

First Instrumental Bowling Ball To Measure Finger Pressure

Contributed by Joe Slowinski
Monday, 19 March 2007
Last Updated Monday, 21 January 2008

Singapore's SPorts Research Engineering Team (SPRET) is involved in a Singapore Sports Research Project. One of their initial research efforts is to design an instrumental bowling ball to measure finger pressure. Click to read the research paper and findings as well as a short newspaper article detailing the initiative.

THE FIRST INSTRUMENTAL BOWLING BALL

Click here to read the research paper including the data findings, The First Instrumental Bowling Ball And, here is a newspaper article about the project from The Nanyang Chronicle Digital version, Vol 13 # 7 Striking down the competition

Bowlers will get an edge with the world's first Instrumented Bowling Ball developed here at NTU by Kester Tay. A BOWLING ball that can help bowlers achieve more strikes by measuring the forces exerted by their thumb and fingers has been invented in NTU.

Associate Professor Franz Konstantin Fuss, from the School of Chemical and BioMedical Engineering, and his research team have been working on this smart training device for bowlers since July 2005.

Presently, the ball is hooked up to a computer to calculate the energy used to swing the ball. Hence, the current device is restricted to only a few centimetres of rolling space.

Prof Fuss said that the team is now in the process of developing a wireless version of the ball.

This can then be used by bowlers on an actual bowling alley in order to help them improve their shot down the alley, be it straight, hook or spin.

"This is one of the most exciting projects I have ever worked on," said Professor Fuss. "Sports is an area of high interest and nearly everyone can identify with it."

The project is part of the "Singapore Sports Engineering" programme, launched by the Sports Engineering Research Team (SPERT). SPERT supports research related to SPEX21 (SPorts EXcellence Program), a range of athlete, coach, official and sports management programmes, with the goal of making Singapore one of Asia's leading sporting nations.

The research team hopes to commercialise the Instrumented Bowling Ball within the next two years.

National Bowler Lionel Lim, 23, said he thinks that the research will be useful to bowlers.

"Right now, we go by our 'feel'. Figures will definitely be more accurate. The coaches can then help us improve our game by using this technology as reference."

Mr Davy Lim, a sports biomechanist of the Singapore Sports Council said: "Research in sports plays an important role in achieving sporting success. It provides additional information and knowledge to help coaches and athletes prepare for competition."

"Translating the information and knowledge derived from research into competition intelligence in a timely manner helps the athletes gain a winning edge," he added.

Mr Lim said he is happy to see more effort put into sports research locally. "The standard of sports is rising; therefore we cannot rely on primitive ways of nurturing our sportsmen."