CSIR-National Physical Laboratory
Dr. K. S. Krishnan Marg, New Delhi-110012

Skill Development Training Calendar 2024-25

GENERAL INSTRUCTIONS

In case of an inadequate number of participants (less than 10), for a particular training programme, CSIR- NPL may drop the execution of that program. Hence, before sending the Payment Receipt, it is advised to confirm with the HRD **(hrd@nplindia.org)** or the concerned **Technical Coordinator** about its dates and execution.

For Technical queries about the training course, the prospective participants may contact the concerned technical coordinator

- **Only Indian Citizens can apply for the training program**
- **Fees, once submitted, are not refundable**

Skill Development Training Calendar 2024-25

S. No.	Title of Training Program on	Tentative Dates, Duration
STP-1	Fluid Flow Metrology	22-23 April, 2024 Two Days
STP-2	AI in Healthcare and Its applications	5-6 June 2024, Two Days
STP-3	Materials characterization	12-13 June 2024, Two Days
STP-4	Basics on Digitalization of Calibration Certificate (DCC) as per NMI Standard	27-28 June 2024, Two Days
STP-5	Training Programme on IS/ISO/IEC 17025 : 2017 (General Requirements for the Competence of Testing and Calibration Laboratories)	2-5 July 2024, Four Days
STP-6	Biomedical Metrology	18-19 July 2024, Two Days
STP-7	Laser Interferometer and its applications in Dimensional Metrology	25-26 July 2024, Two days
STP-8	Pressure and Vacuum, Ultrasonic Metrology and Non-Destructive Testing	5-9 August 2024, Five Days
STP-9	Air Quality Measurements	21-23 August 2024, Three Days
STP-10	LF Voltage and Current Metrology	3-4 September 2024, Two Days
STP-11	Force, torque and hardness metrology and their applications	11-12 September 2024, Two Days
STP-12	Dimensional Metrology	18-20 September 2024, Three Days
STP-13	Acoustics and Vibration Metrology and Noise Control	25-26 September 2024, Two Days
STP-14	DC and Impedance Metrology	3-4 October 2024, Two Days
STP-15	Mass, Volume, Density and Viscosity Metrology.	15-17 October, 2024, Three Days
STP-16	Fluid Flow Metrology	22-23 October, 2024, Two Days
STP-17	Advanced Spectroscopy	4-5 November 2024, Two Days
STP-18	Advanced Materials characterization Techniques	12-14 Nov., 2024, Three days
STP-19	Temperature and Humidity Metrology, and applications to Healthcare and Agricultural grains and cereals	11-13 December, 2024, Three Days
STP-20	Basics on Cyber Security, Types, Techniques and Methods	2-3 January, 2025 Two Days
STP-21	Optical Radiation Metrology	7-9 January, 2025, Three Days
STP-22	Application of Timing & Frequency Metrology	21-23, January 2025, Three days
STP-23	Scientific Communications	11-12 February 2025, Two days
STP-24	Metrology in Chemistry (MiC)- Practical Training on ICP-MS to determine mass fraction of measurand.	17-19 February 2025, Three Days
STP-25	Photometry of LED based Lighting	25-26 February 2025, Three days

Free Skill Training Programmes for 2024-2025

S. No.	Training Program on	Dates & Duration
FSTP-1	Awareness about IPR	26 June 2024, One Day
FSTP-2	Awareness about basic metrology	6-7 February 2025, Two Days

Training Fee/Charges: Per Participant:

One Day Course	Two Days Course	Three Days Course	Four Days Course	Participants
₹3,000 + GST(@18%)	₹4,000 + GST (@18%)	₹5,000 + GST (@18%)	₹6,000 + GST (@18%)	Professionals
₹500 + GST (@18%)	₹1000 + GST (@18%)	₹1500 + GST (@18%)	₹2000 + GST (@18%)	Students and college Faculties

TDS: CSI-NPL is exempted from Tax Deduction at Source under Section 35(1)(ii) of the IT Act 1961. The Training Fee includes Course materials, Training Kit, Lunch, Tea/Coffee, Certificate etc.

