

The Computational Psycholinguistic Situational-Fuzzy Self-Controlled Brain and Mind System Under Uncertainty

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Abstract : The models of the modern Artificial Narrow Intelligence (ANI) cannot: a) independently and continuously function without of human intelligence, used for retraining and reprogramming the ANI's models, and b) think, understand, be conscious, cognize, infer, and more in state of Uncertainty, and changes in situations, and environmental objects. To eliminate these shortcomings and build a new generation of Artificial Intelligence systems, the paper proposes a Conception, Model, and Method of Computational Psycholinguistic Cognitive Situational-Fuzzy Self-Controlled Brain and Mind System (CPCSFSCBMSUU) using a neural network as its computational memory, operating under uncertainty, and activating its functions by perception, identification of real objects, fuzzy situational control, forming images of these objects, modeling their psychological, linguistic, cognitive, and neural values of properties and features, the meanings of which are identified, interpreted, generated, and formed taking into account the identified subject area, using the data, information, knowledge, and images, accumulated in the Memory. The functioning of the CPCSFSCBMSUU is carried out by its subsystems of the: fuzzy situational control of all processes, computational perception, identifying of reactions and actions, Psycholinguistic Cognitive Fuzzy Logical Inference, Decision making, Reasoning, Systems Thinking, Planning, Awareness, Consciousness, Cognition, Intuition, Wisdom, analysis and processing of the psycholinguistic, subject, visual, signal, sound and other objects, accumulation and using the data, information and knowledge in the Memory, communication, and interaction with other computing systems, robots and humans in order of solving the joint tasks. To investigate the functional processes of the proposed system, the principles of Situational Control, Fuzzy Logic, Psycholinguistics, Informatics, and modern possibilities of Data Science were applied. The proposed self-controlled System of Brain and Mind is oriented on use as a plug-in in multilingual subject Applications.

Keywords : computational brain, mind, psycholinguistic, system, under uncertainty

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