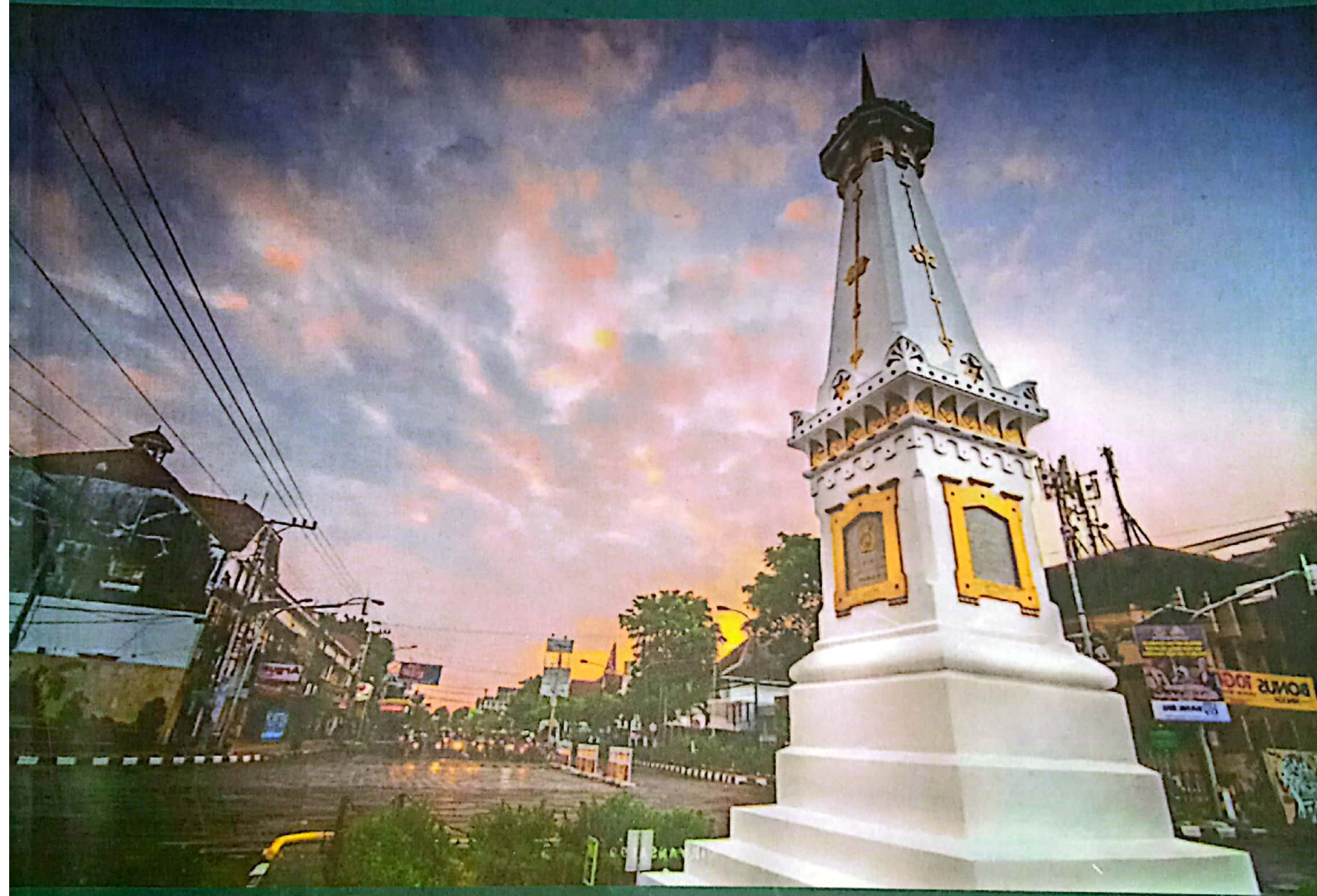




**1<sup>st</sup> UPY International Conference on Applied Science and Education (1<sup>st</sup> UP-INCASE) and 5<sup>th</sup> International Conference on Education for Sustainable Development 2018**

