

**SYNTHESIS AND CHARACTERIZATION OF
ZINC OXIDE TETRAPOD NETWORK
BY MICROWAVE-ASSISTED
THERMAL OXIDATION
FOR GAS SENSOR
APPLICATIONS**



MEECHAI THEPNURAT

DOCTOR OF PHILOSOPHY

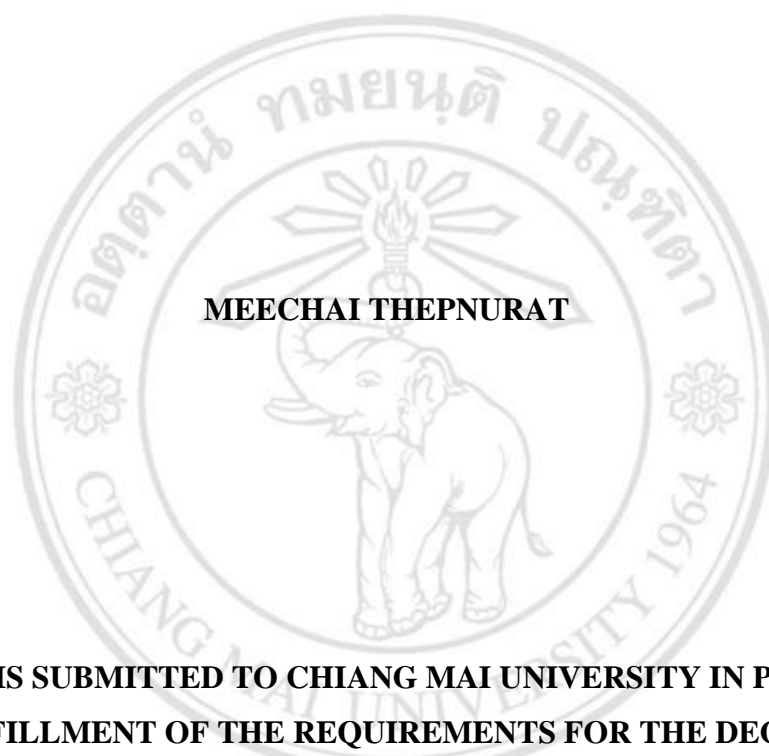
IN APPLIED PHYSICS

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**GRADUATE SCHOOL
CHIANG MAI UNIVERSITY**

JUNE 2016

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MEECHAI THEPNURAT

**A THESIS SUBMITTED TO CHIANG MAI UNIVERSITY IN PARTIAL
FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE
OF DOCTOR OF PHILOSOPHY
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THIS THESIS HAS BEEN APPROVED TO BE A PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY
IN APPLIED PHYSICS

Examination Committee:

Advisory Committee:

Niyom Hongsoth.....Chairman
(Dr. Niyom Hongsoth)

S. Choopun.....Advisor
(Asst. Prof. Dr. Supab Choopun)

Pipat Ruankham.....Member
(Dr. Pipat Ruankham)

D. Wongratanaphisan.....Co-advisor
(Asst. Prof. Dr. Duangmanee Wongratanaphisan)

S. Phadungditidhada.....Member
(Dr. Surachet Phadungditidhada)

S. Phadungditidhada.....Co-advisor
(Dr. Surachet Phadungditidhada)

S. Choopun.....Member
(Asst. Prof. Dr. Supab Choopun)

D. Wongratanaphisan.....Member
(Asst. Prof. Dr. Duangmanee Wongratanaphisan)

30 June 2016

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With love to my parents



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