



**Regional Institute
of
Printing Technology**



3-Day Online Short Term Training Program

on
**“Quality Assurance
and Process Control in Print Production”**

**19.01.2026 to 21.01.2026
10:00 AM to 5:00 PM**

Organized by the Department of Printing
Technology, Regional Institute of Printing
Technology, Kolkata



Contact details

Regional Institute of Printing Technology
Raja S. C. Mullick Road, Jadavpur, Kolkata 700032
riptkolkataa@gmail.com
033-24146432

Chief Patron

Shri Jayanta Banerjee
Director of Technical Education & Training
Government of West Bengal

Patron

Shri Haroprosad Mondal
Principal-in-Charge
Regional Institute of Printing Technology

Coordinator

Shri Shankhya Debnath
HoD & Lecturer
Department of Printing Technology
Regional Institute of Printing Technology

Organizing committee

Shri Partha Mandal
Secretary, Academic Council & Lecturer in CST

Shri Pritam Ghosh
Lecturer in CST

Shri Soumitro Majumdar
Instructor in Printing Technology

Shri Ramprabesh Shaw
Instructor in Printing Technology

Shri Ujjal Majee
Instructor in Printing Technology

Background

The shift from conventional offset to digital, inkjet, and hybrid print workflows has made colour accuracy and consistency critical. Buyers now expect predictable colour across substrates and devices, while brands demand compliance with international standards. This calls for not just theoretical knowledge of colorimetry and spectrophotometry, but also practical skills in ICC-based colour management, device calibration, and process control. Yet many print production facilities still depend on trial-and-error and uncalibrated workflows, causing wastage and inconsistent quality. There is a clear need to train industry professionals in measurement-based print quality evaluation, ICC profile creation, display and printer characterization, and the application of ISO standards.

About this STTP

This Short-Term Training Programme (STTP) offers a structured, practice-oriented introduction to colorimetry, ICC colour management and process control in print production. Over three days, participants will learn how to measure and interpret colour using CIE colour spaces and spectrophotometric data, understand the architecture of ICC profiles and colour-managed workflows, and gain hands-on experience in display calibration and printer profiling. The programme also covers software-based process control, including the use of control strips, TVI and ΔE tolerances, and familiarises participants with key ISO and CRPC standards for print quality. Through a balanced mix of lectures, demonstrations and interactive sessions, the STTP equips industry professionals, faculty and researchers with practical tools to implement reliable, standards-driven colour and quality control in their own organisations.

About RIPT

The Regional Institute of Printing Technology (RIPT), Kolkata, established in 1956, is a pioneering government polytechnic dedicated to printing, photography and multimedia education. Functioning under the Directorate of Technical Education & Training, Government of West Bengal, and affiliated to the West Bengal State Council of Technical and Vocational Education and Skill Development, RIPT offers three-year full-time diploma programmes in Printing Technology, Photography and Multimedia Technology. Located in the Jadavpur academic hub, the institute combines strong theoretical foundations with intensive laboratory-based training, giving students hands-on exposure to modern printing, prepress, colour management and graphic communication workflows. Over the decades, RIPT has produced a large pool of skilled technologists and educators who serve the printing, packaging, publishing and media industries across India and abroad, reinforcing its reputation as a specialised centre of excellence in graphic and media technology.

Details of Coordinator

Shankhya Debnath

(M.Tech in Printing Engineering & Graphic Communication)
HoD & Lecturer, Dept. Of Printing Technology
Regional Institute of Printing Technology
shankhya@wbscte.ac.in
9475227808

Thrust areas of the STTP

- Colorimetry & spectrophotometry
- ICC color management
- Device calibration & characterization
- Print process control
- Quality assurance in print
- Standards-driven print production

Expected outcomes

On completion of this course, participants will be able to:

- Apply CIE colorimetry and spectrophotometry concepts to measure and interpret color-based print quality metrics.
- Select and configure appropriate measurement geometries and conditions (M0, M1, M2) for different print samples and substrates.
- Explain and implement ICC-based color management workflows, including the role of profile types, reference print conditions, and rendering intents.
- Calibrate and profile displays and printers, generate basic ICC profiles, and verify them using spectral/ ΔE data and soft-proofing setups.
- Use process control software and standards-based control methods to monitor, analyse, and optimise print quality in line with ISO and CRPC targets.
- Integrate these concepts into industrial practice, thereby improving print production workflows.

