



UNIVERSITI
PENDIDIKAN
SULTAN IDRIS
اونڤرستې قنڤدېدن سلطن ادرېس

SULTAN IDRIS EDUCATION UNIVERSITY

Sijil Penyertaan

Certificate of Participation Awarded to

JASLIN IKHSAN

For the Attendance of

**THE INTERNATIONAL POST GRADUATE CONFERENCE ON
SCIENCE AND MATHEMATICS 2013**

On

5-6th OCTOBER 2013

Venue

**CONVENTION HALL, E-LEARNING BUILDING
UNIVERSITI PENDIDIKAN SULTAN IDRIS**

Professor Dr. Mustaffa Ahmad

Dean

Faculty of Science and Mathematics

Universiti Pendidikan Sultan Idris





UNIVERSITI
PENDIDIKAN
SULTAN IDRIS
الجامعة السليمانية للتربية والتعليم
1922

SULTAN IDRIS EDUCATION UNIVERSITY

International Post Graduate Conference on Science and Mathematics 2013

Research in Science and Mathematics
Catalyse Sustainable Future

IPCSM2013

Date : Saturday, October 5th, 2013
Venue : Convention Hall, E-Learning Building,
Universiti Pendidikan Sultan Idris
Organised by : Faculty of Science and Mathematics,
Universiti Pendidikan Sultan Idris

www.upsi.edu.my

<http://fsmt.upsi.edu.my>

<http://www.ipcsm2013.my>

Room 3 (Chemistry, Chemistry Education and Mathematic)

Session 1	
Chairperson: Dr. Adila Mohamad Jaafar	
Time	Presenter
10.15-10.30	OR-033: The Optimization Of Nicotine Capture By Using <i>Sansevieria</i> Leaf Active Carbon With The Variation Of Mass And Type Of Activator As An Effort To Reduce The Danger Level Of Smoke
10.30-10.45	OR-034: Isolation and characterization of protein from natural rubber latex concentrate factory effluent.
10.45-11.00	OR-035: Synthesis Of Carbon Nanotubes From Different Preparation Method Of Waste Chicken Fats
11.00-11.15	OR-036: Performance Of Unconfined Compressive Strength Of Stabilized/Solidified Sample Containing Heavy Metals From Incinerated Rubber Sludge Waste
11.15-11.30	OR-077: Waste management, practices and awareness in Vocational College welding workshop
11.30-11.45	OR-078: The Study Of Web-Based Collaborative Assistance Through Edmodo As A Hybrid Learning Model On Chemical Kinetic
11.45-12.00	OR-079: Development Of Five Phase Needham Constructivism Module For Electrochemistry Concept
12.00-12.15	OR-080: The Effect Of Using Jigsaw Puzzles In Writing The Formula Of Chemical Compound Among The Secondary School Students
12.15-12.30	OR-081: The Development Of Java 2 Micro Edition Based Mobile Chemistry Encyclopedia " <i>Chemistlopedia</i> " As Independent Learning Media For Senior High School Students
12.30-12.45	OR-082: The Development Of Mobile Game " <i>Scientist Academy</i> " As Chemistry Learning Media For Independent Experiments
Lunch	
Session 2	
Chairperson: Ms Nor Dalila Abd Rahman	
14.00-14.15	OR-083: The Development Of Java 2 Micro Edition Based <i>Chemistlopedia</i> Application On Chemical Elements For Senior High School Students
14.15-14.30	OR-084: The Development Of Java 2 Micro Edition Based Mobile Application <i>Chemistlopedia</i> On Hydrocarbon And Petroleum As Learning Media For Senior High School Students
14.30-14.45	OR-085: The Development And Response Of Teachers Toward Character-Based Mobile Game " <i>Robochem</i> " On The Reaction Rate Topic
14.45-15.00	OR-075: Strong Convergence Of An Algorithm About Quasi-Nonexpansive Mappings For The Split Common Fixed-Point Problem In Hilbert Space
15.00-15.15	OR-076: Modeling the Churning Tendency among Mortgage Customers using Data Mining Approach
15.15-15.30	OR-111: Synthesis And Characterization Of Ldh-Latex Stimulant Nanocomposite-Chitosan

