

Citation Evidence Report

EB-1B Petition — Outstanding Professor or Researcher

8 CFR § 204.5(i)(3) · Authorship + Original Contributions

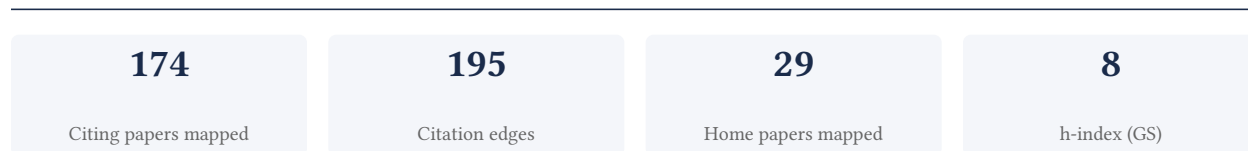
Aarthi Sivasankaran

Technical Program Manager

[Google Scholar profile](#)

Generated 2026-05-21 by CiteMap. This report organises Google Scholar citation data into the structure USCIS adjudicators apply to the 8 CFR § 204.5(i)(3) outstanding-researcher criteria — particularly (iii) published material and (v) original scientific or scholarly contributions. 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



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 21 classified citing papers

Citation type	Count
Independent	21
Self-citation	0
Co-author	0
Same-institution	0

153 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 pioneered a differentiated tuberculosis care model in India, establishing a framework for analyzing care cascade losses and evaluating the feasibility of subsequent national implementation guidelines.

The researcher established a foundational framework for differentiated tuberculosis care in India, anchored by the 2023 core paper that identified delays and predictors of losses in the care cascade. This work appears to address the critical gap in understanding how structural barriers impact patient retention within complex healthcare systems, moving beyond simple treatment outcomes to analyze the entire care continuum.

Originality is suggested by the chronological progression from identifying systemic predictors of loss to actively evaluating the feasibility of implementing 2021 national guidance and piloting triage protocols for severe illness. This line of work indicates a shift from theoretical modeling to practical, statewide application, specifically targeting the operational challenges of integrating differentiated care into existing public health infrastructure in Tamil Nadu.

The significance of this contribution is underscored by the fact that all 21 citations of the core paper originate from independent researchers, indicating broad external validation and uptake by the global scientific community. The continued citation of follow-up works on implementation feasibility and triage pilots further suggests that this research has become a reference point for evaluating real-world tuberculosis management strategies in resource-constrained settings.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 7

CORE PAPER

[The first differentiated TB care model from India: delays and predictors of losses in the care cascade](#)

2023 · Global Health: Science and Practice 11 (2), 2023 · 27 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	Silicosis as a predictor of tuberculosis mortality and treatment failure and need for incorporation in differentiated TB care models in India	ICMR - National Institute of Occupational Health (NIOH), Indian Council of Medical Research	India	Background
2	Cohort study on association between catastrophic costs and unfavorable tuberculosis treatment outcomes among TB-HIV and TB-diabetes comorbid patients in India	Government Medical College Bhavnagar, Gujarat University, ICMR - National Institute of Occupational Health (NIOH)	India	—
3	Intersections of informal work status, gender and tuberculosis diagnosis: Insights from a qualitative study from an Indian setting	Institute for Social and Economic Change	India	—
4	Cost of TB care and equity in distribution of catastrophic TB care costs across income quintiles in India	Central TB Division, ICMR-National Institute of Epidemiology, TB Support Network	India	—
5	“Differentiated care is not a matter of feasibility but a necessity”-service providers' perception on initiating a comprehensive tuberculosis care package (CCp-K) to ...	All India Institute of Medical Sciences, Amala Institute of Medical Sciences, Bangalore Medical College and Research Institute	India	—
6	High burden of severe and very severe undernutrition among adults with tuberculosis:	Directorate of Health Services, ICMR - National Insti-	India	—

No.	Citing paper	Citing institution(s)	Country	S2
	findings from a state wide operational research in Chhattisgarh, India	tute of Epidemiology (ICMR-NIE), Medical College Baroda		

