

Removal of this Strong Hypothesis Leads to the 'Learning in a Nonstationary Environments'

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Introduction

The crucial shift in the operational paradigm is that the environment and, then, the user, are now explicitly considered part of the functional model; reactions are then issued in response to changes in the system or variations in the operational environment. Straightforward examples in this direction are the human-robotic co-working, where humans and robots cooperate together, at the same time, to solve a complex task (e.g., within a car assembly isle) or the smart-grid where information coming from the field is processed within a Machine-to-Machine (M2M) or Human-to-Machine (H2M) framework to provide an immediate feedback and reaction to the requested power demand.

Description

As a result of developments in manufacturing, mechatronics, and communication technologies, today's information technology society is bringing a wide variety of applications to the world at an unprecedented rate. Additionally, there are advanced sensor and actuator options available. on the other devices . applications with similar goals daily needs, industrial demands, and mission-critical requirements are either by utilising seamless communication capabilities and addressing various application concerns, whether they are contained at a single target device or distributed across a network of units, situations.

The Internet of Things, wearable technology, and any smart home, grid, structure, city, or planet electronic/physical system. By primarily interacting with their surroundings through sensors and actuators, such units and agents lay the technological groundwork for a cyber-physical framework. The "like/unlike" button on social media sites is an example of a virtual sensor. In some circumstances, sensors and actuators can be virtual in the sense that the physical entity is not present but datastreams are coming and judgments are being made appropriately based on their information content.

Additionally, due to the widespread use of units, their sheer number, and the need to meet constantly rising standards for reliability, energy awareness, and autonomy, application designers and researchers have begun to adopt the autonomic computing paradigm which calls for the units to be capable of supporting self-configuration, management, healing, and protection functionalities. The ability of these units to provide fully synchronised intelligent abilities is something that is currently lacking in technology, and significant research is required to advance and ensure that our applications perform as intended within an uncertain, largely unspecified, and time-variant framework. By focusing on machine perception, human computer interaction, intelligent

information processing, network intelligence and mobile computing, decision-making and intelligent control, robotics and intelligent systems the CAAI Transactions on Intelligence Technology comes timely, appropriate and mostly requested.

At the same time it represents the most welcome venue and forum for addressing and advancing above scientific and technological challenges. If this editorial tried to advise the researcher on what areas of artificial or computational intelligence to concentrate on, it would fail. The main reason for this is that there are so many pertinent fields and unresolved issues that only a small number of them should be prioritised over others, provided that an accurate scientific method is used and that any proposals aim to either advance basic theory or address an actual, pressing issue. In all situations, we must consider the implications of our proposals, their uniqueness, and give a solid, thorough state of the art. By remembering that significant developments in the areas we are researching-and this Transactions is hosting-date back as far as the middle of the previous century, we should prevent from focusing solely on the recent five years' worth of literature. Given the foregoing, it is relatively uncommon for us to make assumptions during study that are largely accurate just in laboratory settings and only in specific, though pertinent, real-world situations. In order to further research, I'm asking you to try to disprove or at least weaken such presumptions. I'll try to demonstrate my argument in the next section by listing a few presumptions that we currently use when doing our research without pretending to be exhaustive [1-5].

Conclusion

I believe that weakening any of those would be a significant research accomplishment in and of itself. As such, stationarity applies to stochastic processes and is a common made hypothesis in machine learning, fuzzy systems design (e.g., in designing the fuzzy controller) and evolutionary optimization (e.g., the optimizing process). As an extension of stationarity we say that a process is time invariant when its outputs do not explicitly depend on time. Less formally, in the former case the probability density function does not change with time, in the latter, the transfer function of the -possibly dynamic-system does not have an explicit time dependency

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Conflict of Interest

The Author declares there is no conflict of interest associated with this manuscript.

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