

EFFECT OF NIOBIUM ON HEAT TREATMENT BEHAVIOR AND ABRASIVE
WEAR RESISTANCE OF MULTI-ALLOYED WHITE CAST IRON

Suranaree University of Technology has approved this thesis submitted in
partial fulfillment of the requirements for the Degree of Doctor of Philosophy

Thesis Examining Committee


.....
(Assoc. Prof. Dr. Sudsakorn Inthidech)

Chairperson 
.....

(Assoc. Prof. Dr. Sarum Boonmee)

Member (Thesis Advisor)

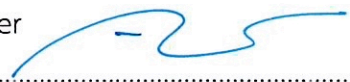
.....

(Prof. Dr. Yasuhiro Matsubara)

Member (Thesis Co-advisor)

.....

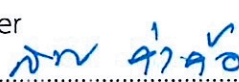
(Prof. Dr. Kaoru Yamamoto)

Member 
.....

(Assoc. Prof. Dr. Anurat Poowancum)

Member 
.....

(Asst. Prof. Dr. Panya Buahombura)

Member 
.....

(Asst. Prof. Dr. Sakhob Khumkoa)

Member


.....
(Assoc. Prof. Dr. Yupaporn Ruksakulpiwat)
Acting Vice Rector for Academic Affairs and
Quality Assurance


.....
(Assoc. Prof. Dr. Pornsiri Jongkol)
Dean of Institute of Engineering