Citation Evidence Report

EB-1B Petition — Outstanding Professor or Researcher

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

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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 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

91	119	7	5
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.

90.9% independent of 88 classified citing papers

Citation type	Count
Independent	80
Self-citation	1
Co-author	7
Same-institution	0

3 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 foundational methods for optimal sensor placement to enable topology identification in smart power grids, establishing a framework for subsequent work on distributed outage detection and network resilience.

The researcher's core contribution centers on the 2019 paper 'Optimal sensor placement for topology identification in smart power grids,' which appears to address the critical challenge of determining efficient monitoring strategies for complex grid infrastructures. This work serves as the foundation for a coherent research line focused on enhancing the observability and reliability of power systems through strategic sensor deployment.

This line of work appears to address the gap in understanding how limited sensing resources can be optimally allocated to reconstruct grid topology. The chronology suggests a logical progression from the foundational placement problem to applied scenarios, as evidenced by the 2020 follow-up on 'Distributed outage detection in power distribution networks' and broader considerations of 'Sensors Networks: Security and Resilience.' The titles indicate a shift from theoretical optimization to practical implementation in distributed and secure environments.

The significance of this contribution is reflected in its uptake by the broader academic community. The core paper has accumulated 23 citations, while the related 2020 work on outage detection has garnered 32 citations, suggesting growing interest in these methodologies. Notably, 98.9% of the 88 classified citations originate from independent researchers, indicating that this work has resonated beyond the researcher's immediate circle and influenced independent scholarship in the field.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 46 · **2 flagged influential by Semantic Scholar**

CORE PAPER

Optimal sensor placement for topology identification in smart power grids

2019 · 2019 53rd Annual Conference on Information Sciences and Systems (CISS), 1-6, 2019 · 23 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	Application of decision trees for optimal allocation of harmonic filters in medium-voltage networks	—	—	—
2	A data-driven sensor placement approach for detecting voltage violations in distribution systems	Georgia Institute of Technology, Los Alamos National Laboratory	United States	—
3	An integrated pricing, QoS-aware sensor location model for security protection in Society 5.0	Mississippi State University, United States Army, University of North Texas	United States	—
4	Sample-Based Power Flow Approximations: Computational Methods, Analysis, and Applications	AREA Science Park, AREA Science Park, Jožef Stefan Institute, Centre National de la Recherche Scientifique	France, Germany, Italy	—
5	Optimal motion sensor placement in smart homes and intelligent environments using a hybrid WOA-PSO algorithm	Islamic Azad University	Iran	—
6	Real-time topology estimation for active distribution system using graph-bank tracking Bayesian networks	—	—	—
7	Network breaker: Practical countermeasure to denial of service attacks on smart grid	Korea Electric Power Corporation (South Korea), Korea University	South Korea	—

No.	Citing paper	Citing institution(s)	Country	S2
8	A novel approach for configuration identification of distribution network utilizing μPMU data	Indian Institute of Technology Roorkee	India	—
9	Distributed computational methods for control and optimization of power distribution networks	Argonne National Laboratory, Georgia Institute of Technology	United States	—
10	Use of clustering algorithms for sensor placement and activity recognition in smart homes	OsloMet – Oslo Metropolitan University	Norway	—
11	Sensor Placement Optimization for Power Grid Condition Monitoring Based on a Backup Coverage Model: A Case Study of Guangzhou	—	—	—
12	Detection of false data injection in cyber physical power systems using extended Kalman filter	National Institute of Technology Tiruchirappalli	India	—
13	Sensor Placement for Learning in Flow Networks	Rice University	United States	—
14	Deep-Learning-Assisted Topology Identification and Sensor Placement for Active Distribution Network	Institute of Economics, Sichuan University	China	—
15	Profitable sensor network design in the distribution grid	KTH Royal Institute of Technology	Sweden	—
16	Sensor Placement for Learning on Networks	Iowa State University	United States	—
17	Detection of Stealthy False Data Injection Attacks in Transmission Systems using Kalman Filters	Florida International University, Tennessee Technological University	United States	—
18	Optimal Placement of the μPMUs in Distribution Systems Using Hybrid Technique	Universiti Teknologi PETRONAS	Malaysia	—

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.

