# Article information:

Model free adaptive control for a class of nonlinear systems with fading measurements - ScienceDirect  
<https://www.sciencedirect.com/science/article/pii/S001600322030394X?via%3Dihub>

# Article summary:

1. This article discusses the development of model-free control methods, such as iterative learning control (ILC), iterative feedback tuning (IFT), unfalsified control (UC), virtual reference feedback tuning (VRFT) and model free adaptive control (MFAC).

2. The paper focuses on MFAC for a class of non-affine nonlinear systems via an unreliable wireless network with fading measurements.

3. The paper proposes a compensated MFAC scheme with a decreasing gain to attenuate the fading phenomenon and provides theoretical proof of its convergence.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

This article is generally reliable and trustworthy in its discussion of model-free adaptive control for a class of nonlinear systems with fading measurements. It provides an overview of existing model-free control methods, such as iterative learning control (ILC), iterative feedback tuning (IFT), unfalsified control (UC), virtual reference feedback tuning (VRFT) and model free adaptive control (MFAC). It then focuses on MFAC for a class of non-affine nonlinear systems via an unreliable wireless network with fading measurements, proposing a compensated MFAC scheme with a decreasing gain to attenuate the fading phenomenon and providing theoretical proof of its convergence.

The article is well written and clearly explains the concepts discussed, making it easy to understand for readers who are not experts in this field. The authors provide sufficient evidence to support their claims, including references to relevant research papers. They also discuss potential risks associated with using this method, such as the effects of fading phenomenon on system performance.

The only potential bias in this article is that it does not explore any counterarguments or alternative approaches to solving this problem. However, given that this is an academic paper rather than a comprehensive review, this is understandable and does not detract from the overall quality or reliability of the article.

# Topics for further research:

* Model-free adaptive control algorithms
* Iterative learning control
* Iterative feedback tuning
* Unfalsified control
* Virtual reference feedback tuning
* Non-affine nonlinear systems control

# Report location:

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