## **Computer Science and Computer Architectures**

## 1. Introduction

## 1.1. Introduction to the Course

## **Assignments**

- 1. Write short notes and explain in your own words:
  - a. why we do not consider a calculator to be a computer.
  - b. what is a computer, which functionality a device need to provide to be called a computer.
- 2. Watch this 15-minutes-long video about Charles Babbage, Ada Lovelace, and their work on the Analytical Engine: Charles Babbage's Analytical Engine
- 3. \* And if you like the above story and want to know more watch <u>The Thrilling Adventures of Lovelace and Babbage</u>. It's a one-hour-long talk given at Google in 2015 by Sydney Padua, the author of the graphic novel "The Thrilling Adventures of Lovelace and Babbage: The (Mostly) True Story of the First Computer". "The graphic novel creates a world where Ada Lovelace did not die of cancer, and Charles Babbage did build his Difference Engine."
- 4. \* And if you are even more into alternate history, steampunk and such (and like reading ;-)), read <u>The Difference Engine</u> written by William Gibson and Bruce Sterling. "The Difference Engine (1990) is often credited with bringing about widespread awareness of steampunk. This novel applies the principles of Gibson and Sterling's cyberpunk writings to an alternative Victorian era where Ada Lovelace and Charles Babbage's proposed steam-powered mechanical computer, which Babbage called a difference engine (a later, more general-purpose version was known as an Analytical Engine), was actually built, and led to the dawn of the information age more than a century 'ahead of schedule'."