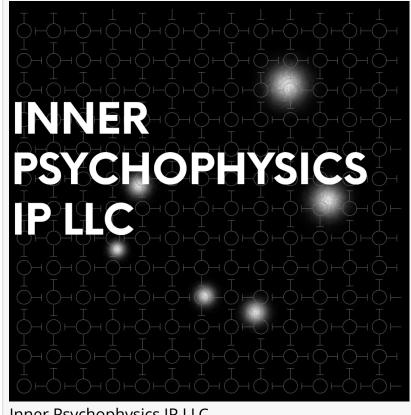


Article Describes Emulating a Neuromorphic Device for the Enhancement of Cortical **Prosthetic Vision**

INDIANA, PA, UNITED STATES, November 2, 2022 /EINPresswire.com/ -- Inner Psychophysics IP LLC reports on a research publication describing completion of several steps that are essential to the development of a device that is predicted to enhance cortical prosthetic vision in a novel way. The citation is:

Pavloski, Raymond. 2022. "Progress in Developing an Emulation of a Neuromorphic Device That Is Predicted to Enhance Existing Cortical Prosthetic Vision Technology by Engaging Desired Visual Geometries" Prosthesis 4, no. 4: 600-623.

https://doi.org/10.3390/prosthesis4040 <u>049</u>



Inner Psychophysics IP LLC

Current AI has significant problems. A

core problem places severe constraints on what can be achieved and on how quickly commercial applications can be developed - not understanding the physical significance of the specific experiences that accompany human sensory, cognitive and motor performances and its consequences for technologies. The objective and subjective phenomena that comprise cortical prosthetic vision were chosen as the starting point for this research because they are easily modeled and thereby related to the components, activities and parameters of neural network models.

The utility of currently available cortical prosthetic vision systems is disappointing. The essential features of a neuromorphic device that is predicted to enhance vision provided by available systems follow from a hypothesis which states that the objective and subjective aspects of cortical prosthetic vision jointly constitute patterns that emerge from specified synaptic

interactions. The research reported here completes several required steps in developing an emulation of this device. The technologies arising from this research will form the groundwork for a new basis for cortical prosthetic vision and artificial intelligence - one that draws from human perception. Building this process into our machines will provide a strategy for building Al that's based on the way people have experiences and a way to improve the performance of current cortical visual prostheses.

About Inner Psychophysics IP LLC:

Converging with technological disruptions forthcoming in cortical prosthetic vision and artificial intelligence, Inner Psychophysics IP LLC develops foundational intellectual properties for constructing a unique and novel basis for these technologies rooted in human experience.

Article: https://www.mdpi.com/2673-1592/4/4/49

Company website: https://innerpsychophysicsip.com

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