

Report on
2-Day Workshop / SDP titled
“Computerised Colour Measurement”

During 23 - 25 September, 2026

Venue:
Textile Section, Department of Silpa-Sadana

Organized by:
**Centre for Advanced Skill Development,
Silpa-Sadana, Visva-Bharati**

Convenor & Resource Person:
Prof. Sankar Roy Maulik



A workshop on “Computerised Colour Measurement” was organised by the Textile Section, Department of Silpa-Sadana, under the aegis of ‘Centre for Advanced Skill Development’ on 23-24 September 2026. The workshop provides participants with both theoretical knowledge and practical exposure to colour measurement techniques and sustainable textile dyeing practices with natural and reactive colour. The workshop

focused on the scientific principles of colour measurement, computerised colour matching, and the practical aspects of dyeing cotton fabric using reactive and natural dyes.



The programme was designed to bridge the gap between theoretical understanding and industrially relevant practical skills in textile colouration and colour management.

The workshop started with theoretical discussions on reactive colour and its advantages and drawbacks. The session demonstrated the importance of dye concentration, liquor ratio, salt, alkali, temperature and dyeing time in obtaining reproducible shades and good colour fixation. The advancement of reactive colours was also discussed during the theoretical lecture. Natural dyeing was also discussed in the context of sustainable textile production, the utilisation of renewable resources, and the use of waste biomass for value-added colour production. The practical session focused on dyeing cotton fabric using the H and HE brands of reactive dyes. The participants were introduced to reactive dye-cellulose interactions and the importance of colourfastness.

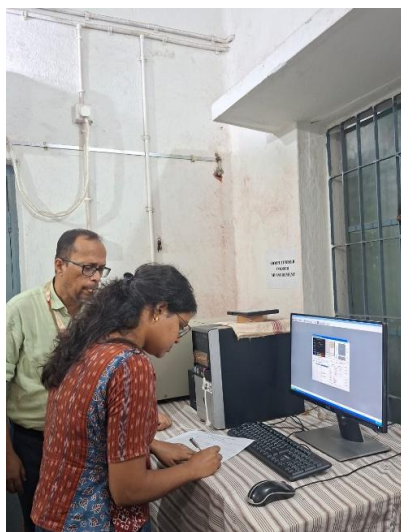
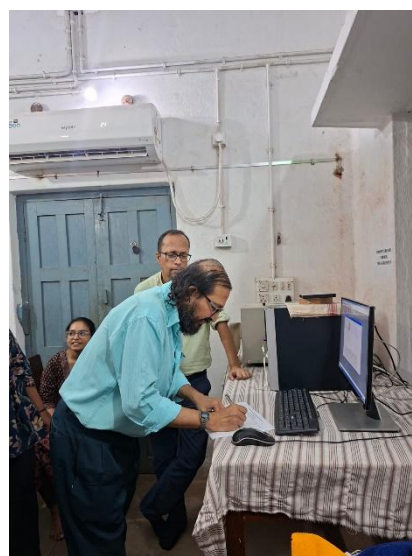


The workshop also focused on natural colouration as an environmentally conscious alternative. Participants were introduced to natural dye sources and to the basic principles of extracting and applying natural dyes to cotton with mordants. The natural dye session covered the extraction of colour from myrobalan (Harda), preparation of dye liquor, dyeing of cotton fabric, post-mordanting with different inorganic salts or mordants, soaping with a non-ionic detergent, and drying.

The theoretical session of computerised colour measurement introduced the basic concepts of colour science and its application in the textile industry. The participants were familiarised with the principles of instrumental colour measurement and the importance of objective colour evaluation. The theoretical aspects of colour, colour measurement and colour matching, CIE colour space, importance of metamerism, standard illuminant and standard observer, L^* , a^* and b^* colour coordinates, chroma and hue, and total colour difference (ΔE) were also discussed during the workshop. The participants were also introduced to measuring surface colour strength through Kubelka-Munk theory.



A significant component of the workshop was the practical evaluation of dyed cotton samples using computerised colour measurement. Participants were able to observe how the visual appearance of a fabric can be represented through numerical colour coordinates. The dyed samples were evaluated using parameters such as L^* – lightness; a^* – red/green coordinate; b^* – yellow/blue coordinate; C^* – chroma; h° – hue angle; and ΔE – colour difference. The practical session demonstrated the importance of instrumental colour measurement for quality control, shade matching and sorting,

