grey word optimizes overy may optimizer is trasted on a social huriarchy where ency ave divided into alpha, heta, gamma, wower encircle of group when attack them have foreig regues to an oftimal and the wowes keep changing where position in order to heart their brey (get an ofitimal solution). The next vocus used the others they can be used in self obriving can where con regers Application to wolver and fath reques to the forey as cert determents which as the best path to take in order to south the good predocode (1) First we need to initialise franchers and froquelation function GNO (wower, num-iterations, bound) wolf = unitialise population (objective-function, molics) alpha, leta delta: Prifialise () (2) Nest we sun the code for num-iterations jor iteration in range num-iterations: (3) We own the look for each mole bro mines yourse gor wolf un nower : burpurasan : NA QIT . we evaluate fitness fitners: driective function (aclf position)
wholat leader calpha, ruta, delta) (4) Next we update the fosition of wower and we update upaale leader (alpha beed, gomma) dhe fitner a hoster adjusting y litnerskalpha. position keta = neta heta - alpha alpha = nialg ely fitness < bela position deeta=beta erea - wolf

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- aisadvantages
- (1) GNO can dometimes welle on a socution too quickly thunking its the best 14: 100 (C) & Will's
- (2) densitive to carameters GNO hour settings that control how it works if we don't set there howameters right it can slow down Jamal 110.91830403 or not work well
- 3) Lack of oivern they all end whin ownigar afasts the search that if revones ens diverse
- (9) Notsy Objective functions In real morta problems the data might be undear of "nowy" GINO relies on accurate fuelback to quide its dearch
- (5) Not toleau for oul forwherms
 GWO may not be the hest choice for problems that
 Privolves things like decision or categories (like choosing the first schedule)

author:

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