

TABLE II
CONSTRAINED OPTIMIZATION - FILTERS METHOD - PARAMETERS USED

$k_{max} = 40 \rightarrow$ Maximum number of iterations in the external process; $\rho = 1 \rightarrow$ Initial search step length; $T1 = x_k - x_{k+1} = 0.00001 \rightarrow$ tolerance for the distance between two consecutive iterations; $T2 = f(x_k) - f(x_{k+1}) = 0.00001 \rightarrow$ Tolerance between 2 values of the objective function in two consecutive iterations; $h_{max} = +\infty \rightarrow$ Maximal valor of constraints violation.

TABLE III
UNCONSTRAINED OPTIMIZATION - DIRECT SEARCH METHODS - USED PARAMETERS

Parameters	Coordinate Search	Hooke-Jeeves	Audet	Nelder-Mead	Simplex Convergent
k_{max}	100	100	100	100	100
s	1	1	*	1	1
s_m	*	*	1,5	*	*
s_p	*	*	1	*	*
s_{min}	10^{-3}	10^{-3}	10^{-3}	*	*
α	*	*	*	1	1
β	*	*	*	0,5	0,5
γ	*	*	*	2	2
T_1	10^{-5}	10^{-5}	10^{-5}	10^{-5}	10^{-5}
T_2	10^{-5}	10^{-5}	10^{-5}	10^{-5}	10^{-5}
T_{var}	*	*	*	10^{-5}	10^{-5}
T_{vol_n}	*	*	*	*	10^{-5}

$k_{max} \rightarrow$ Maximum number of iterations; $s \rightarrow$ Length of the initial step
 $s_m \rightarrow$ Length of the initial mesh search step (Audet); $s_p \rightarrow$ Length of the initial poll step (Audet)
 $s \rightarrow$ Length of the initial step; $s_{min} \rightarrow$ Minimum value for the step length
 $\alpha \rightarrow$ Reflexion parameter (Nelder-Mead); $\beta \rightarrow$ Contraction parameter (Nelder-Mead)
 $\gamma \rightarrow$ Expansion parameter (Nelder-Mead)
 $T1 = |x_k - x_{k+1}| \rightarrow$ Tolerance for the distance between two consecutive iterations
 or Tolerance for the distance between the last iteration and the latest iteration (Nelder-Mead)
 $T2 = |f(x_k) - f(x_{k+1})| \rightarrow$ Tolerance for the distance between two values of the objective function in successive iterations
 $T_{var} \rightarrow$ Tolerance to the variance of the objective function values in the vertices of the simplex (Simp. Conv.)
 $T_{vol_n} \rightarrow$ Tolerance to the normalized volume of the simplex
 * \rightarrow Parameter non used in the method