

Package ‘UTCIr’

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Type Package

Title PET

Version 0.1.0

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Depends R (>= 2.12.0)

Imports ncdf4 (>= 1.10)

Description Estimates Universal Thermal Climate Index.

The climate variables required are Tmax, Tmin, vapour pressure, wind speed, radiation.

License GPL-3

Encoding UTF-8

LazyData true

RoxygenNote 7.0.2

R topics documented:

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calc_UTCI	<i>Universal Climate Thermal Index (UTCI)</i>
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Description

This function takes a dataframe object as input and computes UTCI.

Usage

```
calc_UTCI(indat)
```

Arguments

indat = dataframe containing the input variables

Value

A vector containing the daily UTCI

Examples

```
calc_UTCI(indat)
```

Where the dataframe "indat" contains the following variables:

```
tmin = Temperature min    (degrees Celsius)
tmax = Temperature max    (degrees Celsius)
rh   = Relative humidity  (%)
ws   = Wind speed at 10m  (m/s)
rs   = radiation          (MJ/m^2)
```

Also required is the latitude and longitude

```
lat = Latitude (degrees)
```

```
lon = Longitude (degrees)
```

Elevation (needed) is retrieved from the UTCIr internal file "data/elev_dat.rda" which contains data from:
http://www.ecad.eu/download/ensembles/data/Grid_0.1deg_reg_ensemble/elev_ens_0.1deg_reg_v17.0e.nc

Missing values should be converted to NA

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