Room 4 (Mathematics)

Session 1	
Chairperson: Ms. N...	
Time	Presenter
10.15-10.30	OR-59: An Algorithm For C Parameterized Single Exponential Inferences
10.30-10.45	OR-060: A Study of Stationary
10.45-11.00	OR-061: The Schur Multiplier
11.00-11.15	OR-062: The Nonabelian T-cohomology of Order p^4
11.15-11.30	OR-063: An Analysis on <i>Tudung Saji</i> Weaving
11.30-11.45	OR-064: Mathematics Model to Optimize Water Using a
11.45-12.00	OR-065: Permutability De
12.00-12.15	OR-066: Standardized M
12.15-12.30	OR-067: Timmer Functio
12.30-12.45	OR-068: A Bootstrap Ap of Seahorse Extract on A
Lunch	
Session 2	
Chairperson	
14.00-14.15	OR-069: A Review Of I
14.15-14.30	OR-070: The Kernel of Dihedral Point Group of
14.30-14.45	OR-071: Tourist Satisfi Analysis: A Case Study
14.45-15.00	OR-072: Comparing T Jenkin For Measuring C
15.00-15.15	OR-073: Ownership S Malaysian: Utilizing G
15.15-15.30	OR-074: A modified s fuzzy differential equa

Room 5 (Biology, Biology Education, Science Education)

Session 1	
Chairperson: Ma Ainatun Zulkefli	
Time	Presenter
10.15-10.30	OR-047: Effect Of Seed Pretreatment By H ₂ O ₂ And Magnetic Field On The Sensitivity Of <i>Silybum Marianum</i> (L.) To Salinity Sea Water
10.30-10.45	OR-048: Antioxidative And Liver Protective Effects Of <i>Synedrella Nodiflora</i> L., Against Carbon Tetrachloride (CCl ₄)-Mediated Oxidative Damage In Rats
10.45-11.00	OR-049: GC-MS Analysis And Chemopreventive Effects Of <i>Commelina Nudiflora</i> L., Against Carbon Tetrachloride (CCl ₄)- Induced Oxidative Stress And Hepatic Dysfunction In Rats
11.00-11.15	OR-050: Development Of A Correction Algorithm For Reducing Metal Artifact Due To Dental Amalgam In Computed Tomography Images
11.15-11.30	OR-051: Study On Some Properties Of Collagen Hydrolysate From Red Tilapia (<i>Tilapia Mossambica</i>) Scales
11.30-11.45	OR-052: 18S rRNA Molecular Characterization Of Microalgae Isolated For High Nitrate Wastewater Treatment And Biomass Production
11.45-12.00	OR-053: Transesterification of Waste Cooking Oil using Modified TDSP and Microwave Irradiation
12.00-12.15	OR-054: Immunomodulatory Effect Of <i>Solanum Nigrum</i> Polysaccharide On Raw264.7 Cell Line
12.15-12.30	OR-055: Optimization of Fatty Acid Recovery from <i>Ottochloa nodosa</i> (Kunth) Dandy
12.30-12.45	OR-056: Sterilization Protocol In Tissue Culture Of <i>Vitex Negundo</i> L.
Lunch	
Session 2	
Chairperson: En Muhammad Dawood Shah	
14.00-14.15	OR-057: Protein Profile of Digestive Fluid from the Larvae of Red Palm Weevil, <i>Rhynchophorus ferrugineus</i> (Coleoptera: Curculionidae) Reared on Coconut Cabbage
14.15-14.30	OR-058: The Taxonomical And Morphological Study Of Cyperaceae In Selected Areas Of Perak
14.30-14.45	OR-108: Interaction With Student Teachers, Learning Environment And Commitment To Comfort Learning Students Studying In Biology Student Among Secondary School In The Perak State
14.45-15.00	OR-109: Development Of Virtual Learning Environment Materials Through Bio2u Module Based On 'Frogasia Vle'
15.00-15.15	OR-086: Isu Dan Cabaran Guru Dalam Pelaksanaan Iklim Inovasi Dalam Pengajaran Dan Pembelajaran Sains
15.15-15.30	OR-087: The Development Of Character-Based Comic As Media In Science Learning

