```
In [1]: import pandas as pd
        raw_files = {"air_co2":        "../data/air_carbon_dioxide_ppm_T6713-Top.csv",
                     "air_RH":         "../data/air_humidity_percent_SHT25-Top.csv",
                     "air_temp_C":     "../data/air_temperature_celcius_SHT25-Top.csv",
                     "water_ec_ms_cm": "../data/water_electrical_conductivity_ms_cm_AtlasEC-Reservoir.csv",
                     "water_pH":       "../data/water_potential_hydrogen_AtlasPH-Reservoir.csv",
                     "water_temp_C":   "../data/water_temperature_celcius_AtlasTemp-Reservoir.csv"}
```

Convert Raw data (csv files) into Pandas Data Frame

```
In [2]: air_co2_df = pd.read_csv(raw_files["air_co2"])
        air_RH_df = pd.read_csv(raw_files["air_RH"])
        air_temp_C_df = pd.read_csv(raw_files["air_temp_C"])
        water_ec_ms_cm_df = pd.read_csv(raw_files["water_ec_ms_cm"])
        water_pH_df = pd.read_csv(raw_files["water_pH"])
        water_temp_C_df = pd.read_csv(raw_files["water_temp_C"])
```

Convert `timestamp_utc` from string into actual timestamp

```
In [3]: air_co2_df['timestamp_utc'] = pd.to_datetime(air_co2_df['timestamp_utc'])
        air_RH_df['timestamp_utc'] = pd.to_datetime(air_RH_df['timestamp_utc'])
        air_temp_C_df['timestamp_utc'] = pd.to_datetime(air_temp_C_df['timestamp_utc'])
