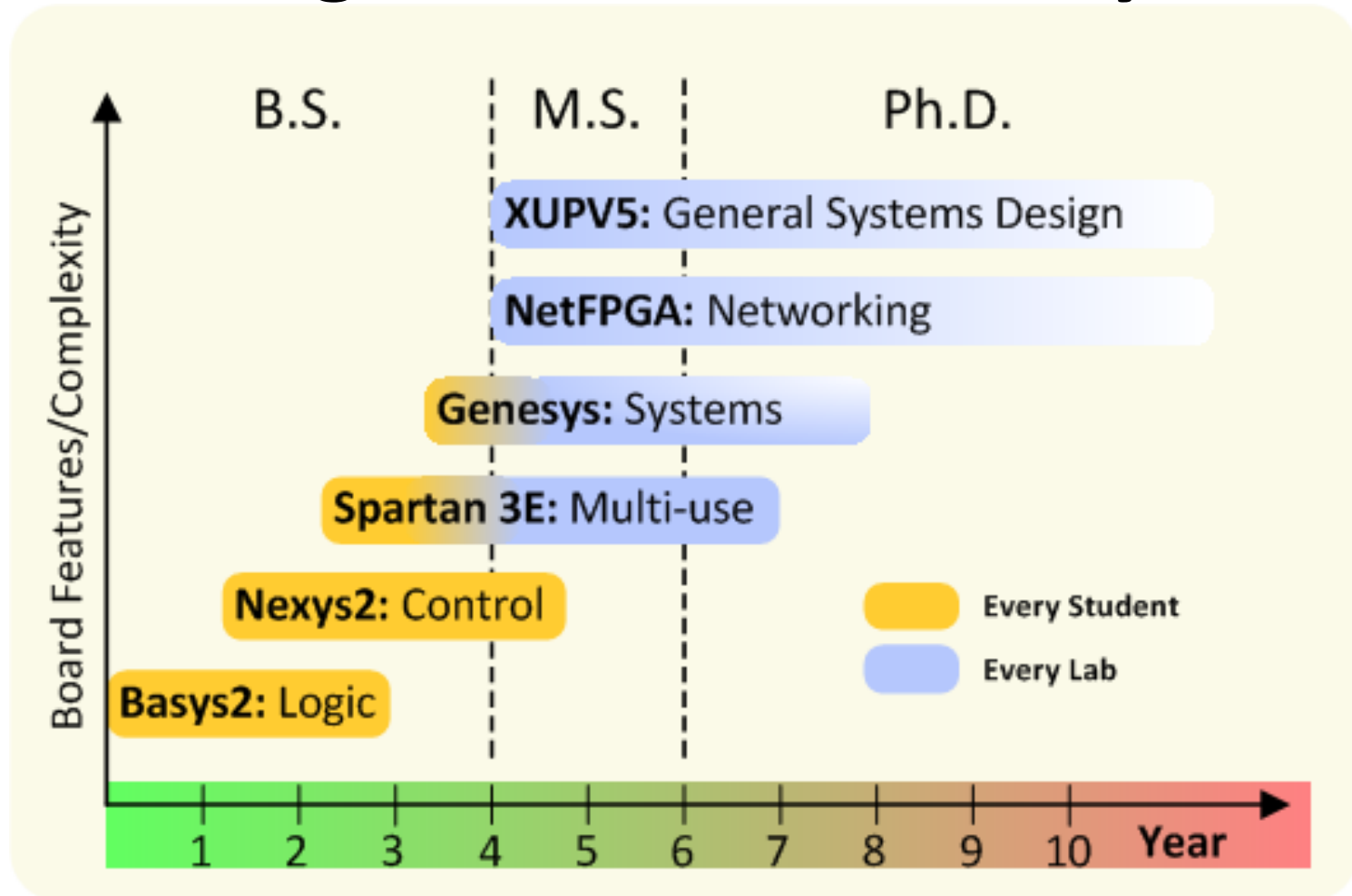






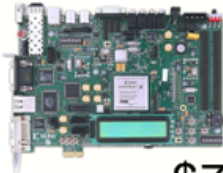

Teaching Platforms for Every Level



Student FPGA Boards

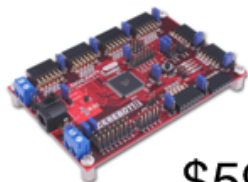
	Basys2	Nexys2	Spartan-3E	Atlys
FPGA	Spartan3E-100	Spartan3E-500	Spartan3E-500	Spartan6-LX45
Capacity				
Level	Entry - Mid	Mid - Adv	Adv	Adv - Research
Typical use	Logic	Logic/controllers	Logic/processors	Video/Systems
Free CAD tools	✓	✓	✓	✓
Free text/probs	✓	✓	✗	✗
Free ref. designs	✓	✓	✓	✓
On-board USB Prog	✓	✓	✓	✓
USB Power	✓	✓	✗	✗
RAM	✗	16Mbytes	32Mbytes DDR2	64Mbytes DDR2
ROM	✗	16Mbytes	32Mbytes	16Mbytes
Video	8-bit VGA	8-bit VGA	24-bit VGA	2x HDMI
Audio	✗	✗	AC-97 Codec	AC-97 Codec
USB Host	✗	✗	Gen. Purpose	HID, UART
Ethernet	✗	✗	10/100	Tri-mode (Gbit)
Gbit+ I/O	✗	✗	✗	✗
	\$59	\$99	\$149	\$149

Advanced System and Networking Boards

	Genesys Virtex5-50T	XUPV5 Virtex5-110T	NetFPGA Virtex2-Pro
FPGA Capacity			
Level	Adv - Research	Adv - Research	Adv - Research
Typical use	Adv. Systems	Adv. Systems/OpenSPARC	Adv. Networks
Free CAD tools	✓	✗	✓
Free text/probs	✗	✗	✗
Free ref. designs	✓	✓	✓
Prog	On-board USB	On-board USB	On-board PCI
RAM	Up to 2Gbytes DDR2	Up to 2Gbytes DDR2	90Mbytes DDR2/SRAM
ROM	64Mbytes	16Mbytes	32Mbytes
Video	HDMI	24-bit DVI out, VGA capture	✗
Audio	AC-97 Codec	AC-97 Codec	✗
USB Host	Gen. purpose	Gen. purpose	✗
Ethernet	Trimode/Gbit	Trimode/Gbit	4 Gbit ports
Gbit+ I/O	✗	✓	✓
			
	\$449	\$750	\$499

Student Microprocessor Boards

	CerebotII	Cerebot32MX4	MDE 8051	MDE PIC
Processor	Atmel ATmega64	Microchip PIC32-MIPS	Maxim 8051	Microchip PIC18
Capacity	8-bit, 16MHz	32-bit, 80MHz	8-bit, 8MHz	8-bit, 16Mhz
Level	Entry - Mid	All	Entry - Mid	Entry - Mid
Typical use	Basic control	Advanced control	Basic experiments	Basic experiments
Free CAD tools	✓	✓	✓	✓
Free text/probs	✓	✓	✗	✗
Free ref. designs	✓	✓	✓	✓
USB Prog	✓	✓	✗	✗
USB Power	✓	✓	✗	✗
RAM	4Kbytes	32Kbytes	1Kbyte	1Kbyte+
ROM	64Kbytes	512Kbytes	32Kbytes	16Kbytes
Pmod ports	8	9	✗	✗
Data ports	TWI, SPI, UART	USB, SPI, I2C, UART	UART	UART
Servo ports	8	8	✗	✗



\$59



\$99



\$49



\$59