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

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**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.