

Unleashing Potential Applied Mathematics in AI and Machine Learning Towards Modern Industry

Sayan Kaennakham^{1,2,†}

¹School of Mathematics and Geoinformatics, Institute of Science

²The Multidisciplinary Innovation Research Centre for Digital Transformation towards Smart Healthcare and Modern Industry (MIDTHaI)

Suranaree University of Technology, Nakhon Ratchasima 30000, Thailand

Abstract

This talk explores the indispensable role of applied mathematics in driving innovations in artificial intelligence (AI) and machine learning (ML). Aimed at applied mathematics undergraduates, we journey from the core mathematical theories underpinning AI/ML to their practical applications in various industries. By interweaving personal experiences with insights into foundational concepts and emerging trends, we highlight the transformative potential of applied mathematics. Attendees will learn about the mathematical backbone of AI technologies, the transition from theoretical models to practical solutions in modern industry, and the exciting research opportunities that await in fields. Through this session, we aim to inspire students to apply their mathematical skills towards pioneering solutions in AI and ML, paving the way for a future where their contributions lead to significant technological advancements.

[†]Invited Speaker.

Email: sayan_kk@g.sut.ac.th