**PROGRAM BOOK**



**Integrated STEM  
(Science, Technology, Engineering and Mathematics)  
for Future Education**

Organized By :

**UP-INCASE**



Supported By :



**Google**

**IOP**  
Institute of Physics



**1<sup>st</sup> UPY International Conference on Applied Science and Education (1<sup>st</sup> UP-INCASE) and 5<sup>th</sup> International Conference on Education for Sustainable Development 2018**

## **PROGRAM BOOK**



***Integrated STEM  
(Science, Technology, Engineering and Mathematics)  
for Future Education***

**October 24<sup>th</sup> – 26<sup>th</sup>, 2018**

**📍 Jogja Rich Hotel, Yogyakarta, Indonesia**

Organized By :

**UP-INCASE**



Supported By :



**IOP**  
Institute of Physics

## Table of Contents

TABLE OF CONTENTS .....	3
PREFACE .....	15
COMMITTEE .....	17
KEYNOTE SPEAKER 1 .....	19
KEYNOTE SPEAKER 2 .....	21
KEYNOTE SPEAKER 3 .....	24
KEYNOTE SPEAKER 4 .....	26
KEYNOTE SPEAKER 5 .....	28
KEYNOTE SPEAKER 6 .....	30
GENERAL INFORMATION .....	33
CONFERENCE PROGRAM .....	35
SESSION PROGRAM .....	37

### Paper Abstract

<b>Mobile Web Based Information System for thesis's Administration in University PGRI Yogyakarta .....</b>	<b>55</b>
<i>Meilany Nonsi Tentua<sup>1</sup>, M. Fairuzabadi, Saptaningsih Sumarmi</i>	
<b>Empowering Women Groups With Technology Cultivation and Processing Medicine and Family Plants as Improvement of Productivity to Reduce Poverty .....</b>	<b>55</b>
<i>Tri Siwi Nugrahani, Herman Budi Susetyo, Muhammad Iqbal Birsyada</i>	
<b>Batik Nusantara Pattern in Design of Mathematical Learning Model for Elementary School ..</b>	<b>56</b>
<i>R Y Purwoko, E P Astuti and M S Arti</i>	
<b>Does Technology Improve SMEs Business Success? an Empirical Research from Indonesian SMEs .....</b>	<b>56</b>
<i>Ningrum Pramudiati, Rani Eka Diansari, Dekeng Setyo Budiarto</i>	
<b>New Tradition of Pesantren in Character Education .....</b>	<b>57</b>
<i>Ahmad Agung Yuwono Putro, Suyanto, Yoyon Suryono</i>	
<b>Hat Kind of Relationship is Between Ki Ageng Suryomentaram and Ki Hadjar Dewantara? :Two Figures of Indonesian Education .....</b>	<b>58</b>
<i>Dhiniaty Gularso, Sugito, Zamroni</i>	
<b>Science Learning Integrated Ethnoscience to Increase Scientific Literacy and Scientific Character .....</b>	<b>58</b>
<i>Setyo Eko Atmojo, Wahyu Kurniawati, Taufik Muhtarom</i>	

