



The Engineering Institute of Canada

2024 Award Citation

EIC Fellow



Zhenguo Lu

Nominated by IEEE Canada

Dr. Zhenguo Lu is a Principal Research Officer and Team Lead of Photonics Devices at NRC Canada. He is an Elected Fellow of the OPTICA and, for two decades, has been leading the development of quantum dot laser technologies at NRC for telecommunication, 5G and wireless network applications. He is well known internationally for his pioneering studies identifying the potential of quantum dot gain materials and their use in semiconductor lasers for telecom, datacom and wireless networks.

He made pioneering contributions in quantum dot semiconductor laser technology for optical fiber communication systems and wireless networks, including quantum dot multiwavelength lasers, quantum dot coherent comb lasers for multi-Terabit/s networks and quantum dot dual-wavelength distributed feedback lasers for millimeter-wave generation.

Dr. Lu was first to recognize the enormous potential of NRC's quantum dot technology, with worldwide impact in optical fiber communication devices. His vision in developing new applications of quantum dot lasers led to cutting-edge engineering projects in collaboration with academia and industry, creating economic values to Canada in the field of optical communications.

Ladies and gentlemen, and Ms. President, please welcome Zhenguo Lu as a Fellow of the Engineering Institute of Canada.