



## **SCOPE OF ACCREDITATION**

Laboratory Name :

SCHOOL OF ELECTRICAL ENGINEERING CALIBRATION LABORATORY, VELLORE INSTITUTE OF TECHNOLOGY, VELLORE CAMPUS TECHNOLOGY TOWER BUILDING, FOURTH FLOOR, ROOM NO. 401, KATPADI, THIRUVALAM ROAD, VELLORE, TAMIL NADU, INDIA

Accreditation Standard Certificate Number Validity ISO/IEC 17025:2017

CC-4157

05/12/2024 to 04/12/2028

Page No 1 of 6 Last Amended on -

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
		1.0	Permanent Facility		°
1	ELECTRO- TECHNICAL- Alternating Current (< 1 GHz) (Measure)	AC Current @ 45 Hz & 1 kHz	Using 6½ Digital Multimeter by direct method	329 μΑ to 329 mA	0.95 % to 0.65 %
2	ELECTRO- TECHNICAL- Alternating Current (< 1 GHz) (Measure)	AC Current @ 45 Hz & 1 kHz	Using 6½ Digital Multimeter by direct method	30 μA to 329 μA	3 % to 0.95 %
3	ELECTRO- TECHNICAL- Alternating Current (< 1 GHz) (Measure)	AC Current @ 45 Hz & 1 kHz	Using 6½ Digital Multimeter by direct method	329 mA to 10 A	0.65 % to 0.1 %
4	ELECTRO- TECHNICAL- Alternating Current (< 1 GHz) (Measure)	AC Voltage @ 45 Hz & 1 kHz	Using 6½ Digital Multimeter by direct method	1 mV to 300 mV	2.69 % to 2.60 %





# **SCOPE OF ACCREDITATION**

Laboratory Name :

SCHOOL OF ELECTRICAL ENGINEERING CALIBRATION LABORATORY, VELLORE INSTITUTE OF TECHNOLOGY, VELLORE CAMPUS TECHNOLOGY TOWER BUILDING, FOURTH FLOOR, ROOM NO. 401, KATPADI, THIRUVALAM ROAD, VELLORE, TAMIL NADU, INDIA

Accreditation Standard Certificate Number Validity ISO/IEC 17025:2017

CC-4157

05/12/2024 to 04/12/2028

Page No2 of 6Last Amended on-

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
5	ELECTRO- TECHNICAL- Alternating Current (< 1 GHz) (Measure)	AC Voltage @ 45 Hz & 1 kHz	Using 6½ Digital Multimeter by direct method	300 mV to 1000 V	2.60 % to 0.07 %
6	ELECTRO- TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC Current @ 45 Hz & 1 kHz	Using Multiproduct calibrator by direct method	30 μA to 329 μA	3 % to 0.95 %
7	ELECTRO- TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC Current @ 45 Hz & 1 kHz	Using Multiproduct calibrator by direct method	329 μA to 329 mA	0.95 % to 0.65 %
8	ELECTRO- TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC Current @ 45 Hz & 1kHz	Using Multiproduct calibrator by direct method	329 mA to 20 A	0.65 % to 0.21 %
9	ELECTRO- TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC Voltage @ 45 Hz & 1 kHz	Using Multiproduct calibrator by direct method	1 mV to 300 mV	6.28 % to 6.96 %





## **SCOPE OF ACCREDITATION**

Laboratory Name :

SCHOOL OF ELECTRICAL ENGINEERING CALIBRATION LABORATORY, VELLORE INSTITUTE OF TECHNOLOGY, VELLORE CAMPUS TECHNOLOGY TOWER BUILDING, FOURTH FLOOR, ROOM NO. 401, KATPADI, THIRUVALAM ROAD, VELLORE, TAMIL NADU, INDIA

Accreditation Standard Certificate Number Validity ISO/IEC 17025:2017

CC-4157

05/12/2024 to 04/12/2028

Page No3 of 6Last Amended on-

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
10	ELECTRO- TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC Voltage @ 45 Hz & 1 kHz	Using Multiproduct calibrator by direct method	300 mV to 1000 V	6.96 % to 0.08 %
11	ELECTRO- TECHNICAL- DIRECT CURRENT (Measure)	DC Current	Using 6½ Digital Multimeter by direct method	1 mA to 329 mA	0.35 % to 0.14 %
12	ELECTRO- TECHNICAL- DIRECT CURRENT (Measure)	DC Current	Using 6½ Digital Multimeter by direct method	1.09 A to 10 A	0.07 % to 0.002 %
13	ELECTRO- TECHNICAL- DIRECT CURRENT (Measure)	DC Current	Using 6½ Digital Multimeter by direct method	10 μA to 329 μA	2.4 % to 0.45 %
14	ELECTRO- TECHNICAL- DIRECT CURRENT (Measure)	DC Voltage	Using 6½ Digital Multimeter by direct method	1 V to 1000 V	0.39 % to 0.008 %
15	ELECTRO- TECHNICAL- DIRECT CURRENT (Measure)	DC Voltage	Using 6½ Digital Multimeter by direct method	100 mV to 329 mV	0.01 % to 0.02 %





## **SCOPE OF ACCREDITATION**

Laboratory Name :

