# **Session Program**

20-22 May 2015

# Siam Physics Congress 2015

# Poster-2

# Thursday 21 May

	ter Session   Location:
So	und absorption of oil palm trunks
-	eaker Asleena SALAEH
1415	
	ng a Terminal Block as a Protoboard for the Development of Concepts rela
	Simple Direct Current Circuits
-	eaker Phusit Juntana
	ng Simple Experiments incorporated with a Laboratory Group Investigation
	del to Develop Conceptual Understanding of Static Electricity
•	<b>eakers</b> Akapong Buachoom, Dr Sura Wuttiprom
<u> </u>	
	nulation and Experimental Study of Vibration Characteristics of Thai Tradit uss Gong
	eaker
-	Thitinan Chantramontol
Mo Sp	plying the Michael and Wittmann's Framework to Analysis of the Force and tion Conceptual Evaluation Test eaker Suriya Chalermchat
	plication of Role-playing Game Strategies in Teaching and Learning High So ysics
Sp	eaker
Mr	ratapon kamkaen
Su	rveying Students' Conceptual Knowledge of Fluid Mechanics
-	eaker
Mr	Mana Chatmontree
De	signing an Inquiry-based Learning Approach about Force and Pressure to
	nance Elementary Students' Critical Thinking Skills
Enl	eaker
Sp	
Sp	Pannaporn Duangkam
<b>Sp</b> Ms	
Sp Ms Usi	Pannaporn Duangkam ng Active Workbooks as a Tool to Develop Concepts and Problem-solving S Work and Energy
Sp Ms Usi in V	ng Active Workbooks as a Tool to Develop Concepts and Problem-solving S

Comparisons of Students' Responses Relating to Buoyancy Force Between Two Different Teaching Approaches Speaker

Mr Pawaret Intana

# The effectiveness of learning with guided lecture worksheets designed based on students' learning difficulties

#### Speaker

Ms Thanida Sujarittham

# Developing Analysis Skills about electrical DC circuit by Virtual board on Ohm's law

#### Speaker

Mr Panya Wichanphet

#### Surveying of high-school students' ability in drawing free-body diagrams

Speaker

Mr Rathaphol Yooyued

# Developing concept of a frictional force by using predict-observe-explain (POE) technique

**Speaker** Mr Anek Hongthong

# Cambodian Students Understanding of Forces and Motions: A Comparison with US, Australian, Japanese and Thai students

**Speaker** Mr Seng Khun Beang

# **Developing Scientific Concepts on Magnetic and Electric Field using Simple Experiment and Multimedia Learning**

**Speaker** Mr Kreangkrai Tanawesh

### **Pre-Service Physics Teachers Expectations in Learning Physics**

**Speaker** Dr Singha Prasitpong

# Developing STS Projectile Motion Unit for Providing Students' perception of the relationship between Science Technology Engineering and Mathematics

**Speaker** Mrs Prapatsorn Seattha

# Teaching strategies to facilitate students' use of mathematics when solving physics problems

**Speaker** Mr Putcharapong Prawai

# Development of light detector for Michelson Interferometer experiment Instrument

**Speaker** Ms Chanoknan Banglieng

### **Smartphone in teaching Physics**

**Speakers** Ms Pokonwong Suthichon, Pornrat Wattanakasiwich

### Thermodynamics of a Rubber Balloon

#### Speaker

Piimonpun Prasongsri

### Surveying Physics Teaching Strategies in Three Leading Schools

#### Speaker

Dr Umporn Wutchana

# To design learning activities for the interference and the diffraction of light by using the learning package coorperate STAD techniqe : a case of secondary high school.

**Speaker** Ms Sumana Aungplachai

# The development of scientific of concept on electric current of grade 11 students through Predict - Observe - Explain : Classroom - Based Action Research

**Speaker** Mr Songsith Khunsawat

#### Investigation of Students' Moral Reasoning in Learning Physics Laboratory

**Speaker** Pornrat Wattanakasiwich

### The Development of Concepts of Grade 11 Students on Resistor Circuit Through Predict-Observe-Explain (POE) Approach

**Speaker** Ms Yupaporn Jarearnkhat

### Applying Michelson Interferometer for Coherence Length Measurement of Laser Light

**Speaker** Mr Pornchai Kopatta

#### An Effective Hands-On Experiment in Light and Optics for Grade 10 Students

Speaker

Ms Sujitra Khuntee

### Automatic Marking System for Basic Physics Laboratory

**Speaker** Dr Noparit Jinuntuya

### **Development of Portable Desk Lab for High School and University Physics**

**Speaker** Wachira Seesad

The development of scientific concepts on motion in uniform field of grade 10 students through Predict-Observe-Explain (POE) with video demonstration.

**Speaker** Mr Thoedsak Nachampa

Using colour light mixer cooperate with CIPPA model to teach primary colour light and their mixed: A case of secondary high school students.

