Specifications for UP-looking Electric Field Mill (EFM)

S.NO	Parameter	Required Specifications
1	Measurement quantity	Atmospheric Electric Field (V/m)
2	Measurement Range	- 20 KV/m to +20KV/m or better
3	Accuracy	+-5% of reading or better
4	Measurement distance	0-38 km or better
5	Data rate	1 Hz
6	Alerts	High Field, Very High Field & Lightning alerts for configured values
7	Data Interface	RS-232/RS485
8	Operating Voltage	220-240 VAC, 50-60 HZ
9	Housing	IP65
10	Operating Temperature Range	0 to 60^0C
11	Operating Humidity Range	0-100 % RH
12	Mounting	Hardware should include convenient vertical mounting mechanism to install on flat surface/roof top.
13	Warranty	Warranty for the item should be for a minimum period of one year.
14	Software	A data logging and viewing software compatible with Windows or Linux
15	Data cable length	50m

1 System functional requirements:

1.1. The system is to be delivered, installed, tested and commissioned at SDSC SHAR premises at the field location identified by the SDSC SHAR, RO, SDSC SHAR within the stipulated time of 8 weeks.

1.2. The system should provide round the clock atmospheric electric field measurments

1.3. Installation and all necessary accessories for installation is under the scope of supplier.

1.4. Supplier Should provide MoXA converter for serial to Ethernet communication. Necessary converters for sensor to data acquisition and display system is in scope of the supplier.

1.5. System should have surge protection for both data and power for ensuring safety of the system.

1.6. Proper Lightning protection of the system is under scope of the supplier

1.7. Demonstration and training on system operations data downloading and other necessary functionalities of the system should be provided by the supplier.

1.8. Bidder should provide the OEM authorization certificate for the proposed make and model.

1.9. Bidder should provide compliance for all the requirements.

2. Installation

2.1. Necessary & essential accessories for mounting of the system is in the scope of bidder.

2.2. Pre-requisites for both civil & electrical requirements for installation should be clearly mentioned separately, inclusive of suitable diagrams if any.

3. Training

Onsite training in operations and first level fault identification to be provided.

4. Testing & Acceptance

4.1. The bidder shall submit all the factory calibration certificates for the system.

4.2. The integrated system should be operated 24/7 with data acquisition for a period of one week.

4.3. System acceptance will involve the data validation with coexisting/near Field mill data, provided by SDSC SHAR.

5. Warranty

Warranty shall remain valid for a minimum period of one year after the system has been commissioned and accepted by SDSC SHAR. During warranty period receipt of notice about faults, the bidder shall repair or replace the defective goods or parts thereof, free of cost, at the site within 72hrs from the day of reporting.