

## 4COSC008C Trends in Computer Science

### Tutorial Week 10

1. Focus on CW2: consider the Coursework 2 specification (available on BlackBoard) and discuss any questions you might have.
2. AI and Ethics:  
Visit the gendershades website <http://gendershades.org/overview.html> and explore the information provided. Read the introduction and conclusion of the Buolamwini and Gebru 2018 paper, available at the gendershades website and well as via <http://proceedings.mlr.press/v81/buolamwini18a/buolamwini18a.pdf>

Answer to the following questions and discuss them with your peers:

- I. What is the problem described?
  - II. Why is it important?
  - III. Who does it impact and how?
  - IV. What causes can you identify?
  - V. What solutions can you suggest?
- 
3. Internet of Things and Security
    - a. Consider the following website on the internet of Things  
<https://www.ibm.com/blogs/internet-of-things/what-is-the-iot/>
    - b. Read the abstract, introduction and conclusion of the De Donno et al. (2018) article accessible at <https://www.hindawi.com/journals/scn/2018/7178164/>  
The Guardian article below provides factual context on what is considered the largest Botnet attack in Europe and the USA.  
<https://www.theguardian.com/technology/2016/oct/26/ddos-attack-dyn-mirai-botnet>
    - c. Answer and discuss the following questions:
      - i. What is a botnet?
      - ii. How would you explain a Distributed Denial of Service (DDoS attack)?
      - iii. Why the Internet of Things poses a series of security challenges?
      - iv. Can you propose some solutions?

### Independent Study

Read in full the De Donno et al. (2018) paper accessible at  
<https://www.hindawi.com/journals/scn/2018/7178164/>