

## Theses (วิทยานิพนธ์) 2017

### Thesis MSc 1 article

1. Kamolwat Chaisena. [An Automatic Stabilizing System for Balancing a Quad Rotor Subject to Variations in Center of Gravity and Mass](#). Master's Thesis (Engineering in Mechatronics Engineering), Suranaree University of Technology, 2017.

## 2016

### Thesis PhD. 2 articles

1. Cholpajorn Junhom. [FTIR Microspectroscopy Application for Monitoring Resistance of HepG2 Cancer Cell Line](#). Doctoral Dissertation (Philosophy in Biomedical Science), Khon Kaen University, 2016.
2. Santi Khoonsap. [Effect of poly\(2-hydroxyethyl Metracrylate\)-grafted Silica Nanoparticles on the Water Selectivity of the PVA Nanocomposite Membranes](#). Doctoral Dissertation (Philosophy), Khon Kaen University, 2016.

## 2015

### Thesis PhD. 3 articles

1. Penphitcha Amonpattaratkit. [Preparation, Structure and Multiferroic Properties of Perovskite Ferroelectric PZT-PZN/PFN/PMnN Systems](#). Doctoral Dissertation (Philosophy in Materials Science), Chiang Mai University, 2015.
2. Praewpilin Kangvansura. [Fischer-Tropsch Synthesis: Product Selectivity on Promoted Cobalt and Promoted Iron Catalysts](#). Doctoral Dissertation (Nanomaterials Science), Kasetsart University, 2015.
3. Thapakron Pulampong. [Ultra-low Emitance Lattice Design for Advanced Synchrotron Light Source](#). Doctoral Dissertation (Philosophy), University of Oxford, 2015.

## 2014

### Thesis PhD. 4 articles

1. Pisan Sukwisute. [Piezoelectric and Electrostrictive Polymers for Energy](#)

- Harvesting in a Low-Frequency Range. Doctoral Dissertation (Philosophy in Physics), Prince of Songkla University, 2014.
2. Thanit Tangcharoen. [Synthesis and Characterization of Magnetic Nanopowder of M Ferrite \(M = Mn, Cu, Zn\) by Sol-gel Auto combustion Method](#). Doctoral Dissertation (Nanoscience and Nanotechnology), College of Nanotechnology King Mongkut's Institute of Technology Ladkrabang, 2014.
  3. Rarm Phinjaroenphan. [Synchrotron X-Ray Scattering Studies of Glucose Oxidase in Solutions and PHIC-PCL<sub>1-3</sub> and PHIC-PLLA<sub>1-3</sub> in Thin Films](#). Doctoral Dissertation (Philosophy of Physics), Suranaree University of Technology, 2014.
  4. Worawikunya Kiatpongarp. [Self-Assembly and Crystallization of Debranched Rice Starches in Relation to Enzyme Digestibility](#). Doctoral Dissertation (Philosophy of Food Technology), Suranaree University of Technology, 2014.

### **Thesis MSc 1 article**

1. Witchulada Kempet. [Study of Polarization Switching of Lead Zirconate Titanate Under Electric Field by X-Ray Absorption Spectroscopy](#). Master's Thesis (Engineering in Electrical Engineering), Suranaree University of Technology, 2014.

## **2013**

### **Thesis PhD. 2 articles**

1. Nuttawan Pramanpol. [Structural Studies on Immunogenic Proteins of Burkholderia pseudomallei](#). Doctoral Dissertation (Molecular Biology and Biotechnology), University of Sheffield, 2013.
2. Onlamee Kamon-in. [Synthesis and In-Situ X-Ray Absorption Spectroscopy Study of lithium Iron Silicate Ceramics for Li-Ion Batteries](#). Doctoral Dissertation (Engineering in Ceramic Engineering), Suranaree University of Technology, 2013.

