G06N COMPUTER SYSTEMS BASED ON SPECIFIC COMPUTATIONAL MODELS

WARNING

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

3/00 Computer systems based on biological models
3/002 . . [Biomolecular computers, i.e. using biomolecules, proteins, cells (using DNA G06N 3/123; using neurons G06N 3/061)]
3/004 . . [Artificial life, i.e. computers simulating life]
3/006 . . [based on simulated virtual individual or collective life forms, e.g. single "avatar", social simulations, virtual worlds or particle swarm optimisation]
3/008 . . [based on physical entities controlled by simulated intelligence so as to replicate intelligent life forms, e.g. robots replicating pets or humans in their appearance or behavior]
3/02 . using neural network models
3/04 . . [Architectures, e.g. interconnection topology]
3/0418 . . [using chaos or fractal principles]
3/0427 . . [in combination with an expert system]
3/0436 . . [in combination with fuzzy logic]
3/0445 . . [Feedback networks, e.g. hopfield nets, associative networks]
3/0454 . . [using a combination of multiple neural nets]
3/0463 . . [Neocognitrons]
3/0472 . . [using probabilistic elements, e.g. p-rams, stochastic processors]
3/0481 . . [Non-linear activation functions, e.g. sigmoid, thresholds]
3/049 . . [Temporal neural nets, e.g. delay elements, oscillating neurons, pulsed inputs]
3/06 . using some hardware implementation of neural networks, neurons or parts of neurons
3/061 . . [using biological neurons, e.g. biological neurons connected to an integrated circuit]
3/063 . . [using electronic means]
3/0635 . . [using analogue means]
3/067 . using optical means
3/0675 . . [using electro-optical, acousto-optical or opto-electronic means]
3/08 . . Learning methods
3/082 . . [modifying the architecture, e.g. adding or deleting nodes or connections, pruning]
3/084 . . [Back-propagation]
3/086 . . [using evolutionary programming, e.g. genetic algorithms]
3/088 . . . [Non-supervised learning, e.g. competitive learning]
3/10 . . Simulation on general purpose computers
3/105 . . . [Shells for specifying net layout]
3/12 . . using genetic models
3/123 . . . [DNA computers, i.e. information processing using biological DNA]
3/126 . . . [Genetic algorithms, i.e. information processing using digital simulations of the genetic system]
5/00 Computer systems using knowledge-based models
5/003 . [Dynamic search techniques; Heuristics; Dynamic trees; Branch-and-bound]
5/006 . . [Automatic theorem proving]
5/006 . . Knowledge representation
5/0022 . . [Knowledge theorem proving]
5/025 . . [Extracting rules from data]
5/027 . . [Frames]
5/04 . . Inference methods or devices
5/041 . . . [Abduction]
5/042 . . . [Backward inferencing]
5/043 . . [Distributed expert systems; Blackboards]
5/045 . . [Explanation of inference steps]
5/046 . . [Forward inferencing; Production systems]
5/047 . . . [Pattern matching networks; RETE networks]
5/048 . . . [Fuzzy inferencing]
7/00 Computer systems based on specific mathematical models
7/005 . . [Probabilistic networks]
7/002 . using fuzzy logic (computer systems based on biological models G06N 3/00; computer systems using knowledge-based models G06N 5/00)
7/023 . . . [Learning or tuning the parameters of a fuzzy system]
7/026 . . [Development tools for entering the parameters of a fuzzy system]
7/04 . . . [Physical realisation]
7/043 . . . . . [Analogue or partially analogue implementation]
7/046 . . . . . [Implementation by means of a neural network (neural networks using fuzzy logic G06N 3/0436)]
7/006 . . Simulation on general purpose computers
7/08  using chaos models or non-linear system models

10/00 Quantum computers, i.e. computer systems based on quantum-mechanical phenomena

20/00 Machine learning

**WARNING**

- Group G06N 20/00 is impacted by reclassification into groups G06N 20/10 and G06N 20/20.
- All groups listed in this Warning should be considered in order to perform a complete search.

20/10 using kernel methods, e.g. support vector machines [SVM]

**WARNING**

- Group G06N 20/10 is incomplete pending reclassification of documents from group G06N 20/00.
- Groups G06N 20/00 and G06N 20/10 should be considered in order to perform a complete search.

20/20 Ensemble learning

**WARNING**

- Group G06N 20/20 is incomplete pending reclassification of documents from group G06N 20/00.
- Groups G06N 20/00 and G06N 20/20 should be considered in order to perform a complete search.

99/00 Subject matter not provided for in other groups of this subclass

99/007 Molecular computers, i.e. using inorganic molecules (using biomolecules G06N 3/002)