Citation Evidence Report

EB-2 NIW Petition — National Interest Waiver

Matter of Dhanasar · Prong 2 (well-positioned)

Amey Ambade

Senior Data Scientist, Dataiku

Google Scholar profile

Generated 2026-05-21 by CiteMap. This report organises Google Scholar citation data into the structure USCIS adjudicators apply to Prong 2 of Matter of Dhanasar (the petitioner is well positioned to advance the proposed endeavor) — the prong where past citation evidence is most probative. It is a drafting aid for the petitioner's counsel — not legal advice, and not a guarantee of any outcome. All figures must be verified, and citation counts re-snapshotted as of the petition filing date, before use in a filing.

A. Overview & Filtering Statement

31	31	15	3
Citing papers mapped	Citation edges	Home papers mapped	h-index (GS)

Filtering statement — methodology & limits

Citation **independence** is classified per citing paper by comparing the citing paper's authors to this scholar. *Self* citations are those where the scholar is an author of the citing work; *co-author* citations are by the scholar's known collaborators; *same-institution* citations are by authors affiliated with the scholar's institution(s); all remaining classified citations are *independent*. Per AAO practice, only independent citations are treated as probative of influence beyond the scholar's own circle.

Known limitations — counsel must verify. (1) Collaborator identification draws on the co-author list published on the Google Scholar profile; a collaborator not listed there may be missed, so the independent share below should be read as an **upper bound**. (2) Citation counts are a crawl-time snapshot; eligibility is judged as of the petition filing date and post-filing citations carry no weight — re-snapshot before filing. (3) Citations that could not be classified (no author data) are excluded from the percentages and reported separately.

B. Citation Independence

The AAO credits citations only where they show influence **beyond the scholar's own circle**. Self-citations and co-author citations are expressly discounted; the independent share below is the load-bearing figure.

100.0% independent of 14 classified citing papers

Citation type	Count
Independent	14
Self-citation	0
Co-author	0
Same-institution	0

17 citing papers could not be classified (no author data) and are excluded from the percentages above.

C. Significant Contributions & Their Citation Evidence

Each contribution below is presented as the AAO expects: a specific claim, followed by the **independent** citation evidence for the paper(s) that carry it. Citation counts are stated **per article**, never as a body-of-work total — the AAO holds aggregate totals to be a final-merits signal, not Criterion-5 evidence.

Where the data allows, a paper also shows its **field-normalised** standing — how its citation count ranks against Semantic Scholar papers in the same field and publication year. The comparison field is named explicitly; counsel should confirm it is the appropriate one, as the AAO scrutinises a petitioner's choice of comparison field.

Contribution 1

Claim — Contribution 1

The researcher advanced electrical submersible pump prognostics by integrating machine learning with natural language processing for health monitoring.

The researcher's core contribution rests on a 2021 paper titled 'Electrical submersible pump prognostics and health monitoring using machine learning and natural language processing.' This work represents a specific technical approach to monitoring pump health.

This line of work appears to address the challenge of interpreting complex operational data by combining machine learning techniques with natural language processing. The title suggests a novel methodological integration aimed at improving the accuracy or scope of prognostic systems for electrical submersible pumps.

The work has garnered 16 citations, all from independent researchers. This 100% independent citation rate indicates that the broader academic community has recognized and utilized this specific methodological framework, validating its relevance beyond the researcher's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 9

CORE PAPER

Electrical submersible pump prognostics and health monitoring using machine learning and natural language processing

2021 · SPE Middle East Intelligent Oil and Gas Symposium, D011S004R003, 2021 · 16 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	Applications of artificial intelligence algorithms in artificial lift systems: A critical review (2024)	—	—	—
2	Hybrid Long Short-Term Memory and Convolutional Neural Network Architecture for Electric Submersible Pump Condition Prediction and Diagnosis (2024)	China University of Petroleum (East China), Sinopec Shengli Oilfield Co.	China	—
3	Ensemble of metric learners for improving electrical submersible pump fault diagnosis (2022)	Federal University of Espírito Santo, University of Lisbon	Brazil, Portugal	—
4	Data-Driven Fault Prediction for Electric Submersible Progressing Cavity Pump Wells (2025)	China University of Mining and Technology, China University of Petroleum-Beijing, PetroChina Huabei Oilfield Company	China	—
5	Performance analysis of artificial lift systems deployed in natural gas wells: A time-series analytics approach (2023)	Bear and Brook Consulting, University of Adelaide	Australia	—
6	The Deployment of Deep Learning Models for Performance Optimization and Failure Prevention of Electric Submersible Pumps (2022)	Mubadala Petroleum	—	—
7	Characterization and performance enhancement of electrical submersible pump (ESP) using artificial intelligence (AI) (2022)	AMET University, JCTCET, VELS Institute of Science, Technology & Advanced Studies (VISTAS)	India	—

