The Drillbotics tests for 2016 have now been completed. Judging the entrants this year has been extremely difficult. The ten Phase I submittals included innovative concepts from each school, but we had to reduce the field to only five finalists for Phase II. The finalists built great rigs with new features, both at the surface, and downhole. The judges had to balance a number of factors: safety concerns, understanding of engineering and control principals, construction techniques, recognizing drilling dysfunctions, and planning for the unknown. Students also had to interact professionally with each other and share their domain expertise in a multidisciplinary environment. And of course, they needed to drill a straight hole as quickly as practicable.

Again this year, all of the student teams need to be congratulated on their achievements and hard work. The Drillbotics Committee also wants to acknowledge the support from the university leaders who organized the teams, provided guidance, and supported them throughout the year. All of us want to thank the DSATS organization and our sponsors who provided the funding to make this possible. Our sponsors include Baker Hughes, Evolution Engineering, Mathworks, Quality Stone, Rig Operations, and Schlumberger, who made generous contributions to the competition. And don't forget the committee members who have helped so much in organizing the competition, reviewing and editing guidelines, letters, and reports; plus their contribution of time to supervise the tests at the various universities. This has been a tremendous team effort.

As in any competition, there is only one winner, but I think all of the participants gained a lot. We all learned about drilling automation. We have a better appreciation of team work and relying on those team members who provide the skills that each of us individuals lack. We know what worked and didn't work and what we can do next year to make it better. But most of all, I hope everyone had enough fun to appreciate that all the hard work was worthwhile.

This year, the winning team was West Virginia University. They drilled the 10.5 inch rock sample in a record time of 27 minutes and the wellbore was fully vertical. They included interactive drill-off tests to select optimal drilling parameters in near real-time. The team includes Tawfik Elshehabi, Zachary Cox, Gbolahan “Bugzy” Idowu, Cody Smith, and Rachael Richard. Dr. Ilkin Bilgesu, Faculty Advisor, will be hard pressed to replace them next year.

Congratulations to everyone!

Fred Florence
Chair – Drillbotics Committee