



















## ES: Designer knowledge HW architecture alternatives for a correct HW/SW trade-off SW design skills lots of languages continuously extending HW/SW interaction mechanisms O.S., MW, HdS for efficient SW development Network infrastructure all ES are now networked embedded systems Computation effort estimation theory is important when used in practice

• Join 3C: computation, control & communication









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			- 1	Detailed Program
data	day	lecture	lab.	topic
1-Oct	Wed.			NO
3-Oct	Fri.	3		Course introduction; Embedded systems modeling
8-Oct	Wed.	2		Embedded systems modeling II; SystemC-based design
10-Oct	Fri.			NO
15-Oct	Wed.	2		SystemC-based design II; SystemC-based design III
17-Oct	Fri.	3		Platform-based design; Transactional-based design; TLM 2.0 standard
2-Oct	Wed.	2		TLM 2.0 standard II; SystemC/AMS support
24-Oct	Fri.		2	SystemC modeling at RTL
29-Oct	Wed.		2	SystemC compilation/execution/debugging
31-Oct	Fri.		2	SystemC timing evolution
5-Nov	Wed.		2	SystemC modeling at TLM
7-Nov	Fri.	3		High-level synthesis (HLS): scheduling; High-level synthesis: allocation
2-Nov	Wed.		2	Automatic synthesis from TLM
4-Nov	Fri.	3		Software embedded synthesis; Model-based design (MBD) of embedded software; HMI design
9-Nov	Wed.		2	SystemC / AMS
1-Nov	Fri.			intermediate exam
6-Nov	Wed.		2	Mixed RTL/TLM/AMS SystemC
8-Nov	Fri.	3		VHDL introduction; VHDL syntax
3-Dec	Wed.		2	Platform, testbench and device driver (OSTC)
5-Dec	Fri.	3		VHDL modeling; VHDL timing simulation
0-Dec	Wed.		2	Embedded software: radCASE
2-Dec	Fri.	3		VHDL timing simulation II; VHDL synthesis
7-Dec	Wed.		2	VHDL modeling at RTL
9-Dec	Fri.			Cyber-physical systems: bioaspects + interfaces
7-Jan	Wed.		2	VHDL timing simulation
9-Jan	Fri.	3		Networked embedded systems (NES); Middleware for embedded systems
14-Jan	Wed.		2	Automatic synthesis from RTL VHDL
16-Jan	Fri.	2		Introduction to embedded systems verification; Introduction to embedded systems testing
21-Jan	Wed.			NO
30-Jan	Fri.			final exam
hours	56	32	24	
orinor	6.0	4.0	2.0	









