

St. Xavier's College (Autonomous), Mumbai – 400 001

Ref: SXC/RP/NRC/2022-23/08

Date: 25.03.2023

CALL FOR QUOTATIONS FOR NRC AGRICULTURE EQUIPMENTS

St. Xavier's College (Autonomous), Mumbai, the Department of New Research Centre is inviting quotations invites quotations from registered Service Providers for the following equipment under RUSA 2.0 Scheme of the Government of Maharashtra.

1) water and disease management	
a) Scope:	
<ul style="list-style-type: none">• Soil moisture sensor (6 Nos)• Soil temperature sensor (6 Nos)• Soil salinity sensor (6 Nos)• Pyranometer – 1 No• Wind speed & direction (1 No)• Leaf wetness sensor (1 No)• Installation	
b) TECHNICAL SPECIFICATIONS	
<u>Leaf Wetness Sensor</u>	
FEATURE VALUE	
Supply voltage	4.75 V – 5.25 V
Supply current	max.1500 μ A
Short circuit protection	Infinite (within supply voltage range)
Dry / Wet threshold	220 – 390 kOhm
Output	Dry: max. 0.4 VDC
	Wet: min. VCC-0.4 VDC
Electronic	Totally plastic encapsulated – SMD
Dimensions	42 mm x 78 mm x 15 mm

Cable length	5 m
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Wind Speed & Direction Sensor

FEATURE	VALUE
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Output data format	PI-bus
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Information transmitted	Vectorial average wind speed, gust and direction
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Output rate	1-10 min
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Wind module sensitivity	0.12 m/s
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Wind module resolution	0.05 m/s
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Wind module dynamic	0.5 to 40 m/s
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Direction sensitivity	+/-1.5°
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Direction resolution	1°
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Power supply	3.7V to 6V with supercap
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Electrical consumption	0.5 mA Avg. 12 V
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Operating temperature without icing	-15° C to +55° C
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Cable	2.5 m / LIYCY
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Connection	4 wires
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Weight of unit assembly	200 g with mounting part
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Mounting	PI Clamp
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Soil sensors

FEATURE	VALUE
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Probe lengths	24"
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Number of sensors	6
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Outer Probe Diameter (Top-Bottom)	27-29.5 mm
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Moisture (VWC) range	Oven dry to saturation
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Method	Capacitance based technology
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Resolution Moisture (VWC):	1:10000
Salinity (VIC, Volumetric Ion Content):	1:6000
	Temperature:0.3 °C
Moisture precision	±0.03 % vol.
Temperature accuracy	±2 °C at 25 °C
Operating temperature range	-20°C to +60°C

Pyrometer

FEATURE	VALUE
Sensor	LI-200SZ
Calibration	Against Kipp and Zonen CMP3 under daylight. Absolute error max. 5%, typically 3%
Stability	2% drift on 2-year use
Time to measure	10 µs
Temperature dependency	0.15% per °C
Cosines correction	Sensor corrects up to 80° degrees
Azimuth	1% error over 360° at 45° elevation
Operating temperature range	-20°C to 65°C

Please send detailed quotation on company letterhead along with a soft copy of the PAN CARD, AADHAR CARD of Proprietor, and GST certificate to “The Principal, St. Xavier’s College (Autonomous), Mumbai-400 001” should be emailed latest by **March 31, 2023 by 5.00 p.m.** to rusaquotes31323@xaviers.edu

The Original copy of the quotation should reach the undersigned on or before **1st April, 2023**, along with PAN copy, AADHAR copy & GST certificate along with payment terms and conditions.

The quotation should mention the total amount including the discount and tax amount as applicable and clearly indicate the features offered.