

## **BEREICH SPORTWISSENSCHAFT**

### **Sports Engineering**

The use of technology in sport and sport science is a field of research that is becoming increasingly important both nationally and internationally. The aims of using technology in sports are wide-spread:

For example, sporting goods and equipment are optimized in order to achieve specific training or competition goals in fitness, health and performance sports. Moreover technical devices are used as diagnostic tools to determine e.g. physical and motor performance. Methods of computer science are applied for an efficient processing and management of data as well as in the context of modeling.

Main task of the research field Sports and Technology is to perceive new findings and technologies from the field of engineering and computer science and to integrate and use these competences in the field of sports science for the development and improvement of devices and methods.

In the winter semester 1997/1998 the course 'Sports and Technology' was established. This study course is an interdisciplinary course and is implemented through cooperation with other faculties of the Otto von Guericke University. The main responsibility the course lies with the Institute of Sports Sciences. During their studies the students attend courses in the technical-engineering research field such as mechanical engineering, computer science and electrical engineering. There are also specific courses such as sports technology, computer science in sports, performance diagnostics and measurement technology in sports which are directly in relation to sport scientific research fields with movement science, biomechanics and exercise science.