



## **New direction for chance discovery?**

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*Contact:*

Astrid Engelen

Editorial Office IOS Press

Tel.: + 31 20 688 33 55

Email: [a.engelen@iospress.nl](mailto:a.engelen@iospress.nl)

**AMSTERDAM, December 5<sup>th</sup> 2007** –There have been publications on the subject of chance discovery since Yukio Ohsawa proposed the concept of chance discovery in 2000, but the question arises: will the research continue in the way it is done now or shall chance discovery move towards a new direction? A special issue of the *International Journal of Knowledge-Based and Intelligent Engineering Systems* on the subject is being published by IOS Press in December.

The issue on chance discovery (volume 11, issue 5) is guest edited by Akinori Abe and Yukio Ohsawa. Since 2000, invited sessions on chance discovery have been organized in KES conferences ([www.kesinternational.org](http://www.kesinternational.org)). In this issue, nine papers which are extended version of sessions' paper and newly submitted are selected. A full list of contents can be read further on, but as a whole, the keywords for this issue are 'interaction', 'visualization' and 'abduction' that are contributive to the basic methodologies of chance discovery. And, for application, the management and discovery of risks, in which stock price movements are to be included, are appeared as core issues.

The real lives of humans are complex and the future is not predictable. In order to have better –or the best- benefits, it is necessary to predict the future trends. In the usual case, data mining techniques provide us with satisfactory enough results for doing good business. However, there are exceptional events where simple data mining techniques and statistical analysis don't suffice. If the risk can't be predicted, the result may be serious. There are implicit (not noticed due to the rarity or the novelty) events which can be signs for fatal, or sometimes for an extremely beneficial, scenario. Because these signs are novel, and hard to be related to the result, it has been difficult to catch them for making a suitable decision at a suitable time. It is important to determine implicit symptoms to risks or benefits (opportunities). Accordingly, Ohsawa proposed chance discovery in 2000.

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### **About the Special Issue**

Chance Discovery is a special issue of the *International Journal of Knowledge-Based and Intelligent Engineering Systems* (KES, volume 11, issue 5 (2007)) guest edited by Akinori Abe and Yukio Ohsawa. KES (ISSN 1327-2314) will be published in 1 volume of 6 issues in 2008 (Volume 12).

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### **About the Guest Editors**

*Akinori Abe* is a Senior Researcher at ATR Knowledge Science Laboratories (Kyoto, Japan). His main research interests are abduction (hypothetical reasoning), analogical reasoning, chance discovery and language sense processing. Currently, he also works as an associate professor of IREIIMS, Tokyo Women's Medical University, and as a visiting associate professor of Kobe University Graduate School. He organized several sessions in KES conferences and the other workshops on chance discovery. He co-edited a book entitled 'Readings in Chance Discovery', from Advanced Knowledge Intelligence.

*Yukio Ohsawa* is a researcher who initiated 'chance discovery' with colleagues in Japan and the United Kingdom in 2000. He edited, in chief, two books on chance discovery and introduced the methods of chance discovery to marketing and design sessions in Japanese companies. He teaches information technologies for systems design and innovations in the University of Tokyo.

### ***About KES***

The aim of research into Knowledge-Based and Intelligent Engineering is to develop systems that replicate the analytical, problem solving and learning capabilities of the brain. These systems bring the benefits of knowledge and intelligence to the solution of complex problems. This international journal (Editors-in-Chief: Prof. B. Gabrys and Prof. R.J. Howlett, Founding Editor: Prof. L.C. Jain) provides a forum for publishing the results of recent research into the applications of intelligent systems, and also the tools and techniques necessary for them. Visit [www.kesinternational.org/journal](http://www.kesinternational.org/journal) for more information.

### ***About IOS Press***

IOS Press ([www.iospress.nl](http://www.iospress.nl)), celebrating its 20<sup>th</sup> anniversary, publishes some 90 international journals and approximately 100 book titles a year, ranging from computer sciences and mathematics to medicine and the natural sciences. Commencing its publishing activities in 1987, IOS Press serves a variety of scientific and medical communities in all parts of the world. IOS Press is a rapidly-growing publishing company that embraces new technologies for the dissemination of information. All journals are available online and an online book platform was launched in the first half of 2006. Following its founding, IOS Press established several co-publishing initiatives. Its most recent expansion is the acquisition of Delft University Press at the end of 2005. IOS Press also maintains offices in the Washington, DC area, Berlin and a co-publishing relationship with Ohmsha, Ltd (Tokyo).

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