



BE GREAT TOGETHER WITH US. Innovation, Efficiency and Ambition: this is what VAT has stood for for over 50 years. With this passion, VAT has grown to become the leading international developer, manufacturer and supplier of high-performance high-end vacuum valves and vacuum sealing technology, employing over 2000 people worldwide. The headquarters are located in Haag (Switzerland), the production centers in Switzerland, Malaysia, Romania and Taiwan.

Our team in Haag, Switzerland is looking for you:

Development Engineer – Control Systems (100%)

YOUR CHALLENGES

The manufacturing of a high-end microchip requires over 1000 production steps. Vacuum valves are considered to be a critical component as they are in proximity to the semiconductor wafer and have impact on the process performance. Semiconductor fabs like Intel, Samsung or TSMC have increasing expectations to productivity and production yield. These fabs are increasingly using data generated along the manufacturing process to improve production performance.

Smart, connected vacuum components are required for smart semiconductor manufacturing fabs enabling predictive maintenance, increasing performance and productivity.

To develop the required smart valve technology we are looking for a talented development engineer with passion for the control theory and system modelling.

In addition your responsibilities are:

- Development of novel and highly differentiated process control algorithms based on machine learning techniques & predictive control for fast processes using VAT's existing gas delivery and process control technology
- Technical project leadership: Definition and alignment on specifications with key stake holders, concept creation, development and testing in rapid prototyping system and functional verification using the final products
- Develop, perform and document experiments (DoE) including results in organized and structured way
- Cooperate among cross-functional teams of experts within VAT R&D organization and external technology partners
- Occasional on-site support of newly developed applications/products at customer site.

YOUR COMPETENCIES

- Engineering Degree (MSc or PhD) in control engineering, mechatronics or similar
- 3+ years' experience with advanced control algorithms and their modelling (MPC, MIMO, RLC, etc.) using Matlab Simulink is necessary.
- Practical experience with deploying control systems on actual hardware is also required.
- Experience with C-coding and scripting (Python) for the purpose of data science is desired
- Knowhow in fluid dynamics and vacuum systems is advantageous
- Hands on, systematic approach, creative thinker with problem solving skills and team spirit

YOUR CONTACT

Dr. Frantisek Balon | Head of Advanced Technology, Core Technology | +41 81 772 43 88

Interested? Then we look forward to receiving your written application at: f.balon@vat.ch.

You can expect a dynamic and successful company where innovation, courage, fairness, openness and transparency are encouraged and your ideas are welcome.

www.vatvalve.com