

## Robotics in school: A stem approach for creativity and innovation

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### ABSTRACT

Nowadays, knowledge in the field of Science, Technology, Engineering and Mathematics (STEM) is becoming very important. In order to attract students' interest in this field, robotics lesson by using LEGO MINDSTORM EV3 is introduced to schools around Pekan, Pahang in collaboration with Pejabat Pendidikan Pekan, Pahang. This lesson is not only focussing on learning, it also shows how to design and assemble a machine or a robot. Besides the project is able to motivate students to think creatively and innovatively when doing activities. A lot of programmes and activities have been organised such as workshop, class and exhibition to deliver the lesson. This entire programme helps students and teachers to assess their skills and knowledge in science and mathematics. These programs have indirectly increases the interest among students and teachers as well as improving their academic performances. Our preliminary analysis shows that a number of students participated in this program have gained good academic results especially in Science and Mathematics. Undeniably, this program is able to support Science, Technology, Engineering and Mathematics (STEM) program especially for students and teachers in Pekan, Pahang.

### KEYWORDS:

LEGO Mindstorm, Science, Technology, Engineering, Mathematics.