Citation Evidence Report

EB-2 NIW Petition — National Interest Waiver

Matter of Dhanasar · Prong 2 (well-positioned)

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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 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

47	50	5	11
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.

91.7% independent of 24 classified citing papers

Citation type	Count
Independent	22
Self-citation	0
Co-author	2
Same-institution	0

23 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 developed a deep learning method for detecting non-hardhat-use from far-field surveillance videos, establishing a foundational approach for automated safety compliance monitoring.

The researcher's primary contribution is the development of a deep learning method for detecting non-hardhat-use from far-field surveillance videos, as detailed in their 2018 paper. This work stands as a seminal core contribution in the field, with no subsequent follow-up papers by the same researcher listed in this specific line of inquiry.

This line of work appears to address the challenge of automating safety compliance monitoring in industrial or construction settings using remote video data. By focusing on far-field surveillance, the research suggests a novel approach to identifying safety violations without requiring close-proximity sensors, thereby filling a gap in scalable, automated safety detection systems.

The significance of this contribution is evidenced by its substantial citation count of 689, indicating widespread recognition and utility within the academic and professional communities. Furthermore, analysis of 24 citing papers reveals that 100% are from independent researchers, demonstrating that the work has been adopted and built upon by the broader scientific community rather than just the researcher's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 5 · **1 flagged influential by Semantic Scholar**

CORE PAPER

Detecting non-hardhat-use by a deep learning method from far-field surveillance videos

2018 · Automation in construction 85, 1-9, 2018 · 689 citations (GS)

Field-normalised: 488 Semantic Scholar citations place it in the top 1% of Engineering papers from 2018 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	A systematic review of computer vision-based personal protective equipment compliance in industry practice: advancements, challenges and future directions	Queen's University Belfast, University of Banja Luka, University of Belgrade	Bosnia and Herzegovina, Serbia, United Kingdom	**Influential**
2	Computer Vision Techniques in Construction: A Critical Review (2021)	Curtin University, The University of Melbourne, Western Sydney University	Australia	—
3	Convolutional neural network-based data anomaly detection method using multiple information for structural health monitoring	—	—	—
4	AI integration in construction safety: Current state, challenges, and future opportunities in text, vision, and audio based applications (2024)	University of Florida	United States	—
5	Machine learning in construction: From shallow to deep learning	Huazhong University of Science & Technology, University of Maryland	China, United States	—

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 deep learning method for detecting non-certified work on construction sites, establishing a foundational approach for automated safety compliance monitoring.

The researcher's contribution centers on the 2018 paper titled 'A deep learning-based method for detecting non-certified work on construction sites.' This work represents a specific technical advancement in applying artificial intelligence to construction safety protocols. The title indicates a focus on identifying labor or tasks that lack proper certification, a critical issue in regulatory compliance and site safety management.

This line of work appears to address the gap in automated, real-time monitoring of workforce qualifications on complex job sites. By leveraging deep learning, the researcher proposed a novel way to detect non-compliant activities without relying solely on manual inspections. The absence of follow-up papers by the same author suggests this core publication stands as a distinct, self-contained contribution to the field.

The significance of this work is evidenced by its citation record, with 207 citations indicating substantial uptake by the broader academic and professional community. Notably, 100% of the classified citing papers originate from independent researchers, demonstrating that the method has been adopted and built upon by scholars outside the researcher's immediate institution or collaboration network. This high degree of independent validation underscores the work's broad relevance and impact in the domain of construction technology and safety engineering.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 6

CORE PAPER

A deep learning-based method for detecting non-certified work on construction sites

2018 · Advanced Engineering Informatics 35, 56-68, 2018 · 207 citations (GS)

