There is a world-wide effort to apply 21st century intelligence to evolving our transportation networks. Despite fears of Big Brother and annoyance over your recent red light ticket, the goals of smart transportation networks are quite noble and manifold. The goals include energy conservation, emission reduction, increased safety, decreased commute times, monitoring road conditions. Imaging is playing a key role in this transportation evolution. Video imaging scientists are providing intelligent sensing and processing technologies for a wide variety of applications and services. There are many interesting technical challenges including imaging under a variety of environmental and illumination conditions, data overload, recognition and tracking of objects at high speed, distributed network sensing and processing, energy sources, as well as legal concerns. In this presentation, Bob will describe current applications, research trends, and technical challenges.