### **Thesis MSc 2 articles**

1. Watcharapon Pummara. [Fabrication of Capacitive Pressure Sensors Using Direct X-Ray Lithography of SU-8 Photoresist](#). Master's Thesis (Engineering in Electrical Engineering), Suranaree University of Technology, 2013.
2. Siwaruk Chotiwan. [In situ Calcination, Reduction, and Oxidation of](#)

Co/SiO<sub>2</sub> on Fischer-Tropsch Synthesis Using X-Ray Absorption Spectroscopy. Master's Thesis (Chemistry), Kasetsart University, 2013.

## 2012

### Thesis PhD. 1 article

1. Sujittra Chandarak. [Effects of Manganese and Copper Doping on Electrical and Magnetic Properties of 0.75BiFeO<sub>3</sub>-0.25BaTiO<sub>3</sub> Ceramics](#). Doctoral Dissertation (Philosophy of Engineering in Ceramic Engineering), Suranaree University of Technology, 2012.

### Thesis MSc 5 articles

2. Chalinee Maneekat. [Patterning of Burnishing Head for Hard Disk Platters by Synchrotron Radiation Application](#). Master's Thesis (Industrial Engineering), Chiang Mai University, 2012.
3. Jirapat Ruenin. [Fabrications of Device for Quantitative Monitoring of Algal Cell Behavior](#). Master's Thesis (Biological Engineering), King Mongkut's University of Technology Thonburi, 2012.
4. Natthapong Konkhunthot. [Corrosion Resistance Behaviour AISI H<sub>13</sub> Hot Work Tool Steel by Diamond-Like Carbon \(DLC\) Coating](#). Master's Thesis (Metallurgical Engineering), Suranaree University of Technology, 2012.
5. Orapan Meesungnoen. [Zinc and Cadmium Resistance Mechanism of Pseudomonas aeruginosa PDMZnCd2003 Isolated from Zinc and Cadmium Contaminated Soils](#). Master's Thesis (Science in Biology), Mahasarakham University, 2012.
6. Patchara Sukonrat. [Characterization of Micropatterned Magnetic Structures](#). Master's Thesis (Physics), Kasetsart University, 2012.

## 2011

### Thesis Ph.D. 2 articles

1. Salila Pengthaisong. [Structural Analysis for Protein Engineering of a Glycosynthase](#). Doctoral Dissertation (Philosophy of Biochemistry), Suranaree University of Technology, 2011.
2. Yuttakarn Rattanachai. [Effects of Ion Bombardment and VUV Irradiation on Nafion Polymer Electrolyte Membrane](#). Dissertation (Philosophy in Physics), Suranaree University of Technology, 2011.

### Thesis MSc 6 articles

1. Phakkhananan Pakawanit. [Fabrication and Characterization of PZN/PT](#)

- Ceramic Nanocomposites. Master's Thesis (Materials Science), Chiang Mai University, 2011.
2. Rachanusorn Roongtao. Preparation and Characterization of Ceramics in the  $(1-x)\text{BaTiO}_3\text{-}x\text{Ba}(\text{Mg}_{1/3}\text{Nb}_{2/3})\text{O}_3$  System. Master's Thesis (Materials Science), Chiang Mai University, 2011.
  3. Somruedee Klaithong. Fischer-Tropsch Synthesis: Preparation and Characterization of Ce/Co/TiO<sub>2</sub> and Zr/Co/SiO<sub>2</sub> Catalysts. Master's Thesis (Chemistry), Kasetsart University, 2011.
  4. Sarayut Tunmee. Corrosion Resistance AISI H13 Hot Worked Tool Steel Surface-Coated by Physics Vapour Deposition. Master's Thesis (Metallurgical Engineering), Suranaree University of Technology, 2011.
  5. Sukumal Boonurapeepinyo. Capacity Comparison and Adsorption Mechanism of Reactive Dye Wastewater by Chitin, Modified Chitin and Nanochitin. Master's Thesis (Science of Biotechnology), Thammasat University, 2011.
  6. Suthipong Kophon. Development of 1 KW Solid State RF Power Amplifier for Synchrotron Accelerator. Master's Thesis (Telecommunication Engineering), Suranaree University of Technology, 2011.

