The enormous advances in computational hardware and software resources over the last fifteen years resulted in the development of non-conventional data processing and simulation methods. Among these methods artificial intelligence (AI) has been mentioned as one of the most eminent approaches to the so-called intelligent methods of information processing that present a great potential for engineering applications.

Intelligent Computational Paradigms in Earthquake Engineering contains contributions that cover a wide spectrum of very important real-world engineering problems, and explore the implementation of neural networks for the representation of structural responses in earthquake engineering. This book assesses the efficiency of seismic design procedures and describes the latest findings in intelligent optimal control systems and their applications in structural engineering. Intelligent Computational Paradigms in Earthquake Engineering presents the application of learning machines, artificial neural networks and support vector machines as highly-efficient pattern recog-

Special 30% Discount Offer

ISBN: 1-59904-100-6 US$84.95 US$59.46 s/c
eISBN: 1-59904-149-9 US$67.96*

300 pages • Copyright 2007

*E-Book Price is Only Available on www.idea-group.com

“...This book surveys both the use of advances in methodologies in the framework of AI in engineering and new formulation for these kinds of problems. “

Nikos Lagaros

Excellent addition to your library! Recommend to your acquisitions librarian.

www.idea-group.com
About the Editors:

**Nikos D. Lagaros** is an Assistant Professor of Civil Engineering at the Faculty of Civil Engineering, University of Thessaly and Research Associate of the National Technical University of Athens. His research activity is focused in the area of the optimum design of structures under static and seismic loading conditions using evolutionary and hybrid optimization methods. The optimum design problem of real world problems with multiple objective functions has also been a subject of research using specially tailored genetic algorithms and evolution strategies. He has more than 120 publications including 37 refereed international journal papers. He is involved in the following scientific activities: Member of the editorial board of 5 international scientific journals. Reviewer in 9 scientific journals and 15 international conferences.

**Tsompanakis Yiannis** has received his M.Sc. and Ph.D. in Civil Engineering from the Department of Civil Engineering, National Technical University of Athens, Greece. He is currently an Assistant Professor of structural earthquake engineering at the Department of Applied Sciences, Technical University of Crete, Greece. He teaches undergraduate and postgraduate courses in structural mechanics and earthquake engineering and he is a supervisor of diploma, master and doctoral theses. He is a reviewer for archival journals and he has participated in the organization of several international congresses. He has published over 60 research papers in international journals, book chapters and conference proceedings. He has been involved in many research and practical projects in the field of earthquake engineering and computational mechanics. His main research interests include: structural and geotechnical earthquake engineering, structural optimization, probabilistic mechanics, structural assessment, applications of artificial intelligence methods in engineering.

---

**ORDER FORM**

Information Technology Security: Advice from Experts

<table>
<thead>
<tr>
<th>Number of Books</th>
<th>UPS Domestic</th>
<th>FEDEX Domestic</th>
<th>FEDEX Int’l Economy</th>
<th>FEDEX Int’l to Canada (UPS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$7.00</td>
<td>$15.00</td>
<td>$40.00</td>
<td>$15.00</td>
</tr>
<tr>
<td>2-5</td>
<td>$13.00</td>
<td>$30.00</td>
<td>$80.00</td>
<td>$25.00</td>
</tr>
<tr>
<td>6-10</td>
<td>$20.00</td>
<td>$75.00</td>
<td>$180.00</td>
<td>$40.00</td>
</tr>
<tr>
<td>11-15</td>
<td>$25.00</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>16-20</td>
<td>$35.00</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
</tbody>
</table>

Shipping/handling $______
PA residents add 6% sales tax $______
TOTAL $______

IDEA GROUP INC.
701 E. Chocolate Avenue, Suite 200
Hershey PA 17033-1240, USA
Tel: 717/533-8845 • Fax: 717/533-8661
E-mail: cust@idea-group.com
www.idea-group.com

METHOD OF PAYMENT:
- Enclosed is a check payable to Idea Group, Inc.
- Please charge my: __VISA  __MC  __Am Ex

Account No. _______ Exp. Date _______

Signature ____________________________

*If ordering more than quantity listed, a company representative will contact you with a rate quote.

--

**Forthcoming Release - December 2006**

*Excellent addition to your library! Recommend to your acquisitions librarian. www.idea-group.com*