



## Presenter Award

### Siam Physics Congress 2019

Hansa JB Hotel, Hatyai, Songkhla, Thailand

6 – 7 June 2019

### Oral Presentation

#### Session 1 Fundamental Physics

Outstanding prize	Presenter	Maneenate Wechakama
	Organization	Kasetsart University
	Title	Upper limits on dark matter annihilation with the teraelectronvolt cosmic ray spectrum of electrons and positrons from DAMPE
Very good prize	Presenter	Kledsai Poopakun
	Organization	ChiangMai University
	Title	Physical Properties Distribution of Galaxy Population in Abell 2142 Cluster
Very good prize	Presenter	Wirin Sonsrettee
	Organization	Panyapiwat Institute of Management
	Title	Empirical Model of Magnetic Field Line Spreading in Isotropic Turbulence with Zero Mean Field
Very good prize	Presenter	David Ruffolo
	Organization	Mahidol University
	Title	A simplified phase coherence index to characterize intermittent fluctuations
Very good prize	Presenter	Burin Gumjudpai
	Organization	Naresuan University
	Title	Effect Structure in Physics and Hints to Economics Equation of State

<b>Very good prize</b>	Presenter	Sirapat Lookrak
	Organization	Mahidol University
	Title	Spontaneous R-Symmetry Breaking in Broken Supersymmetric Vacuum
<b>Very good prize</b>	Presenter	Raman Solanki
	Organization	National Astronomical Research Institute of Thailand
	Title	Initial Atmospheric LiDAR Data Analysis over Songkhla, Southern Thailand
<b>Very good prize</b>	Presenter	Narenrit Thananusak
	Organization	Chiang Mai University
	Title	Luminosity Function of High-z Object Candidates at the Epoch of Reionization ( $z \approx 6$ ) in Cosmic Evolution Survey (COSMOS) Field
<b>Very good prize</b>	Presenter	Karnchana Aroonrueang
	Organization	Chulalongkorn University
	Title	A Search for Multiply-gravitationally-lensed Images of Distant Star-forming Galaxies behind Massive Galaxy Clusters at 4-8 GHz
<b>Very good prize</b>	Presenter	Suttiwat Madlee
	Organization	Mahidol University
	Title	Observations of the Earth's Gamma-ray Emission in Geographical Coordinates by Fermi LAT
<b>Very good prize</b>	Presenter	Nakornping Namkham
	Organization	Chiang Mai University
	Title	Timing noise of 133 pulsars in the southern hemisphere
<b>Good prize</b>	Presenter	Pongpichit Chuanraksasat
	Organization	National Astronomical Research Institute of Thailand
	Title	Effects of Moon Presence on the Transiting Exoplanet Light Curves: Theory and Empirical Relations

<b>Good prize</b>	Presenter	Pakkapawn Prapan
	Organization	Mahidol University
	Title	A Data-Driven Simulation Study of Magnetic Reconnection at the Leading edge of an Interplanetary Coronal Mass Ejection on 2005 January 21
<b>Good prize</b>	Presenter	Hannarong Janthaloet
	Organization	Mahidol University
	Title	Can single secondary particles from cosmic rays explain the high counter multiplicity rate at the Princess Sirindhorn Neutron Monitor?
<b>Good prize</b>	Presenter	Chanoknan Banglieng
	Organization	Mahidol University
	Title	Atmospheric water vapor correction to to cosmic ray spectrum measurements from Princess Sirindhorn Neutron Monitor
<b>Good prize</b>	Presenter	Koichiro Sugiyama
	Organization	National Astronomical Research Institute of Thailand
	Title	Long-term with short-intervals monitor of 6.7 GHz CH <sub>3</sub> OH masers using Hitachi 32-m radio telescope to statistically research the periodic flux variability around high-mass protostars
<b>Good prize</b>	Presenter	Montree Phetra
	Organization	Chiang Mai University
	Title	Classifying maser features with Fortran and Shell script for proper motion study of water masers in W49N
<b>Good prize</b>	Presenter	Aekawit Kittiya
	Organization	Chiang Mai University
	Title	Doubly excited helium : calculation and comparison to Diffuse Interstellar Bands

