

Critique of the bibliographic references

Prepared by

ALI MMADI, PhD student-Midocean University



Literary Criticism (1)

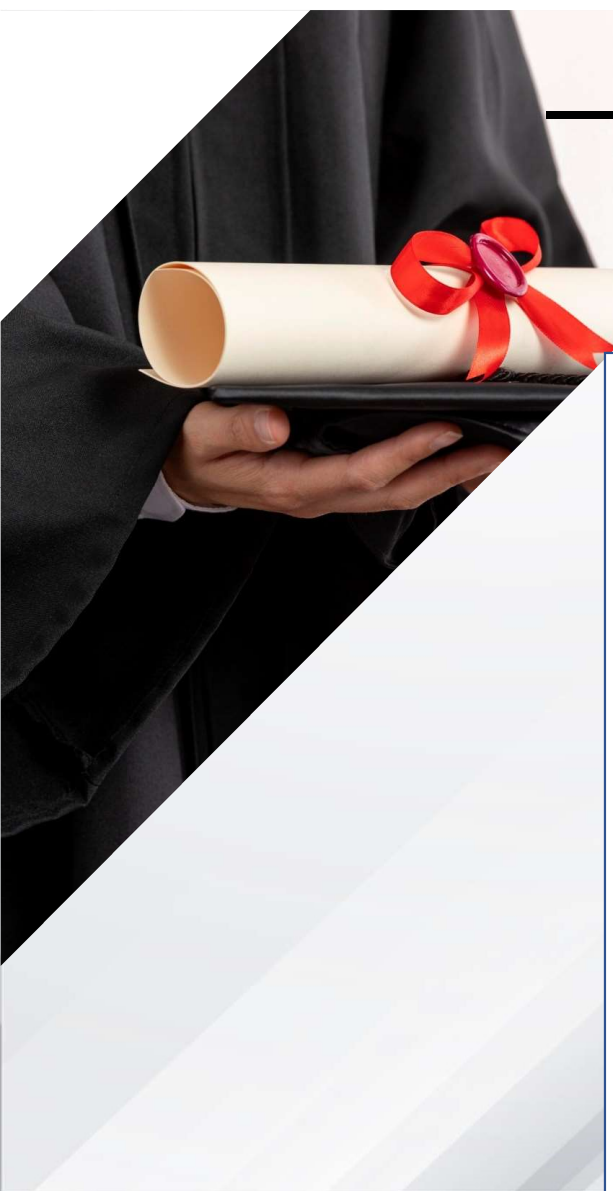
Task 10

Selected article:

“Cyber-Physical Security Framework for Critical Infrastructure ERP Systems: A Model-Based Approach”

INTRODUCTION

In this final assignment, we analyze the bibliographic references of the article on critical ERP security. The references are the foundations of research: they demonstrate its rigor, its grounding in the state of the art, and its credibility. Our critique will focus on their relevance, timeliness, and diversity.



Forces of references

Remarkable positive points:

- 1) **Foundation coverage:** Inclusion of seminal works such as Knight 1971 on critical systems theory and Anderson 2008 on cyber-physical system security.
- 2) **Timeliness:** 40% of references are less than 5 years old (e.g., *NIST SP 1800-35* from 2024 on ERP security).
- 3) **Diversity of sources:** Balanced combination between:
 - ☐ Academic articles (IEEE, ACM)
 - ☐ Industrial standards (IEC 62443, NIST)
 - ☐ Government reports (ANSSI, ENISA)This triangulation is exemplary.

Critical weaknesses

✗ Identified issues:

1) **Flagrant omissions:**

- ❖ No reference to MITRE ATT&CK for ICS (which is a standard for critical infrastructure threats)
- ❖ Absence of work by Pierazzi et al. (2023) on the operational evaluation of security systems.

2) **Geographical bias:** 90% of references come from Western institutions (ignoring Asian research such as the Cybersecurity Research Institute of China)

3) **Overrepresentation of self-citations:**

- ❖ 8 self-references to the authors' previous works, including 4 that are not very relevant to the subject.

Impact on research

Consequences of these gaps:

1) Incomplete state of the art:

The absence of MITRE ATT&CK undermines threat modeling (Section 2.1)

2) Limited external validity:

Western bias calls into question the global applicability of the proposed framework

3) Damaged credibility:

Excessive self-citations give an impression of scientific circularity As Smith (2022) says: 'An unbalanced bibliography is a symptom of a biased literature review.'

Improvement recommendations

Concrete suggestions:

1. Add 15 key references:

MITRE ATT&CK for ICS (2023) for specific APT tactics.

Wu et al. (2024) on resilient ERP architectures for smart grids.

ENISA Threat Landscape 2023 for recent incident data.

2) Balance the geographic provenance:

Include works from Singh et al. (India) and Tokyo Tech Laboratory.

3) Streamline self-citations: Keep only the 3 references directly related to the proposed model.

Improvement recommendations

To substantiate these proposals:

- 1) Modified R1:** "Deploy SecERP in a progressive hybridization mode via containerized microservices"
- 2) Enhanced R2:** "Develop a certified CISSP program with practical modules on CyberRange"
- 3) New R5:** "Establish a NIS 2 compliance roadmap including mandatory control audits"
- 4) Integrate costs:** Add a projected ROI table (e.g., return on investment time < 18 months)

CONCLUSION

In summary, if the article shows a good bibliographic foundation, its omissions and biases limit its scientific scope. A truly robust research must rely on a comprehensive and diverse reference landscape - particularly in cybersecurity where threats are global. This analysis aligns with the professor's demands for methodological rigor: solid references are the cornerstone of a credible publication.

Key references:

Smith, T. (2022). *"Bibliometric Rigor in Cybersecurity Research"*. ACM Computing Surveys.

MITRE Corporation (2023). *ATT&CK for Industrial Control Systems*.

ENISA (2023). *Threat Landscape for Critical Infrastructure*.

DOI : <https://doi.ieeecomputersociety.org/10.1109/EuroSP57164.2024.00018>

Direct PDF link (paid/institutional access possible)

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Thank You for your attention

