

《神经信息工程研究前沿》

图书基本信息

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内容概要

《国际科技发展前沿丛书：神经信息工程研究前沿》从“脑机接口及临床应用”、“认知计算与控制”、“神经信息获取、检测与处理”、“神经教育信息工程”和“运动假体神经自主控制”等五个专题阐述重要科学问题，探讨关键技术，总结研究成果，阐述当前热点，展望未来趋势；分享本次会议的成果，相信对广大科技人员和科研决策者具有现实的参考价值，期望能促进同行的交流，进一步推动该领域的发展。

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章节摘录

版权页：插图： Brain "hardware" is glacially slow in comparison. The basic nerve cells-neurons-rarely operate faster than 1,000 times a second, a million times slower than a silicon CPU. There are a whole series of essential biological mechanisms that make nerve cells noisy. Nerve cells are affected by many malign influences, from bad biochemicals, to mechanical shock, to viruses and bacteria. But brain hardware works in a continuous world, that is, instead of only one's and zeros, neurons can signal all the values between zero and their fastest response rate. The cerebral cortex processes information in huge chunks. Instead of 64 bits at a time, ten billion nerve cells can be working on the same problem at the same time. The hardware is so different that it is surprising that anyone ever thought they worked in the same way, but a lot of smart people did. The term "Artificial Intelligence" [AI] was first used at a famous summer long gathering at Dartmouth in 1956. Most of those who thought about the problem of smart machines were there for at least part of the summer. Their goal was to mimic human intelligence with a machine: "AI's founders were profoundly optimistic about the future of the new field: Herbert Simon predicted that "machines will be capable, within twenty years, of doing any work a man can do" and Marvin Minsky agreed, writing that "within a generation... the problem of creating 'artificial intelligence' will substantially be solved" Alas, such was not to be. There was a consensus at that time that intelligent systems were forced by some unspecified law of nature to follow common universal rules of reasoning, and thinking. As a convenient consequence, if you understood machine intelligence well enough, you didn't have to spend time learning the details of human intelligence because they were the same. Since the Dartmouth participants were mathematicians, philosophers, computer scientists and engineers, they assumed intelligence in its general form worked how they thought, or, more accurately, how they thought they thought.

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《神经信息工程研究前沿》分享本次会议的成果，相信对广大科技人员和科研决策者具有现实的参考价值，期望能促进同行的交流，进一步推动该领域的发展。

精彩短评

- 1、会议总结，不错，多自己的研究有很大的帮助

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