“Next Generation of Engineers”

Presented by the Parsippany NAYGN Chapter

Pictured left to right: Isamar Blumberg, Olgamarie Toledo, Matthew Yablonsky, Eric Bush, Jennifer Eng, Moheb Thomas

For the second year in a row, the “Morristown Neighborhood House” welcomed ENERCON’s Parsippany office to host a science and engineering event for their 3rd graders participating in their afterschool students program. The event consisted of a class discussion about how electricity is generated and how it reaches consumers. Students were then split into three groups and rotated between Mechanical, Electrical, and Civil Engineering stations.

The Mechanical Engineering station used foam rocket launchers and model turbines to explain the concept of hydraulic pressure. An anemometer and model turbine were used to demonstrate how the flow of fluid can create a rotary motion.

In the Electrical Engineering station, the children explored the relationship between magnetism and electricity by building different circuits. This led to an understanding of creating electricity via a rotation and a generator. Concepts such as current and voltage were explained to the children.

The Civil Engineering station used marshmallows and toothpicks to build a structure which the children then tested on a shake table. The concepts of columns, beams, and structural supports were explained to the children.

After the children went through the three stations, a working steam engine which acted as a mini power plant to light a bulb was used to demonstrate how the three stations were interconnected because the steam flow created a rotation (mechanical), which connected to a generator to create electricity (electrical), and the whole system required stability and support (civil). This final station, along with nuclear fuel pellet demonstration samples, were used to bring together how a nuclear power plant works to bring electricity to our homes and schools every day. The children enjoyed the event and left with a better appreciation for power generation.