



# SOUTH AFRICAN EMBASSY NEWSLETTER

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### South African is working hard to fire up young Kazakhs about robotics

When the South African teacher, Mr Pragasen Naidoo, who currently heads the World Robotics Olympiad's Kazakhstan Organization, began teaching computer science at the Nazarbayev Intellectual School in Uralsk three years ago, he was delighted to see a colleague, Michael Little Crow, using Lego Mindstorm robots in class. Kazakhstan's educational planners include robots in the mix of equipment for the Nazarbayev Intellectual Schools. One of the mandates that the Education Ministry gave those running the Intellectual schools was to experiment with innovative teaching approaches and techniques.



Both teachers had used these robots to teach students in the US, Thailand and the UAE about robotics previously, and thus decided to do so in Uralsk.



One of their first projects was having students build sumo-wrestler robots. Assembling a robot from a kit or building one from scratch is the easy part, but the challenging part is programming them to do what you want them to do. Once students had assembled and programmed their robots, they would have them fight each other sumo style, with the winner being the robot that pushed the other out of a ring. That competition got students so fired up that they wanted to learn more about robotics.

Mr Naidoo began to take his students to Russia for robotics training and competitions. "We wanted Russian experts to help us do more complex programming in an easy-to-understand language and that could be completed in a short time frame", he said. He then followed-up by taking students to robotics training and competitions in other countries, and organised a national robotics competition in Astana.

Because of his commitment, the World Robotics Olympiad named him its country organizer for Kazakhstan. During September of 2014, he organised the Kazakhstan nationwide World Robotics Olympiad in Astana where 32 Kazakh schools participated. Mr Naidoo's next goal is to host the 2020 World Olympiad in Astana. Crucial to this happening would be to get Kazakhstan government officials on board and to find corporate sponsors for the event.

During December 2014, he was transferred to the Nazarbayev Intellectual School in Kostanai, where he incorporated robotics into the curriculum, as he did in Uralsk, and prepared students for competitions.

In addition, Mr Naidoo is teaching robotics to students at a Kostanai school for hearing-impaired children twice a week. He is currently enrolled with the University of South Africa to obtain his masters degree in education. The Thesis would be on "using Robots to Teach Mathematics to Hearing-Impaired Children".