SCHOOL OF ELECTRICAL ENGINEERING CALIBRATION LABORATORY, VELLORE INSTITUTE OF TECHNOLOGY, VELLORE CAMPUS TECHNOLOGY TOWER BUILDING, FOURTH FLOOR, ROOM NO. 401, KATPADI, THIRUVALAM ROAD, VELLORE, TAMIL NADU, INDIA

Accreditation Standard Certificate Number Validity ISO/IEC 17025:2017

CC-4157

05/12/2024 to 04/12/2028

Page No 4 of 6 Last Amended on -

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
16	ELECTRO- TECHNICAL- DIRECT CURRENT (Measure)	Resistance - 4 wire	Using 6½ Digital Multimeter by direct method	10 ohm to 300 ohm	0.01 %
17	ELECTRO- TECHNICAL- DIRECT CURRENT (Measure)	Resistance - 4 wire	Using 6½ Digital Multimeter by direct method	300 kohm to 1000 Mohm	0.015 % to 2.27 %
18	ELECTRO- TECHNICAL- DIRECT CURRENT (Measure)	Resistance - 4 wire	Using 6½ Digital Multimeter by direct method	300 ohm to 300 kohm	0.01 % to 0.015 %
19	ELECTRO- TECHNICAL- DIRECT CURRENT (Source)	DC Current	Multiproduct calibrator by direct method	1 mA to 329 mA	0.35 % to 1.90 %
20	ELECTRO- TECHNICAL- DIRECT CURRENT (Source)	DC Current	Multiproduct calibrator by direct method	1.09 A to 20 A	0.05 % to 0.12 %
21	ELECTRO- TECHNICAL- DIRECT CURRENT (Source)	DC Current	Multiproduct calibrator by direct method	10 μA to 329 μA	2.4 % to 1.92 %





## **SCOPE OF ACCREDITATION**

Laboratory Name :

SCHOOL OF ELECTRICAL ENGINEERING CALIBRATION LABORATORY, VELLORE INSTITUTE OF TECHNOLOGY, VELLORE CAMPUS TECHNOLOGY TOWER BUILDING, FOURTH FLOOR, ROOM NO. 401, KATPADI, THIRUVALAM ROAD, VELLORE, TAMIL NADU, INDIA

Accreditation Standard Certificate Number Validity ISO/IEC 17025:2017

CC-4157

05/12/2024 to 04/12/2028

Page No5 of 6Last Amended on-

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
22	ELECTRO- TECHNICAL- DIRECT CURRENT (Source)	DC Voltage	Using Multiproduct calibrator by direct method	1 mV to 329 mV	5.78 % to 0.18 %
23	ELECTRO- TECHNICAL- DIRECT CURRENT (Source)	DC Voltage	Using Multiproduct calibrator by direct method	1 V to 1000 V	0.06 % to 0.06 %
24	ELECTRO- TECHNICAL- DIRECT CURRENT (Source)	Resistance - 4 wire	Using Multiproduct calibrator by direct method	1 ohm to 300 ohm	5.25 % to 0.19 %
25	ELECTRO- TECHNICAL- DIRECT CURRENT (Source)	Resistance - 4 wire	Multiproduct calibrator by direct method	300 kohm to 1090 Mohm	0.02 % to 1.72 %
26	ELECTRO- TECHNICAL- DIRECT CURRENT (Source)	Resistance - 4 wire	Using Multiproduct calibrator by direct method	300 ohm to 300 kohm	0.19 % to 0.02 %
27	ELECTRO- TECHNICAL- TIME & FREQUENCY (Measure)	Frequency @ 3 V	Using 6½ Digital Multimeter by direct method	1 kHz to 100 kHz	0.73 % to 0.33 %





## **SCOPE OF ACCREDITATION**

Laboratory Name :

SCHOOL OF ELECTRICAL ENGINEERING CALIBRATION LABORATORY, VELLORE INSTITUTE OF TECHNOLOGY, VELLORE CAMPUS TECHNOLOGY TOWER BUILDING, FOURTH FLOOR, ROOM NO. 401, KATPADI, THIRUVALAM ROAD, VELLORE, TAMIL NADU, INDIA

Accreditation Standard Certificate Number Validity ISO/IEC 17025:2017

CC-4157

05/12/2024 to 04/12/2028

Page No6 of 6Last Amended on-

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
28	ELECTRO- TECHNICAL- TIME & FREQUENCY (Measure)	Frequency @ 3 V	Using 6½ Digital Multimeter by direct method	10 Hz to 120 Hz	0.06 % to 0.73 %
29	ELECTRO- TECHNICAL- TIME & FREQUENCY (Source)	Frequency @ 3 V	Multiproduct calibrator by direct method	1 Hz to 120 Hz	3.1 % to 0.73 %
30	ELECTRO- TECHNICAL- TIME & FREQUENCY (Source)	Frequency @ 3 V	Multiproduct calibrator by direct method	120 Hz to 100 kHz	0.73 % to 0.33 %
31	THERMAL- TEMPERATURE	RTD / Thermocouple with or without indicator / Recorder / Controller. Digital Thermometer, Temperature Gauge, Switch, Transducer Transmitter with sensor.	Using Precision RTD Temperature Probe with Indicator, 6½ Digital Multimeter, Dry block calibrator by Comparison method	(-)25 ° C to 150 ° C	0.28 ° C

\* CMCs represent expanded uncertainties expressed at approximately the 95% level of confidence, using a coverage factor of k = 2.