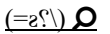


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FGI initiates summer internship program

By [Jennifer Miller](http://geosyntheticsmagazine.com/writer/jennifer-miller/) (<http://geosyntheticsmagazine.com/writer/jennifer-miller/>),
[Timothy D. Stark](http://geosyntheticsmagazine.com/writer/timothy-d-stark/) (<http://geosyntheticsmagazine.com/writer/timothy-d-stark/>) -

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The Fabricated Geomembrane Institute (FGI), based at the University of Illinois at Urbana-Champaign (UIUC), has initiated a summer student internship program.

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The main objectives of the program are to introduce future civil engineers to the field of geosynthetics and to provide a connection between possible employers and the many undergraduate and graduate students at the UIUC.

One of the FGI's member companies,

Colorado Lining International (CLI), participated in the inaugural internship program during the summer of 2016. CLI hired Guo Cheng, a graduate student studying geotechnical engineering in the Department of Civil and Environmental Engineering at the UIUC (**Figure 1**). He spent six weeks working with CLI this summer, learning about all aspects of geomembrane fabrication, testing, installation, quality control, and quality assurance.

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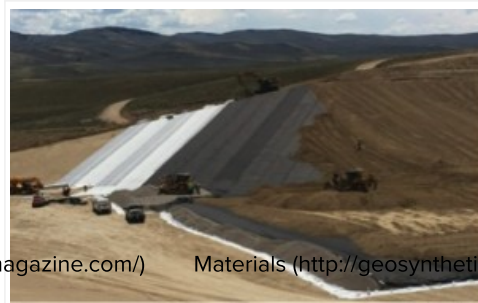
The internship began at CLI's corporate headquarters in Parker, Colo. While in Parker, Guo observed and worked on factory fabrication of geomembrane panels, including welding, patching, and both destructive and non-destructive test procedures. He was also introduced to all levels of CLI staff and leadership.

Following this introductory period, Guo traveled to Ault, Colo., to assist with an RPE (reinforced polyethylene) geomembrane installation project for a wastewater pond at the local treatment plant. He assisted with basic operations, including: site cleaning, unrolling and unfolding the RPE geomembrane panels, preparing the panels for welding, and installing steel bars used to secure the geomembrane to the concrete wastewater treatment tanks.



<http://geosyntheticmagazine.com/wp-content/uploads/sites/32/2016/09/f1.jpg>

Figure 1: Guo Cheng, civil and environmental graduate student at the University of Illinois/Urbana-Champaign, wearing his Colorado Lining International cap and T-shirt.



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Figure 2: Geomembrane landfill project in Gunnison, Colo.

Guo also assisted with the installation of an engineered liner system for a large municipal solid waste (MSW) landfill in Gunnison, Colo. (**Figure 2**). In addition to helping with the same basic operations as in the Ault project, Guo was also able to shadow the job supervisors, learning the science behind liner system design and installation, as well as how to effectively manage the project and the installation team.

Guo also learned about the installation of other geosynthetics, such as GCLs (geosynthetic clay liners), geotextiles, and geocomposites. He assisted with geomembrane quality control and documentation by measuring the size of the irregular panels, as well as recording all panel and roll numbers.

During his field work, Guo interacted with the on-site geotechnical engineer to understand the geotechnical aspects of the project. This was a crucial component of the summer internship because Guo is pursuing his master's degree in geotechnical engineering at the UIUC.

Guo's final week of the summer internship program at CLI was spent in Granby, Colo., working on the repair of a mechanically stabilized wall (MSW) landfill liner system. Along with his usual tasks, he learned techniques for field welding, seam testing, and patching of geomembranes.



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At the end of Guo's summer internship, CLI treated him to a day of whitewater rafting with his work team, as a reward for a job well done **(Figure 3)**. This was definitely his favorite part of the internship.

Figure 3: Guo Cheng, fourth from left, enjoyed whitewater rafting with his 2016 summer internship work team.

Guo received a bachelor of science in civil engineering from Dalian University of Technology in Dalian, China. He plans to finish his master's degree in December, 2017, and then to work in the geosynthetics field.

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