        water_ec_ms_cm_df['timestamp_utc'] = pd.to_datetime(water_ec_ms_cm_df['timestamp_utc'])
        water_pH_df['timestamp_utc'] = pd.to_datetime(water_pH_df['timestamp_utc'])
        water_temp_C_df['timestamp_utc'] = pd.to_datetime(water_temp_C_df['timestamp_utc'])
```
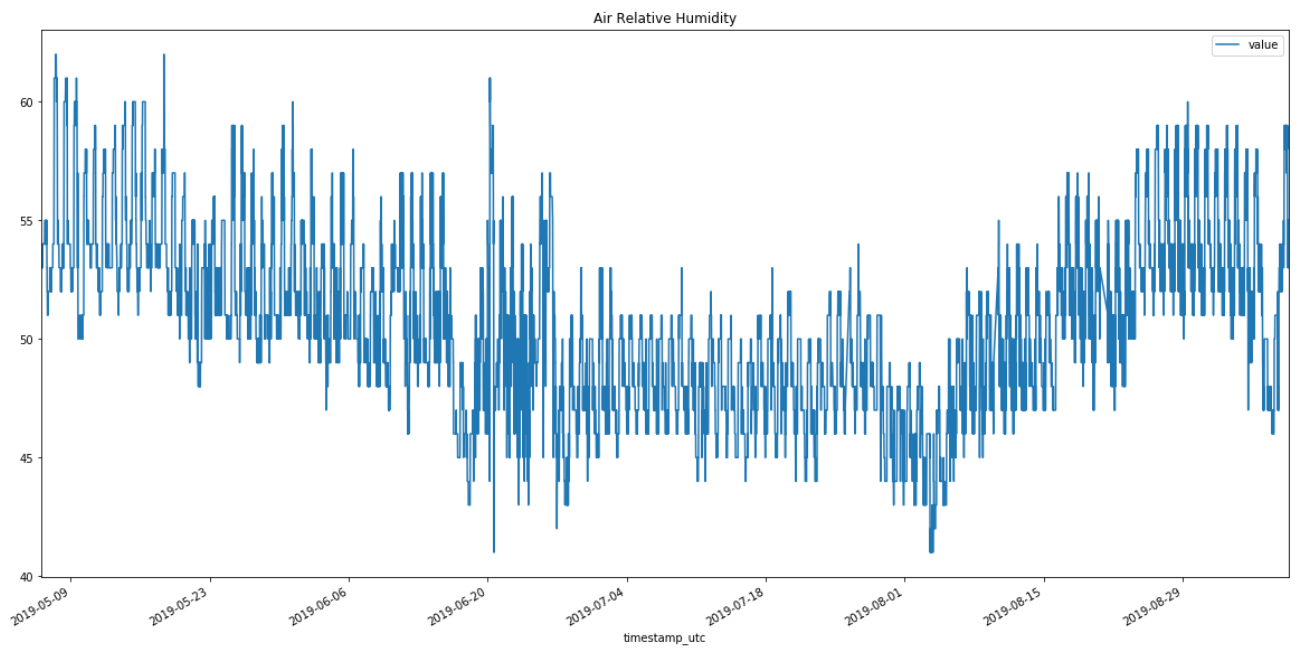
```
In [10]: air_co2_df.plot(x='timestamp_utc',y='value', figsize=(20,10), title="Air CO2 PPM")
```
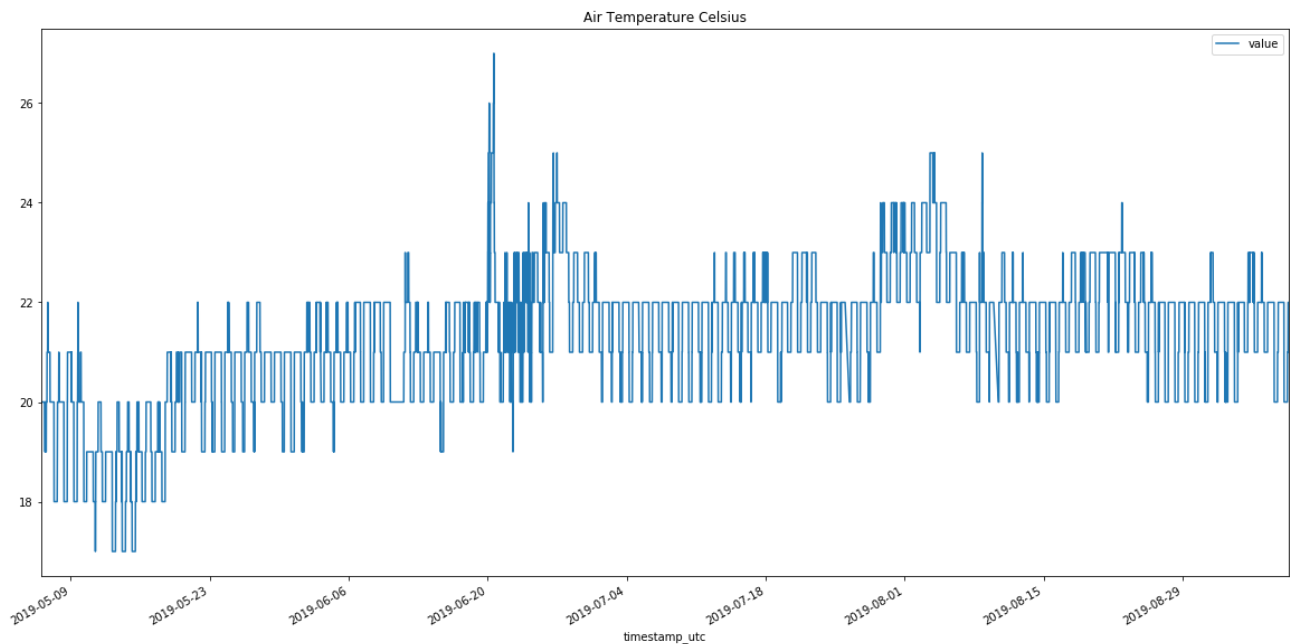
Out[10]: <matplotlib.axes._subplots.AxesSubplot at 0x7fd28214f750>
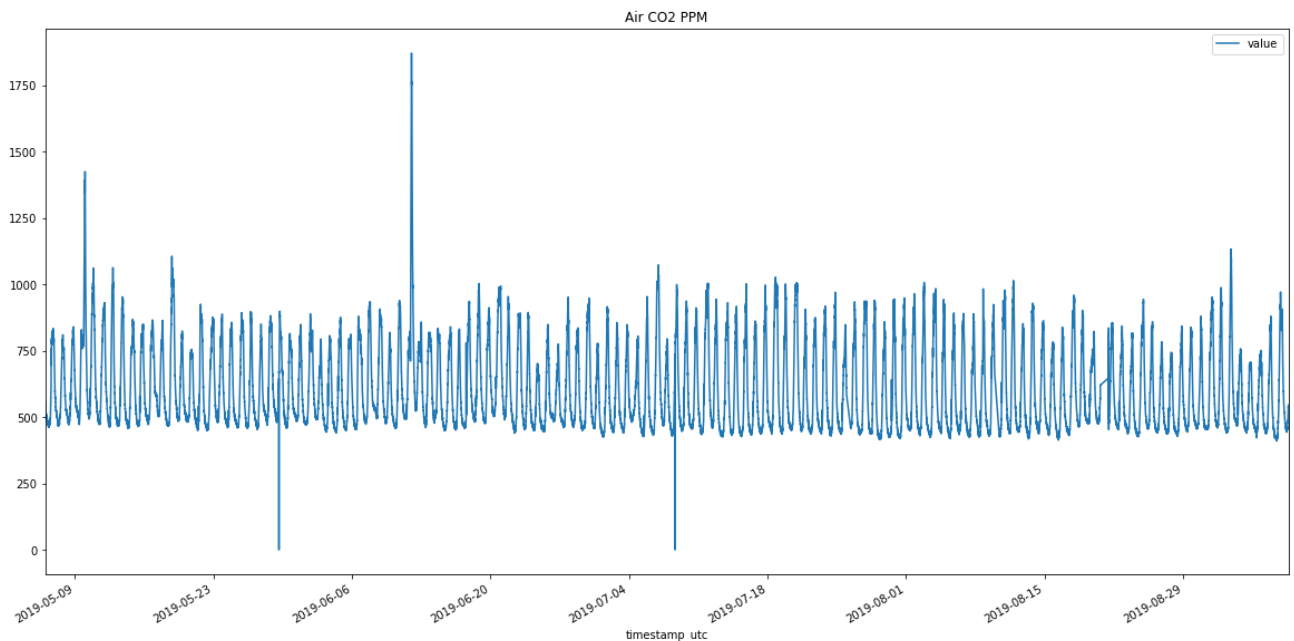
In [5]: `air_RH_df.plot(x='timestamp_utc',y='value', figsize=(20,10), title="Air Relative Humidity")`

