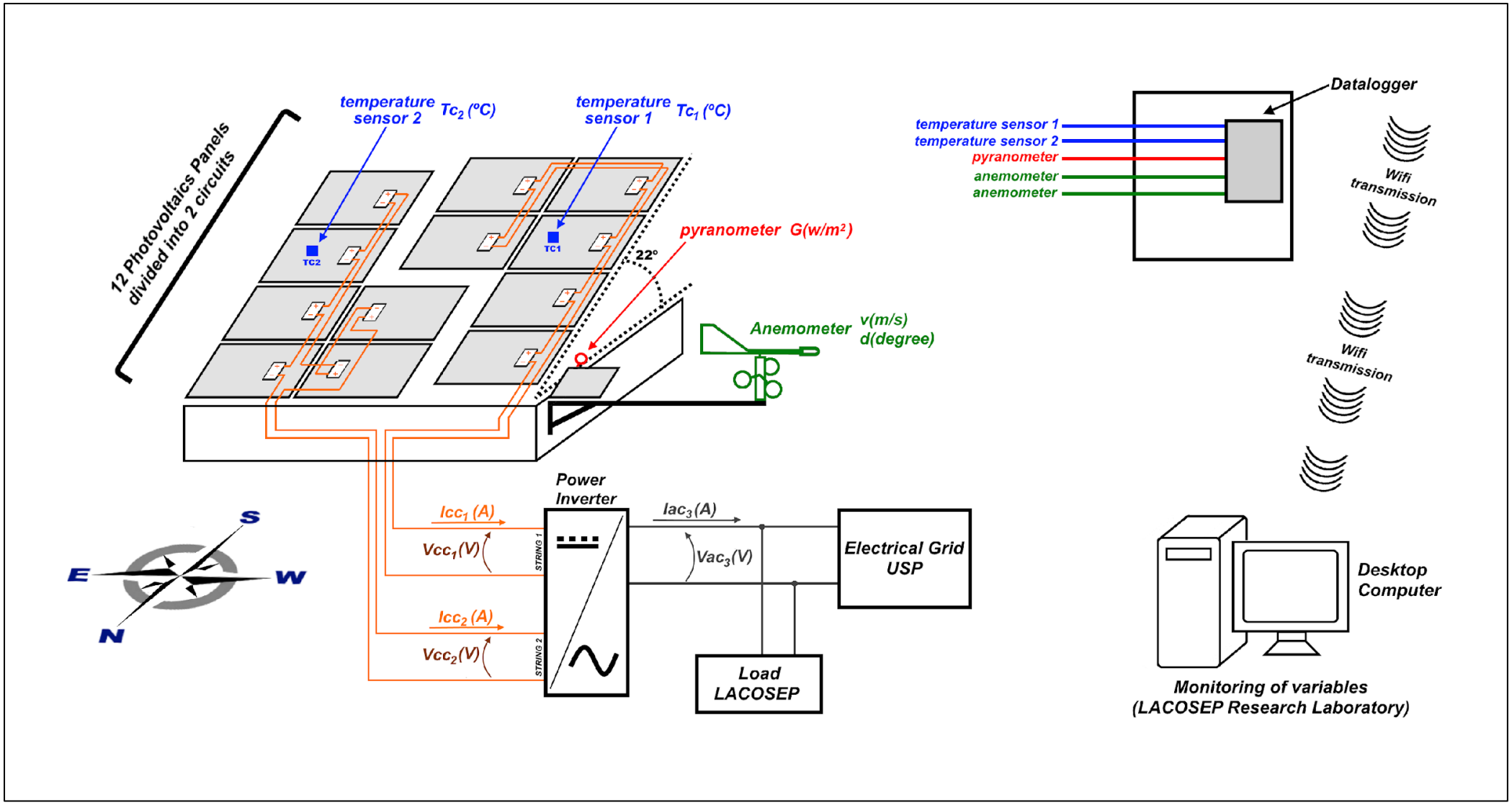

Schematic Photovoltaic Power and Meteorological Monitoring System USP

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Nomenclature:

t = tempo (s)

Tc_1 = Photovoltaic electric temperature of circuit 1 (ºC)

Tc_2 = Photovoltaic electric temperature of circuit 2 (ºC)

v = Wind speed (m/s)

d = Wind direction (degree)

G = Solar radiation (W/m^2)

Icc_1 = DC Current circuit 1 (A)

Icc_2 = DC Current circuit 2 (A)

Vcc_1 = DC Voltage of circuit 1 (V)

Vcc_2 = DC Voltage of circuit 2 (V)

*Pcc_1 = (Vcc_1 * Icc_1) DC Electric Power of circuit 1 (W)*

*Pcc_2 = (Vcc_2 * Icc_2) DC Electric Power of circuit 2 (W)*

E_{c1} = Power Energy of circuit 1 (Wh)

E_{c2} = Power Energy of circuit 2 (Wh)

E_{ct} = (E_{c1} + E_{c2}) Total Power Energy (Wh)

Iac_3 = AC Current of Power inverter (A)

Vac_3 = AC Voltage of Power inverter (V)

Sac = Apparent power output

Qac = Reactive power output

*Pac = Real power output (Sac*fp)*

fp = power factor between Iac_3 and Vac_3

T = Ambient temperature (ºC)

RH = Relative Humidity (%)

INMET = National Institute of Meteorology (http://www.inmet.gov.br/)

Meteorological Measurements of Photovoltaic System of LACOSEP

t(s)	***Tc_1 (ºC)***	***Tc_2 (ºC)***	***v (m/s)***	***d (degree)***	***G (W/m^2)***	***Icc_1 (A)***	***Icc_2 (A)***	***Vcc_1 (V)***	***Vcc_2 (V)***	***Pcc_1 (W) = Vcc_1 * Icc_1***	***Pcc_2 (W) = Vcc_2 * Icc_2***	***E_{c1} (Wh)***	***E_{c2} (Wh)***	***E_{ct} (Wh) = (E_{c1} + E_{c2})***	***Iac_3 (A)***	***Vac_3 (V)***	***Sac (VA)***	***Qac (var)***	***fp***	***Pac(W) =Sac*fp***

Measurements of INMET

T (ºC)	***RH***