

1. Record Nr.	UNINA9910815684303321
Titolo	GMDH-methodology and implementation in C // edited by Godfrey Onwubolu
Pubbl/distr/stampa	London, [England] : , : Imperial College Press, , 2015 ©2015
ISBN	1-84816-611-7
Descrizione fisica	1 online resource (304 p.)
Disciplina	003.7
Soggetti	GMDH algorithms Self-organizing systems - Data processing C (Computer program language)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	1. Introduction / Godfrey C. Onwubolu -- 2. GMDH Multilayered Iterative Algorithm (MIA) / Godfrey C. Onwubolu -- 3. GMDH multilayered algorithm using prior information / Alexandr Kiryanov -- 4. Combinatorial (COMBI) algorithm / Oleksiy Koshulko, Anatoliy Koshulko and Godfrey C. Onwubolu -- 5. GMDH harmonic algorithm / Godfrey C. Onwubolu -- 6. GMDH-based modified polynomial neural network algorithm / Alexander Tyryshkin, Anatoliy Andrakhanov and Andrey Orlov -- 7. GMDH-clustering / Lyudmyla Sarycheva and Alexander Sarychev -- 8. Multiagent clustering algorithm / Oleksii Oliinyk, Sergey Subbotin and Andrii Oliinyk -- 9. Analogue complexing algorithm / Dmytro Zubov -- 10. GMDH-type neural network and genetic algorithm / Saeed Fallahi, Meysam Shaverdi and Vahab Bashiri.
Sommario/riassunto	Group Method of Data Handling (GMDH) is a typical inductive modeling method built on the principles of self-organization. Since its introduction, inductive modeling has been developed and applied to complex systems in areas like prediction, modeling, clusterization, system identification, as well as data mining and knowledge extraction technologies, to several fields including social science, science, engineering, and medicine. This book makes error-free codes available to end-users so that these codes can be used to understand the

implementation of GMDH, and then create opportunities to further develop the variants of GMDH algorithms. C-language has been chosen because it is a basic language commonly taught in the first year in computer programming courses in most universities and colleges, and the compiled versions could be used for more meaningful practical applications where security is necessary.
