Cellular Neural Networks: Analysis, Design and Optimization (Paperback)

By Martin Hänggi, George S. Moschytz

Springer-Verlag New York Inc., United States, 2010. Paperback. Condition: New. Language: English . This book usually ship within 10-15 business days and we will endeavor to dispatch orders quicker than this where possible. Brand New Book. Cellular Neural Networks (CNNs) constitute a class of nonlinear, recurrent and locally coupled arrays of identical dynamical cells that operate in parallel. ANALOG chips are being developed for use in applications where sophisticated signal processing at low power consumption is required. Signal processing via CNNs only becomes efficient if the network is implemented in analog hardware. In view of the physical limitations that analog implementations entail, robust operation of a CNN chip with respect to parameter variations has to be insured. By far not all mathematically possible CNN tasks can be carried out reliably on an analog chip; some of them are inherently too sensitive. This book defines a robustness measure to quantify the degree of robustness and proposes an exact and direct analytical design method for the synthesis of optimally robust network parameters. The method is based on a design centering technique which is generally applicable where linear constraints have to be satisfied in an optimum way. Processing speed is always crucial when...

READ ONLINE
[2.74 MB]

Reviews

Undoubtedly, this is the very best job by any article writer. It can be rally interesting throgh studying time. Your way of life period is going to be transform as soon as you comprehensive reading this article pdf.
-- Louie Will

This book might be worth a study, and superior to other. It can be writter in easy words and phrases and never confusing. I am just happy to inform you that here is the greatest ebook i have got read within my personal daily life and may be he best pdf for actually.
-- Mrs. Avis Little DDS