Ravi Chopra

Electrical Engineer

Birmingham, United Kingdom
ravi.chopra@outlook.com
+44 7582 109 463
linkedin.com/in/ravichopra-ee

Electrical engineer with five years of experience in building services design and power distribution. Currently working at Arup on commercial and healthcare projects, handling everything from initial load calculations through to site commissioning. Previously designed electrical systems for residential developments at WSP. Hold IET membership and working towards Chartered Engineer status.

Experience

Electrical Engineer, Arup, Birmingham *Jan 2023 – Present*

Electrical design engineer in the building services team, working on commercial and healthcare projects across the Midlands.

- Lead electrical designer on a **£65 million** hospital extension for University Hospitals Birmingham — 3 new wards and a diagnostics suite
- Designed LV distribution systems for a **22-storey office tower** in Birmingham city centre, coordinating with the mechanical team on 1.8MW of cooling load
- Produced lighting designs to CIBSE standards for **14,000 sqm** of clinical space, achieving compliance with HTM 08-03
- Mentoring **2 graduate engineers** through their IET professional development programme

Graduate Electrical Engineer, WSP, Coventry *Sep 2020 – Dec 2022*

Electrical design for residential and mixed-use developments across the West Midlands.

- Designed power and lighting layouts for **6 residential schemes** totalling over 400 apartments
- Carried out cable sizing, fault level, and discrimination studies for LV networks using **Amtech and ETAP**
- Coordinated with Western Power Distribution on **3 new substation connections** — managed applications through to energisation
- Produced electrical specifications and schedules for tender packages worth up to **£2.4 million**

Electrical Engineering Placement, Atkins (SNC-Lavalin), Birmingham *Jun 2019 – Sep 2019*

Summer placement with the rail electrification team.

- Assisted with OLE (overhead line equipment) design calculations for a **12km section** of the Midland Main Line electrification
- Produced AutoCAD drawings for **8 signal power supply points** and updated existing track schematics

Education

MEng (Hons) in Electrical and Electronic Engineering, University of Birmingham, Birmingham *Sep 2016 – Jun 2020*

First Class Honours. Fourth-year thesis on power quality monitoring in hospital electrical systems. Won the IET Best Final Year Project prize.

Skills

LV & HV Distribution Design • Lighting Design (Dialux, Relux) • Cable Sizing & Discrimination Studies • Amtech & ETAP • AutoCAD & Revit MEP • BS 7671 (IET Wiring Regulations) • CIBSE & HTM Standards • Fire Alarm & Emergency Lighting • BIM Level 2 Coordination • Technical Report Writing

Certifications

IET Wiring Regulations (BS 7671:2018+A2:2022), Institution of Engineering and Technology *Mar 2022*

CSCS White Card – Professionally Qualified Person, CSCS *Oct 2020 – Oct 2030*

Languages

English (native) • Hindi (conversational)

Projects

Queen Elizabeth Hospital Extension – Arup *Jun 2023*

Lead electrical designer for a major hospital extension in Birmingham.

- Designed the LV distribution for **3 new wards** including essential and non-essential power networks with automatic changeover
- Produced IPS (isolated power supply) designs for **4 operating theatres** to HTM 06-01
- Coordinated with the medical gas and nurse call teams on **380+ room data sheets**

Coventry Waterside Residential – WSP *Mar 2021 – Jun 2022*

Electrical design for a 180-apartment waterfront development.

- Designed communal and apartment electrical layouts — **£1.6 million** M&E package value
- Worked with the developer to incorporate **90 EV charging points** with load management across the basement car park

References

Angela Whitmore

Associate Director – Building Services, Arup, angela.whitmore@arup.com, +44 7700 900 623

Tariq Hussain
Senior Electrical Engineer, WSP, tariq.hussain@wsp.com, +44 7700 900 744

Extra Curricular Activity

IET Birmingham Local Network – Committee Member *Sep 2022*

Help organise evening lectures and site visits for IET members in the Midlands. Arranged a visit to the HS2 Curzon Street station site that attracted 45 attendees.

Volunteer – Practical Action (Engineers Without Borders) *Jan 2021 – Dec 2022*

Provided remote technical guidance for off-grid solar installations in rural Nepal. Reviewed designs for 3 community solar micro-grids serving around 120 households.