

**ELEC 3040/3050 Ethics case study assignment  
Spring 2017**

**Motivation:**

Graduates of the Electrical and Computer Engineering programs will have achieved:

- an understanding of professional and ethical responsibility
  - an ability to communicate effectively
- a knowledge of contemporary issues  
eight additional student outcomes, as defined in Criterion 3 of ABET “*Criteria for Accrediting Engineering Programs*”.

Refer to:

<http://www.eng.auburn.edu/ece/academics/undergraduate/program-objectives-outcomes.html>

**The assignment:**

1. First, read this article:

Noah J. Goodall, “Can you program ethics into a self-driving car?” IEEE Spectrum, June 2016.  
Online: <http://spectrum.ieee.org/transportation/self-driving/can-you-program-ethics-into-a-selfdriving-car>

2. Then read this news report:

<https://www.theguardian.com/technology/2016/jul/01/tesla-driver-killed-autopilot-self-driving-car-harry-potter>

3. and also a report about the auto industry's recent concerns:

<http://www.freep.com/story/money/cars/2016/08/01/auto-industry-agonizes-after-tesla-autopilot-fatality/87925652/>

4. Additional food for thought: Who is to blame, the car manufacturer or the designer of the component used in the vehicle?

<http://www.craveonline.com/design/1015315-tesla-mobileye-divorce-first-autopilot-death>

5. Write a report (approximately 3 pages, double spaced) discussing at least one potential ethical dilemma that a design engineer might face in designing an autonomous vehicle.

- Clearly describe the *multiple imperfect options* that make up each dilemma. A dilemma occurs when one is “stuck between a rock and a hard place.” For each dilemma, try to describe the “rock” and the “hard place.”
- Try to propose one or more solutions that might solve each dilemma.
- Throughout the report, consider the IEEE Code of Ethics as a basis of discussion and recommendations.
- Remember to cite references in the report.

Refer to lecture slides and ethics grading rubric on the course web page.