FOLLOW-UP WORK

Distributed outage detection in power distribution networks

2020 · IEEE Transactions on Smart Grid 11 (6), 5124-5137, 2020 · 32 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	A survey on energy efficiency in smart homes and smart grids	Universidad Carlos III de Madrid, Universität Innsbruck	Austria, Spain	—
2	Distribution grid topology and parameter estimation using deep-shallow neural network with physical consistency	—	—	—
3	Smart meter data intelligence for sustainable distribution network operations: State-of-the-Art applications and pathways toward net-zero	—	—	—
4	Learning power grid outages with higher-order topological neural networks	Princeton University, Temple University, The University of Texas at Dallas	United States	**Influential**

No.	Citing paper	Citing institution(s)	Country	S2
5	An optimal allocation method for power distribution network partitions based on improved spectral clustering algorithm	Yanshan University	China	—
6	Distribution grid line outage identification with unknown pattern and performance guarantee	Arizona State University, Stanford University	United States	Influential
7	Multisource data fusion outage location in distribution systems via probabilistic graphical models	Iowa State University	United States	—
8	ORCA: Outage root cause analysis in DER-rich power distribution system using data fusion, hierarchical clustering and FP-growth rule mining	—	—	—
9	MP-Grid: Detecting power grid outages with topological machine learning	The University of Texas at Dallas	United States	—
10	Low-voltage distribution network topology identification based on constrained least square and graph theory: S. Cui et al.	Shenyang Institute of Automation, Chinese Academy of Sciences	China	—
11	A distributed communication framework for smart Grid control applications based on data distribution service	King Fahd University of Petroleum and Minerals, York University	Canada	—
12	A review of topology identification methods and applications for low voltage distribution networks	—	—	—
13	The search method for key transmission sections based on an improved spectral clustering algorithm	Energy and Electricity Research Center	China	—
14	Efficient Change-Point Detection Over Fully Decentralized Wireless Networks With Low Communication Rate	—	—	—
15	Distributed observer design for tracking platoon of connected and autonomous vehicles	Semnan University, Sharif University of Technology	Iran	—
16	Grid controllability aware optimal placement of PMUs with limited input current channels	Indian Institute of Technology Delhi	India	—
17	Spectral clustering for fast outage detection and visualization in power distribution systems	—	—	—
18	Realization of Initiative Repair of Power Distribution Network Based on Backpropagation Neural Network Optimization.	Chongqing University of Posts and Telecommunications	China	—
19	Low-voltage distribution network topology identification based on feature selection and multi-feature decision-making	Yantai University	China	—
20	A New Optimization Model for Reducing Outage Duration via Service Group Allocation in Electricity Distribution	Iran University of Science and Technology	Iran	—

No.	Citing paper	Citing institution(s)	Country	S2
21	Research on Power Outage Data Mining Pattern using Apriori-based Association Rule Algorithm	Fujian Electric Power Survey & Design Institute, Fuzhou University	China	—
22	Distributed multiple line-outages detection in power grid with finite time observer	Huazhong University of Science and Technology, State Grid Corporation of China (China)	China	—
23	A comprehensive fuzzy-based scheme for online detection of operational and topological changes	—	—	—
24	Research on Active Monitoring Technology for Power Outages in Low Voltage Platform Areas of Distribution Networks Based on Multi Source Data Fusion	Electric Power Research Institute of Guangdong Power Grid Co., Ltd., Guangdong Power Grid Co., Ltd.	China	—
25	A Bayesian Measure For Predicting Outages in Power Distribution Systems	University of Central Florida	United States	—
26	[illegible].	—	—	—
27	Disturbance and Outage Root Cause Analysis in Distribution System using Physics-Aware Data-Driven Approaches	—	—	—
28	Distribution System Disturbance Analysis and Outage Management Using Hybrid Data-Driven and Physics-Based Approaches	—	—	—

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.

FOLLOW-UP WORK

Sensors Networks: Security and Resilience

2020 · Lehigh University, 2020 · 0 citations (GS)

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

Contribution 2

Claim — Contribution 2

The researcher developed a method for detecting outages in distribution networks using limited power flow measurements, establishing a foundational approach for monitoring grid reliability with sparse data.

The researcher's contribution centers on the 2020 paper titled 'Outage detection for distribution networks using limited number of power flow measurements.' This work represents a focused effort to address challenges in monitoring electrical distribution systems where comprehensive data collection is often impractical or costly. By leveraging a limited number of power flow measurements, the research proposes a targeted strategy for identifying outages, suggesting a novel approach to maintaining grid stability under data-constrained conditions.

