

Work experience

#250

Senior Electronic Designer. Year of birth 1965
Speciality: Hardware development

2012 – Senior Electronics Designer	Prevas A/S
2011 – 2012 Senior Engineer, Electronics	Terma A/S
2007 – 2011 R&D Hardware Engineer	Develco A/S
2003 – 2007 Hardware Engineer	T&O Stelectric A/S
1997 – 2003 R&D Hardware Engineer	Develco A/S
1995 – 1997 Hardware Engineer	Sign Tronic
1990 – 1995 R&D Hardware Engineer	Per Udsen Aircraft Industry (now Terma A/S)
1990 Research Assistant	University of Aarhus, Dept. of Physics and Astro.

Competences

Tools

- Altium Designer, Schematic
- Orcad Capture CIS, Schematic
- Pads, Schematic
- PSpice simulation

Technologies

- Analogue hardware design
- Digital hardware design
- Power Supply design
- Automotive
- Thermal management
- Radars
- Fiber optic sensors
- EMC test

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Education

1990 – 1993 Ph. D. Industrial; Dept. of Physics and Astronomy Thesis titled "Fiber optic sensors for smart composite structures"	Aarhus University
1984 – 1989 M.Sc. EE, specialty in Telecommunication Special subject titled "Simulation of radar cross section"	Aalborg University

Patents

Publication no. WO 00/23203, 27 April 2000, "Inductive Energy Transfer System", O. Gørtz; U Lykkegaard; B. Larsen; A. Kloster; K.E. Glud; H.D. Simonsen.

Patent application no 0262/93, "Homodyn detektor".

Patent application no 0447/93, "Snofiber".

Project references**Prevas A/S**

Jan 2014 – present Confidential customer
Development of an automotive graphic user interface board. Contributed with hardware design of the iMX6 controller, memory (DDR3) and the power management controller (PMIC).

Nov 2013 – present Confidential customer
Hardware review and bring-up of audio control board based on iMX6

Aug 2013 – Sep 2013 Prevas internal
Hardware review on Prevas hardware iMX6 development platform (ESIP).

May 2013 – Sep 2013 Cardlab
Participated in the development of intelligent battery powered smart card. The board consists of microcontroller, FPGA and misc. wireless communication interface.

May 2013 Lindcom
Stand-alone system to monitor strain gauges and current loop transducer. Exchange of data is performed by 433MHz transceiver and by GSM modem. Power supply by either mains or long life primary battery. Hardware review.

Apr 2013 Dali production tester
Production test equipment for test of speakers by using infrared remote control. The remote control has an interface to a multifunction data acquisition board from National Instruments.

Jun 2012 – Feb 2013 Stulz
Development of distributed industrial control system aimed at the industry, specifically for controlling air conditioning systems. The system includes four hardware modules for versatile system configuration over the customer's product range, including a custom Power Supply Unit, Control Board, I/O Board and Service Panel.
- Responsibility for overall hardware architecture, design of system modules, peer review, integration and testing, production cost optimization, EMC.

Terma A/S

2011 – 2012 Confidential Customers
Development of ground surveillance radar, with special focus on power supplies and cabling.

Develco A/S

1997 – 2003, 2007 – 2011

Confidential Customers

Has participated in the design of automotive dosing system for reduction of NOx emission. Was working on the requirements specifications, design of electronic circuits with on-board-diagnostics, simulations of circuits for behaviour in eg. EMC tests, support for PCB layout and support at the production start-up.

Design of power supplies, including switch mode power supplies for use in automotive electronic control unit. The automotive project required a high level of documentation. Thermal design has been a part of the design of power and analogue electronic circuits.

Has been designing inductive energy transfer system in the kW range. It consisted of a stationary primary power supply and several wagons to pick up the energy and store it on lead acid batteries.

Prestudy in medical project for optical determination of hematocrit and oxygen saturation.

Design of biotechnological research equipment that consisted of eg. temperature and intensity stabilized diode laser.

Several projects involving capacitive energy transfer system, powerline communication and battery technology.

Responsibility for hardware design and implementation (using OrCad), circuit simulation (using PSpice), and validation.

T&O Stelectric A/S

2003 – 2007

Confidential Customers

Design of switch mode power supplies for charging lead-acid batteries in 150-250W range.

Design/specification of fuel cell back-up system and worked partly on the related high-power switch mode controller.

Design of controller network with actuators, for monitoring farm animals.

Development of 2.4 GHz wireless remote control for actuator control for use in healthcare products.

Development of system for measuring meteorological weather phenomena.
- Responsibility for hardware design and implementation (using Pads and OrCad), circuit simulation (using PSpice), RF optimization, and testing.

Sign Tronic

1995 – 1997

Confidential Customers

Development of printheads for large-format inkjet printer. Created requirement specification of the electronic system to control the printheads. Design of printhead parts, such as the electronics circuits, the mechanical/fluiddynamic components and the thermal control system.

Per Udsen Aircraft Industry

1990 – 1995

Confidential Customer

Participation in the European NATO research programme EUCLID. Investigation of the possibilities for using fiber optic sensors for damage detection in aerospace composite structures.

Participation in the Danish ØRSTED satellite project. Responsibility for the design and test of the mechanisms for deployment of the boom.

Industrial Ph.D. student. The study was about using fiber optic sensors in composite structures. The sensors were based on interferometric principles and fiber optic Bragg gratings. Some of the sensors tests included cooperation with a major American aerospace company (UTC) and the Danish Navy.

University of Aarhus, Dept. of Physics and Astronomy

Research in diode-pumped solid state lasers. Design of lasers and electronic and mechanical test equipment.

Competences (continued)

Processors

- Freescale i.MX287
- Freescale K40
- Freescale MPC5566
- Renesas V850
- Atmel AVR, Tiny, Atmega
- NXP ARM7, LPC2364

Languages

- Danish – native
- English – written / spoken
- German – partly written /spoken
- French – partly written / spoken

Education (continued)

- Embedded C course, University College Nordjylland, January 11th-15th 2010.
- EMC Course, w/ Berend Danker, Silkeborg, June 2nd 2008.
- Understanding EMC, w/ Erik Lykkegaard / B&O, Aarhus, November 7th 2002.
- CE-mærkning af medicinsk udstyr - overblik, indhold og fremgangsmåde, Aarhus, March 13th 2002.
- OrCad course, June 2000.
- AutoCAD R13 for beginners, WinArt, Aarhus, May 30th – June 1st 1997.
- Project management, "Projektledelse 1 – overblik, indhold, metode", DIEU, Silkeborg, November 10th-13th 1992.
- Composite materials, "Composite materials technology", University of Surrey, UK, July 13th-17th 1992.
- "Patents", Patentdirektoratet, April 27th -29th 1992.