

**ECE571: Advanced Microprocessor Design – Homework 10**  
Spring 2018

**Due: Tuesday 19 April 2018, 3:30pm**

Create a document that contains the answers to the questions below. A .pdf or .txt file is preferred but I can accept MS Office or Libreoffice format if necessary.

1. Read the following website article:

- **Exploring DynamIQ and ARM's New CPUs: Cortex-A75, Cortex-A55** by Matt Humrick  
<https://www.anandtech.com/show/11441/dynamiq-and-arms-new-cpus-cortex-a75-a55>
- Answer the following questions:
  - (a) Name a change that improved performance of the Cortex A55 over the Cortex A53
  - (b) How does the power usage compare of A55 vs A53?
  - (c) What features were left on on Cortex A73 to target mobile?
  - (d) What is cache-stashing?

2. Also read the following article:

- **Cortex-M7 Launches: Embedded IoT and Wearables** by Stephen Barrett  
<https://www.anandtech.com/show/8542/cortexm7-launches-embedded-iot-and-wearables>
- Answer the following questions:
  - (a) Why are the M processors considered embedded and not general-purpose?
  - (b) How is the M7 different from previous M series processors?
  - (c) What is TCM?

3. Submitting your work.

- Create the document containing the answers to the questions asked.
- Please make sure your name appears in the document.
- e-mail the file to me by the homework deadline.