<b>Implementation of Indonesian Language Learning Based on Information and Communication Technology in Improving Senior High School Students' Achievement in Surakarta.....</b>	<b>59</b>
<i>K Saddhono, I K Sudarsana, and A Iskandar</i>	
<b>Multimedia Use for Beginner Level of Teaching Languages for Deaf Children: Study in Special Schools in Surakarta .....</b>	<b>59</b>
<i>K Saddhono, A Amalia, I K Sudarsana, and A Indahingwati</i>	
<b>Facebook as A Learning Media in TISOL (Teaching Indonesian to Speakers of Other Languages) Learning to Support The Independency of Foreign Students in Indonesia .....</b>	<b>60</b>
<i>K Saddhono, A Hasibuan, and M I Bakhtiar</i>	
<b>Indonesian Language Teachers' Attitudes toward ICT Utilization in Learning for Elementary School in Surakarta .....</b>	<b>60</b>
<i>K Saddhono, I Mulyaningsih, I K Sudarsana, and R T Manurung</i>	
<b>Entrepreneurial Orientation on Small Medium Enterprises .....</b>	<b>61</b>
<i>Adhi Prakosa, Ahsan Sumantika</i>	
<b>Instagram as Media Development of Religious Character Education Values among Teenagers .....</b>	<b>61</b>
<i>K Saddhono, Y M Raharjo, and Nurroini</i>	
<b>The Development of Automatic Essay Scoring to Measure The Mathematics Literacy Skill .....</b>	<b>62</b>
<i>Palupi Sri Wijayanti</i>	
<b>Internet of Things Technology Implementation for Hydroponic Planting Culture .....</b>	<b>62</b>
<i>R. Hafid Hardyanto, Prahenusa Wahyu Ciptadi</i>	
<b>Cooperative Learning Model Based on Rithmical Movement Method to Embed The Operation Concept of Whole Number .....</b>	<b>63</b>
<i>Rina Dyah Rahmawati, Budiharti</i>	
<b>An analysis of Regional Financial Management Information System (SIMDA) in improving the Quality of Financial Statements in Jombang .....</b>	<b>63</b>
<i>Dwi Ermayanti Susilo, Rachyu purbowati, Yuniap Mujati Suaidah</i>	
<b>Working Memory on Mathematical Problem Solving Activity: Case Study in Low Ability Students .....</b>	<b>64</b>
<i>Niken Wahyu Utami</i>	
<b>Model of Character Education Based on Local Wisdom in The Framework of The 2013 Curriculum in Sma Negeri District Bantul .....</b>	<b>64</b>
<i>Tarto, Esti Setiawati</i>	
<b>Urgency of Interactive Animated Learning Media Development for Facilitating Literath Skills for The Student of Primary School .....</b>	<b>65</b>
<i>Taufik Muhtarom, Danuri</i>	
<b>Analysis of Mathematical Prolem Solving Ability in The Implementation of Apos Modified Learning Model (M-apos) .....</b>	<b>66</b>
<i>Dhian Arista Istikomah, Padrul Jana</i>	

<b>An Analysis of Student Satisfaction Level on Service and Facilities Quality Using Weighted Least Squares: A Study on PGRI Yogyakarta University .....</b>	<b>66</b>
<i>Nendra Mursetya Somasih Dwipa</i>	
<b>Development of Mathematics Module on the Material of Flat Side Space Building in DIY Culture-Based. ....</b>	<b>67</b>
<i>Kintoko and Padrul Jana</i>	
<b>Character Education Based on Social Sense Local Culture for School Basic School .....</b>	<b>67</b>
<i>Sukadari, Buchory Muh. Sukemi, Sunarti</i>	
<b>Potential Estrogenic Yam Bean (<i>Pachyrhizus Erosus</i>) in Blood and Reproductive Organs of Rat Female .....</b>	<b>68</b>
<i>Cicilia Novi Primiani, Umie Lestari, Mohammad Amin, Sutiman B. Sumitro</i>	
<b>Intellectual Property Rights and E Commerce as a Strategy to Strengthen The Competitiveness of SMEs .....</b>	<b>69</b>
<i>Siti Resmi, Indah Kurniawati, Dian Retnaningdyah</i>	
<b>The Factors Affecting of Farmer Participation in Sustainable Private Forest Management at Pajangan Sub-District, Bantul District, Special Regions Yogyakarta, Indonesia .....</b>	<b>69</b>
<i>B Widayanto, R Karsidi, Kusnandar, and J Sutrisno</i>	
<b>IoT Technology based for Context-Aware Smart Farm Design in Agroshop .....</b>	<b>70</b>
<i>Marti Widya Sari, Ahmad Bahrum</i>	
<b>The Use of Edmodo-based E-Learning Media in Improved Reading Interest with Whole Language Approach .....</b>	<b>71</b>
<i>Yanuar Bagas Arwansyah, Nina Widyaningsih, Herwinda Putri Daniswari</i>	
<b>Technology in Traditional Material: Savi in Tembang Dolanan .....</b>	<b>71</b>
<i>Endang Sri Maruti, Panji Kuncoro Hadi</i>	
<b>Development of Pension System of Uzbekistan Through The Experience of The Countries of The European Union .....</b>	<b>72</b>
<i>Sherzod Yunusovich Salimov</i>	
<b>Robotics Instruction: Effect on Junior High School Students' Technological Literacy and Proficiency in Electronics .....</b>	<b>73</b>
<i>Ian John M. Galupar</i>	
<b>Heart-centered Management Training Program for Public Secondary School Principals in The Island of Panay, Philippines .....</b>	<b>73</b>
<i>Dr. Ju-im T. Jimlan</i>	
<b>Predictors Associated with the Curricular Performance of Student Athletes .....</b>	<b>74</b>
<i>Noel L. Dominado, Ed.D.</i>	
<b>Use of Video as an Enhancement in Teaching Reproductive System and their Functions .....</b>	<b>75</b>
<i>Clemencia O. Malawani, Jean S. Caballo</i>	
<b>Translated Literatures of Western Visayas: An Evaluation .....</b>	<b>75</b>
<i>Cynthia L. Morga</i>	

