CARLETON UNIVERSITY

Department of Mechanical and Aerospace Engineering MASTER'S THESIS EXAMINATION

CANDIDATE: Hassan Mahmoud

B. of Mechanical Engineering, Carleton University, 2020

DATE: Thursday April 20, 2023, 13:00 Video Conference

THESIS TITLE: Industrial Scalable Rolling Element Bearing Diagnostic and Prognostic Modelling

using Particle Filter Methodologies and Inline Wear Debris Sensors

EXAMINATION BOARD:

Member of Joint Institute Dan-sorin Necsulescu, Mechanical Engineering - (Video Conference)

University of Ottawa

Member of Department Steve Ulrich, Mechanical & Aerospace Engineering (Video Conference)

Thesis Supervisor Jie Liu, Mechanical & Aerospace Engineering (Video Conference)

Chair of Defence Rong Liu, Mechanical & Aerospace Engineering (Video Conference)

Chair/Director of Department Ron Miller (Ex-officio)

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Dean of Faculty Larry Kostiuk (Ex-officio)

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Postdoctoral Affairs