



Email: humphrey.adun@neu.edu.tr

Phone number: [REDACTED] (WhatsApp)

ORCID ID: 0000-0002-8593-814X, Scopus ID: [REDACTED] Researcher ID: ABC-9414-2020

Google Scholar Citations:

<https://scholar.google.com/citations?user=xbCROssAAAAJ&hl=en>

ORCID Website: <https://orcid.org/0000-0002-8593-814X>

Web of Science ID:

<https://www.webofscience.com/wos/author/record/ABC-9414-2020>

Research Gate: <https://www.researchgate.net/profile/Humphrey-Adun>

BIOGRAPHY

Dr. Humphrey Hugh Adun is a climate scientist and energy systems expert whose work sits at the intersection of science, policy, and corporate climate action. He is recognised for translating complex climate scenarios into actionable frameworks that guide real-world decarbonisation decisions across sectors.

His research focuses on net-zero transition pathways, carbon dioxide removal (CDR), and sectoral decarbonisation strategies. He has contributed to the development of globally applied corporate climate standards, helping shape how companies define, measure, and achieve net-zero targets. His work has been particularly influential in advancing methodologies for residual emissions, removal scaling, and the integration of scenario-based pathways into corporate target-setting.

Dr. Adun has published research on carbon dioxide removal and climate mitigation pathways, with a strong emphasis on methodological rigour and real-world applicability. His work engages deeply with leading scenario frameworks, including those from the IPCC and major integrated assessment models, and focuses on resolving critical challenges such as carbon budget allocation, removals scaling, and sector-specific transition dynamics.

He has been recognised among the **top 2% of scientists globally**, reflecting both the impact and citation strength of his research contributions. Beyond academia, he plays a central role in expert working groups and technical advisory processes that inform the evolution of international climate standards and guidance.

His expertise spans energy systems modelling, low-carbon technology deployment, and climate policy design. He has led and contributed to projects examining fossil fuel phase-out pathways, renewable energy transitions, hydrogen deployment, and the role of carbon removal across sectors such as power, industry, and land use.

Dr. Adun has collaborated with leading institutions and organisations across academia and applied research, including work connected to international climate modelling communities and policy-focused initiatives. His work has also informed discussions with financial institutions, supporting the alignment of capital allocation with credible net-zero pathways.

In addition to his technical contributions, he is an experienced educator and speaker, having taught postgraduate students and contributed to high-level discussions on decarbonisation strategies and climate targets. His approach is characterised by combining analytical depth with practical implementation pathways, ensuring that climate ambition is grounded in operational reality.

**ACADEMIC
CURRICULUM VITAE**

1. Name - Surname: HUMPHREY ADUN

2. Title: Dr.

3. Educational Background:

Degree	Department/Program	University	Year
Bachelor's	Chemical engineering	University of Benin, UNIBEN	2012
Master's	Energy Systems Engineering	Cyprus international university, TRNC	2017
PhD	Energy Systems Engineering	Cyprus international university, TRNC	2021

4. Master's / PhD Thesis

4.1.Master's Thesis Title and Thesis Advisor(s): "Analysis and modelling of WIND energy development in the world"

4.2.PhD Thesis /Medical Specialty Thesis Title and Advisor(s): Utilization of nanofluid for cooling in photovoltaic/thermal collectors

5. Academic Titles:

Date of Dr: 07 July 2021

6. Supervised Master's and PhD Theses:

6.1. Master's Theses: 3

6.2. PhD Theses: 0

7. Publications

7.1. Articles Published in International Peer-Reviewed Journals (SCI,SSCI, AHCI, ESCI, Scopus) -

Find Full list of publication at [Google scholar](#)

Humphrey Adun, Jeffrey Ampah, Bamisile Olusola, Yihua hu, Iain Staffell, Haris Gilani (2024). Holding off on substantial carbon dioxide removals until mid-century will require comprehensive economy-wide decarbonization to stay on track with climate objectives. **Communication earth and Environment (Nature Portfolio)**

Humphrey Adun, Sandylove Afrane, Jeffrey Dankwa Ampah, Humphrey Adun, Jian Lin Chen, Hongyang Zou, Guozhu Mao, Pingjian Yang **(2024)**. Targeted carbon dioxide removal measures are essential for the cost and energy transformation of the electricity sector by 2050. **Communication earth and Environment (Nature Portfolio)**

Humphrey Adun, Jeffrey Dankwa Ampah, Iain Staffell, Mustafa Dagbasi **(2024)**. Transitioning towards a nearly 100% renewable energy power sector in a Net Zero Pathway for Africa delivers varied co-benefits of climate resilience, energy structure, sustainability impacts, and health outcomes unique to each sub-region. **Environmental Science and Technology**.

Jeffrey Dankwa Ampah, Haifeng, Chao Jin, Mingfa Yao, Sandylove Afrane, **Humphrey Adun**, Jay Fuhrman, David T. Ho, Haewon McJeon. Deployment expectations of multi-gigatonnes scale carbon dioxide removal could adversely impact the global climate system" (reference number: NCOMMS-23-56802A). (under review with) **Nature Communications**.

Jeffrey Dankwa Ampah, Chao Jin, Haifeng Liu, Felix Schenuit, Sandylove Afrane, **Humphrey Adun**, David T Ho, David Morrow, Yang Ou, Xuan Zhang, Haewon McJeon **(2024)**. Scaling carbon removal without delaying emission reductions. **Nature Reviews Clean Technology (Nature Portfolio)**

8. Memberships in Scientific and Professional Organizations

- IEEE
- IAENG

9. Awards and Honor

- Top 2% scientists in 2024 and 2025, according to Stanford science rankings
- Best Researcher Award in 2021 at doctorate degree level
- Excellence Award as the most outstanding Graduate student in the Faculty of Engineering in 2021
- Top 5% researcher in Near east university, 2025

Editor as a Permanent Editorial Board Member

2023–present Scientific reports