Who can participate

- Print production managers and supervisors.
- Quality assurance professionals in the printing industry.
- Researchers, academicians, and students specializing in printing technology.
- Professionals seeking to update skills in color management, densitometry, and process control.

Registration fees

- Registration fees is INR 1000/- per person payable to Regional Institute of Printing Technology, Kolkata.
- Limited seats of upto 20 participants

Important dates

- Registration opens: 15.12.2025
- Registration closes: 12.01.2026
- Fees payment deadline: 12.01.2026
- Inaugural session: 19.01.2026

Important links

- Click to register: [here](#)
- STTP homepage can be found [here](#)

Schedule for 3-day online STTP on "Quality Assurance and Process Control in Print Production" conducted by Department of Printing Technology, Regional Institute of Printing Technology, Kolkata				
	Time	Topic	Content	Learning outcome
Day 1	10:00 AM – 10:30 AM	Inauguration of STTP	Introduction to Course & Objectives	Understand course objectives, schedule, and participant expectations
	10:30 AM - 12:00 PM	Colorimetry	CIE Colorimetry: XYZ, Yxy, Lab, Lch (Device dependence/independence), Delta E	Apply color space concepts and ΔE calculations
	12:00 PM - 1:00 PM	Spectrophotometry	Spectrophotometry: measurement geometries and conditions (M0, M1, M2)	Select specific measurement conditions for print production
	1:00 PM – 2:00 PM	Break		
	2:00 PM – 3:00 PM	Demo session	Measuring color, Evaluation of spectral reflectance, Measuring Delta E	Evaluate color-based print quality metrics
	3:00 PM – 4:00 PM	Gray balance	Neutrality/Gray balance challenges (Hue deficiency)	Diagnose issues in neutrality and gray balance
	4:00 PM – 5:00 PM	Introduction to ICC color management	Motivation for color management and need for standardization	Explain why ICC-based color management is needed in modern print workflows
Day 2	10:00 AM - 11:30 AM	Architecture of ICC color management	Color dependence and independence	Explain ICC color management workflow and role of various profile types
	11: 30 AM - 1:00 PM	ICC color profiles	Reference print conditions, ICC Profiles, rendering intents	Explain color management workflow and device characterization
	1:00 PM – 2:00 PM	Break		
	2:00 PM - 4: 00 PM	Color managed workflows	3Cs of ICC color management, test charts, measurement of characterization data, role of reference conditions	Describe the steps involved in characterizing printers and displays
	4:00 PM – 5:00 PM	Demo session	Target white point, luminance, gamma; hardware/software calibration; creating and applying monitor profiles	Calibrate and profile a display for color-accurate soft proofing
Day 3	10:00 AM – 11:30 AM	Demo session	Printing characterization charts, measurement with spectrophotometer, generating printer ICC profiles	Perform basic printer characterization and build a printer ICC profile
	11:30 AM - 12:30 PM	Process control	Control strips, tone value increase (TVI), ΔE tolerances, process capability	Explain how standards and tolerances are applied in routine process control
	12:30 PM - 1:00 PM	Demo session	Demonstration of process control using software	Use process control software for monitoring and optimising print quality.
	1:00 PM – 2:00 PM	Break		
	2:00 PM – 4:00 PM	Standards in print quality	ISO 3664, ISO 13655, ISO 12647 series, ISO/PAS 15339 CRPCs, ISO 20654	Recognize key print standards and their relevance to consistent print reproduction
	4:00 PM – 4:30 PM	Interactive session	Review of key concepts; interactive session	Review fundamental concepts in print process control
	4:30 PM – 5:00 PM	Wrap-up & Valedictory	Q&A, feedback, and awarding of certificates	