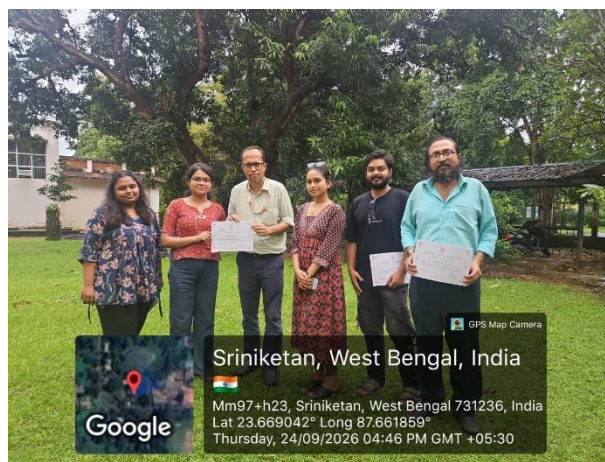


At the end of the workshop, participants gained an understanding of the fundamentals of dyeing cotton fabric with reactive and natural dyes, the basic principles of computerised colour measurement, and the interpretation of CIELAB colour coordinates, the significance of different illuminants and standard observers. The workshop provided a useful combination of colour science, dyeing and sustainable textile processing. The integration of computerised colour measurement with practical dyeing exercises helped participants understand the complete sequence from colour development and dyeing to instrumental colour evaluation.

The workshop successfully demonstrated the importance of scientific colour measurement for accurate shade evaluation and quality control, while the practical dyeing sessions provided hands-on experience with both reactive and natural colouration of cotton.



The workshop thereby enhanced participants' technical knowledge and practical skills in computerised colour measurement, colour matching, reactive dyeing, and sustainable natural dyeing, with potential applications in textile education, research, and industry.



Attendance Record [M. Des-Textiles Semester-I] § III

2-day Workshop on "Computerised Colour Measurement"

Date: 23-24 September

Venue: Dyeing & Printing Laboratory

Sl. No	Name	Mobile No.	Occupation	Signature
1	ABHIJIT ROY	9090462665	Student	Abhi Roy.
2	LISA BISWAS	8918297393	Student	Lisa Biswas.
3	PIU MONDAL	8927821112	Student	Piu Mondal
4	Niharika priya	6205273501	Student	Niharika priya
5	Sutrisna parvira	7439425892	Student	Sutrisna
6	Pratiksha Roy	7001245812	Student	Pratiksha Roy
7	Mahool Howlader	9903833199	Student	Mhowlader
8	Anushka Kumari	7857026120	Student	Anushka Kumari
9	Swigda Dutta	6290103231	Student	Swigda Dutta
10	Puja Bardhan	7980808235	Student	Puja Bardhan (Sem III)
11	Tapasi Mahata	8637075683	Student	Tapasi Mahata (Sem III)
12			Student	


Convenor 24/9/24

Prof. Sankar Roy Maulik

प्राध्यापक / Professor

शिल्प-सदन / Silpa-Sadana

विश्वभारती / Visva-Bharati

श्रीनिकेतन / Sriniketan

Attendance Record [Participants]

2-day Workshop on "Computerised Colour Measurement"

Date: 23-24 September

Venue: Dyeing & Printing Laboratory

Sl. No	Name	Mobile No.	Occupation	Signature
1	DEBARGHYA DAS	9064680235	Student	<i>Debarghya Das</i>
2	SNEHANJALI VARRI	9392887764	Student	<i>Snehanjali V</i>
3	ANURIMA DAS	8240830811	Student	<i>Anurima Das.</i>
4	DONA BISWAS	6294914340	Student	<i>Dona Biswas.</i>
5	SREEMANTA BAKSI	8336931840	Student	<i>Sreemanta B.</i>

S Ramanulu
Convenor 24/9/24

Prof. Sankar Roy Maulik

Attendance Record [Resource Person]

2-day Workshop on "Computerised Colour Measurement"

Date: 23-24 September

Venue: Dyeing & Printing Laboratory

Sl. No	Name	Mobile No.	Occupation	Signature
1	SANKAR ROY MAULIK	9434326415	Professor	<i>S Ramanulu</i>
2	SHRABANTI MONDAL	9933539009	Student	<i>Shrabanti Mondal</i>
3	ANUSHKA MITRA	8777044438	Student	<i>Anushka Mitra.</i>
4	Shuci Guha Misti	7980866131	Student	<i>Shuci Guha Misti</i>

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श्रीनिकेतन / Sriniketan

FEED BACK

2-Day Workshop on 'Computerised Colour Measurement'

Department of Silpa-Sadan, Visva-Bharati (A Central University)

Dated 23-24 September, 2026

1. this workshop was very interesting. It will be very use-~~full~~ useful for us in the future, and I really enjoyed the learning process. It was excellent for us.

The workshop was very informative, being a student from non-textile background, sir explained from the basics and made the workshop interesting and informative. I'm going back with a very good information and beautiful samples.

Workshop খুবই ভালো লাগে। কারণ Practical ও Theory Part - জানানো
জানানো এবং Demo করানো হয়েছে। প্রতিটি বিষয়ের সাথে যে theoretical
inputs দরকার সেগুলো আরও 3 Dept. এর Senior student'রা খুবই সোজা
বুঝিয়ে দিচ্ছে। আর (আমি লক্ষ্য করছি - এই বিস্তারিত Title Based Course Design
খুবই Unique হয়েছে)

Signature

Anurima Das.

Anurima Das.

Dona Biswas.

Sneha Jali V.

Abanishya Das