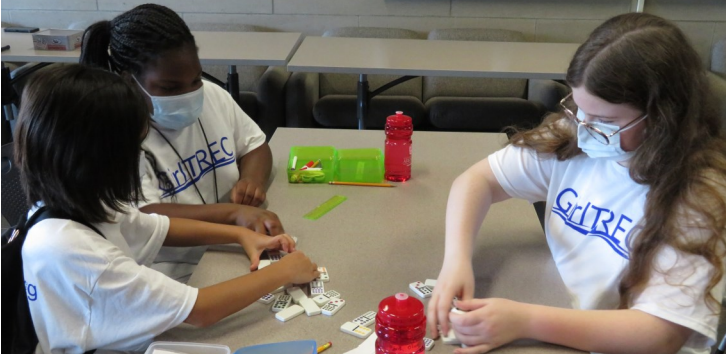


2022 MarTREC Outreach and Workforce Development



Fourth Annual GirlITREC was held on the University of Arkansas Fayetteville campus in July. The week-long day camp is designed for rising sixth and seventh grade girls. The camp focuses on engaging, hands-on activities related to transportation engineering from roads to railroads to waterways. Engineering faculty participation is a huge part of the camp. 90-minute presentations by faculty are as follows: Kevin Hall, “Building Bridges with K’NEX”: how to build a bridge that can stand the weight of trans-

portation. Sarah Hernandez, “Driving the Change: Careers Supporting the Freight Driving Industry”: through virtual reality driving simulators. Suman Mitra, “In Their Shoes”: understanding about how people (and their needs) move through a community. Gary Prinz, “Laws of Science”: principles of science through creating music. Richard Cassady, “First Lego League with Robots”: the uses of robotics. Sandra Eksioglu, “Engineering Tools for Supply Chains”: improving the performance of supply chains through modeling and analytics. Ashlea Milburn, “Social Data for Disaster Response”: using social data resources to respond to a variety of disasters. Shengfan Zhang, “Plan-Do-Study-Act through Dominoes”: utilizing continuous improvement in process and design. Campers also got to hear from Megan Gray, founder and CEO of Moment AI, which develops vehicle safety technology.



STEM Musical created by Gary Prinz, associate professor of civil engineering, along with the partnership of Adriane Hapgood, music teacher at Root Elementary School. In October, fifty fourth graders took to the stage to sing about waterways and structures. Two of the songs “Waterway Designs” set to the tune of “9 to 5” by Dolly Parton and “Fatigue” set to the tune of “Happy” by Pharrel Williams were performed.

LEGO League is led by Richard Cassady, university professor of industrial engineering. This year’s theme of FIRST LEGO League and FIRST Tech Challenge was “The Way We Move Products from Place to Place” hosted on the University of Arkansas campus in January. This collaboration spawned a college lecture by one of the LEGO League parents, Michael Thompson, problem solver at MITRE.

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