Out[5]: `<matplotlib.axes._subplots.AxesSubplot at 0x7fd28489c3d0>`

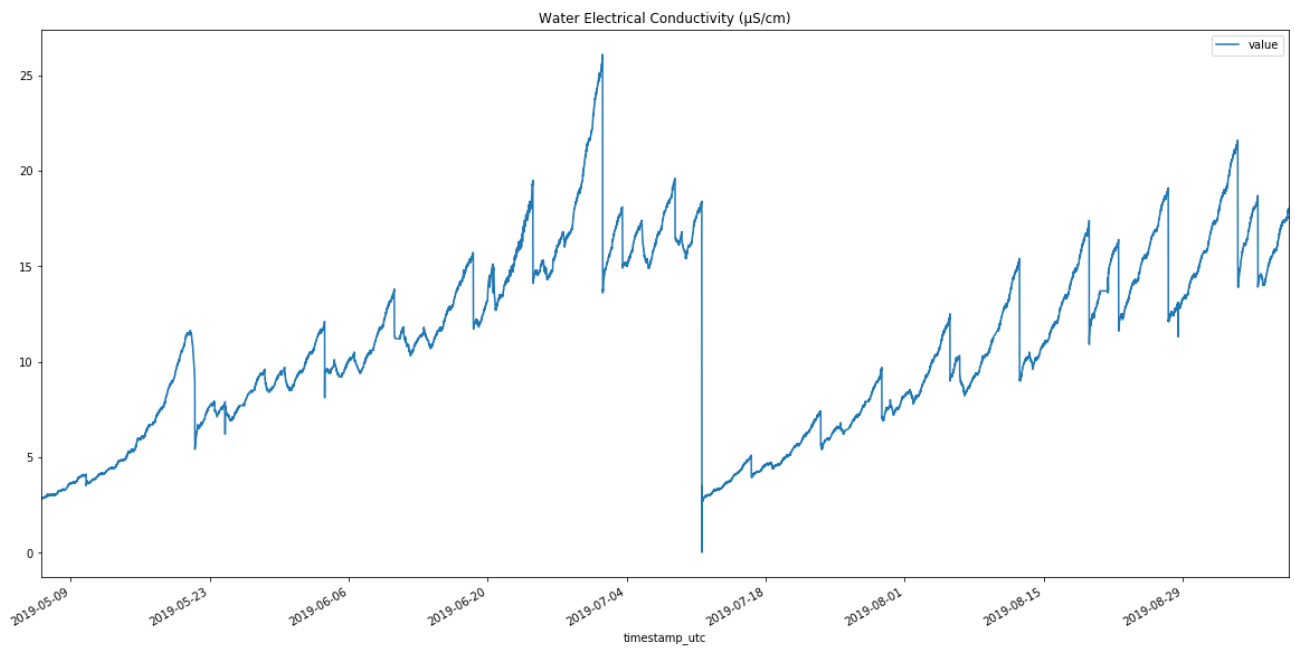In [6]: `air_temp_C_df.plot(x='timestamp_utc',y='value', figsize=(20,10), title="Air Temperature Celsius")`

Out[6]: `<matplotlib.axes._subplots.AxesSubplot at 0x7fd2842d4850>`
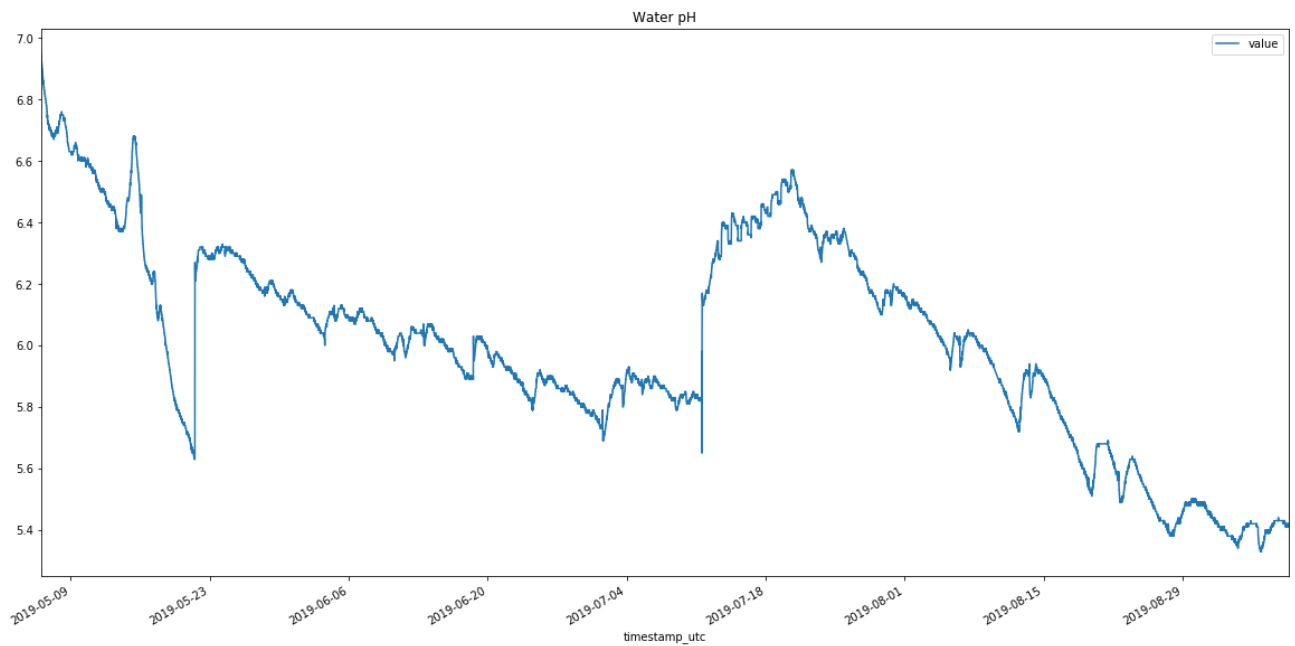
In [7]:
```
water_ec_ms_cm_df.plot(x='timestamp_utc',y='value', figsize=(20,10), title="Water Electrical Conductivity (µS/cm)")
```