## 2010

### Thesis Ph.D. 6 articles

1. Anusorn Tong-on. Development of the Optical System of the First Undulator Beamline for The Siam Photon Laboratory. Doctoral Dissertation (Physics), Suranaree University of Technology, 2010.
2. Darin Onkaw. Local Structures Around Some Impurity Atoms in TiO<sub>2</sub>, and CeO<sub>2</sub> Studied by Synchrotron X-Ray Absorption Spectroscopy. Doctoral Dissertation (Physics), Suranaree University of Technology, 2010.
3. Kun Silprasit. Recombinant HIV-1 Reverse Transcriptase and Its Mutants Study; Cloning, Expression, Purification and Preliminary Crystallization for X-ray Crystallography. Doctoral Dissertation (Genetic Engineering), Kasetsart University, 2010.
4. Ratchadaporn Supruangnet. Electronic Structures of Ni Films on Cu(100) Studied by Angle-Resolved Photoemission Spectroscopy. Doctoral Dissertation (Physics), Suranaree University of Technology, 2010.
5. Suthatip Sinyoung. Analysis of Chromium Species in the Synthesis Clinker and Cement from the Co-Burning of Hazardous Wastes.

Doctoral Dissertation (Environmental Engineering), King Mongkut's University of Technology Thonburi, 2010.

6. Suttinart Noothongkaew. [In-Situ Photoemission Study of ZnO Formed by Thermal Oxidation](#). Doctoral Dissertation (Physics), Suranaree University of Technology, 2010.

### **Thesis MSc 3 articles**

1. Bodin Mongkhonsin. [Accumulation and Distribution of Chromium in Gynura Pseudochina \(L.\) DC.](#). Master's Thesis (Biology in Science), Mahasarakham University, 2010.
2. Chinnawut Pipatpanukul. [Study of Polylactide/Poly\(Ethylene Glycol\)/Montmorillonite Nanocomposite](#). Master's Thesis (Chemistry), Suranaree University of Technology, 2010.
3. Jaru Jutimoosik. [Local Structure of Magnesium Zinc Oxide Nanocrystals](#). Master's Thesis (Physics), Suranaree University of Technology, 2010.

## **2009**

### **Thesis Ph.D. 4 articles**

1. Rungrueang Phatthanakun. [Development of Pneumatic Braille Display System using High-Aspect-Ratio Microstructure](#). Doctoral Dissertation (Electrical Engineering), Suranaree University of Technology, 2009.
2. Somjai Chunjarean. [High Field Insertion Devices for Low Energy Electron Storage](#). Doctoral Dissertation (Physics), Suranaree University of Technology, 2009.
3. Sutasinee Kityakarn. [\(Photo\) Electrochemical Studies of Nanoporous TiO<sub>2</sub> and Ce-doped TiO<sub>2</sub> Film Electrodes Prepared by the Sol-Gel Methods](#). Doctoral Dissertation (Chemistry), Kasetsart University, 2009.
4. Varalak Saengsuwan. [Development of X-ray Powder Diffraction and X-ray Fluorescent Techniques Using Synchrotron Radiation](#). Doctoral Dissertation (Physics), Chulalongkorn University, 2009.

