# The Engineering Institute of Canada

## 2023 Award Citation

# EIC Fellow



## *Mohammad Nasir Uddin*

**Nominated by IEEE Canada**

*Mohammad Nasir Uddin is a Professor and coordinator for Barrie campus program in the Dept. of Electrical Engineering at Lakehead University. He has made several pioneering contributions on the development and application of fuzzy logic, neural network, neuro-fuzzy, nonlinear, flux and loss minimization controls of interior permanent magnet synchronous motor (IPMSM) and induction motor (IM) drives.*

*He developed flux control techniques (e.g., maximum torque per ampere, field weakening) for IPMSM drive that made a critical contribution, as the flux of IPMSM cannot be controlled directly, and subsequently encouraged industry (e.g., Mercedes-Benz) to adapt these control techniques for its electric/hybrid electric vehicles. His work on machine loss minimization of IM drive improved the drive efficiency by about 10% that led to the real-life adoption of this technology by industry (e.g., Rockwell Automation). He has authored/co-authored over 250 technical papers in top-ranking IEEE journals/conferences with over 10,000 citations in Google-Scholar.*

*He received several awards including IEEE Fellow status in 2021, Lakehead University Distinguished Researcher Award 2010, four Prize paper Awards (IEEE IAS-conferences) and 2015 IEEE-Industry Applications Society (IAS) Service Award. He served as IEEE-IAS Executive Board member, Editor/Associate Editor for IEEE journals, technical committee Chair/co-Chair/invited speaker for many IEEE conferences.*

*Ladies and gentlemen, and Ms. President, please welcome Mohammad Nasir Uddin as a Fellow of the Engineering Institute of Canada.*