

# Shuttleless Weaving - Web course

## COURSE OUTLINE

Drawbacks of shuttle looms; Principles of weft insertion with Rapier, Gripper, Air and Water Jets; Relative merits of the various weft insertion systems in terms of productivity, range of products, energy consumption and technical limitations.

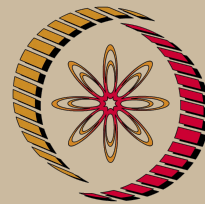
Mechanics of the primary, secondary and auxiliary motions of modern shuttleless looms; Control systems on modern shuttleless looms; Automatic entering and knotting systems vis-à-vis QSC looms; Noise and its analysis; Techno-Economics of shuttleless weaving.

## COURSE DETAIL

S.No	Modules	No. of Lectures
1	Drawbacks of shuttle looms.	1
2	Principles of weft insertion with Rapier, ripper, Air and Water Jets.	12
3	Relative merits of the various weft insertion systems.	2
4	Mechanics of the primary, secondary and auxiliary motions.	12
5	Control systems on modern shuttleless looms.	3
6	Automatic entering and knotting systems vis-à-vis QSC looms.	3
7	Noise and its analysis.	4
8	Techno-Economics of shuttleless weaving.	3

## References:

1. Handbook of Weaving : Adanur Sabit.
2. Weaving Technology and Operations : A Ormerod and W S Sondhelm.
3. Principles of weaving: R Mark and T C Robinson.
4. Weaving machine, mechanism and management: M K Talukdar and others.



NP-TEL

# NPTEL

<http://nptel.iitm.ac.in>

## Textile Engineering

### Coordinators:

**Prof. P.K. Banerjee**

Department of Textile Technology IIT  
Delhi

