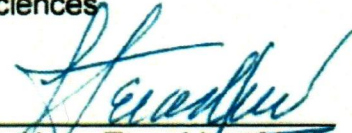


Instituto Tecnológico y de Estudios Superiores de Monterrey

Campus Monterrey

School of Engineering and Sciences

The committee members, hereby, certify that have read the thesis presented by Samuel Jesús Martínez Eguiarte and that it is fully adequate in scope and quality as a partial requirement for the degree of Master of Science in Computer Sciences.



Dr. Hugo Terashima Marín
Tecnológico de Monterrey
Principal Advisor



Dr. Alejandro Rosales Pérez
Tecnológico de Monterrey
Co-advisor



Dr. Héctor Gibrán Ceballos Cancino
Tecnológico de Monterrey
Committee Member



Dr. Miguel Ángel Álvarez Carmona
CICESE
Committee Member



Dr. Rubén Morales Menéndez
Associate Dean of Graduate Studies
School of Engineering and Sciences

Monterrey, Nuevo León, December 9th, 2019