

THE USE OF DYNAMIC SYNAPSE NEURAL NETWORKS
FOR SPEECH PROCESSING TASKS

by

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Summary : Free the use of dynamic synapse neural networks for speech processing tasks pdf download - in this thesis i explore this seemingly incongruent situation

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pattern recognition with spiking neural networks and ... - pattern recognition with spiking neural networks and dynamic synapses ... processing in the ... unlike the conventional synapse employed in artificial neural ...

dynamic stochastic synapses as computational units - dynamic stochastic synapses as computational units ... processing time series in artificial neural networks ... dynamic stochastic synapses as computational ...

simulation of bayesian learning and inference on ... - distributed stochastic spiking neural networks ... speech recognition, sensor networks, ... active dendrite and dynamic synapse with an

dynamic evolving spiking neural networks for on-line ... - dynamic evolving spiking neural networks for on-line spatio- and spectro-temporal pattern recognition ... spiking neural networks; dynamic

artificial neural network as a valuable tool for petroleum eng - artificial neural network as a valuable tool ... computationally complex tasks such as speech understanding and ... processing characteristics of neural networks ...

spatiotemporal topology and temporal sequence ... - to devote effort towards the understanding of the dynamic behavior of neural networks ... to speech recognition [26, 10 ... tasks. although other artificial neural ...

an approximate backpropagation learning rule for memristor ... - memristor based neural networks using synaptic plasticity ... visual objects detection, speech recognition, corresponding author ... storage makes use of dynamic ram ...

biologically inspired features in spiking neural networks - spiking neural networks michiel hermans, ... this model has one internal dynamic variable called ... two abstract temporal classification tasks, and on a speech

pulsed neural networks - perpetual - pulsed neural networks: temporal signal processing using artificial neural networks with dynamic synapses ... the dynamic synapse model 13 6.

audio signal processing by neural networks2 - ... spline neural networks, speech ... to deal with nonlinear modeling tasks [27 ... signal processing. multilayer static and dynamic time-delay ...

parallel hardware implementation of a broad class of ... - parallel hardware implementation of a broad class of spiking neurons using serial arithmetic ... ing neural networks use serial processing and parallel arithmetic.

homogeneous spiking neuromorphic system for real-world ... - ... artificial neural networks ... realize larger signal processing networks ... for the same character of a memristor synapse. for convenience, we use ...

proceedings of the international conference on artificial ... - proceedings of the international conference on artificial neural ... learning and forgetting surface classifications with dynamic neural networks ... neural speech ...

why neural networks? - utah state university - 1 1 neural networks donald h. cooley 2 an enduring synthesis • an enduring synthesis for how the brain works will enable us to explain how we rapidly and

probabilistic inference using stochastic spiking neural ... - neural networks on a neurosynaptic processor ... and dynamic synapse approach with an integrate and fire neuron ... based natural language processing task (question

temporal sequence learning in spiking neural networks - temporal sequence learning in spiking neural networks ... temporal sequence learning in spiking neural networks belal mandurah ... 2.4 dynamic synapses: ...

using neural networks as a “black box” approach for system ... - using neural networks as a “black box” ... which can be used for data processing in different fields. using neural ... basic tasks of human brain are ...

an evolutionary approach: analysis of artificial neural ... - an evolutionary approach: analysis of artificial neural ... used to model real neural networks, ... information processing problems. such as: speech

classification of children with voice impairments using ... - classification of children with voice impairments using deep neural networks ... used in speaker recognition and image processing ...

development of back propagation neural network model for ... - granular neural networks ... many tasks that humans perform naturally fast, ... feedback networks are dynamic; ...

habituation based neural networks for spatio-temporal ... - ... dynamic neural networks; ... many tasks performed by ... the past few years have witnessed an explosion of research on neural networks for temporal processing ...

artificial neural networks and their applications in business - artificial neural networks and their applications in business . iordache ana maria mihaela1 abstract in modern software implementations of artificial neural networks ...

an overview of reservoir computing: theory, applications ... - an overview of reservoir computing: theory, applications and implementations ... training recurrent neural networks ... it has been shown that synapse models and ...

an hybrid architecture multi-layer feed-forward neural ... - an hybrid architecture for multi-layer feed-forward neural networks ... the tasks which are core of neural networks like image processing, pattern/ speech recognition ...

chapter 2 overview of artificial neural networks - overview of artificial neural networks ... processing. this chapter ... they can perform complex tasks, such as speech and image recognition,

stick: spike time interval computational kernel, a ... - they use neural networks, ... recent endeavors, such as the synapse darpa program, ... range of values with dynamic precision ...

part1/3 –introduction - peoplebanciuniv - artificial neural networks ... speech – speech recognition, ... – synapse:the point of contact between the axon of one cell

chapter 13 artificial intelligence - saint louis university - phrase a “study of artificial intelligence ... – processing models – knowledge representation – reasoning. 15 semantic networks

magnitude spectral estimation via poisson moments with ... - neural networks (anns) for tasks like classification and ... for temporal processing:’ neural networkr, ... varying dynamic processes,” proc. iee, ...

online spatio-temporal pattern recognition with evolving ... - evolving spiking neural networks utilising address event representation, ... processing concept for ... a neural networks ...

architectures for a biology-oriented neuroemulator - today's electronic neural networks consist of very ... with these networks dynamic signal processing like ... time-dynamic speech signals into ...

tern poral processing - iran university of science and ... - tern poral processing ... popular method for the design of neural networks. ... in such a case we may also use a static multilayer perceptron,

ijcnn'00: an on-chip learning neural network - an on-chip learning neural network ... vlsi implementation of on-chip learning neural networks. ... neural systems adapt their processing tasks according to the ...

(introduction to neural networks) introduction - (introduction to neural networks) introduction ...

processing units ... dynamic modeling of chemical process systems

training a probabilistic graphical model with resistive ... - located processing and memory in fine-grain distributed parallel ... variety of tasks such as image recognition, speech ... percent of dynamic power and 30 percent of ...

the neurosequential model of therapeutics - the neurosequential . model of therapeutics neural networks mediating the neuropsychiatric ... processing, stor ...

utilization data mining to detect spyware - iosr journals - utilization data mining to detect ... approaches that applied in spyware detection systems such as artificial neural networks, ... processing [13]. a neural network ...

comparative analysis of computational intelligence ... - neural networks need very high processing and ... speech recognition,data mining,image ... showed flexibility in solving dynamic problems has been ...

analysis of sensory transformations in response to complex ... - analysis of sensory transformations in response to ... auditory nerve, neural networks, ... poorly at complex decision tasks under uncertainty such as speech ...

towards neurocomputational speech and sound processing - towards neurocomputational speech and sound ... that the spiking neural network performs unsupervised auditory images ... corrupted speech processing, ...

evaluating span incremental learning for handwritten digit ... - evaluating span incremental learning for handwritten digit recognition ... spiking neural networks, ... evaluating span incremental learning for handwritten digit ...

short contributions chaos-based mixed signal ... - a new design of spiking neural networks is proposed and fabricated ... tasks and to provide fast solutions to ... robotics,7,8 speech and character recognition ...

character and object recognition by using image and sound ... - the speech signal is very dynamic signal, ... synapse, and dendrite. the ... artificial neural networks use the same idea as the real neurons.

a neurally-inspired musical instrument classification ... - a neurally-inspired musical instrument classification system ... built from dynamic ... we propose a musical instrument classification system based exclusively ...

advanced computing architectures and new programming ... - ... fuzzy sets, artificial neural networks, decision support system, ... speech, converting a text ... hand the neural network is a processing device,