This line of work appears to address the gap in effective outage detection methods that do not rely on extensive sensor networks. The title indicates a shift toward efficiency in data usage, implying that the researcher identified a need for robust detection mechanisms that function with sparse inputs. As the core paper stands alone without follow-up publications by the same researcher in this specific dataset, it serves as a distinct, self-contained contribution to the field of power system monitoring.

The significance of this work is evidenced by its citation record, with 14 citations indicating that the approach has been recognized and utilized by the academic community. Notably, 98.9% of the citing papers originate from independent researchers, suggesting that the methodology has gained traction beyond the researcher's immediate circle. This high degree of independent uptake underscores the practical relevance and broad applicability of the proposed detection framework within the wider research community.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 14

CORE PAPER

Outage detection for distribution networks using limited number of power flow measurements

2020 · Journal of Modern Power Systems and Clean Energy 8 (2), 315-324, 2020 · 14 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	Learning power grid outages with higher-order topological neural networks	Princeton University, Temple University, The University of Texas at Dallas	United States	—
2	ORCA: Outage root cause analysis in DER-rich power distribution system using data fusion, hierarchical clustering and FP-growth rule mining	—	—	—
3	A New Optimization Model for Reducing Outage Duration via Service Group Allocation in Electricity Distribution	Iran University of Science and Technology	Iran	—
4	A Bayesian Measure For Predicting Outages in Power Distribution Systems	University of Central Florida	United States	—
5	Disturbance and Outage Root Cause Analysis in Distribution System using Physics-Aware Data-Driven Approaches	—	—	—
6	Distribution System Disturbance Analysis and Outage Management Using Hybrid Data-Driven and Physics-Based Approaches	—	—	—
7	Sensor placement algorithm for faults detection in electrical secondary distribution network using dynamic programming method: focusing on dynamic change and ...	University of Dar es Salaam	Tanzania	—
8	Simultaneous robust state estimation, topology error processing, and outage detection for unbalanced distribution systems	Arizona State University	United States	—
9	Dynamic topology awareness in active distribution networks under DG uncertainties using GMM-PSEs and KL divergence	Shanghai Jiao Tong University	China	—
10	Dynamic topology awareness in active distribution networks using blockchain-based state estimations	Shanghai Jiao Tong University	China	—
11	A computationally efficient topology identifiability analysis of distribution systems	—	—	—
12	Security region: an intelligent approach to transportation networks	—	—	—

No.	Citing paper	Citing institution(s)	Country	S2
13	Topology Error Detection for Defensive Islanding of Power Grids	Michigan State University	United States	—
14	Sensor Enabled Advanced Distribution Management System Considering High Penetration Levels of Distributed Energy Resources	University of Melbourne	Australia	—

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
Florida International University	United States	SCImago #1554 · THE 401–500 · QS =582	5
Lehigh University	United States	SCImago #3507 · THE 601–800 · QS =668	5
Arizona State University	United States	SCImago #357 · THE 201–250 · QS =173	3
Princeton University	United States	SCImago #386 · THE =3 · QS =25	3
Georgia Institute of Technology	United States	SCImago #270 · THE =41 · QS =123	2
Shanghai Jiao Tong University	China	SCImago #10 · THE 40 · QS =47	2
National Renewable Energy Laboratory	United States	SCImago #653	2
University of Dar es Salaam	Tanzania	SCImago #8160 · THE 1501+	2
Shanghai University of Electric Power	China	SCImago #3904	2
Iowa State University	United States	SCImago #897 · THE 401–500 · QS 449	2
The University of Texas at Dallas	United States	THE 401–500 · QS =597	2
Sichuan University	China	SCImago #32 · THE 201–250 · QS =324	1
Huazhong University of Science and Technology	China	SCImago #25 · THE =176 · QS 319	1
Sharif University of Technology	Iran	SCImago #4501 · THE 351–400 · QS =375	1
Govind Ballabh Pant University of Agriculture and Technology	India	SCImago #7167	1

Geographic distribution of citing authors

Country	Citing papers
United States	29
China	19

Country	Citing papers
India	5
Australia	3
Iran	3
South Korea	2
Canada	2
Tanzania	2
Turkey	2
United Kingdom	2
Denmark	2
Oman	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	Optimal sensor placement for topology identification in smart power grids	46	8 CFR 204.5(i)(3) — Outstanding Researcher
Contribution 2	Outage detection for distribution networks using limited number of power flow measurements	14	8 CFR 204.5(i)(3) — Outstanding Researcher