<b>Good prize</b>	Presenter	Nikom Prasert
	Organization	National Astronomical Research Institute of Thailand
	Title	CALLISTO spectrometer for solar radio bursts monitoring in Chiangmai
<b>Good prize</b>	Presenter	chaiyaphorn nilarat
	Organization	National Astronomical Research Institute Of Thailand
	Title	Light curve analysis of a transitional millisecond pulsar PSR J1023+0038 with Kepler K2 mission
<b>Good prize</b>	Presenter	Sujin Suwanna
	Organization	Mahidol University
	Title	Quantum Random Walks with Fluctuation in Coin Operator
<b>Good prize</b>	Presenter	Vichayanun Wachirapusanand
	Organization	Chulalongkorn University
	Title	Application of Adversarial Networks in search for four top quark production in CMS
<b>Good prize</b>	Presenter	Jetnipit Kaewjai
	Organization	Suranaree University of Technology
	Title	Upgrade of pixel sensor telescope for the characterisation of ALPIDE sensor
<b>Good prize</b>	Presenter	Noppamas Pratummasoot
	Organization	Valaya Alongkorn Rajabhat University under the Royal Patronage
	Title	Estimation of hourly near infrared radiation using artificial neural network
<b>Good prize</b>	Presenter	Pranomkorn Choosri
	Organization	Christian University of Thailand
	Title	Estimation of Global Solar Radiation from Meteorological Parameters under Clear Sky Condition at Lopburi Province using Artificial Neural Network

<b>Good prize</b>	Presenter	Ronald Macatangay
	Organization	National Astronomical Research Institute of Thailand
	Title	Analyzing Tropical Storm Pabuk (2019)
<b>Good prize</b>	Presenter	Thiranan Sonkaew
	Organization	Lampang Rajabhat University
	Title	Potential Air Pollution Source Locations during the HALO-EMERGE Asia Southeast Asian Transfer and Manila Mission Flights
<b>Good prize</b>	Presenter	Grittiya Pongsupa
	Organization	National Astronomical Research Institute of Thailand
	Title	TNT Photometric Reverberation Mapping Analysis of High-redshift Quasars
<b>Consolation prize</b>	Presenter	Werapong Rojpattanakul
	Organization	Mahidol wittayanusorn school
	Title	Entangled photons source for experimental quantum teleportation
<b>Consolation prize</b>	Presenter	Kitisak Boonkham
	Organization	Mahidol Wittayanusorn School
	Title	A simple technique for measuring the spatial correlation of photon pairs for complete interference in the Michelson interferometer
<b>Consolation prize</b>	Presenter	Bhuri Jearanaitanakij
	Organization	Mahidol Wittayanusorn School
	Title	Mechanical and electronic properties of ZnX (X=O, S, and Se) monolayer under biaxial stress
<b>Consolation prize</b>	Presenter	Nontaphat Sinsunthithet
	Organization	Chiang Mai University
	Title	Half-Length Reduction of the Spectral Method's Sampling Period

<b>Consolation prize</b>	Presenter	Nonthanan Sitpathom
	Organization	Mahidol University
	Title	Optical spectra of dielectric surface with hexagonal periodic pattern of half-nanosphere hole evaluated by finite-different time-domain
<b>Consolation prize</b>	Presenter	Ibrahim Yahaya Muhammad
	Organization	King Mongkut's University of Technology Thonburi
	Title	Quantum random walk on a one-dimensional lattice with two entangled particles
<b>Consolation prize</b>	Presenter	Takla Nateeboon
	Organization	King Mongkut's University of Technology Thonburi
	Title	Macroscopic model for multi-anticipation self-driving cars
<b>Consolation prize</b>	Presenter	Suranchana Suchanacha
	Organization	Darunsikkhalai school
	Title	Anomalous diffusion of particles in one dimension in the presence of quantum correlation
<b>Consolation prize</b>	Presenter	Pitchayapak Kunkaew
	Organization	University of Phayao
	Title	Azimuthal emission patterns of proton in $58\text{Ni} + 58\text{Ni}$ collision at intermediate energy by using the quantum molecular dynamics model
<b>Consolation prize</b>	Presenter	Tanaporn Boonprasert
	Organization	University of Phayao
	Title	Elliptic flow of proton in $197\text{Au} + 197\text{Au}$ collision reaction at intermediate energy by using quantum molecular dynamics model
<b>Consolation prize</b>	Presenter	Jenitsata Jeerakad
	Organization	University of Phayao
	Title	The Effect of $K^+$ Potential on Nuclear Equation of State for $K^+$ Production in Heavy ion Collision by using The Quantum Molecular Dynamics Model

