Abstract

Recently epigenetic robotics has been emerged as a new cognitive modeling approach in the field of artificial intelligence for modeling of autonomous mental development. The paper aims to develop new behavioral skills in the epigenetic robotics in different environment that would facilitate in enhancing the learning skills of humans utilizing machines. In an attempt to improve child mental development and growth, this revolutionary technology based upon artificial intelligence would be utilized for further development of machines that would behave like humans in a natural way. Utilizing the technique mentioned in the algorithm “ELA” (Environment Learning Algorithm), the humans will learn from machines and enhance their capabilities for better performance. The additional benefit for utilizing epigenetic robotics is to learn new skills autonomously through social interactions from different environments. The epigenetic robotics helps to remove the constraints on robotics that are already programmed pertaining to specifically task dependent.

References
2. Breazeal Cynthia, 2009. Role of expressive behavior for robots that learn from people, Philosophical Transactions of the royal society.
5. [Stoytchev. 2009. Some basic principles of developmental robotics, IEEE Computational Intelligence Society.
10. Bogdan Raducance, Cognitive DR: An intrinsic Motivation system to support social interactions.
16. Bard Kim, An epigenetic approach aids the study of primate social cognition, proceeding of the 9th international conference on epigenetic robotics: Modeling cognitive development in robotics system, UK.
17. Cangelosi Angelo and Belpeame Tone, December 2010. Epigenetic Robotics Architecture, IEEE Transactions on autonomous mental development, USA.
20. Epigenetic Marks by foundations for a child’s future abilities, University of Southampton, 2015.
25. whatis.techtarget.com/definition/developmental-robotics.

Index Terms

Computer Science
Algorithms

Keywords

Natural intelligence, artificial intelligence, epigenetic robotics, skills, behavior, Robotics Social Interaction (RSI).