

Embedded Computer Architecture**5SIA0**

2017-2018 Colleges: Monday 3,4 (Aud 16/11) and Thursday 9,10 (Flux 1.02)

Teacher: Henk Corporaal

Teaching assistants: Luc Waeijen, Sayandip De, Mark Wijtvliet, Glenn Bergmans

Guest lectures: Maurice Peemen, Zhenyu

Date	Topic	Material	Assignments + Remarks	
13 Nov	Introduction	Ch 1		
16 Nov	Technology Impact	Ch 2		
20 Nov	Processor Architectures - 1 / intro CGRA and Accelerators		CGRA lab < Dec 8	(deadline: Dec 8)
23 Nov	Processor Architectures - 2 / Details CGRA assignment (SD)	Ch 3		
27 Nov	Processor Architectures - 3	Ch 3		
30 Nov	GEM5+ Simulation: Luc Waeijen	Ch 9	GEM5 multiproc. lab < Jan 7	(deadline: Jan 7)
4 Dec	Processor Architectures - 4 / ARM	Ch 3		
7 Dec	GPU: Zhenyu Ye / Gert-Jan van den Braak		GPU lab < Jan 29	(deadline: Jan 29)
11 Dec	Processor Architectures - 5	Ch 3		
14 Dec	Memory hierarchy	Ch 4		
18 Dec	Multiprocessor systems	Ch 5		
21 Dec	Loop transformation for Data Reuse		(extended in compiler course)	
8 Jan	Interconnection networks	Ch 6		
11 Jan	Coherence, synchr. and consistency	Ch 7		
15 Jan	Deep Learning Neural Networks: Maurice Peemen			
18 Jan	SMT: Simultaneous Multi-Threading + Wrap-up	Ch 8		