After confirming with HRD, preferably training fees should be sent at least two weeks prior to the commencement of the desired training program through a **Demand Draft** drawn in favor of the **"DIRECTOR NATIONAL PHYSICAL LABORATORY",** payable at **"NEW DELHI"**

Online Transfer is also acceptable through Canara Bank Account No. 91002010030018, NPL Campus, National Physical Laboratory, Dr. K. S. Krishnan Marg, New Delhi-110012. **IFSC Code CNRB0019100**, **MICR no. 110015428**. Kindly confirm the NEFT transfer details through e-mail. In the remarks column of NEFT, please mention "STP No. & Name of the Participants, HRD, NPL"

All STP courses will be conducted in offline mode, unless there is any inescapable situation. Participants are requested to check their schedules before applying for any course. **No request from participants for changes in venue, date, or mode of training will be entertained.**

Lodging & Boarding: Participants are expected to arrange their own accommodations as limited seats are available at NPL Guest House. However, after the payment of registration fees, requests may be sent to nplguesthouse@nplindia.org with HRD in cc. Please note that guest house charges have to be borne by the trainees – at the prevailing rates of NPL Guest House**.**

For registration kindly fill the following Google form link:

https://forms.gle/bv378mY9nyqThuGSA

For any enquiry, the Participants may contact:-

Mr. Pushkar Joshi
Sr. Technician, HRD Office,
National Physical Laboratory,
New Delhi Pin :- 110012
Ph:- 011-4560 9361, / 011-45609366(O)
E-Mail:- hrd@nplindia.org

S. No.	Title of Training Program on	Tentative Dates, Duration	Content of the Training Programme	Technical Coordinator's
STP-1	Fluid Flow Metrology	22-23 April, Two Days	Basics of Water & Gas Flow Measurement. Calibration of Water & Gas flow meter & testing of Water Meter.	Dr. S.K. Jaiswal Ph: 011-45608579/8583 skjaiswal@nplindia.org
STP-2	AI in Healthcare and Its applications	5-6 June 2024, Two Days	AI in Healthcare and Its applications	Dr. Paramita Guha Ph: 011-45608531 paramita.guha@nplindia.org
STP-3	Materials characterization	12-13 June 2024, Two Days	Overview of different existing methods of materials characterizations and demonstration of a few.	Dr. Nahar Singh Ph: - 011-45608449 naharsingh@nplindia.org
STP-4	Basics on Digitalization of Calibration Certificate (DCC) as per NMI Standard.	27-28 June 2024, Two Days	Basics on Digitalization of Calibration Certificate (DCC) as per NMI Standard	Dr. Paramita Guha Ph:011-45608531 paramita.guha@nplindia.org
STP-5	Training Programme on IS/ISO/IEC 17025 : 2017 (General Requirements for the Competence of Testing and Calibration Laboratories)	2-5 July 2024, Four Days	This training program is designed to impart an interactive experience to the participants in the quality system based on IS/ISO/IEC 17025: 2017 Standards.	Mr. Goutam Mandal Ph:- 011-4560 9435 goutam@nplindia.org
STP-6	Biomedical Metrology	18-19 July 2024, Two Days	The Program is framed to share the knowledge on medical devices, their classifications, operations and calibrations medical devices (Electrical Safety, Defibrillator machine in fusion devices & ECG)	Ms. Sudesh Yadav Ph: 011-45609362 sudesh.yadav@nplindia.org
STP-7	Laser Interferometer and its applications in Dimensional Metrology	25-26 July 2024, Two days	Basics of dimensional metrology and applications of laser interferometer in dimensional measurements	Dr. Mukesh Jewariya Ph: 011-45602669 jewariya.mukesh@nplindia.org