<b>Implementing Hangaway Mobile Game for Teaching Grade 11 Statistics and Probability .....</b>	<b>76</b>
<i>Irene Divinagracia Suganob, Ph.D</i>	
<b>Glossary of Selected Hiligaynon Words: Development and Evaluation.....</b>	<b>76</b>
<i>Pearly Jade N. Embajador</i>	
<b>Literatures of Western Visayas: Collection and Categorization .....</b>	<b>77</b>
<i>Evelyn M. Cordero</i>	
<b>The Life Experiences of Science and Mathematics Teachers – Mentors in Formulating Action Research to Enhance Learners’ Performance .....</b>	<b>77</b>
<i>Fernan P. Tupas, Ph. D.</i>	
<b>Actual and Virtual Simulations: Effect on High School Students’ Proficiency in Electronics ...</b>	<b>78</b>
<i>Maria Cecilia D. Galupar</i>	
<b>Western Visayas Folklore: A Socio-Cultural Analysis .....</b>	<b>79</b>
<i>Julie Gay B. Quidato, PhD</i>	
<b>Teachers on the Move: An Assessment on the Effective Use of Kindergarten Mathematics Instructional Materials .....</b>	<b>79</b>
<i>Juvenal S. Bardaje Jr., MAT, GDCE</i>	
<b>Level of Competence Among Kindergarten Teachers in Handling Blocks of Time: Proposed Training Program.....</b>	<b>80</b>
<i>Ma. Maya V. Tumalon, PhD.</i>	
<b>Explaining the Academic Performance of Grade 7 Students as Influenced by Social Media.....</b>	<b>80</b>
<i>Raymund M. Igcasama, Imee A. Borinaga, Edward C. Mutia</i>	
<b>Calculation of Special Angles in Trigonometry via Visual Mathematical Hand Mnemonic Tactic (VMHMT) .....</b>	<b>81</b>
<i>Romnick M. Ureta</i>	
<b>Development and Production of Computer Generated Instructional Materials for College Geometry .....</b>	<b>81</b>
<i>Salvador P. Bacio, Jr., Roberto G. Sagge, Jr.</i>	
<b>Evaluation of the Developed and Produced Computer Generated Instructional Materials for College Geometry .....</b>	<b>82</b>
<i>Roberto G. Sagge, Jr., Salvador P. Bacio, Jr.</i>	
<b>Meta-Ethnography Modification of Student Facilitator and Explaining (SFE) Learning Model and Cooperative Learning Model of Time-Token Type .....</b>	<b>83</b>
<i>Nurhayati, Dina Anika Marhayani, Sumarli, Buyung4, Eka Murdani</i>	
<b>Anti Corruption Perception and Modeling a Critical Study among Educational Institutions in Pacitan, Indonesia .....</b>	<b>83</b>
<i>Mukodi, Afid Burhanuddin, Haryono</i>	
<b>The Identification Difficulty of Quantitative Reasoning Process toward the Calculus Students’ Covariation Problem.....</b>	<b>84</b>
<i>Syarifuddin, T Nusantara, A Qohar, M Muksar</i>	