<b>Consolation prize</b>	Presenter	Kasidapa Polprasarn
	Organization	Walailak University
	Title	Dependence of electron temperature on breakdown voltage and gas flow rate in atmospheric argon plasma jet
<b>Consolation prize</b>	Presenter	Rattachai Pinchaipat
	Organization	Burapha University
	Title	Effect of Inertia on Locally Favoured Structure in Supercooled Hard sphere
<b>Consolation prize</b>	Presenter	Jintana Pakdeewanich
	Organization	Prince of Songkla University
	Title	Effect of Impurity Radiation on Plasma Performance, Pedestal width and Pedestal height
<b>Consolation prize</b>	Presenter	Warisara Charuchinda
	Organization	Chulalongkorn University
	Title	SOBP Generating Functions for the Depth-Dose Distribution Based on the Monte Carlo Simulation Using PHITS
<b>Consolation prize</b>	Presenter	Brandon Khan Cantlay
	Organization	Kasetsart University
	Title	Constraints on Dark Matter Annihilation with Electron Spectrum from VERITAS
<b>Consolation prize</b>	Presenter	Surasak Loekkese
	Organization	Srinakharinwirot University
	Title	Reverberation mapping of the disc wind in ultraluminous X-ray source NGC5408 X-1

**Session 2 Applied Physics, Engineering and Industrial Physics**

<b>Very good prize</b>	Presenter	Natthapong Monarumit
	Organization	Kasetsart University
	Title	Investigation of Fe Oxidation States on Purple- and Yellow- Quartz
<b>Very good prize</b>	Presenter	Sikharin Suphakul
	Organization	Thailand Center of Excellence in Physics
	Title	Present Status of 4-MeV Electron Beam Accelerator System for Natural Rubber Irradiation
<b>Very good prize</b>	Presenter	Tanate Chaichana
	Organization	Maejo University
	Title	Effect of Blade Number and Angle on the Characteristics of the Savonius Type Wind Turbine
<b>Very good prize</b>	Presenter	Napat Srichan
	Organization	Mahidol Wittayanusorn School
	Title	Vehicular Traffic Simulation Using Cellular Automata Model for Traffic Light Management in Intersection System
<b>Very good prize</b>	Presenter	Sutthipong Noisagool
	Organization	Mahidol University
	Title	The spatio-temporal relation of seismic moment release of 2014 Chiang Rai Earthquake and its aftershocks: an implication for secondary aftershocks generating mechanism
<b>Very good prize</b>	Presenter	Kullapha Chaiwongkhot
	Organization	Mahidol University
	Title	Preliminary results of 3D Cosmic-ray Muon Tomography using a Portable Detector for Infrastructure Scale Object Investigation



<b>Very good prize</b>	Presenter	Tipsuda Chaipiboonwong
	Organization	Thammasat University
	Title	Raspberry-Pi Control System of High Sensitive CCD Linear Image Sensor for a Low-cost Homemade Spectrometer
<b>Good prize</b>	Presenter	Kittipong Techakaew
	Organization	Chiang Mai University
	Title	Simulation of Electron Beam Energy and Calibration of Alpha Magnet Energy Slits
<b>Good prize</b>	Presenter	Sarun Trinakoon
	Organization	Mahidol University
	Title	Comparing performance of Multi-frequencies Occam' s receiver function inversion to standard linearized receiver function inversion
<b>Good prize</b>	Presenter	Puthita Rodsong
	Organization	Prince of Songkla University
	Title	Characteristic of DBD Plasma Ozonation System and Its Application on Health Agricultural Products
<b>Good prize</b>	Presenter	Jirattaya Thongjamroon
	Organization	Kasetsart University
	Title	Investigation of Effect of Central Gap's Width and Length of Magnetic Material on Heat Transfer and Pressure Loss of Water Flow using Computational Fluid Dynamics
<b>Good prize</b>	Presenter	Kittipong Phueak-Im
	Organization	Mahidol University
	Title	Forward modeling of 2.5-dimensional controlled-source electromagnetic survey