STP-8	Pressure and Vacuum, Ultrasonic Metrology and Non-Destructive Testing	5-9 August 2024, Five Days	Basics on pressure, vacuum and ultrasonic metrology. Application of them in the direction of Non-destructive testing.	Dr. Nita Dilawar Sharma Ph: 011 -45602207/011-47091207 ndilawar@nplindia.org
STP-9	Air Quality Measurements	21-23 August 2024, Three Days	National ambient air quality standards (NAAQS), Quality Infrastructure, general definitions, gas measurement techniques (greenhouse and pollution gases), PM10 and PM2.5 measurements and their calibration (gravimetric sampler, BAM), gas standards and calibration of analyzers, primary techniques of gaseous pollutants, air flow measurement techniques, analysis of particulate bound chemicals using ICP-OES, measurement uncertainty estimations, with hands-on training on most of the parameter of NAAQS). Application of SODAR to air quality measurements will also be discussed.	Dr. Shankar G. Aggarwal Ph:- 011-45608331 aggarwalsg@nplindia.org
STP-10	LF Voltage and Current Metrology	3-4 September 2024, Two Days	Low-Frequency Voltage and Current Metrology. Day 1(FN): Lectures on Basic conceptsin Low-frequency Current and Voltage metrology, Basic Principles on measurement of AC-DC transfer difference and absolute Voltage/ Current. Introduction to primary standards, Transfer standards, and working standards and their measurement technique. Day 1(AN): Technical training on measurements of Low-Frequency Voltage and Current. Day 2(FN): Explanation of procedures and methodology for calibration through Case Study on Precision measurement of Low-Frequency Voltage and current with Uncertainty Evaluation. Day 2(AN): Technical training on measurements of Low-Frequency Voltage and Current. Day 2(FN): Explanation of procedures and methodology for calibration through Case Study on Precision measurement of Low-Frequency Voltage and current with Uncertainty Evaluation. Day 2(AN): Technical training on measurements of Low-Frequency Voltage and Current.	Dr. Saood Ahmad Ph: 011-45608613 ahmads@nplindia.org
STP-11	Force, torque and hardness metrology and their applications	11-12 September 2024, Two Days	Basics on Force Metrology (Dissemination of force scale to the UTM), Torque Metrology (Calibration of torque wrenches), Hardness Metrology (Brinell Vickers and Rockwell scales) and different applications.	Dr. Rajesh Kumar Ph: 011- 45608680 kumarr@nplindia.org

STP-12	Dimensional Metrology	18-20 September 2024, Three Days	Basics of dimensional metrology, calibration methodologies using laser interferometers, CMM, roundness tester, Gauge block comparator, etc., uncertainty evaluation	Dr. Girija Moona Ph: 011-45609490 moonag@nplindia.org
STP-13	Acoustics and Vibration Metrology and Noise Control	25-26 September 2024, Two Days	Basics on Acoustics and Vibration metrology and different applications of them.	Dr. Naveen Garg Ph: 011-47091683 ngarg@nplindia.org
STP-14	DC and Impedance Metrology	3-4 October 2024, Two Days	DC Metrology (DC voltage, current, resistance and charge measurement), Impedance Metrology (Capacitance, Inductance, AC Voltage ratio and AC Resistance), DC High Voltage, and Material Metrology.	Dr. Satish Ph: 011-47091176/8510 satishsp3@nplindia.org
STP-15	Mass, Volume, Density and Viscosity Metrology.	15-17 October, 2024, Three Days	Procedures and methodology for calibration of weights, weighing balances, volumetric instruments, hydrometers, viscometers and viscosity oils.	Dr. Nidhi Singh Ph: 011-47091139/2139 singhnidhi@nplindia.org
STP-16	Fluid Flow Metrology	22-23 October, Two Days	Basics of Water & Gas Flow Measurement. Calibration of Water & Gas flow meter & testing of Water Meter.	Dr. S.K. Jaiswal Ph: 011-45608579/8583 skjaiswal@nplindia.org
STP-17	Advanced Spectroscopy	4-5 November 2024, Two Days	Basics of spectroscopy and their applications	Dr. Ritu Srivastava Ph: 011-45608644 ritu@nplindia.org
STP-18	Advanced Materials characterization Techniques	12-14 Nov., 2024, Three days	The following Topics will be covered with practical demonstration during the Training Programme. i) Powder X-ray Diffraction Technique, ii) X-Ray Fluorescence iii) EPR, iv) DLS v)Particle Size Analyser vi) SEM, vii) TEM, viii) TG/DTA, ix) Photoluminescence x) FT-IR, xi)HPLC, LC-MS, xii) NMR& Electrochemical analyser; xiii) UV-Vis Spectroscopy	Dr. N. Vijayan Ph :011 45608263/45608302; nvijayan@nplindia.org
STP-19	Temperature and Humidity Metrology, and applications to Healthcare and Agricultural grains and cereals	11-13 December, 2024, Three Days	Basics of Temperature and Humidity Metrology, Realization of ITS-90 Fixed Points, Infrared Thermometry for Industrial and Healthcare applications, Moisture Measurements in Agricultural grains and serials.	Dr. D. D. Shivagan Ph: 011-45602379 shivagand@nplindia.org