Speaker Ms Rapeepat SONKRUA

# The development of scientific concept on electrostatics of grade 11 student through Predict - Observe - Explain (POE)

Speaker

Ms Mateeya Martjun

#### Simple Thick Lens Made of a Bottle Filled with Liquid

Speaker

Kittipoom Mala

The study scientific concepts about conservation of mechanical energy in before and after learning through Predict-Observe-Explain approach for Grade 10 Students

**Speaker** Mr Paritat Picitmal

### Analysis of Students' Task Relating to Boyle's law, Charles's law and Kinetic Energy for Gases.

**Speaker** Mr Pattarawut Chaweewong

# The Development Of Scientific Concept of "Momentum And Regarding Collision" For Grade 10th Students Though Leaning Activities Based On The Predict-Observe-Explain (POE) Method

**Speaker** Ms Kanita Srithanee

#### Classification of arabica by electronic tongue

Speaker

Mr Aant Phatthara-aneksin

### Electronic and dynamical properties of $YH_{x} \in (2.83 < x \leq 2.00)$

Speaker

Mr Anuphong Thongted

# Health Determinations of Yeast Suspensions for Brewery Industry using Cell Velocity Spectrum

**Speaker** Sakshin Bunthawin

### Mathematical Analyze of Breakdown Transmembrane Potentials of Fish Eggs using Hen-egg model

**Speaker** Sakshin Bunthawin

### A Second-Quantization Approach to the Analytical Faraday Effect in Graphene

**Speaker** Mr Phusit Nualpijit

## Pulse-Electric Fields Inductions for Preliminary Sex Reversal of Blue-Spotted Coral Trout

**Speaker** Sakshin Bunthawin

### Analysis of Biological Effect inside Human Body Exposed to Extremely Low Frequency due to Overhead Transmission Lines

Speaker

Mr Apichart Siriwitpreecha

# Structural phase transition of binary compounds of TIX (X = N, P, As) under high pressure : An \$ab\$ \$initio\$ Study

Speaker

Kittipong Limchuchua

#### Sequential Signal Generator for Yeast Separations

Speaker

Sakshin Bunthawin

## Calculation of Average Charge Number on the Single Electron Transistor by Quantum Monte Carlo Method

**Speaker** Mr Tawan Thongsuk

#### Ga acceptors in SnO\$\_2\$ revisited: A hybrid functional study

Speaker Mr Nirawith Palakawong

### Transport of Macromolecules through Glomerular Basement Membrane

Speaker Numpong Punyaratabandhu

# Electronic band structure of Hydrazine-water doped Single-Walled Carbon Nanotubes as n-Type Semiconductor

Speaker

Wutthisak Prachamon

#### High pressure properties of doped ZnO from ab initio calculation

Speaker Dr Prayoonsak Pluengphon

### Study of \$\textit{Butea superba}\$. Roxb Root (Red Kwao Krua) Extract on Sex Reversal of Nile Tilapia by using Exponential Decay Pulse-Electric Fields

**Speaker** Sakshin Bunthawin

### **Development of \$^{68}\$Ga-peptide for Positron Emission Tomography Tracer**

**Speaker** Ms Piriya Kaeopookum

### Enhancement of oil Palm (Elaeis guineensis Jacq.) by Magnetically treated Water

Speaker

Sasitorn Uaysin

Carbon screen-printed electrode/Graphene-PEDOT:PSS/Prussian blue/PEDOT-AuNPs for electrochemical immunosensor application.

### Electrical sex reversal of Nile tilapia from prototypes toward commercial product

#### Speaker

Sakshin Bunthawin

# Crystal and electronic structures of $\pi Li_{2}Ti_{6}O_{13}$ for lithium-ion batteries

#### Speaker

Mr Klichchupong Dabsamut

#### Effect of water vapour on neutron detection of cosmic rays

Speakers

Mr Kritpong Kulthamrongsri, Mr Supawit Kittipadakul, Mr Wattanapol Sangpho

# Development of weather station for wind direction, wind speed and temperature measurements

**Speaker** Mr Warut Singseeta

### Creation of 3D information from 2D images

Speaker Apiram TEERANAVAGUM

# Search for the Standard Model Higgs boson in ZZ\* to 4 $\mu$ decay channel with the CMS experiment at $\sqrt{s}$ = 8 TeV

**Speaker** Teerapat Payupol

# First principles calculations of cation-ordering effects on electronic band structure of ZnSnN2 and ZnGeN2

Speaker

Dr Atchara Punya

### Micron-size Electrodes Fabrication for Capacitively Coupled Contactless Conductivity Detection (C\$^4\$D)

Speaker

Ms Jongrak Sanglao

# The Role of Core Hole Effects on Calculated Resonant Inelastic X-Ray Scattering Spectra of Graphene

Speaker

Nuchalee Schwertfager

## Preliminary Investigation of Heat Transfer and Thermal Distribution in Computer Mainboard based on Finite Element Analysis

Speakers

Mr Ittiwat Meesap, Mr Tossapol Rattanapongwisut

### Electronic Tongue as an Alternative Tool for Classifying Oil-Based Products

#### **Speaker** Mr Vittachai YUWAPHAN

# IR spectroscopy of O-related defects in CdSe

**Speaker** Ms Pimpika Pimsorn

### Comments on holographic star and the dual QGP

#### Speaker

Dr Piyabut Burikham

## Stability Diagram of a Serial Quantum Dot System

#### Speaker

Mr Angkhan Intanin

## The Determination of the Area of Origin in Medium Velocity Blood Spatters: Numerical Methods Approach

**Speaker** Mr Chalermwat PINNOI

### High pressure properties of I-III-VI\$\_2\$ compounds from ab initio calculation

#### Speaker

Mrs Sukanya Petchsirivej

# A Study of Capacitively Coupled Contactless Conductivity Detection (C\$^4\$D) Electrode Configurations on Signal Detection Sensitivity

### Speaker

Mr Korkuson Masean

11:00