<b>Good prize</b>	Presenter	Lattawan Niyomtham
	Organization	Thaksin University
	Title	High Resolution Wind Resource Mapping for Small-Scale Wind Turbine Generator Integrated in the High-Rise Building in Bangkok, Thailand
<b>Good prize</b>	Presenter	Joradol Jansawang
	Organization	Silpakorn University
	Title	DC Characterization of Tunneling Magnetoresistive Read Heads
<b>Good prize</b>	Presenter	Chaveng Khamnounsak
	Organization	Chulalongkorn University
	Title	The effects of the characteristics of hydraulic oil on measurement/calibration of Hydraulic Pressure Balance
<b>Good prize</b>	Presenter	Tanagorn Kwamman
	Organization	Thailand institute of nuclear energy
	Title	Study of carbide composites processed by spark plasma sintering for Gen IV reactors
<b>Consolation prize</b>	Presenter	Wanchalerm Chanalert
	Organization	Silpakorn University
	Title	An investigation of poleward expansion of the Hadley circulation using cloud cover
<b>Consolation prize</b>	Presenter	Chitsanu Taveesuvun
	Organization	Prince of Songkla University
	Title	Development of Combined Heat Sources for In-store Paddy Drying
<b>Consolation prize</b>	Presenter	Thanaphat Akkarachaiphant
	Organization	Prince of Songkla University
	Title	Investigation of Fluid Dynamic of Vertical-Axis Wind Turbine Blade for Low Wind Speed of Thailand by CFD

<b>Consolation prize</b>	Presenter	Nadprapa Nornin
	Organization	Mahidol University
	Title	Crustal density structure across Thailand delineated from 2D density modeling using gravity data and receiver function data
<b>Consolation prize</b>	Presenter	Chana Chancham
	Organization	Thaksin University
	Title	Testing of WRF Atmospheric Modeling for Offshore Wind Resource Assessment in the Gulf of Thailand
<b>Consolation prize</b>	Presenter	Krit Koyvanich
	Organization	Thaksin University
	Title	Characterization of Briquette from the mixture of Oil Palm Trunks (OPT), Oil Palm Shell (OPS) and Oil Palm Decanter Cake (OPDC)
<b>Consolation prize</b>	Presenter	Sirawut Natyanun
	Organization	Chiang Mai University
	Title	Radial Force and Equilibrium Position Numerical Study of Microscale Spherical Particle under the Effect of Inertial Focusing in 2D Microchannel
<b>Consolation prize</b>	Presenter	Chayanit Weerasakul
	Organization	Mahidol Wittayanusorn
	Title	The Cancellation of Human Sounds Using Synthesized Soundwaves
<b>Consolation prize</b>	Presenter	Ekkarat Pongophas
	Organization	Thammasat University
	Title	LED Phase Sensitive Spectral Interference
<b>Consolation prize</b>	Presenter	Jeerasak Pitakarnnop
	Organization	National Institute of Metrology (Thailand)
	Title	Establishment of Thailand's National Primary Vacuum Standard by a Static Expansion Method

<b>Consolation prize</b>	Presenter	Thitinun Gasosoth
	Organization	University of Phayao
	Title	A Period-Based Measurement for Grounding Capacitance Meter with Arduino Using a Relaxation Oscillator
<b>Consolation prize</b>	Presenter	Jesada Punyafu
	Organization	Chaing Mai University
	Title	Thermal stability of Ultrafine-grained Al Alloys containing Sc and Zr
<b>Consolation prize</b>	Presenter	Boonyaluk Namnuan
	Organization	Chulalongkorn University
	Title	Effects of Multiple Reflections and Interference in Photoluminescence of 135-CIGS/112-CIGS and 112-CIGS/135-CIGS Bi-layer Thin Films
<b>Consolation prize</b>	Presenter	Chavin Jongwannasiri
	Organization	King Mongkut's University of Technology Thonburi (Ratchaburi Learning Park)
	Title	Preliminary Testing for Reduction of Insertion Torque of Orthodontic Mini-screw Implant using Diamond-like Carbon Films

### Session 3 Physics Education

<b>Outstanding prize</b>	Presenter	Banyat Lekprasert
	Organization	King Mongkut's University of Technology Thonburi
	Title	Physics as a core subject in project-based learning for engineering students: A case of KMUTT (Ratchaburi)
<b>Very good prize</b>	Presenter	Wachirawut Wongsuwan
	Organization	Khon Kaen University
	Title	The students' basic conceptions of Buoyant force
<b>Very good prize</b>	Presenter	Chayanon Fongsuwan
	Organization	Mahidol Wittayanusorn School
	Title	A system displaying equipotential line from electrodes in real time
<b>Very good prize</b>	Presenter	Nadh Ditcharoen
	Organization	Ubon Ratchathani University
	Title	Games for Learning Earth and Stars in Astronomy Virtual Classroom via Oculus Devices
<b>Good prize</b>	Presenter	Sumalee Tientongdee
	Organization	Suan Sunandha Rajabhat University
	Title	Development of Low-cost Experimental Package on Bernoulli's Principle of Fluid in the Pipe
<b>Good prize</b>	Presenter	Aungtinee Kittiravechote
	Organization	Bansomdejchaopraya Rajabhat University
	Title	Hands-On Magnetic Field Projects for Classroom Demonstrations of Magnetization and Magnetic Force
<b>Good prize</b>	Presenter	Tanatorn Kalaya
	Organization	Mahidol University
	Title	Worksheet analysis for revealing students understanding of simple DC circuits

