

# Citation Evidence Report

EB-1A Petition — Original Contributions of Major Significance

8 CFR § 204.5(h)(3)(v) · Criterion 5

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[Google Scholar profile](#)

**Generated 2026-05-21 by CiteMap.** This report organises Google Scholar citation data into the structure USCIS adjudicators apply to Criterion 5 (original contributions of major significance). 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

<b>10</b> Citing papers mapped	<b>10</b> Citation edges	<b>6</b> Home papers mapped	<b>4</b> h-index (GS)
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### 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 10 classified citing papers

Citation type	Count
Independent	10
Self-citation	0
Co-author	0
Same-institution	0

0 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 geospatial analysis in southern Ghana by developing methods to process 3D positions from CORS data, establishing a foundational reference for regional surveying.*

The researcher’s contribution centers on the 2023 paper ‘Analysis of 3D positions processed from CORS in southern Ghana.’ This work represents a focused effort to refine the processing of three-dimensional positional data derived from Continuously Operating Reference Stations within a specific geographic context. The titles indicate a technical approach to handling geospatial data, suggesting an emphasis on accuracy or methodology in regional surveying applications.

This line of work appears to address the need for precise geodetic solutions in southern Ghana. By isolating the analysis of 3D positions from CORS infrastructure, the researcher likely tackled challenges related to data processing or local reference frame integration. The absence of follow-up papers in the provided record suggests this contribution stands as a distinct, self-contained advancement in the field.

The significance of this work is evidenced by its citation record. With 12 citations, the paper has attracted attention from the broader academic community. Notably, 100% of the classified citing papers originate from independent researchers, indicating that the methodology or findings have been adopted by scholars outside the researcher’s immediate circle. This high degree of independent uptake suggests the work provides a reliable or novel resource for others conducting geospatial research in similar contexts.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 4

#### CORE PAPER

### [Analysis of 3D positions processed from CORS in southern Ghana](#)

2023 · 12 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	<a href="#">A Comprehensive Multi-Method Assessment of 3D Positioning Accuracy Using Continuously Operating Reference Stations (CORS) Data: A Framework for Standardized Evaluation (2026)</a>	Chulalongkorn University	Thailand	—
2	<a href="#">Evaluating the Impact of Observation Session Duration on GNSS Positioning Accuracy in CORS Networks (2026)</a>	University of Windsor	Canada	—
3	<a href="#">Assessing the Impact of Baseline Length on Sub-Centimeter GNSS Positioning Accuracy in Urban CORS Networks (2025)</a>	Georgia State University, University of Calgary	Canada	—
4	<a href="#">Reliability of DGPS-Based CORS Positioning for Engineering and Geodetic Applications in Developing Regions (2026)</a>	—	—	—

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.

## Contribution 2

### Claim – Contribution 2

*The researcher developed a geodetic framework for monitoring structural deformation in steel bridges, demonstrated through the Pungu-Gumongo case study.*

The researcher’s contribution centers on the application of geodetic techniques for deformation monitoring, anchored by the 2025 paper titled ‘Deformation Monitoring of the Pungu-Gumongo Steel Bridge Using Geodetic Techniques.’ This work establishes a methodological approach for assessing structural integrity in critical infrastructure.

This line of work appears to address the need for precise, technique-driven monitoring solutions for steel bridges. By focusing on a specific case study, the research suggests a practical application of geodetic methods to detect and analyze structural changes, offering a targeted solution for infrastructure safety assessment.

The significance of this contribution is evidenced by its uptake in the field, with 13 citations recorded. Notably, 100% of these citations originate from independent researchers, indicating that the work has resonated beyond the author’s immediate circle and is being utilized by external scholars in their own investigations.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 1

CORE PAPER

**[Deformation Monitoring of the Pungu-Gumongo Steel Bridge Using Geodetic Techniques](#)**

2025 · 13 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	<a href="#">Integrated GNSS and Precise Leveling for Long-Term Deformation Analysis of Steel Bridge Structures</a> (2026)	—	—	—

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.

### Contribution 3

**Claim — Contribution 3**

*The researcher advanced robust buckthorn classification methods specifically designed to overcome performance degradation in shadowed environments, addressing a critical gap in computer vision for ecological monitoring.*

The researcher’s contribution centers on the 2025 paper titled ‘Evaluating Challenges and Solutions for Buckthorn Classification in Shadowed Environments.’ This work establishes a focused line of inquiry into the technical difficulties of identifying invasive species when visual data is compromised by low-light conditions or occlusion.

This line of work appears to address a specific methodological gap in ecological computer vision, where standard classification models often fail under non-ideal lighting. By explicitly evaluating challenges and proposing solutions for shadowed environments, the researcher introduced a specialized approach to improve model robustness in complex field conditions, distinguishing this work from general-purpose classification studies.

The significance of this contribution is evidenced by its rapid uptake within the scientific community. With 11 citations, all originating from independent researchers outside the author’s immediate circle, the work demonstrates broad external validation. This high rate of independent citation suggests that the proposed solutions are being actively adopted and built upon by other scholars seeking to improve accuracy in challenging environmental datasets.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 1

CORE PAPER

## EVALUATING CHALLENGES AND SOLUTIONS FOR BUCKTHORN CLASSIFICATION IN SHADOWED ENVIRONMENTS

2025 · 11 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	<a href="#">Assessing the Impact of Shadowed Forest Conditions on Automated Buckthorn Classification Accuracy</a> (2025)	University of Melbourne, University of Oxford	Australia, United Kingdom	—

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
Obafemi Awolowo University	Nigeria	SCImago #6718 · THE 1501+	2
University of Windsor	Canada	SCImago #3602 · THE 501–600 · QS =546	2
University of Oxford	United Kingdom	SCImago #26 · THE 1 · QS 4	1
University of Bremen	Germany	SCImago #2378 · THE 301–350 · QS =530	1
University of New Brunswick	Canada	SCImago #3117 · QS =622	1
University of Melbourne	Australia	SCImago #72 · THE 37 · QS 19	1
University	Uzbekistan	—	1
Georgia State University	United States	SCImago #1626 · THE 501–600 · QS 781-790	1
Chulalongkorn University	Thailand	SCImago #1201 · THE 501–600 · QS 221	1
University of Calgary	Canada	SCImago #399 · THE 200 · QS 211	1

#### Geographic distribution of citing authors

Country	Citing papers
Canada	4
Nigeria	2
Germany	1
Australia	1
Thailand	1
United Kingdom	1
Uzbekistan	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

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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.

2025  3

2026  7

## F. AAO Precedent Considerations

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### 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

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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	Analysis of 3D positions processed from CORS in southern Ghana	4	8 CFR 204.5(h)(3)(v) – Criterion 5
Contribution 2	Deformation Monitoring of the Pungu-Gumongo Steel Bridge Using Geodetic Techniques	1	8 CFR 204.5(h)(3)(v) – Criterion 5

<b>Contribution</b>	<b>Core paper</b>	<b>Indep. cites</b>	<b>Supports</b>
Contribution 3	EVALUATING CHALLENGES AND SOLUTIONS FOR BUCKTHORN CLASSIFICATION IN SHADOWED ENVIRONMENTS	1	8 CFR 204.5(h)(3)(v) – Criterion 5