

CARLETON UNIVERSITY
Department of Mechanical and Aerospace Engineering
PH.D. THESIS EXAMINATION

CANDIDATE: *Ossama Hafeez*
M. of Science in Engineering, Ntl Univ of Sciences & Tech, 2021
B. of Science in Mechanical En, Intl Islamic Univ Islambad, 2019

DATE: *Friday July 31, 2026, 10:00 3324 Mackenzie Building/Video Conference*

THESIS TITLE: *Multiscale Design Optimization of Heatsinks Employing Functionally Graded Lattice Materials for Enhanced Thermal Management in Aerospace Systems*

EXAMINATION BOARD:

External Examiner	Abolghassem Zabihollah, Mechanical Engineering - Tarleton State University	(Video Conference)
Internal Examiner	Chao Shen, Systems & Computer Engineering	(In Person)
Member of Joint Institute	Hai Jun Cho, Mechanical Engineering - University of Ottawa	(In Person)
Member of Department	Hamza Abo El Ella, Mechanical & Aerospace Engineering	(In Person)
Thesis Supervisor	Mostafa El Sayed, Mechanical & Aerospace Engineering	(In Person)
Chair/Director of Department or Designate	Edgar Matida	(Ex-officio)
Dean of Faculty	Ron Miller	(Ex-officio)
Vice-Provost, Graduate Studies	Nadeem Siddiqi	(Ex-officio)