

Name of TC: Knowledge Acquisition in Intelligent Systems

Goal of TC:

The goal of the technical committee on knowledge acquisition in intelligent systems is to advance the foundations upon which machine intelligence may be based. The technical committee (henceforth the committee) recognizes that any non-trivial intelligent system necessarily embodies a collage of soft computing methodologies, which calls forth the need to integrate the domain-specific technologies in a maximally reusable object system. Towards this end, the committee seeks to foster professional interaction through the medium of IEEE sponsored conferences, innovative research through the medium of the IEEE SMC transactions, and the seeding of an optimistic outlook through support of a medley of eminent keynote speakers. More recently, the committee has seen the need to support the development of new branches of mathematical formalisms to address the nature of heuristic evolution and search, content-based associative memory, and evolutionary knowledge acquisition. In this regard, the committee has started a program whereby select conference papers that break new grounds in these and related areas will be invited for presentation in one of the SMC archival journals. The committee will pilot the program this year in the annual IEEE Information Reuse and Integration (IRI) conference. The committee also recognizes the need to drive student membership and is seeking to fund the presentation of best papers through the use of conference registration fees. Finally, the committee recognizes the need for application development as a necessary means to further the financial development of the field and is thus encouraging members to partner with industry in the joint development of applications. For example, at SSC San Diego we are in the process of developing complex systems for computing with words, which have a basis in knowledge density theory, conversational learning, and an integrating transformational mechanics. Many similar applications are possible. We encourage you to find and develop them.