

Corning Incorporated has a new opening for an (advanced) process control engineer in the [Applied Control Engineering Solutions \(ACES\)](#) group (a part of the Manufacturing, Technology and Engineering (MT&E) department). This group provides control solutions for the various businesses within Corning Incorporated. You will have an opportunity to improve or optimize existing control system performance through the application of existing advanced control technologies or the development of new technologies that have a credible case.

We are specifically seeking new PhD or MSc graduates or those who are close to graduating that are interested in applying and implementing advanced control or modeling concepts to a wide variety of processes.

### Company Information

Corning is the world leader in specialty glass and ceramics, creating and manufacturing keystone components that enable high-technology systems. Corning's history is filled with breakthrough technologies that have played an important role in the way the world works. We thrive on solving difficult, commercially relevant problems through an innovative and collaborative research and development process. Corning succeeds through sustained investment in R&D, more than 160 years of materials science and process engineering knowledge, and a distinctive collaborative culture.

Corning's MT&E department is recognized as the leader in engineering excellence & innovative manufacturing technologies by providing diverse skills to Corning's existing & emerging businesses. We anticipate & provide timely, valued, leading edge manufacturing technologies and engineering expertise. We partner with Corning's businesses and the Science & Technology division. Together we create and sustain Corning's manufacturing as a differential advantage.

### Job Responsibilities

The role will require utilization of both modern and classic control methodologies to implement solutions such as linear and non-linear controls, model predictive control, intelligent control, and supervisory controls. You will work closely with experts from other disciplines to develop the optimal control strategy and integrate the required measurements. Specific responsibilities may include:

- Design process measurement and control systems strategies for manufacturing plants based on data collected in production, pilot plant operations, or laboratory experiments
- Perform control system assessments and optimize or retrofit existing processes and control strategies through modern control strategies such as optimal control, robust control, adaptive control, or model predictive control
- Develop process models for the purposes of control design or increasing fundamental understanding
- Industrialize research grade manufacturing systems for deployment and migration
- Collaborate with experts in other fields on control oriented process modeling
- Determine control challenges, value propositions, and write proposals to initiate control projects
- Implement, test, and troubleshoot developed process control strategies.
- Develop in breadth knowledge of existing processes to identify process control optimization opportunities and write proposals to initiate control projects
- Utilize multivariate or frequency domain analysis methodologies to design for process capability
- Present and participate in peer review of process control strategies across a diverse technology portfolio
- Document process control finding in technical reports
- Travel Requirements: Could travel as much as 50%

#### Required Education:

Currently enrolled or recently completed coursework in areas that include but not limited to process controls, controls, thermal engineering, and/or mechatronics. Ph.D. or M.Sc. in Chemical, Mechanical, or Electrical Engineering specializing in process control, system identification, or optimization.

#### Required Skills:

- Familiarity with a diverse array of process controls strategies
- Matlab/Simulink
- Programming in .NET languages such as C# and Visual Basic
- Problem solving abilities
- Data analysis
- Strong verbal and written skills

- Excellent interpersonal skills
- Ability to prepare and present presentations

Desired Skills:

- Electrical troubleshooting skills
- Practical experience in control systems deployment
- Familiarity with Field-programmable gate arrays (FPGAs)
- Experience with thermal engineering and associated software such as Ansys and Comsol
- Experience with designing in CAD software and mechanical systems

To receive consideration, interested applications should contact Siam Aumi at [aumisb@corning.com](mailto:aumisb@corning.com) with an updated resume or CV.