Project Title -11	**Interaction of the properties of individual cotton fibres in a blend**
Principal Investigator	Dr. Arindam Basu
Cost	Rs.12.68 lakhs
Date of Commencement	01.04.2007
Duration	12 Months
Date of Completion	31.03.2008
Abstract	Yarn engineering plays an important role in producing fabrics for particular end uses. It is a common practice to predict the yarn properties from constituent fibre properties. The high variation in the properties of cotton has attracted researchers worldwide to derive various prediction equations. But majority of these predictions are based on single cotton yarn. The present study reports the accuracy of using weighted average method to determine the quality of yarns made from two different cotton blends. Based on a number of trials, new equations have been derived which improve the efficiency of prediction in the case of binary blend yarn
Highlights	The weighted average values used conventionally for predicting the properties of blended cottons are not accurate. It would be better to assess the fibre properties after blending Similarly, conventional prediction equations of yarn properties using the weighted average of cotton properties generally do not predict the yarn properties accurately. The accuracy of the equations can be improved by feeding the actual values The properties of blended yarns predicted using the conventional equations do not show good accuracy. Equations are suggested in this report which can predict the yarn properties with greater accuracy.
Area of applicability	Spinners
Target beneficiaries	Spinning Industries
Status	Completed