User Manual for SafeCross SMoS

August 24, 2023

Developed by Kevin Gildea, Ph.D.
Faculty of Engineering, LTH
Lund University
Email: kevin.gildea@tft.lth.se

1 Introduction

Welcome to the user manual for *SafeCross SMoS*, a standalone application designed for statistical modeling of cyclist tram track crossing success rates based on crossing angles. This manual provides step-by-step instructions on how to use the application.

2 Getting Started

2.1 Installation

The *SafeCross SMoS* application can be downloaded from the following link.

2.2 Running the Application

No installation is required, you may need to open the application using administrator mode. To do this:

1. Right-click on the application icon.
2. Select 'Run as administrator'.

3 Application Interface

3.1 Input Fields

- **Total count of cyclists**: Enter the total number of cyclists observed.
- **Gap width (mm)**: Enter the gap width in millimeters. This is only required for Model c.

- **Sample of crossing angles (degrees)**: Enter a space-separated list of crossing angles in degrees.

To load crossing angles from an Excel file:

1. Go to the *File* menu.
2. Select *Load angles (.xlsx)*.
3. Browse and select the appropriate Excel file containing the angles. These must be listed in a single column under the column title 'Angle'.

3.2 Modeling

- **Model c**: Click this button to compute the expected number of successful crossings based on Model c.
- **Model b**: Click this button to compute the expected number of successful crossings based on Model b.

4 Graphical Output

After computing the expected number of successful crossings using either Model b or Model c, a graphical representation will be displayed. This graph plots the probability of crossing success against either the crossing angle (for Model b) or the effective width (for Model c).