# Article information:

Auto parking path planning system using modified Reeds-Shepp curve algorithm | IEEE Conference Publication | IEEE Xplore
<https://ieeexplore.ieee.org/abstract/document/7057441?casa_token=AMYR2D3hF7gAAAAA%3A7l13p9N4zXxR585vBsXm5bX6MkyN3mhKFwsIOtYAmCBAYzbYZPOd47GHmPL0uQFWKDXLymXh>

# Article summary:

1. A modified Reeds-Shepp curve algorithm has been developed for an auto-parking path planning system for autonomous vehicles.

2. The modified algorithm is effective for forward and backward auto parking systems, with simple command data for vehicle control.

3. The proposed system has been tested in simulations and experiments with autonomous vehicles, showing successful results for both forward and backward vertical parking.

# 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:

The article discusses the development of an auto-parking path planning system for autonomous vehicles using a modified Reeds-Shepp curve algorithm. The article provides a detailed explanation of the original Reeds-Shepp curve algorithm and its limitations in real-world parking scenarios. The authors propose modifications to the algorithm to make it more effective for forward and backward auto-parking systems.

Overall, the article appears to be well-researched and informative. However, there are some potential biases and limitations that should be considered.

One potential bias is that the article focuses solely on the benefits of using the modified Reeds-Shepp curve algorithm for auto-parking systems, without exploring any potential drawbacks or limitations. While the authors acknowledge that not all paths generated by the algorithm are suitable for actual parking lots, they do not discuss any other potential risks or challenges associated with using this approach.

Additionally, while the article provides a detailed explanation of how the modified algorithm works and how it was tested in simulations, there is limited discussion of how it might perform in real-world scenarios. It would be helpful to see more information about how this system has been tested in actual parking lots or on public roads.

Another limitation of the article is that it does not explore any alternative approaches to auto-parking path planning. While the authors briefly mention A\* algorithms as an alternative, they do not provide any further information about why this approach might be less effective than their proposed method.

Overall, while this article provides valuable insights into the development of auto-parking path planning systems using modified Reeds-Shepp curve algorithms, readers should be aware of its potential biases and limitations. Further research is needed to fully understand how this approach performs in real-world scenarios and how it compares to other approaches to auto-parking path planning.

# Topics for further research:

* Real-world testing of auto-parking path planning systems using modified Reeds-Shepp curve algorithms
* Limitations and risks associated with using modified Reeds-Shepp curve algorithms for auto-parking path planning
* Comparison of modified Reeds-Shepp curve algorithms to other approaches for auto-parking path planning
* Challenges of implementing auto-parking path planning systems in complex parking lots or on public roads
* Optimization of auto-parking path planning systems for different types of vehicles and parking scenarios
* Integration of auto-parking path planning systems with other autonomous vehicle technologies
* such as object detection and collision avoidance.

# Report location:

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