<b>The Implementation Media Bigbook Writing Based Brainwriting Learning Toward The Writing Story Learning at The Primary School .....</b>	<b>84</b>
<i>Dian Permatasari Kusuma Dayu, Sugirin, Haryanto</i>	
<b>The Development of a Web-Based Creative Writing Learning .....</b>	<b>85</b>
<i>Mumpuni, Aland Nurpratiwiningsih</i>	
<b>The Increase in Child-Friendly Learning Management Towards The Formation of Character Students in SD Inclusive .....</b>	<b>86</b>
<i>Moh Toharudin, Totok Sumaryanto Florentinus, Rasdi Ekosiswoyo, Joko Sutarto</i>	
<b>A Simple Arduino-LINX-LabView Based Characterization of g Vector Components on Accelerometer ADXL345 .....</b>	<b>86</b>
<i>Nanang Suwondo</i>	
<b>A Simple Experiment Based on Arduino-LINX-LabView to Show Radiation Absorption of Incandescent Bulbs on Several Colours Cloth .....</b>	<b>87</b>
<i>Nanang Suwondo</i>	
<b>Teaching Translation Through Cultural Interactive Storytelling by Using Three-step Interview Technique .....</b>	<b>87</b>
<i>Iin Rachmatwati, S.S., M.Hum.</i>	
<b>Query Optimization : A Metaheuristics Approach Using Memetic Algorithm .....</b>	<b>88</b>
<i>Julia Kurniasih, Ema Utami, Suwanto Raharjo</i>	
<b>The analysis of mathematic problem solving ability by polya steps on material trigonometric reviewed from self-regulated learning .....</b>	<b>88</b>
<i>D Fahrudin, Mardiyana, and I Pramudya</i>	
<b>The Virtual School of Indonesian for Speakers of Other Language (Bipa) Using Video Blog (Vlog): The Effort of Indonesian Language Internationalization by Current Online Media .....</b>	<b>89</b>
<i>Eko Widiyanto, M.Pd.</i>	
<b>Open Ended Mathematical Problem Solving: an Analysis of the Creative Thinking Ability of Elementary School Students .....</b>	<b>89</b>
<i>Hendra Erik Rudyanto</i>	
<b>Open Ended Mathematical Problem Solving: an Analysis of Elementary Students' Creative Thinking Abilities .....</b>	<b>90</b>
<i>H E Rudyanto, A Winanto, A Novianto, M Santika</i>	
<b>Differential Problems with Different Type Solutions .....</b>	<b>90</b>
<i>Swastika, Galuh Tyasing; Nusantara, Toto; Subanji; Irawati, Santi</i>	
<b>Community Service of Traditional Lurik and Leather Material Processing to Improve Market Access .....</b>	<b>91</b>
<i>Laela Sagita, Marti Widya Sari, Nendra MS Dwipa</i>	
<b>Community Service as A Teaching Method and its Impact on Student Performance .....</b>	<b>91</b>
<i>Ana Liza P. Caliwag</i>	
<b>Nutritional Status And Its Impact on Academic Performance of Selected Grade 8 Students .....</b>	<b>92</b>
<i>Beredo, Aubrey Acheron</i>	

