

Muhammad Alqannoor

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EDUCATION

The Pennsylvania State University — University Park, PA

Bachelor of Architectural Engineering, Lighting/Electrical Option, 2015

Minor: Architectural Studies | GPA: 3.23/4.0

- Thesis: Integrated lighting, electrical and controls design for a large institutional building in Kuwait
- Relevant coursework: Building energy systems, lighting and daylighting design, electrical systems, construction management

Pantheon Institute, Rome — Penn State Study Abroad Program, 2013

PROFESSIONAL EXPERIENCE

Department of Experts, Ministry of Justice — Kuwait City, Kuwait

Expert Engineer | 2017–Present

- Serve as a court-appointed expert evaluating disputes requiring architectural and engineering judgment
- Assess performance failures, construction defects, contract disputes, and code compliance across residential and commercial projects
- Review construction documentation, conduct site inspections, and produce detailed technical reports used by judges in adjudicating complex engineering claims
- Evaluate cases ranging from small residential projects to large-scale developments exceeding \$50 million, gaining insight into how design, incentives, and regulation interact in practice

SSH International Consultants — Kuwait City, Kuwait

Infrastructure Engineer | 2016–2017

- Designed street lighting systems for public infrastructure projects
 - Developed electrical distribution networks and substation layouts in coordination with multidisciplinary teams
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PROJECTS

Capstone Thesis — **Kuwait Institute of Science and Technology** | Penn State, 2015

- Designed integrated lighting, electrical, and DALI scene-control systems for a 290,000 SF institutional building in Kuwait's hot-dry climate
- Conducted envelope performance analysis using SkyCALC and COMFEN to evaluate daylighting and glazing tradeoffs

IPD/BIM Studio — **Lighting & Electrical Designer** | Penn State, 2014

- Served as lighting and electrical designer on interdisciplinary building design team
- Team awarded first place in competitive studio competition judged by a panel of industry professionals

Mundah — **Creator** | Independent, 2024 – Present

- Developing a construction management platform for first-time homeowners in Kuwait, combining structured progress tracking with contractor procurement tools, informed by direct observation of how information asymmetry and weak documentation practices drive disputes and cost overruns in residential construction.

RESEARCH INTERESTS

- Building energy performance in hot-dry climates
- Passive design strategies and envelope optimization
- Parametric simulation and multi-variable performance analysis
- Building systems modeling and digital performance workflows
- Cost–performance tradeoffs in residential building design
- Translation of building science research into regulatory standards

TECHNICAL SKILLS

Proficient: Revit, AutoCAD, AGi32, SketchUp

Familiar: EnergyPlus, COMFEN, SkyCALC

HONORS & AWARDS

- Government Scholarship for Undergraduate Studies — Kuwait Ministry of Higher Education
- Government Scholarship for Master’s and PhD Studies — Kuwait Civil Service Commission
- Certificate of Merit, Kuwait Ministry of Higher Education (7-time recipient)
- First Place, IPD/BIM Studio Competition, Penn State (2014)