EYE MOVEMENTS WHILE WALKING IN NATURAL AND MAN-MADE ENVIRONMENTS ***C. DeAngelis****; J. Pelz*; A. Herbert*[1] Center for Imaging Science,*
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A previous study on fixations while people walk reported that, regardless of the surface a person is walking on, they tend to look at the ground within three meters of them 60% of the time. While this seems logical for an uneven natural path, it seems odd to spend so much time looking at the ground while walking on a smooth floor, as reported. Using a wearable eye tracker and a High Definition camcorder attached to a bicycle helmet, five subjects were asked to walk along both a paved path along the Perkins Apartment complex and a natural path behind the Student Life Center. The video from the HD Camcorder and the eye-tracker was merged using a video multiplexer and a second camcorder. This video was de-multiplexed in the laboratory to create a calibrated tape that shows where in the scene the subject was looking using infrared images of the pupil and cornea. Using custom made software for the Visual Perception Lab (RITCode) the video was examined and fixations were classified as: the path within three meters in front of the subject ("Near path"), the path further than three meters in front of the subject ("Far path"), and anywhere else in the environment ("Away"). The hypothesis is that people will spend more time looking at the ground on the natural path than on the paved walkway.