

Information and Computer Sciences

cs.uu.nl



Utrecht University

- One but oldest university of the Netherlands
- 25.000 students (the largest university)
- very strong Faculty of Sciences



Faculty of Sciences

- a merge of many small faculties in 2005
- Mathematics, CS, Physics, Astronomy, Chemistry, Biology, Pharmacy



Bachelor-Master

- immediately implemented in 2002
- idea:
 - broad Bachelor programs (3 years)
 - specialised Master programs (2)



Ph.D programs

- typically 4 years
- no real study program, no specialised courses
- Dutch research schools provide education
- tendency to 3 year programs
- students are considered “employees”



Where does the money come from?

- University (diminishing)
- Dutch Science Foundation
- Special government programs
- Industry, through contract research
- EU projects
- foreign funding (foreign governments)



Department of CS

- 1983: CS curriculum
- 2000: Information Sciences
- 2002: Bachelor/Master structure
- 2005: part of Faculty of Sciences
- currently 600 students



Master programs

- Applied Computer Science (algorithms), 15
- Agent Technology, 15
- Software Technology, 20
- Document Technology, 5
- MBI, 30



Master Students come from:

- our own bachelor programs
- Dutch polytechnic schools
- other universities
- China, India, Indonesia, etc.
- other European countries



Characteristics of Department

- High quality research program, with excellent reviews from visiting committees
- Excellent reviews of education by visiting committees
- Largest number of freshman compared with all (normal) Dutch universities



Research (CS)

- Algorithms (Jan van Leeuwen)
- Software Technology (Doaitse Swierstra)
- www.cs.uu.nl/groups/ST/
- Geometry, Imaging, Virtual Environments (Mark Overmars)
- Logic for AI (John-Jules Meyer)
- Large Distributed Data Bases (Arno Siebes)
- Decision Support (Linda van der Gaag)



Research (Information Tech)

- Document Technology (Jurgen van den Berg)
- Cognition and Communication (vacant)
- Organisation and Information (September 1, 2003)



International Coop ST

- MEMI project, Cochabamba, Bolivia, 13 years
- EU projects
- Erasmus Mundus (starting up)
- many individual contacts



Industrial Coop ST

- Philips Research Laboratories (ST)
- many small Dutch companies
- through EU projects



Research ST

- Programming Methodology
- Generic Programming
- Program Transformation
- Compiler Construction
- Combinator Languages
- Type Systems
- Formal Verification of Distributed Algorithms
- Program Analysis



Systems Constructed

- Generic Haskell Compiler
- Helium (light-weight Haskell, with excellent feed-back for teaching)
- EHC, our (extended) Haskell compiler under construction
- Stratego (program transformation system)
- Dazzle, for manipulating Bayesian networks (Decision Support Systems)
- (LRC)







Tools

- Attribute Grammar System
- Top: framework for abstract interpretation
- lhs2TeX
- fragment system supporting literate programming
- xMech
- syntax macro system



Libraries

-  wxHaskell
-  Parsec
-  Combinator Libraries for parsing, pretty printing, web based systems
-  HOL-theories