Room 6 (Mathematics Education)

Chairperson: M	
Time	Presenter
10.15-10.30	OR-093: The Usage Of ICT
10.30-10.45	OR-094: Relationship Between Primary School Mathematics
10.45-11.00	OR-095: Pengetahuan Tek Pengajaran Guru Pelatih Ma
11.00-11.15	OR-096: Hubungan Antara Pembelajaran Dan Pencapai
11.15-11.30	OR-097: Understanding of
11.30-11.45	OR-098: Understanding Of
11.45-12.00	OR-099: Pre-Service Seco Of Vectors
12.00-12.15	OR-100: The Functions C The Mathematical Problem
12.15-12.30	OR-101: Form One Studen
12.30-12.45	OR-102: Kesan Pengajar (PPBK) Terhadap Pencapai
Chairperson:	
14.00-14.15	OR-103: Teaching And Le Method
14.15-14.30	OR-104: An Instrument Teachers Assessment Pract
14.30-14.45	OR-105: Pembinaan Dan Aljabar Tingkatan 4
14.45-15.00	OR-106: Pembinaan Instr Geometri Tingkatan Satu L
15.00-15.15	OR-107: Attitudes Towar
15.15-15.30	OR-112: Factor Analys Attitude Toward Addition

OR-087

THE DEVELOPMENT OF CHARACTER-BASED COMIC AS MEDIA IN SCIENCE LEARNING

Elsa Yulianingsih, Jaslin Ikhsan, Anti K. Prodjosantoso

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Character education is growing and essentially needed in Indonesia because the education is a powerful engine to produce educated human beings with noble character. Since media is one of the important tools to enable interaction between students and learning materials, character-based comic was chosen as the media to be developed for science learning in this research with the aim of measuring its quality based on the standards determined by the reviews of experts in science education contents and multimedia, and students. This research also investigated the effect of the media to character building and science learning achievement of students. This research is Research and Development (R&D). The step of development was adapted from 10 steps of Borg & Gall model, from which only eight steps with adaptation were used. The sample consists of 40 students of *SMP Wiyata Mandala, Balikpapan*, Indonesia from which 10 students participated in preliminary field testing, and the 30 other students participated in main field testing. Data were collected by means of valid questionnaires, tests (*pre-test and post-test*), observation and interview checklist. The results showed that the media was very good in quality based on the reviews from the experts in science education content and multimedia, and good in quality based on the review of students. The character-based comic affected significantly character values improvement and science learning achievement.

OR-088

THE ROLES OF SCIENCE TEACHERS IN SCIENCE FAIR PARTICIPANTS

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Science Competitions and Fairs are held to nurture young scientists and inventors with the help of teachers as mentors. The need to spark learning interest and contribute to improving scientific literacy among young people is an important economic force in the Southeast Asian region. Young people are creative, innovative, and entrepreneurial. Indonesia needs to compete in young scientist and inventor programs. Nevertheless, few studies have been conducted to evaluate the roles of science teachers in mentoring science fair participants. This study was conducted to evaluate the roles of science teachers in mentoring science fair participants based on four criteria: the process of science; the quality of the project and their scope of understanding; the experience; and the literacy. This study highlighted the main roles of science teachers in mentoring science fair participants. The mentors are assumed to build the character of young scientists and inventors.