March 1st, 1998

Curriculum Vitae

Personal Data

Name:	**Dragos Ilie**
Address:	Hasslövägen 4C 371 37 Karlskrona
Phone/Fax:	+46 455 19416
Cellular:	+46 070 4185314
E-mail:	ets97dil@student.hk-r.se
WWW:	http://www.student.hk-r.se/~ets97dil

Employment History

Summer Trainee (june ‘97 - july ‘97)	Ericsson Software Technology AB Software debugging in simulated environment on UNIX workstations. The software is written in PLEX and used inside AXE telephone exchanges
Laboratory assistant (fall ‘96)	University of Karlskrona/Ronneby Assistant for undergraduate course in C-programming

Education

1994 - present	Undergraduate student aiming for a M.Sc. in Electrical Engineering with emphasis on Telecommunication/Signal Processing. Expected to graduate in the 4th quarter of 1998
1994	Graduated senior high school, section of electrical engineering

Current academic interests

Main interests	Wireless communications and communication protocols, mainly TCP/IP and ATM. Signal coding and modulation and traffic shaping
Minor interests	Operating systems and microprocessor programming

List of attended courses

One-dimensional analysis, 1st course (6 credits[1])	Complex numbers, elementary functions properties, limits, derivatives, primitive functions, integrals, differential equations
Linear algebra (4 credits)	Linear equation systems, vector algebra and matrix algebra
Digital engineering (5 credits)	Basic digital components together with their logical functions. Analysis and synthesis methods for combinatory and sequence nets.
C-programming (5 credits)	General C-programming
Object oriented programming with C++ (5 credits)	General C++ programming and modern software development
Data Communications and Computer Networks (5 credits)	An insight to protocols and signalling and an overview of the OSI-model. Development of a miniature network using SDL/SDT
Electrical circuit analysis (5 credits)	Analysis of time and frequency properties of electrical linear components
Computer engineering (5 credits)	An introduction to the inside of a computer system and to assembler programming. A closer approach to Motorolas processor MC68HC11

1. One credit is approximately one week of study and there are forty credits per year

One-dimensional analysis, 2nd course (2 credits)	Fourier series, Fourier and Laplace transforms
Multi-dimensional analysis (3 credits)	An insight to math in multiple dimensions, including derivatives, integrals and differential equations
Computer OS:s and real-time programming (5 credits)	Basics of memory and process management, real-time systems and parallel programming
Process control and automatization (5 credits)	Linear time continuous and discrete systems, properties and stability for systems with feeback and design of regulators especially of PID-type
Analog and digital electronics (5 credits)	Overview of simple analog and digital circuits and electrical elements. Amplifier circuits, operational amplifiers, feedback, digital circuit families and circuitry for measurement and control applications
Electronic CAD (5 credits)	Basic principles for electronic CAD drawing, simulation and board layout
Telecommunications systems (5 credits)	Integrated net services and communication protocols
Electronic measurement and instrumentation (5 credits)	Overview of the most important analog and digital methods used to measure electrical quantities
Analog and digital project (5 credits)	Construction of an electronic circuit of own choice. In my case practical radio theory and the construction of a FM-radio receiver
Probability and statistics theory (5 credits)	Mainly probability theory and stochastic processes with applications in the telecommunication area
Design of teleservices (5 credits)	Insight into the design and management of huge software systems. Also an introduction to intelligent networks. Integrated part of the course is a project where different teleservices are implemented into a telephone exchange

Teletrafic systems (5 credits)	Reliability- and queuing theory. Markov and Poisson processes, wait and busy M/M/m systems
Digital signal processing (10 credits)	Discrete Fourier and Z-transforms in depth. An introduction to Fast Fourier Transform. Implementation of discrete-time systems, digital filters, sampling and reconstruction of signals, multirate processing and power spectrum estimation
Digital transmission and radio systems (5 credits)	Modulation, coding, channel modeling and noise reduction
Discrete mathematics (5 credits)	Numbers and counting, sets and subsets, graphs and algorithms, algebraic methods
UNIX and TCP/IP (5 credits)	Installation, maintenance, administration and documentation of a LAN controlled by a Linux system loaded with the most popular server daemons. The documentation includes a brief overview of the TCP/IP and Ethernet architectures. The system gave birth to the student computer club at the University in Karlskrona
Function and matrix theory (5 credits)	Contour integration, Cauchys theorems, Taylor and Laurent series, application of contour integration, eigenvalues, power method and Jacobi’s method
Stochastic processes and time series analysis (5 credits)	Random processes and their spectral characteristics and linear systems with random inputs
Telesystem (5 credits)	Overview of the four largest telecommunication fields: wireless/cellular communications, data networks, network management and intelligent networks
Modern techniques of networking (5 credits)	Principles and methods to control and engineer high speed networks capable of supporting data, voice, image and video services. Also focus on QoS guarantees to individual users
Two-dimensional signal and image processing (5 credits)	Two-dimensional (Discrete) Fourier and Z-transform.FIR filters, spectral estimation, image processing, enhancement and restoration

Adaptive signal processing (10 credits)	Wiener filters, both FIR and IIR, LMS and RLS filters. The project worth 5 credits is a study of properties of subband-LMS with adaptation and crossterms in order to minimize the filter length and keep quality unchanged. The filter is to be simulated within Matlab
Fractal theory (5 credits)	Introduction to fractal geometry and its applications