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SULTAN IDRIS
اونڤرسيتي قنديديقن سلطان ادريس

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 الوطنية 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 Expon... Inferences |
| 10.30-10.45 | OR-060: A Study of Station... |
| 10.45-11.00 | OR-061: The Schur Multipl... |
| 11.00-11.15 | OR-062: The Nonabelian T... 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 Mod... to Optimize Water Using a... |
| 11.45-12.00 | OR-065: Permutability De... |
| 12.00-12.15 | OR-066: Standardized M... Chikungunya Disease Ma... |
| 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 St... Malaysian: Utilizing G... |
| 15.15-15.30 | OR-074: A modified s... fuzzy differential equa... |

OR-081

**THE DEVELOPMENT OF JAVA 2 MICRO EDITION BASED MOBILE
CHEMISTRY ENCYCLOPEDIA "CHEMISTCLOPEDIA" AS INDEPENDENT
LEARNING MEDIA
FOR SENIOR HIGH SCHOOL STUDENTS**

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This research is a development research in Chemistry education aiming to produce Chemistry learning media using Java 2 Micro Edition called *Chemistclopedia* as an independent learning medium on the topic of Macromolecule for students of XII grade of Senior High Schools. The development method contains nine main steps which are in line with Borg and Gall's research and Development model. The development product was reviewed by two experts, multimedia and Chemistry contents as well as peers. After the revision based on the reviews, the products were then measured on quality as an independent chemistry learning medium by Chemistry teachers. Data were collected using a set of Lykert scale Questionnaire, and analyzed using descriptive statistics. *Chemistclopedia*, a Java 2 Micro Edition based mobile chemistry encyclopedia on the topic of Macro-molecule was well developed and was eligible to be used as independent learning.

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OR-082

**THE DEVELOPMENT OF MOBILE GAME "SCIENTIST ACADEMY"
AS CHEMISTRY LEARNING MEDIA FOR INDEPENDENT EXPERIMENTS**

Rt. Lis Permana Sari and Jaslin Ikhsan

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ICT has been a major issue dealing with education in order to improve the quality of learning. Since mobile apparatus and the connection are easily accessed by Indonesian students, mobile based media facilitating independent learning would be essential for students to be developed. This research developed mobile game "*Scientist Academy*," as learning media on the topics of acid-base solution, reaction kinetic, and chemical equilibrium for senior high school students. The media was reviewed and assessed by chemistry teachers and students. The response of students to the use of media was also measured. The development method was adapted from ADDIE (*Analyze, Design, Development, Implementation, and Evaluation*) that was in agreement with R&D model. The development product was reviewed by chemistry teachers and field-tested to 87 senior high school students. The Mobile game "*Scientist Academy*" that was compatible to Android mobile phone was well-developed, and was good in quality based on teachers' assessment, but very good based on students'. Learning with the "*Scientist Academy*" was fun and interesting, providing easiness of learning, so the game was eligible to be used as innovative and creative chemistry learning media. Interesting presentation of materials and questions of the game enhanced students to learn. Since the media can be played many times without limitation of places and times, the media could be very powerful enrichment learning materials.

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