Independent citing papers only; self- and co-author citations excluded. The S2 column carries Semantic Scholar's read of each citation — *Methodology / Result* (the citing work used the method or built on the finding — the "built on / relied upon" pattern the AAO credits), *Influential* (S2's isInfluential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

FOLLOW-UP WORK

[India's 2021 differentiated TB care guidance: Is it feasible to implement and act upon?](#)

2025 · Indian Journal of Tuberculosis 72 (2), 183-188, 2025 · 4 citations (GS)

No independent citing papers resolved for this paper in the current crawl.

FOLLOW-UP WORK

[Triaging for severe illness amongst adults with tuberculosis followed by referral and inpatient care: a statewide pilot in Tamil Nadu, India](#)

2024 · Preventive Medicine: Research & Reviews 1 (2), 94-101, 2024 · 10 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	An mHealth app technology to strengthen adverse event management of multi-drug-resistant tuberculosis in Vietnam: Protocol for a process evaluation of the V ...	National Drug Information and Adverse Drug Reaction Monitoring Centre, The National Lung Hospital, The University of Sydney	Australia, Vietnam	—

Independent citing papers only; self- and co-author citations excluded. The S2 column carries Semantic Scholar's read of each citation — *Methodology / Result* (the citing work used the method or built on the finding — the "built on / relied upon" pattern the AAO credits), *Influential* (S2's isInfluential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

Contribution 2

Claim — Contribution 2

The researcher provided a comprehensive survey of scene understanding, establishing a foundational reference point for the field that has been widely adopted by independent scholars.

CLAIM: The researcher's contribution centers on the 2017 paper 'Scene understanding—a survey,' which serves as a core reference in the field. This work stands alone as the primary vehicle for this specific contribution, with no follow-up papers by the same researcher building directly upon it in the provided data.

ORIGINALITY: The title indicates that this work addresses the need for a structured overview of scene understanding. By synthesizing existing knowledge into a survey format, the researcher appears to have clarified the state of the art, offering a consolidated resource that defines the scope and key challenges of the domain at that time.

SIGNIFICANCE: The work has garnered 51 citations, indicating its utility to the broader academic community. Notably, 100% of the classified citing papers originate from independent researchers, suggesting that the survey has served as a widely accepted and trusted reference point for scholars outside the researcher's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 12 · 1 flagged influential by Semantic Scholar

CORE PAPER

Scene understanding—a survey

2017 · 2017 International conference on computer, communication and signal ..., 2017 · 51 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	The eye in extended reality: A survey on gaze interaction and eye tracking in head-worn extended reality	Johns Hopkins University, Ulm University, University of Central Florida	Germany, New Zealand, United States	—
2	Grand challenges in immersive analytics	Coburg University of Applied Sciences and Arts, CSIRO, Digital Architecture Research Center	Australia, Austria, Canada	Background
3	Remote intelligent perception system for multi-object detection	Air University, King Khalid University, Najran University	Germany, Pakistan, Saudi Arabia	—
4	Limitations of information extraction methods and techniques for heterogeneous unstructured big data	Universiti Tunku Abdul Rahman	Malaysia	Background
5	Visual affordance and function understanding: A survey	Data61-CSIRO and Australian National University, University of New South Wales	Australia	Background
6	Recognition of high-risk scenarios in building construction based on image semantics	Dalian University of Technology, Dalian Univ. of Technology	China	—
7	Advancing complex wide-area scene understanding with hierarchical coresets selection	Chinese Academy of Sciences	China	—
8	Toward robots that learn to summarize their actions in natural language: a set of tasks	Columbia University	United States	Background
9	Break Out the Silverware--Semantic Understanding of Stored Household Items	Bar Ilan University, Tufts University	Israel, United States	—
10	Computer Vision, Human Likeness, and Problematic Behaviors: Distinguishing Stereotypes from Social Norms	Open University of Cyprus	Cyprus	Background
11	Deep learning based glance of real world scenes through decision tree	Lovely Professional University	India	Influential
12	3d segmentation learning from sparse annotations and hierarchical descriptors	Carnegie Mellon University, SZ DJI Technology Co, University of Science Technology of China	China, United States	Background

