

## **Scopus 数据库主要特点:**

- 覆盖范围广。包含自然科学、人文社科、生命科学、医学全领域覆盖；对于很多工程，人文社科等学科的内容，Scopus 的收录具有唯一性；Medline 收录较完整；可作为全学科一站式文献发现平台，并直接访问 2200 多万篇开放获取文献原文。
- 包含更多的非英语国家出版的文献期刊，中国高质量期刊已超过 1260 种；
- 包括 1700 万+完善的学者档案，除每位学者的完整文献记录外，包含每位学者精准的研究方向的 topic 信息；作者贡献统计；支持一键排除自引，生成作者的文献产出分析，引文报告；
- 丰富指标：除了传统文献指标，Scopus 还为每篇文献单列出评价指标页面，包括 PlumX 社会影响力等多元化指标，可查看文献的专利引用、临床引用，政策引用；新闻媒体报告和社交媒体提及等。
- 包含 94000 机构档案（大学，科研院所，企业等），是 QS 和 THE 世界大学排名/学科排名科研表现的唯一数据来源

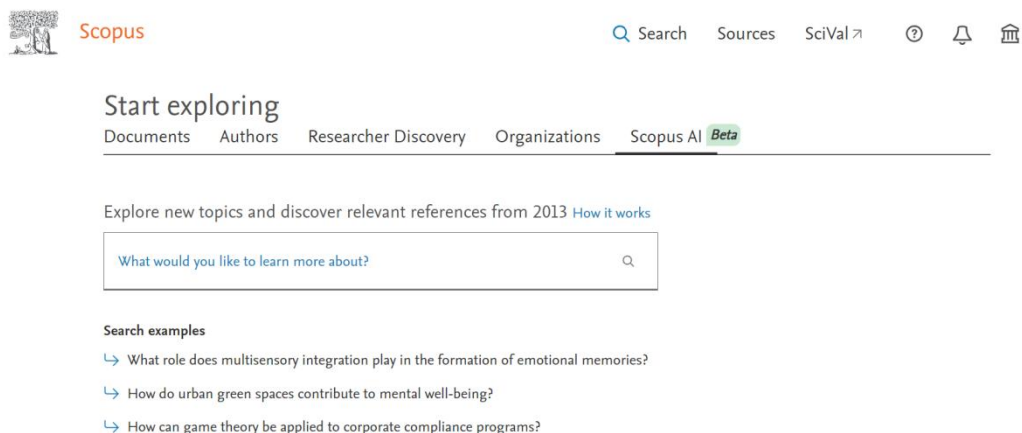
## **Scopus 在支持科研发现中的功能特色**

- 涵盖内容更全面，支持科研人员一站式的发现相关科研进展：
- 包含期刊、会议论文和图书等多种类型；覆盖自然科学、工程、医学、人文社科等多个学科领域，无需在文献类型、学科分库间切换；回溯到 1788 年，早期经典文献也不会因为回溯库的购买时限受到限制。
- 业内最完善的基于科研发表的研究人员作者档案
- Scopus 自动生成；与 ORCID 互通讯，便利作者投稿发表使用
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- 爱思唯尔中国高被引学者和斯坦福前 2% 科学家等高影响力人才榜单的数据来源
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- 检索结果的最新文献自动推送，实时了解所关注领域的最新研究进展

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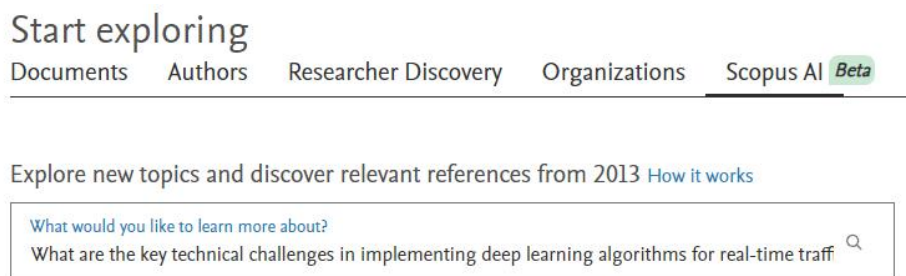
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## Scopus AI 特点

### 1. 全能科研助手

Scopus AI 可以用来查询你想知道的任何科学名词和科学问题。

比如我们想了解“在智能交通系统中实现实时交通预测的深度学习算法的关键技术挑战是什么？”



