

# CSDS 500 and ECSE 500 Fall 2020 Colloquium

11:30AM to 12:30PM  
Tuesday, November 3, 2020

Zoom Webinar ID: 862 815 806  
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## “Automation of Road Painting”



Road markings are essential for the safety of drivers, cyclists and pedestrians. But this comes at a cost. In the U.S. alone, with over 2.6 million miles of paved roads, the estimated expenditures for street markings is \$2 Billion annually, and an average of 135 road workers are killed on the job each year. The process for applying symbols on pavement, such as turn arrows, stop lines, crosswalks, bike lanes, and lettering, is primarily done by an antiquated manual method using crews with large stencils. This talk presents details of the technical development of a robotic system that aims to save money and lives through automated road painting.



Wyatt Newman, Case Western Reserve University

**Wyatt Newman** is a professor in the department of Electrical, Computer and Systems Engineering at Case Western Reserve University, where he has taught since 1988. His research is in robotics and computational intelligence, in which he has 12 patents and over 150 technical publications. He received the S.B. degree from Harvard College in Engineering Science, the S.M. degree in Mechanical Engineering from M.I.T. in thermal and fluid sciences, the M.S.E.E. degree from Columbia University in control theory and network theory, and the Ph.D. degree in Mechanical Engineering from M.I.T. in design and control. Prof. Newman has also held appointments as: a senior member of research staff, Philips Laboratories; visiting scientist at Philips Natuurkundig Laboratorium; visiting faculty at Sandia National Laboratories, Intelligent Systems and Robotics Center; NASA summer faculty fellow at NASA Glenn Research Center; visiting fellow in neuroscience at Princeton University; distinguished visiting fellow at Edinburgh University, School of Informatics; and the Hung Hing Ying Distinguished Visiting Professor at the University of Hong Kong. Prof. Newman led robotics teams competing in the 2007 DARPA Urban Challenge and in the 2015 DARPA Robotics Challenge. He is the author of the 2017 textbook “A Systematic Approach to Learning Robot Programming with ROS.” Prof. Newman is co-founder of RoadPrintz, Inc., which is developing an automated system for applying road markings.

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