

Building the Future

Tau Beta Pi – The Engineering Honor Society

Place and Time - Iowa State University Campus – Thursday, 14 November 2019, 9:00 am – 1:30 pm

Contact: LeVern Faidley, Chief Advisor, E-mail - levern@faidley.org

Building the Future is an outreach activity of the Iowa Alpha Chapter of Tau Beta Pi – The Engineering Honor Society. The event brings middle school students and their teachers to the ISU campus to experience hands-on-engineering. The activities are all based around the scenario of a tornado hitting a small Iowa town and what engineers can do to help. Following a general session at the beginning of the day, the students will undertake 4 different activities all specially designed to introduce them to various types of engineering: (i) the students will visit the Iowa State University Wind Tunnels to observe the effect of high winds and tornados on buildings; (ii) they built a wind energy generator to provide power for the emergency efforts, (iii) using popcycle sticks and brass fasteners, they built a bridge to replace one destroyed in the tornado that allows an ambulance to cross a ravine; (iv) using groundwater models they investigate how chemical spills or other pollution might affect the ground water and water supply for the town. The day concludes with a general session about what they learned that different engineers do.

Groups of students rotate between the 4 activities, each of which lasts about 45 minutes. Lunch - two pieces of Pizza and a drink will be provided. Participants are also free to bring their own lunch.

Following are pictures representative of the Building the Future activities.