Scopus AI 会生成一段带有论文索引的介绍和相应问题的思维导图，帮助我们了解这一研究问题的现状。

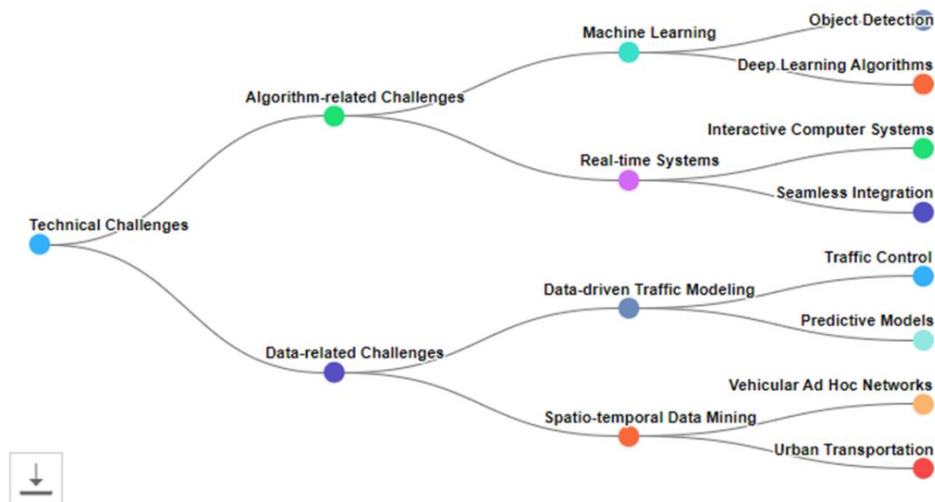
## What are the key technical challenges in implementing deep learning algorithms for real-time traffic prediction in intelligent transportation systems?

### Summary

Implementing deep learning algorithms for real-time traffic prediction in intelligent transportation systems faces several key technical challenges. Here are the main challenges identified in the abstracts:

- 1. Real-time data streaming:** Implementing real-time traffic prediction requires a cyber-communication infrastructure that enables effective communication and collaboration between physical components and the environment . [1](#) This infrastructure should support the streaming of real-time data from field sensors to a cloud-like environment . [2](#)
- 2. Modeling complex phenomena:** Deep learning algorithms are flexible and can model complex phenomena, making them suitable for traffic prediction . [3](#) However, building reliable prediction models based on traditional shallow machine learning methods is challenging due to the rich volume of traffic data . [4](#) Deep learning offers enormous potential to enhance traffic operation and management when combined with current sensors-based multi-resolution traffic data . [5](#)
- 3. Integration with intelligent transportation systems:** Seamless integration between deep learning methods and intelligent transportation systems is crucial. This integration can address various issues such as improving traffic flow, predicting best routes for transportation, optimizing fuel consumption, and managing traffic speed . [6](#)

In conclusion, the key technical challenges in implementing deep learning algorithms for real-time traffic prediction in intelligent transportation systems include real-time data streaming, modeling complex phenomena, and integration with intelligent transportation systems.



## 2. 可信数据源

Scopus AI 区别于 chat GPT，生成内容有真实可靠的应用文献作为支撑，每句话都会标记文献来源，且每一篇文章都真实可查，避免了 Chat GPT 生成深度废品的问题。

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### References

- [1](#) Artificial Intelligence for Traffic Prediction and Estimation in Intelligent Cyber-Physical Transportation Systems  
Obayya M., Al-Wesabi F.N., Alabdan R., (...), Alneil A.A.  
*IEEE Transactions on Consumer Electronics* ↗ 2023
- [2](#) A Cyberphysical System for Data-Driven Real-Time Traffic Prediction on the Las Vegas I-15 Freeway  
Guzman J.A., Morris B.T., Nunez F.  
*IEEE Intelligent Transportation Systems Magazine* ↗ 2023
- [3](#) Deep Learning for Road Traffic Forecasting: Does it Make a Difference?  
Manibardo E.L., Lana I., Ser J.D.  
*IEEE Transactions on Intelligent Transportation Systems* ↗ 2022
- [4](#) Deep learning methods in transportation domain: A review  
Nguyen H., Kieu L.-M., Wen T., Cai C.  
*IET Intelligent Transport Systems* ↗ 2018

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## 3. 猜你所想

同时，Scopus AI 还能根据你的问题，猜测你感兴趣的其它相关问题。帮助用户进一步加深或者拓展对于某一科学问题认知。

↳ What are the main computational challenges in training deep learning models for real-time traffic prediction in intelligent transportation systems?

↳ How does the choice of neural network architecture impact the accuracy and efficiency of real-time traffic prediction in intelligent transportation systems?

↳ What are the key data preprocessing techniques used to improve the performance of deep learning algorithms for real-time traffic prediction in intelligent transportation systems?

Scopus AI 是一个能够显著提高科研发现效率的工具，能够用于文献调研、论文撰写、基金申请材料撰写等，希望老师和同学能够利用好 Scopus 这一数据库，提升科研工作的效率。

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