<b>Consolation prize</b>	Presenter	Chawapat Pathommapas
	Organization	Chiang Mai University
	Title	Application of Free Surface Synthetic Schlieren Method in Determining Surface Tension Force Acting on Floating Object
<b>Consolation prize</b>	Presenter	Sukanlaya Tantiwisawaruij
	Organization	King Mongkut's University of Technology Thonburi
	Title	Reflection of student on active learning experiences through physics classroom
<b>Consolation prize</b>	Presenter	Yaowapa Saengpayab
	Organization	Valaya Alongkorn Rajabhat University under the Royal Patronage
	Title	Computational study of heat conduction in laboratory
<b>Consolation prize</b>	Presenter	Tiantada Hiranyachattada
	Organization	Bansomdejchaopraya rajabhat university
	Title	Using mobile augmented reality to demonstrate physically-based rendering concepts in 3D animation
<b>Consolation prize</b>	Presenter	Natawee Chaijum
	Organization	Bansomdejchaopraya rajabhat university
	Title	Using integrated learning and project-based learning for creating embedded systems based on internet of things

### Poster Presentation

<b>Outstanding prize</b>	Presenter	Vichawan Sakulsupich
	Organization	National Astronomical Research Institute of Thailand
	Title	Pre-Cloud Condensation Nuclei Cluster Formation by Ion-Mediated Nucleation from Solar Energetic Particles: Example of the 2005 January 20 Ground Level Enhancement
<b>Outstanding prize</b>	Presenter	Kwanruthai Butsriruk
	Organization	Chulalongkorn University
	Title	Effects of anti-solvent in the two-step fabrication of absorber layer in perovskite solar cells
<b>Very good prize</b>	Presenter	Rangsima Chanphana
	Organization	Chulalongkorn University
	Title	Effects of Surface Diffusion Length on Steady-State Persistence Probabilities
<b>Very good prize</b>	Presenter	Kanokwan Buapan and Kamonrat Chiawchan
	Organization	King Mongkut's Institute of Technology Ladkrabang
	Title	Free-Standing Graphene Oxide Films: Effect of Thermal Reduction on Structural and Electrical Properties
<b>Very good prize</b>	Presenter	Sirawit Boonsit
	Organization	Prince Of Songkhla University
	Title	Simulation study of non-divergent Bessel-Gauss beam produced by an axicon doublet for km-range collimated laser
<b>Good prize</b>	Presenter	Kanlayaporn Kongmali
	Organization	Chiang Mai University
	Title	Simulation and Measurement of Square-frame Dipole Coils for Steering of Electron Beam

<b>Good prize</b>	Presenter	Gunganist Kongklad
	Organization	Mahidol University
	Title	Surface enhanced Raman spectroscopy: an alternative approach to detect Malaria stains (3D7 and CS2) spectra in different conditions
<b>Good prize</b>	Presenter	Anuson Niammusik
	Organization	Prince of Songkla University
	Title	Development of a highly sensitive label-free DNA based fluorescent sensor for cisplatin detection
<b>Good prize</b>	Presenter	Nititorn Kenyota
	Organization	Maha sarakram university
	Title	Photovoltaic Performance of DSSCs Prepared by Ce doped ZnO Hollow Microspheres Photoanode
<b>Good prize</b>	Presenter	Kunthisa Jehlaeh
	Organization	Prince of Songkla University
	Title	Electrocaloric Properties of Ferroelectric P(VDF-HFP)/PU Composites
<b>Good prize</b>	Presenter	Natsima Sakda
	Organization	Mahidol University
	Title	Design of a Metamaterial Absorber in the terahertz regime
<b>Good prize</b>	Presenter	Marina Mani
	Organization	Thaksin University
	Title	An empirical equation for the latent heat of vaporization of moisture in Dialium indum Linn. during its isothermal drying
<b>Good prize</b>	Presenter	Wutthikrai Kulsawat
	Organization	Thailand Institute of Nuclear Technology (Public Organization)
	Title	Stable isotopes relationship between precipitation and surface water, Phitsanulok



