

Control of Drag in Cycling

Biomechanical & Sports Engineering

Project description

This project entails a combined CFD and experimental study of a pursuit cyclist, with the aim of understanding the flow mechanisms leading to drag and how to control them. As 80 to 90% of the drag is due to the cyclist's body, the body will be the primary focus of the research. The project builds on recent research into the flow field around a track cyclist and a range of drag-reduction studies on individual components. The project will entail the construction of a 3D-printed mannequin based on a real rider.



Primary aim

Understand the flow mechanisms leading to the drag on a cyclist's body.

Student attributes

A degree in Mechanical Engineering or related discipline.

High level of competency with CAD, CFD and MatLab.

Above-average practical skills.

Excellent writing skills.

Ability to work in a team environment.

Secondary aim

To manipulate and hence control the flow around the cyclist's body, leading to a reduction in the overall drag.

For further enquiries

Richard Kelso

The University of Adelaide SA 5005 Australia

Telephone: +61 8 8313 5208 **Free-call:** 1800 061 459

Online enquiries: adelaide.edu.au/student/enquiries