<b>Enteropathogenic Bacteria on Processed and Prepared Foods in Naguilian Public Secondary Schools</b> .....	93
<i>Carmela M. Velasco</i>	
<b>APEC Learning Community Builders (ALCOB) Green Heroes</b> .....	93
<i>Elenita Santos Ordovez</i>	
<b>Technology Innovations Initiated, Leadership Practices and Performance of Secondary School Heads: Bases for Enhancement Development Program</b> .....	94
<i>Elvira Agno Tubungbanua</i>	
<b>LNU Pre-service Secondary Science Teachers' Scientific Literacy and Science Teaching Self-Efficacy</b> .....	94
<i>Jefferson E. Flores</i>	
<b>Students' Difficulty in Solving Algebraic Expressions and Equations: Focus on Structure Sense</b> .....	95
<i>Joseph G. Taban &amp; Edelyn A. Cadorna</i>	
<b>Constructively aligned teaching sequence (CATS): a tool for teaching organismal biology in STEM senior high school education</b> .....	95
<i>Joyce M. Magtolis, Antonio E. Batomalaque</i>	
<b>"Spiral Progression Approach in Teaching Science and the Performance of Learners in District I, Capiz"</b> .....	96
<i>Judy B. Dunton, Wilhelmina S. Co</i>	
<b>Student-Team Achievement Division (STAD) and Its Effect on the Academic Performance of Grade 8 Students</b> .....	97
<i>Justina T. Lantajo, Roderick L. Tipolo</i>	
<b>He Is Dancing Her Groove?: Coping Gender Stereotyping In Dance</b> .....	97
<i>Kris B. Laurente</i>	
<b>Anti-Bullying Mission- A step towards betterment of education</b> .....	98
<i>Larzy Varghees</i>	
<b>Level of Awareness on Disaster Preparedness</b> .....	98
<i>Lucia G. Maminta</i>	
<b>Diglossic Approach in Teaching Elementary Science: an Innovative Strategy</b> .....	98
<i>Ma. Theresa G. Palmares, Ed. D.</i>	
<b>Problem-Based Lesson on Gas Laws Utilizing PhET Simulations: Its Effect on Meranao students' Conceptual Understanding, Critical thinking Skills and Attitudes</b> .....	99
<i>Juhayna P. Sale1 and Manuel B. Barquilla</i>	
<b>Behavior and Academic Performance of Overseas Filipino Workers' (Ofws) Children</b> .....	100
<i>Maria Genesis S. Aton</i>	
<b>Orton-gillingham Approach and Grade I Pupils' Reading Ability</b> .....	100
<i>Maricris B. Bautista</i>	



<b>School – Based Orientation of Deped Mandated Activities, it's Effects to The Level of Commitment Among Central School Teaching and Non –Teaching Staff; Proposed Enhancement Measures .....</b>	<b>101</b>
<i>Marlyn P. Bongoyan</i>	
<b>Choose your Patty: The Sensory Characterization and Consumer Acceptance of Burger Patties with Oyster Mushroom (Pleurotus ostreatus) Enrichment .....</b>	<b>102</b>
<i>Dr. Merlinda Tabaldo-Tucar, Mr. Nick John B. Solar</i>	
<b>Predictors Associated with the Curricular Performance of Student Athletes .....</b>	<b>102</b>
<i>Noel L. Dominado, Ed.D.</i>	
<b>Sayaw, Antique: Inside Antiqueños' Wedding Dance Ritual .....</b>	<b>103</b>
<i>Paulo C. Abrico, Analyn C. Bacongallo</i>	
<b>Antioxidant Activity of Ginger (Zingiber Officinale), Turmeric (Curcuma Longa) and Shell Ginger (Alipinia Zerumbet) .....</b>	<b>104</b>
<i>*Raymund B. Moreno, DBM</i>	
<b>Singapore Bar Model Approach in Teaching Math VI .....</b>	<b>104</b>
<i>Remedios Canda Bulac</i>	
<b>Factors That Affect Learners at Risk Of Getting Failing Grades: Proposed Remedial Measure .....</b>	<b>105</b>
<i>Christine Boiser, Marilou Canete, Janice Dobles, Chresna Torrevillas, and Rheo A. Tuyogon</i>	
<b>Implementation of Pedagogical Content Knowledge Model in Mathematics Learning for High School .....</b>	<b>106</b>
<i>R Y Purwoko, P Nugraheni1, D Instanti</i>	
<b>Improving Teacher Professionalism Toward Education Quality in Digital Era .....</b>	<b>106</b>
<i>Ary Purwantiningsih, Pudjo Suharso</i>	
<b>Compliance and Infringement of Politeness Principle in Online Social Media Conversation .....</b>	<b>107</b>
<i>Muncar Tyas Palupi, Nafisah Endahati</i>	
<b>Integrative Learning Model Containing Local Wisdom by Using Multimedia Animation-based for Elementary School Students .....</b>	<b>108</b>
<i>Siti Maisaroh, Nafisah Endahati, Setia Wardhani</i>	
<b>Acoustic Analysis on The Voice of Choir Singers Using Spectroid .....</b>	<b>109</b>
<i>Ainun Fuadah1, Yudhiakto Pramudya</i>	
<b>Effect of Service Based Online Passion and Employee Performance to Employee Loyalty at PT Pegadaian Syariah Cluster Surabaya .....</b>	<b>109</b>
<i>Dwi Ermayanti Susilo, Erminati Pancaningrum</i>	
<b>Community Empowerment of Muarareja's Vulnerability in Implementation of Pkk Tourism Town of Tegal City .....</b>	<b>110</b>
<i>Dr.Tity Kusrina, M.Pd. Lecturer at Pancasakti University Tegal</i>	
<b>Nutgrass Response to Drought Stress in Various Types of Soil .....</b>	<b>110</b>
<i>Paiman, Ardiyanta, C. Tri Kusumastuti, Muh. Kusberyunadi and Ahmad Bahrum</i>	

