Multilink Robot Wins Honours

Express News Service

Bangalore: Can you fathom a robotic hand flexible enough to aid doctors during a surgery? This concept made into a prototype by engineering students from P S G College of Technology, Coimbatore, won them the first place at the QuEST Ingenium 2012, a national-level engineering design competition on Friday.

Their project titled 'Design and Development of Multilink Spatial Hyper Redundant Robot' deals with the possibility of replicating the trunk of an elephant to achieve higher manoeuvrability during industrial and domestic applications. The budding engineers worked on this project in their final year.

They derived inspiration from the fact that the movement of arms of conventional, industrial robots was a challenge in confined environments. The multilink spatial hyper redundant robot comprises 16 links and 15 joints.

"It took a sequence of optimisation, after which we fabricated the model and tested it on general applications. We think this will be applicable in healthcare and nuclear sectors," said Sabarish Sivaprakasam, a BE Production Engineering graduate.

He added that the robot could have domestic purposes if it is manufactured on a large scale.

Engineering students from P S G College of Technology, Coimbatore, receiving the winning team's cheque at QuEST Ingenium 2012, a national-level engineering design competition in Bangalore on Friday

POWER WITH FOOTSTEPS

Now, you can generate power with every step that you take. Students from Hyderabad's Institute of Technology and Management have designed a floor prototype consisting of 12 piezoelectric sensors, which converts mechanical energy (footsteps) into electrical energy. "This electrical energy is stored in batteries, which can be later used for domestic purposes," said Vinodkumar Cherudondi, a B Tech graduate. The floor prototype is connected to an IC board through USB cables and to a 12V DC battery. "This will take nearly 20,000 footsteps to fill up a 12V battery. We intend to make a formal proposal about this to the Andhra Pradesh government," said Aravind Desireddy, another B Tech graduate.

Automobile designer and entrepreneur Dilip Chhabria, who gave away the awards, said there was a need to think beyond careers in computers. "We find that most engineers get into IT. It is not the be-all and end-all. The government has now realised that the manufacturing sector is important for GDP and we must encourage the engineering talent we have in the country," he said. The runners-up were GIT from Belgaum and SIT from Tumkur. A total of 208 teams participated in the contest and only 8 made it to finals.