



#213

Senior Electronic Designer. Year of birth 1956

Speciality: Hardware development

Work experience

1999 – Electronics Designer	Prevas A/S
1987 – 1999 Development Engineer	Danfoss Videk
1985 – 1987 Software Developer	Micon Control Systems
1984 – 1985 Software/hardware Developer	PR electronics
1983 – 1984 Hardware Developer	Electromatic
1979 – 1981 Hardware Technician	SHAPE, NATO's headquarters in Belgium

Competences

Tools

- Altium Desiger, Schematic and Layout
- Orcad PCB designer (Allegro)
- Orcad Capture CIS
- Orcad Layout plus
- Lattice ispLEVER (VHDL)
- Xilinx ise (VHDL)
- Altera Quartus II (VHDL)
- AVR studio 4
- Keil C for 8051
- Autocad
- Cadence Design Entry CIS
- Allegro PCB Designer

Technologies

- Analog
- Digital
- FPGA, CPLD
- PCI
- EMC test

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Education

1982 – 1983 Elektroniktekniker	Århus Tekniske Skole
1973 – 1978 Elektronikmekaniker	Danish Air Force

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Project references

Prevas A/S

- 2014 Confidential Customer
Design of misc boards, 11 in total, for medical equipment.
Misc. analog/digital i/o's, Spartan6 FPGA, MSP430 uP, Display, safety circuits, PSU's.
Schematic in Orcad Capture 16.6 and layout in Orcad PCB designer.
- Jun 2013 – Sep 2013 LindCom
EMC test and preparation.
Documentation for compliance with LVD.
- Jan 2011 – Apr 2013 Nilfisk
Design, implementation, test and environmental test of cost optimized vacuum cleaner boards. Motor driver with Triac, controller board, wireless control, and low power battery operation. PIC microcontrollers, CC1101 RF chip, high current Triac, TinySwitch Off-Line Switcher, LCD low level control.
- Responsible for development of hardware, PCB layout and environmental tests.
- Aug 2012 – Feb 2013 Unisense
Design of Controller board for EmbryoScope. Medical device with analog input for O2, N2 and pressure sensors. Spartan6 FPGA. Output for heating foils, valves, fans etc.
- Responsible for development of hardware and for PCB layout.
- Jun 2010 – Aug 2013 Eiva
Design of Scanfish controller for sea measurements. COM Express nano-CPU module with Atom uP, PCI express, Gigabit Ethernet, Analog input for pressure, Battery switchover circuit.
- Responsible for development of hardware and for PCB layout.
- Feb 2012 – Feb 2013 Stulz
EMC test.
HW design and support.
- Aug 2009 – Dec 2009 Damas
EMC prescan.
- 2006 – Apr 2011 Aalborg Industries
Design, implementation, test and environmental test of a central main board for an embedded computer unit and additionally two large analog/digital I/O boards, all to be used as platform for distributed measurement and regulation in a marine environment. The embedded computer was based on the Prevas HM30 module, and featured a 1280x1024 LCD panel, USB hub, Ethernet switch and Compact Flash.
- Responsible for development of hardware, PCB layout and environmental tests.
- May 2008 – May 2009 Alfa Laval
Design, implementation and test of a compact pressure controller with ASI-interface. The project was aimed at rapid development of a functional form-factor prototype for concept validation.
- Responsible for development of hardware, and for functional tests.

2007 – Aug 2011 Confidential Customer
Concept study, design, implementation, test and environmental test of a very compact, low power (battery powered) device for automatic closing of a lid, based on the presence of nearby users.
- Responsible for development of hardware, functional tests, field test support and environmental tests.

Oct 2007 – Feb 2008 Alfa Laval
Design, implementation and test of a compact stepper motor controller/driver. Interface to pressure and temperature sensor. The project was aimed at rapid development of a functional form-factor prototype for concept validation. The end result was very close to the final product.
- Responsible for development of hardware and for PCB layout.

2007 Confidential Customer
Design, implementation and test of a flow regulator controller with USB and Ethernet. Development of main board for HM20 module.
- Responsible for development of hardware and for PCB layout.

Sep 2007 – Nov 2007 Damas
VHDL implementation of special sensor interface. HM20 module FPGA.

2006 - Linco
Development of main board for HM-1 module, equipped with with 800x600 LCD, USB and Ethernet.
- Responsible for development of hardware and for PCB layout.

2005 Grundfos
On-site development of hardware and execution of environmental tests (temperature, humidity, EMC, vibrations etc.) for a processor board with NEC VR4181A uP, Ethernet and STN display. Completed development board implementation and subsequent tests.
- Consultant (11 months)

2002 Hounø
Development of CPU board and IO board for oven control. CPU MPC823 with LCD controller, Ethernet, RS485 between boards, 230VAC triac output, PT100 analog inputs, H8/3672 uP.
- Responsible for development of hardware.

2002 Newtec
IO board with PCI slot. PCI-to-standard digital/analog IO's.
Quicklogic FPGA with PCI core.
- Development of hardware and VHDL. Responsible for the complete project.

2001 Amuseic
External control unit for jukebox. Assembly code for PIC processor, audio attenuator and audio line transmission. Design of the system.
- Development of hardware and software. Responsible for the complete project.

Competences (continued)

Processors

- Arm 7 controllers
- Texas TMS340x0
- Motorola MPC561, MPC823
- PIC
- Atmel AT90xx, Tiny, Atmega
- Freescale i.MX28, i.MX53, i.MX6

Programming languages

- VHDL
- Assembler, Pascal
- C

Languages

- Danish – native
- English – fluent

Education (continued)

- VHDL development, 1999 (DTU)
- DSP architecture, 1983