

## Lab Assignment 9

**Title:** Asynchronous Serial Transmitter

**Learning Objective:**

Learn how to transmit serial information without a shared clock.

**Specification:**

Design asynchronous serial transmitter matching the receiver designed in the previous assignment.

**Details:**

Design and implement circuit for serial asynchronous transmitter. The baud rate and data format should be same as that of the receiver designed in the previous assignment.

The transmitter will have parallel data input and will send out the data bits serially along with a start and a stop bit. Use the transmitter to echo back the data received by the receiver. This will be done by connecting the parallel output of the receiver to the parallel input of the transmitter to form a loop. Use this to demonstrate that the data sent from the PC is echoed back to it through the receiver/transmitter pair.