

Bridging the Talent Gap

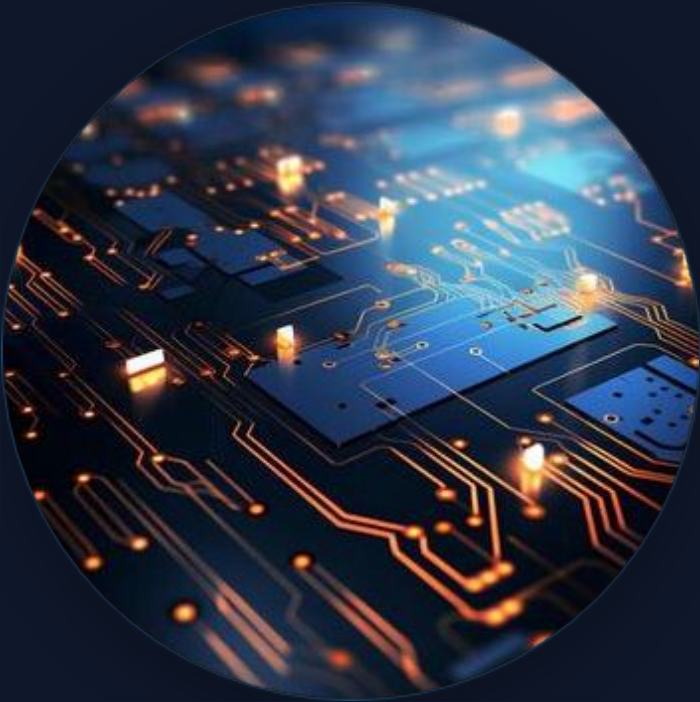
From Future Engineer to Industry Innovator

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Defining the **Next Grid**



Research Focus

- Power System Integration
- AI-Driven Grid Optimization
- Energy Network Modernization
- Sustainability in Urban Environments

A woman with dark hair, wearing a light-colored blazer and trousers, is seated in a modern armchair on a stage. She is looking towards the right. In front of her is a low, white, rectangular metal frame table with several water bottles and glasses on it. The background is a large screen displaying a green and white diagonal striped pattern. In the foreground, the back of a person's head and shoulders are visible, out of focus.

The Spark

CWIEME Berlin 2026

"The challenge wasn't only hardware. It was systems coordination."

Electrification Constraints



Grid Bottlenecks

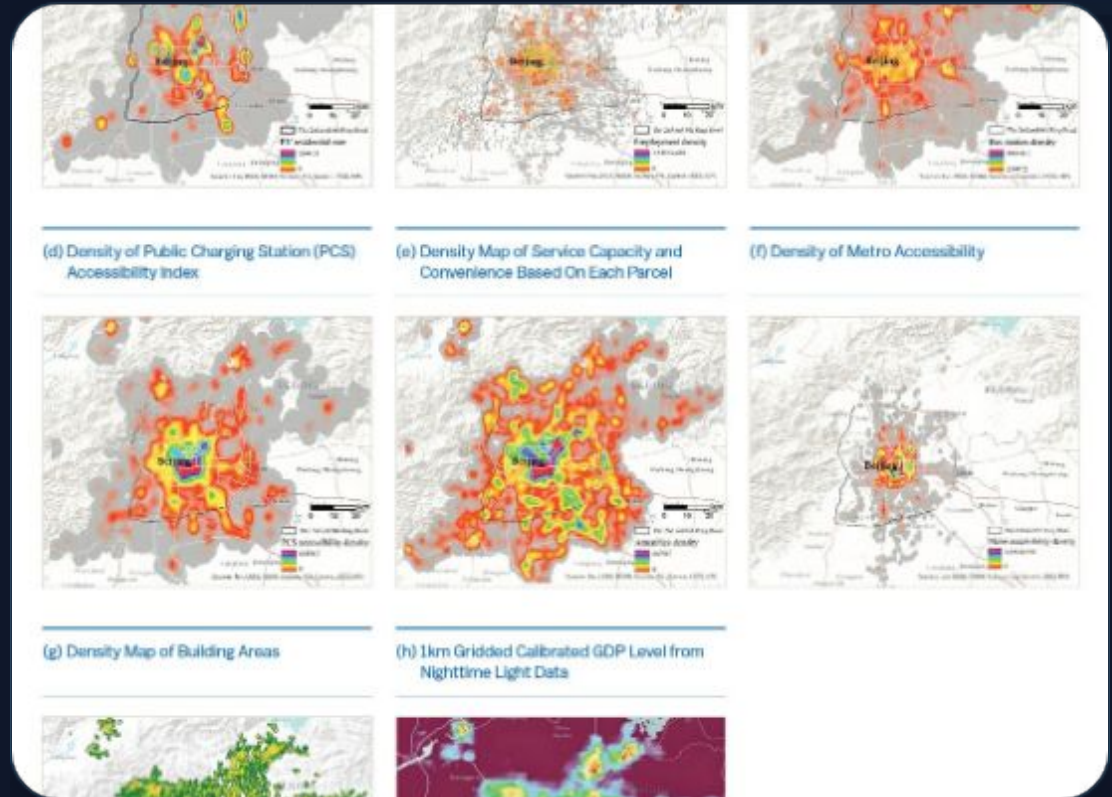
- **Transformer Capacity:** Handling localized demand spikes.
- **Grid Stability:** Balancing renewables and heavy EV loads.
- **Regulatory Workflows:** Policy lagging behind tech.
- **Planning Uncertainty:** Siting chargers effectively.

Geospatial Optimization

NSGA-II Algorithm Model

Developing a multi-objective framework to evaluate urban charging infrastructure deployment.

$$\text{Min } \sum C_{\text{infrastructure}}, \text{Max } \sum A_{\text{accessibility}}$$



Academic Impact

2025

Award Year

IEEE Best Paper Award

Recognition of excellence in systems modeling and grid integration research.

Systems **Interoperability**



Hardware

Transformers, Switchgear, Cables, and
Charging Plugs.



Software

Dynamic Load Management,
Prediction Models, and AI.



Policy

Planning Regulations, Urban Policy, and
Grid Standards.

Success requires the alignment of the full value chain.

The Talent Gap Opportunity

- **Knowledge Transfer:** Bridging retiree expertise with new tech.
- **Interdisciplinary Skill sets:** Engineering + Data + Policy.
- **System Design:** Moving from "Maintenance" to "Reinvention."
- **Stay Curious:** The conversation is already happening.

A Message to Future Engineers

"The innovators of tomorrow are the ones who can bridge these silos today."

Questions?

Stay Curious. Stay Present.
