

Paper Review 1

Issued: 10/3/16; Due: 10/10/16, 4:00pm

Paper: M. Taylor. "A Landscape of the New Dark Silicon Design Regime." IEEE Micro, Sep/Oct 2013.

Assignment: Read the paper, and carefully answer the following questions in your own words.

Submit your paper review on Blackboard as one of the following file formats: .pdf, .doc, .docx, .odt, .txt, or .rtf.

Page limit: a maximum of two pages at a reasonable font size

To receive credit, questions must be answered in your own words. Do not plagiarize by copying text from the paper or other sources. If you do so, you will receive no credit for this assignment.

1. Explain the concept of dark silicon. What does it mean? How is it affecting designs? How will it change designs in the future?
2. Explain the *utilization wall* and what causes it, specifically in terms of circuit characteristics. What does Table 1 show?
3. Figure 1 is interesting. What does this diagram show?
4. The paper describes four directions to approach the dark silicon problem (called "horsemen" in the paper). Briefly explain each of the four horsemen. Which "horseman" do you think is most promising? Which do you think is least promising? Why?