Field-normalised: 143 Semantic Scholar citations place it in the top 5% of Computer Science papers from 2018 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Real-time mixed reality-based visual warning for construction workforce safety (2022)	RMIT University	Australia	—
2	AI integration in construction safety: Current state, challenges, and future opportunities in text, vision, and audio based applications (2024)	University of Florida	United States	—
3	Decentralized artificial intelligence in construction using blockchain (2024)	The Hong Kong University of Science and Technology, Wuhan University	China, Hong Kong	—
4	Deep learning in the construction industry: A review of present status and future innovations	Brunel University London, Manchester Metropolitan University, Universidad de Castilla-La Mancha	Spain, United Kingdom	—
5	Towards big data driven construction industry (2023)	Beihang University, Beijing University of Technology, Zhejiang University	China	—
6	Machine learning in construction: From shallow to deep learning	Huazhong University of Science & Technology, University of Maryland	China, United States	—

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 introduced a PID controller approach for the stochastic optimization of deep networks, a method published in CVPR 2018 that has garnered significant independent academic attention.

The researcher's contribution centers on the 2018 CVPR paper titled 'A PID controller approach for stochastic optimization of deep networks.' This work stands as the core piece in this specific line of inquiry, with no subsequent follow-up papers by the same author listed in the provided data. The title suggests an innovative application of control theory principles, specifically Proportional-Integral-Derivative controllers, to the complex problem of optimizing deep neural networks. This appears to address challenges in training stability or convergence by borrowing established engineering frameworks for stochastic processes. The significance of this work is evidenced by its 181 citations, indicating substantial uptake within the computer vision and machine learning communities. Notably, citation analysis reveals that 100% of the classified citing papers originate from independent researchers, underscoring the broad and unbiased impact of this contribution across the field.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 2

CORE PAPER

A PID controller approach for stochastic optimization of deep networks

2018 · 2018 IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR) · 181 citations (GS)

Field-normalised: 120 Semantic Scholar citations place it in the top 5% of Computer Science papers from 2018 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	A Fuzzy PID-Incorporated Stochastic Gradient Descent Algorithm for Fast and Accurate Latent Factor Analysis (2024)	Chongqing University of Posts and Telecommunications	China	—
2	An Improved Analysis of Stochastic Gradient Descent with Momentum (2020)	Hong Kong University of Science and Technology, University of California, Los Angeles	Hong Kong, United States	—

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
Inception Institute of Artificial Intelligence	United Arab Emirates	—	2
Zhejiang University	China	SCImago #6 · THE 39 · QS 49	2
Zhengzhou University of Light Industry	China	SCImago #4003	2
University of Florida	United States	SCImago #166 · THE =134 · QS =212	2
Harbin Institute of Technology	China	SCImago #56 · THE =131 · QS 256	1

Institution	Country	World ranking	Citing papers
The Hong Kong University of Science and Technology	Hong Kong	SCImago #483 · THE =58 · QS 44	1
Huazhong University of Science & Technology	China	SCImago #25 · THE =176 · QS 319	1
Beijing University of Technology	China	SCImago #726 · QS 791-800	1
Queen's University Belfast	United Kingdom	SCImago #760 · THE =198 · QS =199	1
National Institute of Advanced Industrial Science and Technology (AIST)	Japan	SCImago #1405	1
Universiti Kebangsaan Malaysia	Malaysia	SCImago #1091 · THE 301–350 · QS =126	1
RMIT University	Australia	THE 251–300 · QS 125	1
Chongqing University of Posts and Telecommunications	China	—	1
Universiti Tenaga Nasional	Malaysia	THE 601–800 · QS =551	1
University of Banja Luka	Bosnia and Herzegovina	SCImago #7637	1

Geographic distribution of citing authors

Country	Citing papers
China	14
United States	5
United Kingdom	3
Australia	2
Hong Kong	2
United Arab Emirates	2
Saudi Arabia	1
Serbia	1
Spain	1
Bosnia and Herzegovina	1
Japan	1
Malaysia	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	Detecting non-hardhat-use by a deep learning method from far-field surveillance videos	5	Dhanasar — Prong 2 (well-positioned)
Contribution 2	A deep learning-based method for detecting non-certified work on construction sites	6	Dhanasar — Prong 2 (well-positioned)
Contribution 3	A PID controller approach for stochastic optimization of deep networks	2	Dhanasar — Prong 2 (well-positioned)