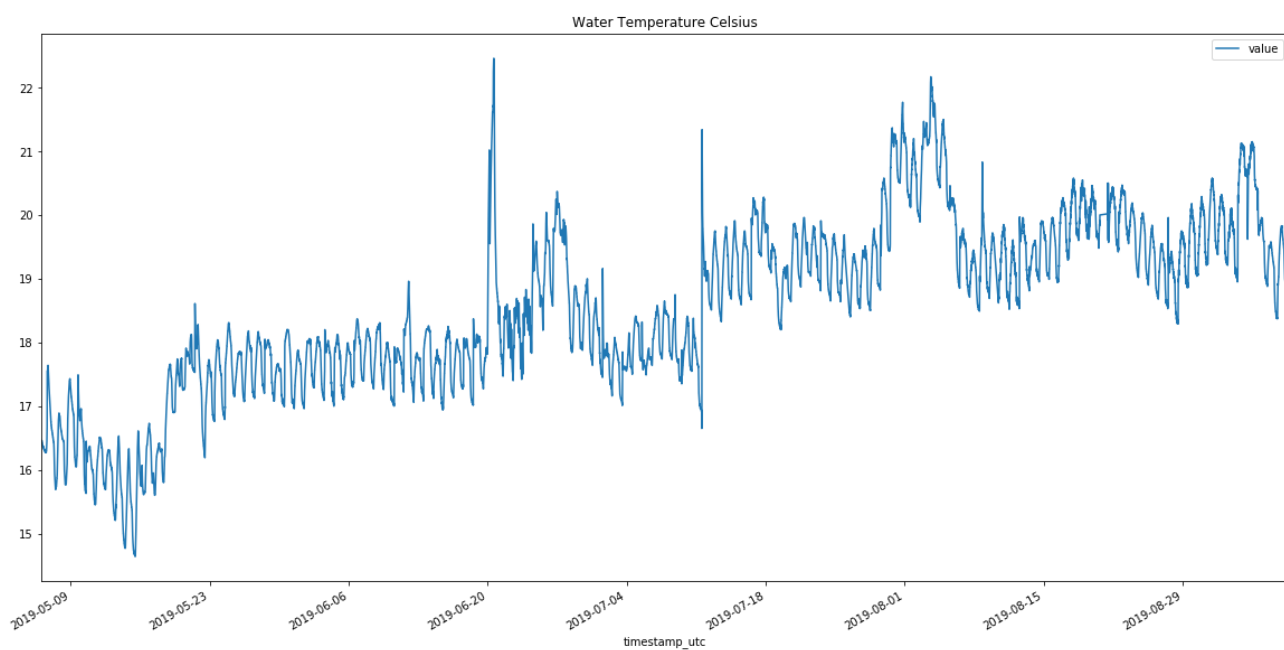Out[7]: `<matplotlib.axes._subplots.AxesSubplot at 0x7fd28450bb50>`

In [8]:
```
water_pH_df.plot(x='timestamp_utc',y='value', figsize=(20,10), title="Water pH")
```

Out[8]: `<matplotlib.axes._subplots.AxesSubplot at 0x7fd28428bc50>`

In [9]: `water_temp_C_df.plot(x='timestamp_utc',y='value', figsize=(20,10), title="Water Temperature Celsius")`

Out[9]: `<matplotlib.axes._subplots.AxesSubplot at 0x7fd282338a10>`

In [ ]: