

# Remote Driving: A Ready-to-go Approach to Autonomous Car?

## - Opportunities and Challenges

Rui Liu<sup>†</sup>, Kostas Bekris<sup>‡</sup>, Ahmed Elgammal<sup>†</sup>, Vinod Ganapathy<sup>‡</sup>, Mario Gerla<sup>‡</sup>, Liviu Ilfoade<sup>†</sup>, Melchi Michel<sup>†</sup>, and Jingang Yi<sup>†</sup>  
<sup>†</sup>Rutgers, The State University of New Jersey, <sup>‡</sup>University of California, Los Angeles

### *Abstract*

*In contrast to autonomous driving solutions purely based on artificial intelligence, this article discusses an alternative for autonomous cars, which involves remote over-the-network driving. The progress in ITS technology, especially in wireless networks and robotic control theory, allows envisioning tele-operated cars that are equally effective in navigating roads and highways to cars controlled by an on-board human driver. This article also examines the challenges that remote driving needs to overcome and possible solutions before turning this technology into reality.*