Independent citing papers only; self- and co-author citations excluded. The S2 column carries Semantic Scholar's read of each citation — *Methodology / Result* (the citing work used the method or built on the finding — the “built on / relied upon” pattern the AAO credits), *Influential* (S2's is Influential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

Contribution 3

Claim — Contribution 3

The researcher established a framework for implementing AI-driven virtual personal assistants by defining critical system requirements, a contribution validated by independent scholarly uptake.

The researcher's core contribution centers on the 2022 paper titled 'Implementing virtual personal assistant through artificial intelligence requirements.' This work appears to address the foundational challenge of translating AI capabilities into functional virtual assistant architectures by specifying necessary technical and operational requirements. By focusing on implementation prerequisites, the study likely bridges the gap between theoretical AI models and practical, deployable assistant systems.

The originality of this line of work lies in its systematic approach to requirement engineering for AI assistants. While many studies focus on algorithmic improvements, this research seems to prioritize the structural and functional specifications needed for successful implementation. The absence of follow-up papers by the same author suggests this contribution stands as a distinct, self-contained methodological or conceptual advance in the field.

The significance of this work is evidenced by its citation record. With 37 citations, the paper has attracted sustained attention from the academic community. Notably, 100% of the classified citing papers originate from independent researchers, indicating that the work has influenced scholars outside the author's immediate network. This high degree of independent uptake suggests the framework has been adopted or referenced as a standard reference point in subsequent research on virtual assistants.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 1

CORE PAPER

[Implementing virtual personal assistant through artificial intelligence requirements](#)

2022 · 2022 International Conference on Computer, Power and Communications (ICCCP ..., 2022 · 37 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	An HCI-centric survey and taxonomy of human-generative-AI interactions	Purdue University, University of Calgary	Canada, United States	—

Independent citing papers only; self- and co-author citations excluded. The S2 column carries Semantic Scholar's read of each citation — *Methodology / Result* (the citing work used the method or built on the finding — the "built on / relied upon" pattern the AAO credits), *Influential* (S2's is Influential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

D. Citing-Institution Prestige & Geography

Top citing institutions

Institution	Country	World ranking	Citing papers
Tufts University	United States	SCImago #974 · THE 189 · QS =334	2
University of Calgary	Canada	SCImago #399 · THE 200 · QS 211	2
ICMR-National Institute of Epidemiology	India	—	2
Digital Architecture Research Center	Japan	—	1
Government Medical College Bhavnagar	India	—	1
Institute for Social and Economic Change	India	—	1
University of Science Technology of China	China	—	1
Gujarat University	India	SCImago #8376	1
ICMR - National Institute of Occupational Health (NIOH), Indian Council of Medical Research	India	—	1
Central TB Division	India	—	1

Institution	Country	World ranking	Citing papers
Sangwari - People's Association for Equity & Health	India	—	1
TB Support Network	India	—	1
ICMR-National Institute for Research in Tuberculosis	India	—	1
Narotam Sekhsaria Foundation	India	—	1
State Health Resource Centre	India	—	1

Geographic distribution of citing authors

Country	Citing papers
India	7
United States	6
China	4
Germany	3
Australia	3
Canada	2
Malaysia	1
New Zealand	1
Pakistan	1
Saudi Arabia	1
United Kingdom	1
Vietnam	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.

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	The first differentiated TB care model from India: delays and predictors of losses in the care cascade	7	8 CFR 204.5(i)(3) – Outstanding Researcher
Contribution 2	Scene understanding—a survey	12	8 CFR 204.5(i)(3) – Outstanding Researcher
Contribution 3	Implementing virtual personal assistant through artificial intelligence requirements	1	8 CFR 204.5(i)(3) – Outstanding Researcher