# Article information:

Industrial process data visualization based on a deep enhanced t-distributed stochastic neighbor embedding neural network | Emerald Insight  
<https://www.emerald.com/insight/content/doi/10.1108/AA-09-2021-0123/full/html>

# Article summary:

1. This paper proposes a deep enhanced t-distributed stochastic neighbor embedding (DESNE) neural network for data visualization and industrial process monitoring.

2. The DESNE is composed of two deep neural networks: stacked variant auto-encoder (SVAE) and a deep label-guided t-stochastic neighbor embedding (DLSNE).

3. The proposed DESNE is verified on the Tennessee Eastman process and a real data set of blade icing of wind turbines, with results indicating that it outperforms some visualization methods in process monitoring.

# 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 appears to be reliable and trustworthy, as it provides detailed information about the proposed approach for data visualization and industrial process monitoring, as well as evidence from experiments conducted on the Tennessee Eastman process and a real data set of blade icing of wind turbines. The authors also provide clear acknowledgements for the support they received from various sources, which adds to the credibility of their research. Furthermore, they provide a citation for their work at the end of the article, which allows readers to easily access further information if needed.

However, there are some potential biases in the article that should be noted. For example, while the authors do mention possible risks associated with their proposed approach, they do not explore these risks in detail or discuss any potential counterarguments to their claims. Additionally, while they present both sides of an argument fairly evenly throughout most of the article, there is some promotional content towards the end that could be seen as one-sided reporting or partiality towards their own research.

# Topics for further research:

* Industrial process monitoring
* Data visualization techniques
* Tennessee Eastman process
* Blade icing of wind turbines
* Potential risks of data visualization
* Counterarguments to data visualization

# Report location:

<https://www.fullpicture.app/item/eece397c1bf3efb7eab0cf80d92108b6>