

Cognitive Biases and Humility

There are a number of cognitive biases that impair humans' ability to function at maximum intellectual capacity. Due to Engineering culture and education, Engineers can actually be more susceptible to overconfidence bias.

This presentation uses the presenter's own experience in making mistakes to discuss the value of humility, learning from mistakes, asking questions, seeking help, and admitting ignorance. It will seek to address the psychological and perceived professional barriers to humility and how to overcome them.

The presenter will lead a discussion what makes a 'conservative' estimate and how to account for unknown-unknowns. The presentation will also touch on data blindness and how to incorporate non-engineering experience into engineering tools and models.

Finally, the presentation will delve into how admitting one's ignorance and mistakes can be beneficial to the province, technology and, counter-intuitively, members' own careers.

Adapted to a professional/experienced audience from a one hour lecture delivered to EITs at Manitoba Hydro and First-year Management Engineering students at the University of Waterloo.

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Alexander graduated from the University of Waterloo in Electrical Engineering and has experience working at power companies in British Columbia and Ontario. He recently attained his P. Eng. designation and is currently the System Reliability Engineer for Manitoba Hydro's System Control Centre. He is the editor of the MHPEA newsletter, a mentor with Junior Achievement Manitoba and a board member of SAM Management, a non-profit housing provider. He recently completed his Certificate in Management and considers himself a world-leading expert in making mistakes.