STP-20	Basics on Cyber Security, Types, Techniques and Methods	2-3 January, 2025, Two Days	Basics on Cyber Security, Types, Techniques and Methods	Dr. Paramita Guha Ph: 011-45608531 paramita.guha@nplindia.org
STP-21	Optical Radiation Metrology	7-9 January, 2025, Three Days	Introduction to photometric and radiometric parameters, Standards of Optical Radiation, Photometric and radiometric parameters of industrial importance, e.g. Luminous intensity, illuminance, luminous flux, luminance, responsivity, CCT, spectral irradiance, spectral transmittance, absorbance etc. and their measurement and calibration	Dr. V.K. Jaiswal Ph: 011-45608228 jaiswalvk@nplindia.org
STP-22	Application of Timing & Frequency Metrology	21-23, January 2025, Three days	Basics of Time Metrology Methodologies and Techniques of Time Metrology in various applications technical training on the application of Timing Metrology & 1) SI system of units, New SI system, Introduction to Time and Frequency (2) SI Second and its realization; Time dissemination by telephone, NTDs and LWR (3) National Time Scale, Uncertainty and Stability (4) Time Synchronization through satellite links and Optical fibre (5) Clock Characterization and frequency stability analysis (6) Applications of Accurate Timing systems.	Dr. Poonam Arora, Ph : 011-47091569, arorap@npindia.org
STP-23	Scientific Communications	11-12 February 2025, Two days	Awareness and knowledge in scientific writing among research students, Basic of Research ethics and Plagiarism in publications	Dr. Mukesh Jewariya Ph: 011-470691669 / 2669 jewariya.mukesh@nplindia.org
STP-24	Metrology in Chemistry (MiC)-Practical Training on ICP-MS to determine mass fraction of measurand.	17-19 February 2025, Three Days	Introduction to Metrology in Chemistry (MiC); Role of standard, Reference Materials, Method validation & quality control emphasized to analytical measurements, Control charts, Inter-Laboratory comparisons, Traceability in chemical measurement. Basic principle of Inductively Coupled Plasma Mass Spectrometry (ICP-MS). Practical Training on sample preparation gravimetrically and Measurement of elemental measurand/analyte by ICP-MS, Estimation of measurement uncertainty.	Dr. S. Swarupa Tripathy, Ph: 011-45608339, tripathyss@nplindia.org
STP-25	Photometry of LED based Lighting	25-26 February 2025, Three days	Basics of LED testing and testing as per standard LM-79	Dr. Parag Sharma Ph: 011-45608228 sharmap2@nplindia.org

Free Skill Training Programmes for 2024-2025

S. No.	Training Program on	Dates & Duration	Content of the Training Programme	Technical Coordinator
FSTP-1	Awareness about IPR	26 June 2024, One Day	This program is intended to provide basic information about patents and other intellectual property rights. The sessions shall cover basics of patents, trademarks, copyrights and industrial design etc. Furthermore, it shall encapsulate patent searching and drafting and shall provide with the information on career aspects related to IPR. This online training program has specifically designed for students, researchers, academicians and aspiring IP professionals.	Dr. Unnikrishnan V.T Ph: 011-4560 8570 unnikrishnan.vt@nplindia.org
FSTP-2	Awareness about basic metrology	6-7 February 2025, Two Days	This program is intended to provide awareness about basic metrology. The sessions shall cover basics of measurement systems both at national and international level. In addition, it shall summarise an overview of SI units before and after redefinition. Also metrological terms will be introduced along with requirement on equipment. Furthermore, basics of measurement uncertainty will be discussed in detail. This online training program has specifically designed for accredited labs, students, researchers, and academicians.	Dr. Nidhi Singh Ph: 011-47091139/2139 singhnidhi@nplindia.org