

Frank Rosenblatt Award to be Presented at CEC 2011 to Hans-Paul Schwefel



The 2011 IEEE Frank Rosenblatt Award will be presented at CEC 2011 (www.cec2011.org) to Dr. **Hans-Paul Schwefel**, Professor Emeritus, Chair of Algorithm Engineering, Faculty of Computer Science, Dortmund University of Technology, Dortmund, Germany for *pioneering contributions to evolutionary computation through the theory and application of evolution strategies*. Schwefel is a German computer scientist and professor emeritus at Dortmund University of Technology, where he held the chair of systems analysis from 1985 until 2006. He is one of the pioneers in evolutionary computation and one of the authors responsible for the evolution strategies. His work has helped to understand the dynamics of evolutionary algorithms and to put evolutionary computation on formal grounds.

Schwefel pioneered the collective self-adaptation of internal parameters within evolutionary algorithms, which helped to make such optimization methods not only effective, but also efficient. Later on he introduced a couple of evolutionary principles beyond variation and natural selection into the algorithms to handle special features of the search space. He published books and papers on theoretical as well as application aspects of evolutionary computation and disseminated his ideas worldwide by teaching lectures, seminars, tutorials, and organizing or co-organizing many conferences in the field.

In 1990 he was co-founder of the international conference series on Parallel Problem Solving from Nature (PPSN), which has since been held biennially. He acted as dean of the faculty, as spokesman of the collaborative research center on computational intelligence (SFB 531), as co-founder and president of the Informatics Centre Dortmund (ICD), and also as pro-rector for research at the university. The University of Birmingham, U.K., admitted him the degree of Doctor of Science, honoris causa, in 2007.

The **IEEE Frank Rosenblatt Award** was established in 2004 and is named in honor of Frank Rosenblatt, who is widely regarded as one of the founders of neural networks. Basing his research on study of fly vision, he developed the single-layer input layer and an output layer of neural cells. Frequent presentation of a pattern or patterns resulted in changes in the input to output connections, facilitating future recognition of these patterns, or memory. His work influenced and even anticipated many modern neural network approaches.



Recipient selection is administered through the Technical Field Awards Council of the IEEE Awards Board and sponsored by the IEEE Computational Intelligence Society. The award is for outstanding contribution(s) to the advancement of the design, practice, techniques, or theory in biologically and linguistically motivated computational paradigms, including but not limited to neural networks, connectionist systems, evolutionary computation, fuzzy systems, and hybrid intelligent systems in which these paradigms are contained.

The award consists of bronze medal, certificate and honorarium. In the evaluation process, the following criteria are considered: quality of contribution, impact on the technical field and society in general, publications or patents or other evidence, and the quality of the nomination. Previous awardees have been **Michio Sugeno, John J. Hopfield, Teuvo Kohonen, James C. Bezdek** and **Lawrence J. Fogel**. More information can be found at <http://www.ieee.org/about/awards/tfas/rosenblatt.html>.