

## Lecturer Candidate

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**Monday, March 21, 2022**

1:30 – 2:30 P.M.

BHEE 317

<https://purdue-edu.zoom.us/j/94391829287>

## Sequential Logic Circuits

### Outline of Presentation:

- Overview of Sequential Circuits
  - Combinational Circuits vs. sequential Circuits
  - Example of Combinational and Sequential Circuits
  - Types of Sequential Circuits
  - Properties of Clock Signals
- Circuits that can store information:
  - FFs & Latches
  - R-S latch
  - D-Latch
  - Clock FFs: R-S FF, J-K FF, D-FF
  - Register
- Introduction of Finite State Machine (FSM)
  - Moore Machine
  - Mealy Machine
  - Design Procedure of FSM
- Verilog Implementation of Sequential Circuits (D FF)

**Bio:** Dr. Md. Hasanuzzaman Working as a Professor in the Department of Computer Science and Engineering, University of Dhaka, Bangladesh since 2013. He received his Ph.D. in 2006 from the Department of Informatics, National Institute of Informatics, The Graduate University for Advanced Studies, Japan. He completed a Master of Science in Computer Science and a Bachelor of Science in Applied Physics and Electronics from the University of Dhaka, Bangladesh. In addition, he worked as a **Dean** in the Faculty of Engineering and Technology from January 2017 to 31 December 2021, and a **Chair** of the Department of Computer Science and Engineering from February 2012 to February 2015, at the University of Dhaka, Bangladesh. He worked as JSPS Postdoctoral Fellow from November 25, 2009, to November 24, 2011, in the Department of Informatics, National Institute of Informatics (NII), Tokyo, Japan. He has more than 21 years of teaching and research experience at undergraduate and graduate levels, supervised several Ph.D., MPhil, Master's, and undergraduate research students, and published more than **60** peer-reviewed research papers.