Design and implementation of a new lightweight chaos-based cryptosystem to secure IoT communications.

Roll: 1807021 Date: 05/09/2023

Recap: Previously I read the paper and explored different features of chaos theory.

My Work: This week I'm learning more about chaos theory in online courses.

- Iterative functions are an example of a dynamical system.
- Dynamical systems are systems that evolve forward in time according to a well-defined and unchanging rule.
- Iterative functions are deterministic, same procedure is followed again and again, output of one process is input of following process
- A fixed point of a function is a number that doesn't change when iterated. Ex. 0,1 for squared function
- Phase line describes long term dynamics of a function.
- We know the behavior of a function from phase line, but not the speed.
- 1 is unstable fixed point and 0 is stable fixed point for squared function.

Future Plan: Study more details about the mathematics and mechanisms of chaos theory.