

EE6302 Control System Design

Unit 2: Dynamic Model and the Transfer Function of a System

2.3 System Modeling Diagrams (Block Diagrams)

For a complicated system, it is easy to find the transfer function of each and every element and output of a certain block may act as an input to other block or blocks. In order to find the overall transfer function, the transfer function of each block and the interrelation among each block should be known. Therefore, a block diagram of a system is a pictorial representation of each block in a system.

A simple block

Output of a block

The product of input and the block gain is known as output.

Take off point

Take off point is a point at which any signal can be taken into multiple paths.

Summing point

Summing point is a point at which two or more signals can be added together.

Forward Path

The direction of flow of signal from input to output is known as forward path.

Feedback Path

The direction of flow of signal from output to input.