

# GUJARAT TECHNOLOGICAL UNIVERSITY

## DIPLOMA IN TEXTILE MANUFACTURING TECHNOLOGY

### SEMESTER: V

Subject Name: **Advance Texturising and Twisting**

Sr. No.	Course content
1.	<b>Introduction of Texturising and Twisting process:</b>  1.1 Objective, necessity of Texturising . 1.2 types of textured yarn, names of different methods of texturising process. 1.3 Filament twisting process. - Objectives, necessity of filament twisting, Structure of twisted yarn, Effect of twisting on yarn properties. - Different types of twisting m/cs. - Ring twister/Deck twister / TFO
2.	<b>Study of False Twist Texturising:</b>  2.1 Principle of false twist texturising. 2.2 Factors affecting false twist textured yarn. 2.3 Difference between Friction twisting and pin twisting. 2.4 Nip Twister and Ring Twister.
3.	<b>Study of Miscellaneous Texturing Systems:</b>  - Study of Bulk Yarn Stuffer Box , - Edge Crimping - Knit –De- Knit Texturising Methods.
4.	<b>Detail Study of Draw Twisting and Direct Warping and Sizing.</b>
5.	Processing of Microfilament on Texturising Machine.
6.	<b>Textured Yarn Fabric Defects Causes and Remedies.</b>
7.	<b>Air Jet Texturising:</b>  8.1 Study of air jet texturising machine. 8.2 Different types of jets for Air texturising. 8.3 Effect of process variable on textured yarn quality. 8.4 Properties and end users of air jet textured yarn. 8.5 Testing and quality control of air textured yarn.
8.	<b>Testing and quality control of Textured yarns:</b>  - TO test denier and its variation - To test yarn tensile properties - To test spin finish content - To test crimp permanency and crimp contraction

	- Twisting sense
9.	<b>Production Calculation of Texurising and Twisting Machine.</b>

### **Laboratory Experiences:**

1. Principle of false twist texturising.
2. False twist texturising process for High stretch yarn and Modified stretch yarn.
3. Features of different heating mode and different twisting units.
4. Feeding systems in false twist texturising.
5. Yarn oiling system in false twist texturising.
6. To set draw ratio on draw texturising machine.
7. To test effect of variable on textured yarn quality.
8. Air texturising
  - Quality control of air texturising yarn
  - To test yarn stabil
  - To test yarn bulk
9. Edge crimping method and stuffer box crimping , Knit –de-knit texurising method.
10. Production of crimp/bulk yarn by Knit-de-knit texturising method.
11. Testing and quality control of Textured yarns.
  - TO test denier and its variation
  - To test yarn tensile properties
  - To test spin finish content
  - To test crimp permanency and crimp contraction
12. Identify and rectify Textured yarn defects.
13. Identify and rectify the textured yarn fabric defects.
14. Textured yarn processing.
  - Weaving preparatory processing
  - Warping and sizing
  - Weaving and knitting

### **Reference Books:**

1. A Guide to Crimping/Texturing Technology, Dr. M.V.S.Rao & Mr. A.B. Talele.
2. The Yarn Revolution, The Textile Institute.
3. Yarn Texturing Technology, The Textile Institute.
4. Synthetic Filament Yarn Texturing Technology, H.M. and Demir, A.
5. The production of Textured yarns, The false twist technique.
6. The Production of Textured yarns Methods others than the false twist Techniques, Willson, D.K.
7. The production of Textured yarns by Methods other than false Twist Techniques, Willsin. D.K. and T. Kolla.