



Dr. Zeeshan Alam Nayyar

In-Charge & Assistant Professor
HEC Approved PhD Supervisor

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About

Dr. Zeeshan Alam Nayyar is an Assistant Professor and In-charge at the Department of Applied Physics, University of Karachi, specializing in renewable energy technologies and GIS based energy modeling. Since joining the department in 2001, he has advanced research and education, supervised over 20 theses, and published more than 50 journal papers, conference proceedings, and book chapters. His Ph.D. focused on GIS-linked aerodynamic wind potential models for Sindh and Balochistan coastal regions. A member of IEEE, WWEA, and GWEC, Dr. Nayyar actively contributes to academic, industrial, and community-driven renewable energy initiatives in Pakistan.

Website: <https://sites.google.com/a/uok.edu.pk/zanayyar/>

ORCID: [0000-0002-0709-9299](https://orcid.org/0000-0002-0709-9299)

Google Scholar: [EpcD4QYAAAAJ](https://scholar.google.com/citations?user=EpcD4QYAAAAJ)

LinkedIn: [zanayyer](https://www.linkedin.com/in/zanayyer)

ResearchGate: [Zeeshan-Nayyar](https://www.researchgate.net/profile/Zeeshan-Nayyar)

Education

- PhD, Applied Physics. University of Karachi, Pakistan (2009)
- MSc, Applied Physics. University of Karachi, Pakistan (1998)
- BSc, Applied Physics. University of Karachi, Pakistan (1996)

Research Interests

- Renewable Energy Technologies (Wind and Waste-to-Energy)
- Energy Modelling
- GIS and Remote Sensing

Awards & Honors

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Selected Publications

- Ahmed Ali, Zeeshan A. Nayyar. 2021. A Modified Built-up Index (MBI) for Automatic Urban Area Extraction from Landsat 8 Imagery. *Infrared Physics and Technology*. 116. 103769. [DOI](#)
IF: 2.997. 16 Citations.
- Zeeshan A. Nayyar, Ahmed Ali. 2020. Roughness Classification Utilizing Remote Sensing Techniques for Wind Resource Assessment. *Renewable Energy*. 149. 66-79. [DOI](#)
IF: 8.634. 12 Citations.
- Zeeshan A. Nayyar, Nayyar A. Zaigham, Abdul Qadeer. 2014. Assessment of Present Conventional and Non-Conventional Energy Scenario of Pakistan. *Renewable & Sustainable Energy Reviews*. 31. 543-553. [DOI](#)
IF: 16.799. 83 Citations.
- Nayyar A. Zaigham, Zeeshan A. Nayyar. 2010. Renewable Hot Dry Rock Geothermal Energy Source and its Potential in

Supervision

PhD:
2 x PhD Scholars [Ongoing]

MPhil:
8 x MPhil Scholars [Completed]

MSc:
16 x MSc Scholars [Completed]

Final Year Projects:
1 x BS FYP [Completed]

Internship Supervised:
21 x BS Students [Completed]

Pakistan. *Renewable and Sustainable Energy Reviews*. 14(3).
1124-1129. [DOI](#)
IF: 16.799. 83 Citations

Full List on [Google Scholar](#)

Administrative Roles

- In-charge, Applied Physics. June 2025 – Present
- Team Lead, Renewable Energy Research Lab. 2012 – Present.
- Member, Board of Faculty of Science. June 2023 – Present.
- Member, Board of Studies. June 2023 – Present.
- Focal Person, ORIC UoK. 2015 – 2025.
- Focal Person, QEC UoK. 2015 – 2025.
- Member, Board of Faculty of Science. 2005 – 2009.
- Member, Board of Studies. 2005 – 2009.

Professional Memberships

- Member, American Geophysical Union (AGU)
- Member, Institute of Electrical & Electronics Engineers (IEEE)
- Member, IEEE Power & Energy Society (IEEE-PES)
- Member, World Wind Energy Association (WWEA)
- Member, Alliance for Renewable Energy (ARE)