

# VEER NARMAD SOUTH GUJARAT UNIVERSITY

## SCHEME OF TEACHING

Semester - VII

B. E. IV (TEXTILE PROCESSING)

### TP - 701, COMPUTER AIDED DESIGNING AND COMPUTER COLOUR MATCHING {CAD/CCM}

Teaching Scheme (No. Of Contact hr.)			Theory Exam		Practical/Quiz/Viva Exam		Grand Total
			Duration (hr.)	Marks	Sem. End Exam	Cont. Int. Evaluation	
Theory	Tut.	Pract.					
3	-	3	3	100	45	30	175

#### Theory

1. Brief discussion of colour science, perception of colour, colourmixing laws, metamorphism, colour order systems, colour difference measurements etc
2. Colour Assessment in Textile- Visual and Instrumental colour assessment. Method of Visual assessment. Standard conditions for visual evaluation. Colourant formulation by Visual assessment.
3. Optical Theory for colour matching. Reflectance curves, Kubelk- Munk Theory etc.
4. Computer Colour matching-Study of various accessories like spectrophotometer, software & hardware systems etc in CCM. Theory and Process of finding the shade sorting, Dye strength & Tone, Recipe formulation, recipe correction, recipe for Redyeing etc. Assessment of whiteness and degree of yellowness. Advantages and limitations of CCM techniques.
5. Computer aided designing for printed fabrics. Scanning, colour separation, separation of printing, interface, combination etc.
6. Computer aided designing for Dobby & Jacquard fabrics.
7. Colour measuring instruments, microprocess controlled textile testing instruments and application in continuous monitoring in Textiles.

#### References :-

01.	Instrumental Colour Measurement & Computer Aided Colour Matching	H. S. Shah, -Mahajan Pub.,1990
02.	Computer Colour Analysis	Sule,-New Age international. New Delhi. Pub., 1997
03.	Watson-Textile Design & Colour	Z. Grosicki, - Newness Butterworths Pub., London., 7 <sup>th</sup> E/D. 1975
04.	CAD in Clothing & Textiles	Winifred Aldrich, - 2 <sup>nd</sup> E/D. Blackwell Science, Pub., 1994