<b>Good prize</b>	Presenter	Pakawarunyu Wijitwongwan
	Organization	Ubon Ratchathani University
	Title	DIY small scale resonance tube for measuring the speed of sound in air
<b>Good prize</b>	Presenter	Akapong Buachoom
	Organization	Ubon Ratchathani University
	Title	An Arduino board with ultrasonic sensor investigation of simple harmonic motion
<b>Good prize</b>	Presenter	Suwit Khongpakdee
	Organization	Thaksin University
	Title	Development of the Van de Graaff Experiment Set
<b>Consolation prize</b>	Presenter	Tanagodchaporn Inyanya
	Organization	Yupparaj Wittayalai School
	Title	Transmission spectroscopy analysis of the hot super-Neptune WASP-127b
<b>Consolation prize</b>	Presenter	Paparin Jamlongkul
	Organization	Chiang Mai University
	Title	SYM/H and AE indices in corresponding with the variation of OI-5577Å emission spectrum
<b>Consolation prize</b>	Presenter	Natthakan Rueangnetr
	Organization	Ubonratchathani university
	Title	Effect of quantum well width on the electron hole states In different single quantum well structures
<b>Consolation prize</b>	Presenter	Manit Klawtanong
	Organization	Ramkhamhaeng University
	Title	Phase transitions in the frustrated antiferromagnetic XY model on the triangular lattice
<b>Consolation prize</b>	Presenter	Sakhorn Rimjaem
	Organization	Chiang Mai University
	Title	Investigation on Current Transformers for Measuring of Electron Beam Pulse Current

<b>Consolation prize</b>	Presenter	Jakgarin Hongfongfah
	Organization	Mahidol Wittayanusorn School
	Title	Aromatherapy Automatic Control System using Brain Computer Interface
<b>Consolation prize</b>	Presenter	Manomai Thaweerat
	Organization	Mahidol Wittayanusorn School
	Title	Plasma separation by microfluidic device
<b>Consolation prize</b>	Presenter	Natchira Dachoponchai
	Organization	Mahidol Wittayanusorn school
	Title	Development of Penicillin Allergy Diagnosis Using Lateral Flow Immunochromatographic Assay
<b>Consolation prize</b>	Presenter	Nattakan Kanjana
	Organization	Maharakham University
	Title	Synthesis and characterization of Fe-doped TiO <sub>2</sub> hollow nanospheres prepared by carbon sphere as hard template
<b>Consolation prize</b>	Presenter	Natthawat Phanchat
	Organization	Mahidol University
	Title	High birefringence hollow core with nested anti-resonance nodeless fibers for terahertz guidance
<b>Consolation prize</b>	Presenter	Tosaporn Angsachon
	Organization	Thammasat University
	Title	Free solution of the Dirac equation in R-spacetime
<b>Consolation prize</b>	Presenter	Sasikarn Nuchdang
	Organization	Thailand Institute of Nuclear Technology (Public Organization)
	Title	Development and validation of portable X-ray fluoresce spectrometry for routine measurement of elemental in soil samples

<b>Consolation prize</b>	Presenter	Samruay Puban
	Organization	King Mongkut's University of Technology North Bangkok
	Title	Drying Anchovy into Ready-to-eat Products
<b>Consolation prize</b>	Presenter	Pattanapol Meena
	Organization	Maharakham University
	Title	Heat Transfer Rate of Close-loop Oscillating Heat Pipe with Check Valve using NiO on Working Fluid
<b>Consolation prize</b>	Presenter	Charin Seesomdee
	Organization	Chulalongkorn University
	Title	Determination of Critical Micelle Concentration of Surfactant by Contact Angle Measurement Method
<b>Consolation prize</b>	Presenter	Supakorn Harnsoongnoen
	Organization	Maharakham University
	Title	Non-invasive microwave sensor for the detection of the cell culture medium residues
<b>Consolation prize</b>	Presenter	Sitthichok Samutchaiyakit
	Organization	Mahidol University
	Title	Tree Tomography with Ultrasonic Wave
<b>Consolation prize</b>	Presenter	Anusorn Tong-on
	Organization	Chiang Rai Rajabhat University
	Title	New technique for Planck's constant determination using the Arduino with LabVIEW
<b>Consolation prize</b>	Presenter	Parinya Saphet
	Organization	Chiang Rai Rajabhat University
	Title	The study of RCs circuit via Arduino with LabVIEW interface