Robust finite-**time consensus** tracking **algorithm** for multirobot systems

S Khoo, L Xie, Z Man - Mechatronics, IEEE/ASME Transactions …, 2009 - ieeexplore.ieee.org

... 2) How to de- sign this finite-**time** control **algorithm** systematically **...** on finite-**time consensus** design for first- order systems, and the work in [11] on finite-**time** consen- sus **...** In practice, the **network** topology might be directed and the **time**-varying control input of the active leader might **...**

Cited by 305 Related articles All 8 versions Web of Science: 212 Cite Save

Finite-**time consensus algorithm** for multi-agent systems with double-integrator dynamics

S Li, H Du, X Lin - Automatica, 2011 - Elsevier

... Cover image Cover image. Brief paper. Finite-**time consensus algorithm** for multi-agent systems with double-integrator dynamics ☆. **...** In Wang and Hong (2008), a continuous finite-**time consensus algorithm** was only proposed for the leaderless multi-agent systems. **...**

Cited by 247 Related articles All 7 versions Web of Science: 161 Cite Save

Convergence analysis of the incremental cost **consensus algorithm** under different communication **network** topologies in a smart grid

Z Zhang, MY Chow - Power Systems, IEEE Transactions on, 2012 - ieeexplore.ieee.org

... When information takes a fixed **time** to travel between nodes, we need to model the **consensus network** dynamics as a discrete-**time** dynamic system [17] to facilitate analysis. A discrete-**time consensus algorithm** is described by (4) **...**

Cited by 103 Related articles All 3 versions Web of Science: 38 Cite Save

Consensus and cooperation in networked multi-agent systems

R Olfati-Saber, A Fax, RM Murray - Proceedings of the IEEE, 2007 - ieeexplore.ieee.org

... While the calculation of fðzÞ is simple for small **net**- works, its implications for very large networks is more interesting. **...** A challenging problem is to analyze convergence of a **consensus algorithm** for a dynamic **network** with a switching topology GðtÞ that is **time**-varying. **...**

Cited by 4530 Related articles All 22 versions Web of Science: 2144 Cite Save

Near linear **time algorithm** to detect community structures in large-scale networks

UN Raghavan, R Albert, S Kumara - Physical Review E, 2007 - APS

... We will show that the community structures obtained by applying the **algorithm** on previously considered **net**- works, such as Zachary's karate club friendship **network** and the US college football **network**, are in agreement with the actual communities present in **...**

Cited by 985 Related articles All 9 versions Web of Science: 299 Cite Save

Finite-**time** convergent gradient flows with applications to **network consensus**

J Cortés - Automatica, 2006 - Elsevier

... Keywords. Gradient flows; Nonsmooth analysis; Finite-**time** convergence; **Network consensus**; Multi-agent systems. 1. Introduction. **...** We propose two coordination algorithms based on the Laplacian of the **network** graph that achieve **consensus** in finite **time**. **...**

Cited by 342 Related articles All 11 versions Web of Science: 224 Cite Save

A lower bound on convergence of a distributed **network consensus algorithm**

M Cao, DA Spielman, AS Morse - Decision and Control, 2005 …, 2005 - ieeexplore.ieee.org

... **Consensus Algorithm ...** Abstract—This paper gives a lower bound on the con- vergence rate of a class of **network consensus** algorithms. **...** Both approaches prove that the **time** to reach **consensus** within a dynamic **network** is logarithmic in the relative error and is in worst case **...**

Cited by 90 Related articles All 14 versions Cite Save More

A distributed **consensus** protocol for clock synchronization in wireless sensor **network**

L Schenato, G Gamba - Decision and Control, 2007 46th IEEE …, 2007 - ieeexplore.ieee.org

... The pro- posed **algorithm** is fully distributed, asynchronous, includes shew compensation and is computationally lite. Moreover, it is robust to dynamic **network** topology due, for example, to node failure **...** To our knowledge, only the Distributed **Time** Synchronization Protocol [12] is

Cited by 152 Related articles All 9 versions Cite Save More

Discrete-**time** average-**consensus** under switching **network** topologies

DB Kingston, RW Beard - American Control Conference, 2006, 2006 - ieeexplore.ieee.org

... average-**consensus**. Using this **algorithm**, the average-**consensus** problem is solved under switching **network** topologies provided that the **network** switch between instantaneously balanced, connected-over-**time net**- works. In other **...**

Cited by 115 Related articles All 2 versions Cite Save More

Ultrafast **consensus** in small-world networks

R Olfati-Saber - … Control Conference, 2005. Proceedings of the …, 2005 - ieeexplore.ieee.org

... The small-world model of Watts & Strogatz initiated a tremendous amount of interest among researchers from mul- tiple fields to study topological properties of complex **net**- works. **...** For a **network** with communication **time**-delays, the con- sensus **algorithm** takes the **...**

Cited by 315 Related articles All 7 versions Cite Save More