WSP

Dr Jianing Li

Principal Power System Engineer

CAREER SUMMARY

Jianing Li is a power system engineer (PhD, BEng, MIET, MCIGRE, MIEEE) with in power system modelling to enable grid flexibility and decarbonise energy systems. He has been working with SSEN Tranmission to develop probabilistic planning approach for connection studies. Before joining WSP, he was a Research Fellow, Senior Research Fellow and Assistant Professor at University of Birmingham, focusing on power system planning, real-time operations and controls. He worked very closely with National Grid Electricity Transmission and other key stakeholders such as EPSRC, Innovate UK and ERDF to identify future system needs and provide recommendations on grid flexibility and low carbon energy system innovation. He has delivered a world-leading distributed micro virtual power plant system with shared energy storage systems. Jianing has a solid academic background in electrical engineering. He received his PhD degree from the University of Birmingham in 2016. His research interests include power system modelling, distributed energy systems and decarbonisation, real-time simulation with hardware-in-the-loop, power system protection and control, smart grid technologies, electricity market operation, internet of things and machine learning technology. He is a member of CIGRE working group B5.72. He is the Chair of the IEEE UK and Ireland Power and Energy Society Chapter, and the Vice-Chair of the CIGRE UK Next Generation Network.

Recently joined WSP

Area of expertise

Experienced in a wide range of power system studies such as load flow, protection and control, and harmonic studies.

Experienced in power system modelling and studies with MATLAB, PowerFactory, PSCAD and RTDS.

Profound power system knowledge including technologies such as renewable generation, electric vehicle, and energy storage.

Excellent knowledge about the energy industry especially the GB electricity market, UK energy policies and implications, the regulatory frameworks and power system economics.

Experienced in software development and IT operations including C#, Python, REST, Docker, GCP, UNIX

Excellent data analytical skills and experience in processing large data set using Python, Excel automation and VBA programming.

7 years of experience

Language

English (Fluent), Mandarin (Native), Cantonese (Native), Teochew (Native)

EDUCATION

PhD in Electronic and Electrical Engineering, University of Birmingham	2011-2016

Dr Jianing Li

Principal Power System Engineer

BEng in Electronic and Electrical Engineering (First-class Honours), University of Birmingham   2009-2011

PROFESSION MEMBERSHIPS

Chair of the IEEE UK and Ireland Power and Energy Society

Vice-Chair of the CIGRE UK Next Generation Network

Member of the Institute of Engineering and Technology   MIET

Member of the Institute of Electrical and Electronics Engineers   MIEEE

Member of the International Council on Large Electric Systems   MCIGRE

PROFESSIONAL HISTORY

WSP   May 2022 -Present

University of Birmingham   2016-2022

PROFESSIONAL EXPERIENCE

WSP, Principal Power Systems Engineer (May 2022 – Present)

- National Grid Electricity Transmission Secondment for Regional Strategy Operation Approach
- SSEN Transmission Probabilistic Modelling for Connection Studies (Network Innovation Allowance)
- Technical lead and project manager for harmonic analysis studies
- Technical lead and project manager for due diligence on transmission synchronous condenser
- Technical lead and project manager for short circuit analysis and protection studies

University of Birmingham, Assistant Professor (November 2019 – May 2022)

University of Birmingham, Senior Research Fellow in Power Systems (September 2016 – October 2019)

University of Birmingham, Research Fellow (April 2015 – August 2016)

University of Birmingham, PhD Researcher (September 2011 – June 2016)