# INCORPORATING UNCERTAINTY INTO STRING GRAMMAR K-NEAREST NEIGHBOR



GRADUATE SCHOOL CHIANG MAI UNIVERSITY DECEMBER 2016

# INCORPORATING UNCERTAINTY INTO STRING GRAMMAR K-NEAREST NEIGHBOR



กมยนดิ

## DOCTOR OF PHILOSOPHY IN COMPUTER ENGINEERING

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## INCORPORATING UNCERTAINTY INTO STRING GRAMMAR K-NEAREST NEIGHBOR

PAYUNGSAK KASEMSUMRAN

A THESIS SUBMITTED TO CHIANG MAI UNIVERSITY IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY IN COMPUTER ENGINEERING

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#### PAYUNGSAK KASEMSUMRAN

### THIS THESIS HAS BEEN APPROVED TO BE A PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY IN COMPUTER ENGINEERING

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