<b>Student Mathematical Connection Ability in Representing Multiplication at The Elementary School .....</b>	<b>111</b>
<i>Suripah, Heri Retnawati</i>	
<b>Climate Change Literacy of Elementary School Students in Buleleng District, Bali Province, Indonesia .....</b>	<b>111</b>
<i>I Made Gunamantli1, Nyoman Dantes</i>	
<b>Light Intensity Measurement on Sun-earth System Model Using Logger Pro Light Sensor .....</b>	<b>112</b>
<i>Sari Sri Sukmawati, Yudhiakto Pramudya</i>	
<b>Characteristics of Intuitive Thinking Students in Solve Mathematical Issue Based on Cognitive Style .....</b>	<b>112</b>
<i>WI Purwaningsih, E P Astuti, P Nugraheni, and N P Rizkyaningtyas</i>	
<b>Angular Velocity and Acceleration Using Logger Pro Magnetic Sensor .....</b>	<b>113</b>
<i>Dewi Oktaviyanti, Yudhiakto Pramudya</i>	
<b>The Increase in Child-Friendly Learning Management Towards The Formation of Character Students in SD Inclusive .....</b>	<b>113</b>
<i>Moh Toharudin, Totok Sumaryanto Florentinus, Rasdi Ekosiswoyo, Joko Sutarto</i>	
<b>Community Service of Business Group at Sendangsari Village Pajangan Bantul District Yogyakarta Province .....</b>	<b>114</b>
<i>Setia Wardani, Hasti Hasanati M, Nafisah Endahati</i>	
<b>The Acquisition of Japanese Numeral Quantifiers Through Song .....</b>	<b>114</b>
<i>Suhartini</i>	
<b>Development of Learning Devices: Brain Based Learning and Mathematic Critical Thinking .....</b>	<b>115</b>
<i>Vera Dewi Susanti, Fatriya Adamura, Restu Lusiana, Tri Andari</i>	
<b>The Use of Instagram as Effective Promoting Medium for Small Medium Enterprise .....</b>	<b>115</b>
<i>Aditya Wahana M.Kom</i>	
<b>Assessing Student Acceptance of Virtual Classroom in Higher Education Using The UTAUT .....</b>	<b>116</b>
<i>B R Aditya and A Permadi</i>	
<b>Research-Based Oriented Student Worksheet Development for Increasing Creative Thinking Skills in Solving and Applying Problems .....</b>	<b>117</b>
<i>Ika Krisdiana, Wasilatul Murtafiah, Titin Masfingatin</i>	
<b>Development of Textbook Based on E-Learning Media 'Matlab Simulation' in Numerical Analysis Courses .....</b>	<b>117</b>
<i>Reza Kusuma Setyansah, Davi Apriandi</i>	
<b>Cinema Kethoprak (Cineprak) as a Way to Teach The Javanese Traditional Drama Using Multimedia Technology .....</b>	<b>118</b>
<i>Bagus Wahyu Setyawan, Kundharu Saddhono</i>	
<b>Cross-Cultural Bussiness Influence Based on Communication and Social Media to Improving Marketing Traditional Drinks Jamu in Surakarta .....</b>	<b>118</b>
<i>K Saddhono and R Devilito</i>	

