



## BCS322: Computer Architecture

### Survey Report (1)

#### Title: New trends in processor design

Processors have undergone a tremendous evolution throughout their history. A key milestone in this evolution was the introduction of the microprocessor, a processor that is implemented in a single chip.

The purpose of this survey is to give an overview of the current and future trends in processor architecture. The central perspective of the report is the technical ideas related to performance improvement like pipelining, caching, parallel execution, power consumption, etc.

The required deliverable is a report containing the following items:

1. Introduction
2. Historical overview
3. Performance evaluation
4. Fabrication technologies
5. Instruction set architectures
6. Comparative study
7. Conclusion
8. References

### Survey Report (2)

#### Title: New trends in memory technology

Memory and data storage take many forms, even in a single computer system. There are two main classifications of memory families. These are RAM (Random Access Memory) and ROM (Read Only Memory) devices. RAM devices are volatile, which is to say they lose their memory content when the power to the host system is turned off. ROM devices are non-volatile, meaning they retain their stored data when the power is removed.

The purpose of this survey is to give an overview of different technologies used in manufacturing RAM and ROM. The central perspective is the ideas contributing to the performance and memory capacity.

The required deliverable is a report containing the following items:

1. Introduction
2. Historical overview
3. Performance evaluation
4. Fabrication technologies
5. RAM and ROM technologies
6. Comparative study
7. Conclusion
8. References