## SmartPM<sup>®</sup>



Minnesota State University Equips Future Construction Leaders with SmartPM in the Classroom

> "And what SmartPM provided [our students] is the ability to visualize their mistakes immediately and capture the critical risks that you might have in your schedule that will impact your project."

> > Mohamed Diab, Professor | Minnesota State University in Mankato



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## **CHALLENGE**

Dr. Mohamed Diab, MBA, PhD, PMP, a professor in the Construction Management Department at Minnesota State University - Mankato, is diligent about teaching his students that the schedule is the lifeblood of any major construction project. Consequently, he incorporates various technology platforms to help students grasp the scheduling process from the bottom up and learn how to get a wayward schedule back on track.

Diab's students begin using Microsoft Project and Primavera, two of the construction industry's most widely used scheduling platforms, when they become juniors. And the students waste no time putting these programs to the test. Diab brings in all the documentation for projects already built - generally small residential or commercial projects.

"I ask them to review all the documents I've provided and, using Microsoft Project or P6, create a schedule as if the finished product does not yet exist."

## **SOLUTION**

After they finish scheduling their projects, their work is analyzed, but not by Diab. The students upload their projects to SmartPM's cloud-based platform for actionable analysis of their construction project schedules.

Diab became intrigued with SmartPM through a professional colleague who was already using the platform.

"My friend was telling me how his company was using a new tool called SmartPM to visualize the project schedule and analyze multiple projects simultaneously, especially in the field," said Diab. "So I asked him if we could have access to the program. He told [SmartPM CEO] Michael Pink, who immediately said yes."

The main feature the students use is the Quality

## **RESULTS**

Diab says that SmartPM allows students to visualize their mistakes, capture the critical risks that could impact the project, and immediately revise the problem areas. The platform also ties back to Diab's approach of using as much technology as possible to keep students focused.

"Like all our technology, SmartPM's platform holds their interest more than any other method we could use. It gives them the interest and excitement to plan the schedule to avoid these mistakes in the first place, which is the ultimate goal."

The intuitive nature of the program is a major plus. "I didn't need to spend much time explaining how the program works," he said. "The students take a day or so to read the documentation. Then they

Checker, a tool that analyzes the overall "health" of the students' schedules from baseline to completion, assigning a letter grade and a comprehensive report detailing any issues.

Analyzing their projects right in the classroom, the Quality Checker quickly reviews the schedule and highlights any potential problem areas: missing logic, excessive use of float, delays, and trade stacking, all based on the set of critical and standard industry practices laid out by the Defense Contract Management Agency (DCMA).

Diab emphasized the visual nature of the Quality Checker, making it much easier for students to comprehend precisely where their schedules are coming up short.

work with it a few times to get comfortable and quickly pick up most of the functions."

According to Diab, it's all part of the evolution of the curriculum to include a broader scope and focus on project controls. "There is a skills gap in the construction sector," Diab warned. "The best way to address and correct it is to start with the young people seeking to enter our industry. If you wait until they've already joined the workforce, it's too late."

Tools like SmartPM, Diab believes, will help raise a generation of professionals who are far more adept at the scheduling process. And that will prove to be very attractive to hiring managers seeking fresh, knowledgeable talent.