**Secure Computer Architecture – Instructor: Dr. Shayan (Sean) Taheri**

**Topics:**

1. Introduction to Secure Computer Architecture.
2. Review of Computer System and Architecture.
3. Computer Arithmetic for Security Computations.
4. Security, Power, Delay, and Area in Digital Design.
5. Security Analysis of ISAs: CISC and RISC Architectures in Security Domain.
6. Secure Processors: Design, Technology, and Evaluation.
7. Secure Memory Hierarchy.
8. Secure Buses, Arbitration, and Control.
9. Secure Peripheral Input/Output Interfaces.
10. Assembly Language Programming with Security Considerations.
11. Security Aspects of Pipelining and Parallelism for Processors.
12. Multicore Processors for Security: Architectures, Memory Interactions, and Interconnection Networks.