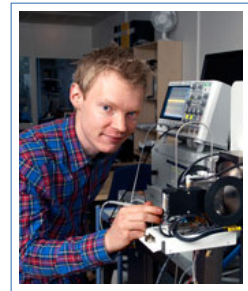


# Johan Lindsten

## Curriculum Vitae

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### Education

2000–2007 **Master of Science in Engineering**, *Royal Institute of Technology*, Stockholm, Sweden.  
Electrical Engineering

### Master Thesis

Title The design and construction of a magnetic immunity test system

Supervisors Peter Fuks, Alfvén Laboratory, KTH

Description Design of a magnetic immunity test system intended for testing of automotive electronics. Electronics design, mechanical design, firmware programming, linux based user interface design. Electromagnetic field calculations.

### Experience

2017–current **EE and SW Engineer**, *Devex Mekatronik AB*, Stockholm.  
Hardware and software design. Embedded programming (C++). BLE, hardware and software design. ARM. FPGA hardware and software development. High speed optical links. Power electronics, DAB DC/DC converter. Acoustic gas sensor for argon.

2014–2017 **System development**, *Optistring Technologies AB*, Stockholm.  
Development of a distributed solar power inverter system. Hardware design. Software design. Simulations (C++, Matlab/Octave), FEM modeling and simulation, automated build testing of software, grid code certification, safety certification (IEC 62109-1), EMC certification.

- 2012–2014 **Electronics development**, *Excillum*, Kista.  
Electronics design manager. Design of measurement and control electronics for X-ray tubes. Development of production test routines and equipment. Design of a redundant safety system, conforming to the Machinery Directive, for control of a laboratory X-ray tube. EMC and safety (LVD) certification. Programming (C, python, matlab). Design of digitally controllable measurement equipment for very low currents (pA range) with adjustable bias voltage (electrometer design).
- 2008–2012 **Electronics development**, *Megger Sweden AB*, Täby.  
Design of measurement instruments for the power distribution industry. Design of a high voltage capacitance and dissipation factor test set as well as other instruments. (High voltage design (16 kV), low current measurements, synchronous detection, FPGA design, FW programming, PCB design, EMC and safety certification. Customer support on site in Germany, USA and Canada.)
- 2007–2008 **Electronics design**, *ÅF system AB*, Kista.  
**Scania CV AB** Development of programming equipment and fixtures for programming of ECU's in production. (PCB design, specifications, sourcing, prototypes, installation on site in Belgium)  
**Lorentzen och Wettre** Design of a paper fiber whiteness sensor for the paper industry. (Milling, turning, analog design, documentation, testing)  
**Ericsson** Development of test instruments for base stations and sub-components of base stations. (System design, schematic design, layout, sourcing, PLL calculations, troubleshooting, EMC certification, boundary scan, programming, VHDL)
- 2006–2006 **Master thesis project**, *Scania CV AB*, Södertälje.  
Design of a magnetic immunity test system intended for testing of automotive electronics.
- 2005–2005 **Electronics design**, *Sym Cell AB*, Stockholm.  
Design of a digital PID temperature regulator for very high accuracy control (a few thousandths of a degree K temperature variation).
- 2005–2005 **Electronics design**, *DrDA*, Stockholm.  
Planning, design and manufacturing of piezoelectric water droplet detectors for an art exhibition in Germany.
- 2000–2000 **Software development**, *Trätek AB (SP Trätek)*, Stockholm.  
Development of a pacing system for Mönsterås sågverk. Programming in Visual C++.

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## Languages

Swedish	Native
English	Near-native

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## Computer skills

OS	Linux, Windows	Server administration	Apache, Postfix, etc.
Programming	C/C++, Python, 8080, 8051, x86, AVR, ARM assembler, RPL	Scripting	Basic bash shell scripting, GNU Make.
Scientific	Matlab, Octave, deal-II FEM, gnuplot	Version control	GIT, Mercurial, SVN
Database	MySQL	Electronics simulation	LtSpice (Switcher CAD), other PSPICE variants.

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## Electronics skills

PCB design	OrCAD, CADint, EAGLE, KiCad, Mentor BoardStation, high speed routing, impedance calculations, semi-rigid and flexible PCB design.
Production	Sourcing, production testing and calibration.
Documentation	Design-, production- and user documentation.
FPGA development	Verilog, basic VHDL.
Certification	EMC, LVD (IEC 61010-1, IEC 62109-1), some knowledge regarding the machinery directive.
High voltage	Field forming and structures to prevent corona, partial discharge. High voltage measurements using capacitive and resistive dividers.
Low current/small signal	Noise rejection techniques, noise calculations, ground current problems and solutions, guarding etc.
Prototyping	PCB manufacturing, dead bug technique, trouble shooting.
RF	Knowledge in antenna theory, radio electronics, EMC related measurements. Transmission lines.

Power electronics	Switching regulators/amplifiers, surge protection, magnetics design.
CPU/MCU	8051, x86, AVR, ARM
Measurement technology	Calibration, synchronous detection, filtering, low current measurements, high voltage measurements, electrometers. Balanced bridges.

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## Patents

- o Method and apparatus for measuring load tap changer characteristics, EP2890991 A4.

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## Interests

Family	A lot of my free time is spent together with my wife, Matilda, and our five year old daughter, Märta.
Accordion	I have played the accordion since preschool. Recently, I got an old accordion which I am renovating.
Lindy hop	Lindy hop or jitter bug has been an interest since several years, although I have not practiced it at all since we got a house.
Renovation	Since we got a house, this has become an interest partly out of necessity.
Electronics	In my spare time, I am developing a small hand held oscilloscope with modest specifications (100 MHz analog bandwidth and around 200 Msamples).
Citroën	I have owned several older Citroën cars, since I am intrigued by the sometimes unconventional technical solutions and particularly the hydro-pneumatic suspension and hydraulic systems.
Hammond organ	I am the happy owner of a electromechanical Hammond organ (a transistorized model) with tone-wheels and a rotating leslie speaker, totaling at about 100 kg.

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## Other

2002-2003	<b>Chairman of the electronics club, ELAB, Royal Institute of Technology, Stockholm.</b>
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2004-2005 **PCB lab manager**, *ELAB, Royal Institute of Technology*, Stockholm.  
Managing the lab, i.e. supplies, equipment and giving courses for interested students.

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## References

References available on request.