### **Thesis MSc 7 articles**

1. Apirak Suthummapiwat. [Prototype of a Mirror Bender for the Synchrotron Radiation Beamline](#). Master's Thesis (Mechathronics), Suranaree University of Technology, 2009.
2. Onlamee Kamon-in. [The Study Doped BaTiO<sub>3</sub> PTCR Using X-ray Absorption Spectroscopy](#). Master's Thesis (Engineering in Ceramic

- Engineering), Suranaree University of Technology, 2009.
3. Pittaya Deekla. [Development of Electrostatic Micromotors](#). Master's Thesis (Electronics in Engineering), Suranaree University of Technology, 2009.
  4. Ratchapon Thianchutima. [Development Study on the Thermal Properties and Molecular Structure of the Desulfurized Rubber Product](#). Master's Thesis (Chemistry), King Mongkut's University of Technology Thonburi, 2009.
  5. Rattapong Numard. [A Study of Cross Linking Bonding and Degradation of Rubber Film by Using X-ray Absorption Spectroscopy](#). Master's Thesis (Polymer Science and Technology), Thammasart University, 2009.
  6. Teerawat Monnor. [X-ray Absorption Spectroscopy of Two Disordered Systems: Ca<sup>2+</sup> Hydration Structure and Zinc Oxynitride Structure](#). Master's Thesis (Physics), Suranaree University of Technology, 2009.
  7. Wiwek Phacheerak. [Development of a DC Power Supply for the Screen Grid of RS2058CJ Tetrode Tube in the RF System of Siam Photon Source](#). Master's Thesis (Engineering in Electrical Engineering), Suranaree University of Technology, 2009.

## 2008

### Thesis Ph.D. 4 articles

1. Pongtanawat Khemthong. [Preparation Characterization and Testing of Catalysts Containing Platinum and Cobalt on Faujasite Zeolites](#). Doctoral Dissertation (Physics), Suranaree University of Technology, 2008.
2. Sirinuch Loiha. [Synthesis of Zeolite Beta as a Support of Metal Supported Catalysts for Toluene Hydrogenation and Application of in Situ XAS on Catalysts Characterization](#). Doctoral Dissertation (Physics), Suranaree University of Technology, 2008.
3. Thananchai Dasri. [Characterization of Soft X-ray Undulator for the Siam Photon Source](#). Doctoral Dissertation (Physics), Suranaree University of Technology, 2008.
4. Yingyot Pooarporn. [Advance Oxidation Process \(AOP\) for the Degradation of Gaseous Sulfur Containing Compounds \(Pollutants\) Using TiO<sub>2</sub> and Ce/TiO<sub>2</sub> Photocatalysts](#). Doctoral Dissertation (Chemistry), Kasetsart University, 2008.



## **Thesis MSc 6 articles**

1. Jirapa Tangsritrakul. [Effects of Transition Metals Addition on Electrical Properties of Barium Titanate Ceramic](#). Master's Thesis (Material Science), Chiang Mai University, 2008.
2. Khuanjai Nachaiyaphum. [The Use of Savitzky-golay and Wiener Filters for Display Smoothing of Siam Photon Source](#). Master's Thesis (Electrical Engineering), Suranaree University of Technology, 2008.
3. Khongvit Prasitnok. [EXAFS and Molecular Simulation Studies of Atomic Structure of Fuel Cell Membrane Based on Sulfonated Ionomers](#). Master's Thesis (Chemistry), Suranaree University of Technology, 2008.
4. Packpoom Sukveeradachgul. [X-rays Absorption Spectroscopy Study of the Quantum Confinement Properties of EuO Nanocrystals](#). Master's Thesis (Engineering), Thammasart University, 2008.
5. Siritwat Radabutra. [Surface Modification of Vulcanized Natural Rubber and its Adhesion to Synthetic Rubbers](#). Master's Thesis (Polymer Science and Technology), Mahidol University, 2008.
6. Surachet Rattanasuporn. [Design and Construction of the Magneto-optic Kerr Effect \(moke\) Measurement System](#). Master's Thesis (Physics), Srinakharinwirot University, 2008.

