

202001583

Sports Interaction Technology: Designing Interactive Systems for Sports

Cursus informatie

Cursus	202001583	Collegejaar	2021
Studiepunten (ECTS)	5	Aanvangsblok	2B
Cursustype	Cursus	Opmerking	This course will eventually be part of the new master-track "Sports Data Science".
Voertaal	Engels	Aanmeldingsprocedure	Zelf aanmelden via OSIRIS Student
Contactpersoon	dr. D.B.W. Postma	Inschrijven via OSIRIS	Ja
E-mail	d.b.w.postma@utwente.nl		
Docenten			
Tutor	A. Balasubramaniam		
Examinator	dr. D.B.W. Postma		
Contactpersoon van de cursus	dr. D.B.W. Postma		
Docent	dr. D.B.W. Postma		

Cursusdoelen

- Students know the principal dimensions that are relevant in the design of Sports Interaction Technology
- Students understand how Sports (Interaction) Technology is embedded in the broader context of sports practice and sports science
- Students can apply the main concepts to typify existing systems and to provide suggestions for system-improvements.
- Students can analyse the make-up of Sports Interaction Technology in terms of form and function.
- Students can critically evaluate novel sports technology from academic literature
- Students can create novel interactive systems for sports

Inhoud

The use of sports technology is arguably as old as sports itself. In ancient Greece for example, the *Hysplex*, a primitive starting mechanism, was used to prevent false starts in horse and footraces. Sports *Interaction* Technology however is relatively new. Fueled by the potential of advanced computing, wearables and modern networking technology, interaction technology is taking the world of sports by storm. Just what is interaction technology? And how does it help to enhance learning, increase engagement and perfect performance?

From simple fitness trackers to full-blown sports performance analysis systems; this course will teach you all about sports interaction technology. Starting with the fundamentals, you will learn to appreciate and improve existing training systems. Ultimately you will design your very own interactive sports system. Along the way you will be guided by lectures and tutorials that will help you to master the many complexities of this colorful and vibrant area of sports and research.

Good luck!

Assessment

Multiple-choice exam (40%)
Project (60%)

Voorkennis

Open for everyone; but some background knowledge about (interaction) design, (biomechanical) engineering, movement science and/or computer science is preferred, e.g.:

- Biomedical Engineering
- Computer Science
- Embedded Systems
- Health Sciences
- Interaction Technology

Participating study

Master Interaction Technology

Verplicht materiaal

Reader
Reader pt1-The Twente SPORTS Framework

Reader
Reader pt2-Sports, Data, and Interaction – Taxonomy of a Design Space of Science and Technology

Aanbevolen materiaal

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Werkvormen

Hoorcollege

Opdracht

Aanwezigheidsplicht Ja

Project begeleid

Project onbegeleid

Vragenuur

Werkcollege

Workshop

Zelfstudie geen begeleiding

Zelfstudie met begeleiding

Toetsen

MC Exam and Project