Meindert L. Norg

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Citizenship: Dutch / USA

GOAL

I am an energetic and positive Mechatronics engineer, with broad experience in designing and integrating complex controls systems. I'm looking for a technical position in a challenging project that would allow me to not only apply my knowledge, but also to continue to learn from, and teach to co-workers, with the goal to increase the organization's knowledge and technical understanding.

PROVEN ABILITIES AND RESULTS

Projects

- Controls and automation architect for *Tin Delivery System* in the next generation semiconductor EUV light source;
- Consultant at Norg Consulting with multiple clients in the medical, semiconductor, positioning-systems and sports industries on projects related to controls system architecture and design, data analysis and simulations, system integration and debugging;
- Automated calibration of *Active Magnetic Bearing* Semiconductor stage accelerating installation at customer;
- Developed non-linear controllers for Ultrasonic Piezo-Electric Motors, ensuring smooth movements in a speed range of over 6 orders for Scanning Electron Microscopes;
- Developed *Sonicare toothbrush algorithm* improving brush efficiency;
- Conceived a *graphical controller design tool*, allowing simultaneous analysis in Time- and multiple Frequency domains;
- Designed stage *animation software*, visualizing captured position data of 6 degree of freedom floating stage, simplifying tuning and debugging and explaining complex technical matters to management;
- Executed supplier selection program, resulting in an annual *$2M cost reduction*.
- Pioneered with *non-linear controllers* at Philips Research improving shock resistance for hard disk drives and car-CD players;

For more information and videos on some of these and other projects, see www.NorgConsulting.com/past_projects.html.

Problem solving / Analysis

- Strong knowledge and experience on design and integration of complex Mechatronic systems, allowing for mediating discussions between engineers of different disciplines;
- Specialize in analyzing and presenting complex data;
- Focused on teambuilding during multi-site design process, identifying and preventing miscommunication;
- Combining the following three important skills in order to achieve system-level optimization: *collecting*, *understanding* and *weighing* all available information and requirements from each individual sub-system.

Strengths, Skills and Way of Working

- Strong leader and active team player;
- Fluent in English and Dutch;
- Extensive experience in Matlab / Simulink and related third party tools.
- Experience with MathCAD, LabView, C++ and several servo controllers, TI microprocessors, electromechanical actuators and sensors and Laser IFM systems.
- Continuously focused on instructing colleagues on motion issues, increasing control-related awareness and reducing production time and service calls.

WORK HISTORY

Cymer/ASML, San Diego, CA, USA. *Staff Mechatronics/Automation Engineer*, 2013-present
Norg Consulting, Canonsburg, PA, USA. *Owner / Consultant,* 2008 – 2013
Philips Applied Technologies, Houston, PA, USA, *Sr. Mechatronics Specialist,* 2004 - 2007
FEI Company, Eindhoven, Netherlands, *Motion Group Leader,* 2001 – 2004
FEI Company, Eindhoven, Netherlands, *Servo and Control Architect,* 1998 – 2001
Philips Research Lab, Eindhoven, Netherlands, *Mechanical and Controls Engineer*, '92–'98

EDUCATION AND PUBLICATIONS

Education

- B.S. equivalent from the Department of ME/EE, concentration in Precision Engineering / Technical Automation, Hogeschool Utrecht, Hilversum, Netherlands, 1991.
- Continued education on Controls Engineering, amongst others at Technical University Eindhoven (The Netherlands), Center for Technical Training (The Netherlands), the MathWorks (Natick, MA) and LabView (at DSA, McMurray, PA) and
- Big Data Course, UCSD, www.coursera.org, 2016.

Conferences, Publications and Membership

- In addition to many internal reports, wrote and presented several papers for Philips Conferences on Application of Control theory (1994-2007), Society of Automotive Engineers congress in Detroit, MI, USA (1998), Magnetics Conference, Chicago, IL, USA (2007) and ASPE topical meetings (2008 / 2010).