Description This package provides R wrappers for the C implementation of 28 benchmark functions defined for the Special Session and Competition on Real-Parameter Single Objective Optimization at CEC-2013. The focus of this package is to provide an open-source and multi-platform implementation of the CEC2013 benchmark functions, in order to make easier for researchers to test the performance of new optimization algorithms in a reproducible way. The original C code (Windows only) was provided by Jane Jing Liang, while GNU/Linux comments were made by Janez Brest. This package was gently authorised for publication on CRAN by Ponnuthurai Nagaratnam Suganthan. The official documentation is available at http://www.ntu.edu.sg/home/EPNSugan/index_files/CEC2013/CEC2013.htm. Bugs reports/comments/questions are very welcomed (in English, Spanish or Italian).
Description
Common interface to the 28 CEC-2013 benchmark functions

Usage
cec2013(i, x)

Arguments
i numeric (integer) between 1 and 28, defining the number of the benchmark function to be evaluated on the x parameter set

x Either a vector with 2, 5, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100 elements or a matrix with the same number of columns and one row for each vector to be evaluated

Value
numeric, with the value of the i-th CEC-2013 benchmark function evaluated in the vector x or for each row of x when the latter is a matrix

Author(s)
Yasser Gonzalez-Fernandez, <ygonzalezfernandez@gmail.com>, Mauricio Zambrano-Bigiarini, <mzb.devel@gmail.com>

References

Examples
# CEC-2013 Benchmark function 1: Shifted Sphere, 10-dimensional space
# x=[0,...0]*D:
func.num <- 1
D <- 10
cec2013(func.num, rep(0, D))
Index

cec2013, 2