Neural Algorithm for Time Warp Invariant Signal Processing Including Human Speech Recognition Tasks (Yissum)

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Neural network architecture for faster, more accurate learning

Categories	Neural networks
Development Stage	Working model
Patent Status	PCT application filed
Market	Telecommunications, computers

Highlights

- Software system for faster speech recognition and image processing
- Based on neural network architecture that supports time-warp invariant computation
- More accurate understanding of accented speech or speech in noisy environments
- For integration into telecommunications hardware (e.g. car phones), computing systems (speech to text)

Our Innovation

Neural algorithm for time-warp invariant signal pattern processing and recognition.

Key Features

- Simpler architecture results in faster learning and processing, faster speech recognition
- Neural algorithm is closer to process used by brain, resulting in faster, more accurate processing
- Can also be applied to very rapid image processing

Development Milestones

Ongoing work to test model in a range of more realistic situations in different environments with background noise

The Opportunity

- For use in mobile phone applications – voice dialling, call routing
- Automated call centers
- Computers – appliance control, data mining
- Security and safety applications – aircraft cockpits

Researcher Information

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