

Workshop on Cycling. How can people with low vision cycle safely?

Chair: Bart Melis-Dankers / Bart Jelijs

The Dutch have windmills, tulips, and wooden shoes, but above all, an average Dutch inhabitant rides a bicycle. In many countries, the ability to cycle is of great importance for independent mobility. But how can visually impaired people ride a bicycle in a safe and responsible way?

From a medical point of view, there are no visual requirements to participate in Dutch traffic as a cyclist. Unmistakably, visual impairments might compromise the ability to ride a bike safely. The practical fitness to ride a bike depends on the abilities to compensate for ones visual impairment. During this workshop you will obtain insight into the problems which visually impaired cyclists might encounter. Moreover, you will discover how compensation is possible in the three domains that will be covered during the session: behaviour, infrastructure, and technology.

Based on Michon's model of (car) driver behaviour, a partially sighted person may compensate by adjusting strategic, tactical or operational behaviour during traffic participation as a cyclist. The problems that visually impaired cyclists encounter and the reasons for some partially sighted people to cease cycling, will be discussed by means of a recently conducted online survey on this topic. The infrastructural factors will be demonstrated by means of the Image Degeneration Edge Detection (IDED) method. During this demonstration, you will experience how the (cycling) environment can be optimized in terms of visual accessibility. The variety of bicycles is increasing rapidly, due to contemporary technological developments. You will get the opportunity to ride on some of the newest types of bicycles that may contribute to the independent mobility of visually impaired people.

In short, during this workshop, you will get insight in what problems visually impaired cyclists experience and how compensation can contribute to this beloved way of transportation.

Content	Presenter	Time (min.)
General introduction (compensation)	Bart Melis-Dankers	5
Problems visually impaired cyclists encounter	Bart Jelijs	10
Discussion & Introduction next speaker	Bart Melis-Dankers	5
Infrastructure – IDED + demonstration	Berry Den Brinker	10
Discussion & Introduction next speaker	Bart Melis-Dankers	5
CONCEPT: Bicycle models / CRUISER	o.v.b. Dick de Waard / Maurice Tak of anders	10
Discussion	Bart Melis-Dankers	5
Walk out towards bicycles		5
Short explanation different bicycles	Bart Melis-Dankers	5
Try different bicycles yourself and meet the 'intelligent bike'	Van Raam / SoFiets / TNO-Roessingh (o.v.b.)	25