EECS 298: Embedded Software Synthesis Lecture 7

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Lecture 7: Overview

- Project Status and Progress
- Target Processors
  - Processing Units
  - Application-specific Circuits (ASICs)
  - Processors
  - Reconfigurable Logic
- Presentations
  - Target Processor Survey (Kunal Deep Singh)
  - Power Management (Gautam Kalyanasundaram)

Project Status and Progress

			Schedule
• Option 1: Hands-on Experience with Embedded Software			
–	CJC:	Mobile IP (embedded Linux) on wireless access point	TBD
–	CBH:	Port PalmOS application to WindowsCE	TBD
–	SYC+CWS:	Traffic light controller on Xilinx board	TBD
–	QKN + RL:	Temperature sensor on flash microcontroller	TBD
–	ML + HL:	Instant messenger application on mobile phone	TBD
–	KLN:	Snake game (Java) on mobile phone	TBD
–	SI:	Real-time UML/Java appl. wallet PDA, cash register PC	TBD
• Option 2: Literature Research			
–	HEC:	RTOS survey	Week 6
–	KDS:	Target processor survey	Week 7
–	GK:	Power management for embedded applications	Week 7
–	EKS:	Code generation for embedded processors	Week 8
• Option 3: Embedded Software Synthesis using SpecC			
–	JHB:	Reed-Solomon decoder	TBD
–	AG:	Digital camera	TBD
–	TWH:	Tic-tac-toe game	TBD
–	GS:	Wireless sensor node measuring motion	TBD
–	ISG:	Elevator controller	TBD
–	HCL:	Algorithm evaluation for fair packet scheduling	TBD

Target Processors

- Chapter 3, section 4, of
  "Embedded System Design"
  by P. Marwedel (Univ. of Dortmund, Germany),
  Kluwer Academic Publishers, 2003.

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