



### Can toys create Future Engineers?

by Ir. Mah Siew Kien and Dr Habibah @ Norehan Haron

Ir. Mah Siew Kien is currently the Chairman of Women Engineers Section (WES).



Dr Habibah @ Norehan Haron is currently an observer of Women Engineers Section (WES).

### Toy Library for STEM Education

Toys are more than playthings for children. Various scientific studies have proven how toys are essential for the overall development of a child. Playing with toys improve a child's social and emotional skills, motor skills and language skills apart from making the child happier. For this reason, IEM Women Engineers Section believe the right to play is central to childhood.

In support of the National aspiration on STEM education which is to increase the numbers of human capital in STEM fields and the achievement level of STEM education, IEM Women Engineers team, UTM Razak School Adopt A Kampung team and Nilai University team (Figure 1) have decided to work together to contribute in setting-up toy libraries for children in communities. The collaborating teams had managed to collect funds and toys from individual contributors and groups from respective organizations and network. On March 14, IEM-WE led the team to set up a 'mini toy library' at Tadika Cilik Al-Fateh 3 at Felda Bukit Ramun, in Kulai Johor. The charity program was held in conjunction with WE-AFEO community service program which is held in March every year, running concurrently in all AFEO member countries during the International Women's Month.



Figure 1. IEM-WE, UTM and Nilai University teams arrived at location with the toys

The pre-school has two groups of about 15 students each. There are no proper classrooms except for a divider between the two student groups and equipped with only the basic necessities. The concept of setting up a toy library is to make learning STEM fun through creative and innovative inquiry-based learning. The team stocked the preschool with around 100 items that support all areas of learning and development focusing on toys that promote skills in STEM. IEM-WE hopes that STEM toys can help foster interests that can turn into hobbies and that can turn into careers.

The team handed in contribution in-kind such as toys, books, bookshelves, storage containers and other classroom facilities to the headmistress of Tadika Cilik Al-Fateh 3. The team, along with the teachers assembles the toys and a bookshelf immediately after the welcoming speech by the headmistress and the Tadika Cilik Al-Fateh pre-school director. The headmistress, as seen in the picture (Figure 2), expressed her gratitude to the team for contributing a mini toy library. Charging the parents for school fees at a minimal cost, and running the school using her own savings, the school is built in the compound of her inherited house in FELDA Bukit Ramun, Kulai Johor. The event was also witnessed by parents' representative, the village head, and a committee member of Tadika Cilik Al-Fateh organization.



Figure 2. Welcoming speech witnessed by invited guests



Figure 3. Assembling toys and a bookshelf

The teachers were later briefed by UTM Razak School Adopt A Kampung team members on how to use the toys for delivering the STEM curriculum. The teachers were also advised on monitoring the impact of the 'mini toy library' on the students' interest in STEM education and acquired STEM knowledge. We were invited to enjoy the refreshments that were served. The pictures in Figures 3, 4 and 5 depict the collaboration and team spirit among the organization representatives and the school teachers.



Figure 4. Briefing on solar-powered wind turbine



Figure 5. The collaborating teams and Tadika Cilik Al-Fateh team

## PLAY IT FORWARD

Every child should have the opportunity to play with games and toys and to learn from that experience. Rather than racking your brain trying to find the space to store the toys of your children, why not donate some of the playthings that they have outgrown or simply lost interest in to the Women Engineers Section for our future activities!