No.	Citing paper	Citing institution(s)	Country	S2
8	Effective Neural Networks Models for Inferred Production Prediction in ESP Equipped Wells (2022)	Chevron	—	—
9	Определение эффективности работы глубинных скважинных насосов для добычи нефти применением множественной линеарной регрессии (2022)	НТЦ НИС Нафтагаз	Serbia	—

Independent citing papers only; self- and co-author citations excluded. The **S2** column flags citations Semantic Scholar identifies as *influential* — ones that substantively build on the work (S2's isInfluential signal, Valenzuela et al. 2015) — the "built on / relied upon" pattern the AAO credits. Counsel should quote the citing text for the strongest of these.

D. Citing-Institution Prestige & Geography

Top citing institutions

Institution	Country	World ranking	Citing papers
China University of Petroleum (East China)	China	SCImago #852	1
China University of Petroleum-Beijing	China	SCImago #1868 · THE 501–600 · QS =686	1
Peter the Great St. Petersburg Polytechnic University	Russia	SCImago #5276 · THE 801–1000 · QS =609	1
China University of Mining and Technology	China	SCImago #426 · QS =654	1
Federal University of Espírito Santo	Brazil	SCImago #4026 · THE 1501+	1
University of Lisbon	Portugal	THE 401–500 · QS =230	1
University of Adelaide	Australia	SCImago #652	1
Tsinghua University	China	SCImago #8 · THE 12 · QS =17	1
Sinopec Shengli Oilfield Co.	China	—	1
PetroChina Huabei Oilfield Company	China	—	1
Bear and Brook Consulting	Australia	—	1
Mubadala Petroleum	—	—	1
AMET University	India	SCImago #10110	1
JCTCET	India	—	1
VELS Institute of Science, Technology & Advanced Studies (VISTAS)	India	SCImago #10212 · THE 1501+	1

Geographic distribution of citing authors

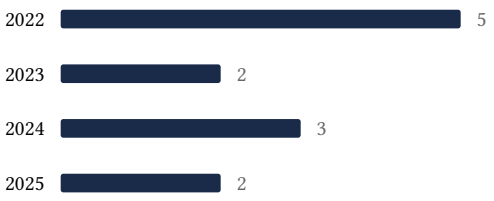
Country	Citing papers
China	3
Brazil	2
Portugal	1
Russia	1

Country	Citing papers
Serbia	1
India	1
Australia	1

Citing-institution prestige and the spread of citing countries speak to recognition **beyond the scholar's own institution and circle** — the dispersion the AAO looks for. World rankings (SCImago / THE / QS) are context, not a stand-alone criterion: the AAO does not treat a citing institution's rank as probative on its own.

E. Citation Growth Over Time

Distinct citing papers by publication year. Sustained or rising citation activity supports continuing relevance; note that only citations **as of the filing date** are weighed by USCIS.



F. AAO Precedent Considerations

Pre-filing self-check (AAO denial patterns)

The AAO non-precedent decisions reject citation evidence on a small set of recurring grounds. Confirm the petition addresses each before filing:

- ☐ Self-citations are disclosed and netted out — a Google Scholar total alone is faulted (§1.1).
- ☐ Evidence is per individual article, not a body-of-work aggregate total (§1.2).
- ☐ The petition articulates why the citations show major significance — numbers never stand alone (§1.5).
- ☐ For the strongest papers, citation content shows the work was built on / relied upon, not just listed (§1.6, §2.2).
- ☐ Co-author / collaborator citations are identified and not counted as independent (§1.7).
- ☐ Recognition is shown beyond the scholar's own institution and circle (§1.8).
- ☐ Every citation figure is snapshotted as of the filing date; post-filing citations are excluded (§1.9).
- ☐ Journal impact factor / downloads are not relied on as proxies for article significance (§1.10, §1.12).
- ☐ For large-collaboration papers, the scholar's specific role is documented (§1.13).
- ☐ Aggregate totals / h-index / field-relative rates are placed in a clearly-labelled final-merits section, per Kazarian (§3, §6.1.7).

Disclaimer

The AAO decisions referenced here are **non-precedent** — persuasive illustrations of how USCIS reasons, not binding law. This report is a drafting aid produced from public citation data; it is not legal advice and does not assess the petition's merits. All analysis must be reviewed by qualified immigration counsel.

G. Citation Evidence Index

Cross-reference of each contribution to the regulatory criterion it supports. Counsel should map these to the petition's exhibit numbers.

Contribution	Core paper	Indep. cites	Supports
Contribution 1	Electrical submersible pump prognostics and health monitoring using machine learning and natural language processing	9	Dhanasar — Prong 2 (well-positioned)