## **2007**

### **Thesis Ph.D. 2 articles**

1. Moragote Budhakala. [Development of Experimental Station at the Siam Photon Laboratory for Ultra-Thin Magnetic Films Research](#). Doctoral Dissertation (Physics), Suranaree University of Technology, 2007.
2. Somchai Chumplokulwong. [Study of Ni\(111\) with Oxygen Adsorption by Angle-Resolved Photoemission](#). Doctoral Dissertation (Physics), Suranaree University of Technology, 2007.

### **Thesis MSc 4 articles**

1. Manot Mapato. [Fabrication of Fast Response Humidity Sensor by Using X-ray Lithography Technique](#). Master's Thesis (Electrical Engineering), Suranaree University of Technology, 2007.
2. Noppadon Deethae. [Electron Beam Profile Measurement of the Siam](#)

[Photon Source](#). Master's Thesis (Physics), Suranaree University of Technology, 2007.

3. Supachai Prawanta. [Winding Design and Implementation of a Sextupole Magnet with Current Rating of 20 Amperes for the Siam Photon Source](#). Master's Thesis (Electrical Engineering), Suranaree University of Technology, 2007.
4. Winai Wanburi. [Process Development of Microstructure Production Using X-ray Lithography](#). Master's Thesis (Electrical Engineering), Suranaree University of Technology, 2007.

## 2006

### Thesis MSc 1 article

1. Ratchadaphon Sabrueangnet. [Si\(001\)-c\(4x4\) Surface Reconstruction](#). Master's Thesis (Physics), Suranaree University of Technology, 2006.

## 2005

### Thesis Ph.D. 1 article

1. Ritthikrai Chai-ngam. [Investigation of Interlayer Magnetic Coupling in Magnetic Multilayer Films of Al-Fe-Gd](#). Doctoral Dissertation (Physics), Suranaree University of Technology, 2005.

### Thesis MSc 2 articles

1. Mathee Sophon. [Analysis and Testing of Recovery of Mechanical Properties of Metal Gasket](#). Master's Thesis (Mechanical Engineering) Institute of Science Suranaree University of Technology, 2005.
2. Narupon Wongprachanukul. [A Proper Method for Decision Tree Pruning in Scientific Data Mining](#). Master's Thesis (Computer Engineering), Suranaree University of Technology, 2005.

## 2004

### Thesis Ph.D. 3 articles

1. Samred Kantee. [Development of Angle-Integrated Photoemission Spectroscopy System Using Synchrotron Light](#). Doctoral Dissertation (Physics), Suranaree University of Technology, 2004.
2. Wiwat Wongkokua. [Study of Nickel \(111\) by Photoemission Spectroscopy](#). Doctoral Dissertation (Physics), Suranaree University of Technology, 2004.
3. Wanwisa Pattanasiriwisawa. [Visual Observation of Biological and Medical Objects by a Newly Developed X-ray Imaging Technique](#).



Doctoral Dissertation (Physics), Suranaree University of Technology,  
2004.

## 2002

### Thesis Ph.D. 2 articles

1. Supakorn Pukird. [Photoemission Study of 3d Transition Metals](#). Doctoral Dissertation (Physics), Suranaree University of Technology, 2002.
2. Wichuda Suraban. [The Electronic Structure of the \(1X1\) and \(5X1\) Surfaces of Pt\(100\) Studied by Angle-Resolved Photoemission Spectroscopy](#). Doctoral Dissertation (Physics), Suranaree University of Technology, 2002.

## 2000

### Thesis MSc 2 articles

1. Narudom Noulkhow. [Design Study of Soft X-ray Emission Spectrometer](#). Master's Thesis (Physics), Suranaree University of Technology, 2000.
2. Ritthikrai Chai-ngam. [Electron Beam Dynamics Studies of the Siam Photon Source](#). Master's Thesis (Physics), Suranaree University of Technology, 2000.

## 1999

### Thesis Ph.D. 1 article

1. Haß, Klaus. [The RF System of Siam Photon Source at NSRC in Thailand](#). Doctoral Dissertation (Physics), Suranaree University of Technology, 1999.