<b>Modeling for Anxiety Data toward Students Achievement in Factorial Design Materials .....</b>	<b>119</b>
<i>Nely Indra Meifiani, Urip Tisngati, Dwi Cahyani Nur Apriyani, Martini</i>	
<b>Effectiveness of H-hope Plus Kinesthetic with Virgin Coconut Oil (Vco) on Body Weight in Premature Infants .....</b>	<b>119</b>
<i>Lia Dian Ayuningrum, Mardiyono, MNS, PhD, Dr. Dr. Imam Djumaludin, M.Kes</i>	
<b>The Effect of Using Window Card Technique in Improving the Performance of Grade 8 Students .....</b>	<b>120</b>
<i>Acela G. Recentes</i>	
<b>Precision Livestock Farming.....</b>	<b>121</b>
<i>Anrem J. Balontong</i>	
<b>Anadara Skin Ointment .....</b>	<b>121</b>
<i>Bernardita C. Lauron, Helen P. Lauron</i>	
<b>A Comparative Analysis of Learning Styles and Teaching Practices: its Implication on College Students' Science Anxiety .....</b>	<b>122</b>
<i>Cherryl C. Maloniso</i>	
<b>The Effect of Ibse Integration to The K-12 Grade -9 Curriculum At Passi National High School, Passi City, Iloilo S.y. 2017-2018 .....</b>	<b>122</b>
<i>Dr. Maria Melsa S. Arce</i>	
<b>Vulnerability And Resiliency of Some Coastal Schools in The Philippines .....</b>	<b>123</b>
<i>Edna B. Nabua, Ava Clare Marie O. Roble, Roger Vincent B. Nabua</i>	
<b>Enhancing Action Research Skills and Knowledge of Science and Mathematics Teachers Through Intesified Workshop .....</b>	<b>123</b>
<i>Fernan P. Tupas, Ph. D., and Ma. Theresa G. Palmares, Ed. D.</i>	
<b>School Climate and Public Secondary School Performance in the Division of Iloilo City and Passi City .....</b>	<b>124</b>
<i>Iryn Baldona de los Santos</i>	
<b>Perception of Gender Inequality .....</b>	<b>125</b>
<i>Kalpana Dogra</i>	
<b>Industrial Technology Students Competency Level Under The Ladderized Education Program (Lep) .....</b>	<b>125</b>
<i>Lauro E. Estecomem, Manuel S. Libutaque, Lucia P. Libutaque</i>	
<b>Programmed Practice Sheet (PPS) and Technology-enhanced Drills: Inputs to Instructional Material Development in Badminton .....</b>	<b>126</b>
<i>Leomar B. de los Santos, Ph. D.</i>	
<b>Characterizing the Environmental Knowledge and Attitude of 8th Grade Students .....</b>	<b>126</b>
<i>Lowe Ana Marie L. Trance, Naci John C. Trance</i>	
<b>Students' Technological Skills and Performance in Advanced Statistics: Inputs to Blended Learning Package .....</b>	<b>127</b>
<i>Manuel O. Maloniso</i>	
<b>Batuan (Garcinia Binucao) Fruit Preservation .....</b>	<b>128</b>
<i>Novelita J. Belmes, Ph.D.TM</i>	

<b>Youth Acumen and Preference in Green Marketing .....</b>	<b>128</b>
<i>Rhys Kelsey Zabdriel J. Payot</i>	
<b>Metacognitive Skill and Achievement in Problem Solving Heuristics in Mathematics .....</b>	<b>129</b>
<i>Richard S. Brun, PhD</i>	
<b>Art Appreciation .....</b>	<b>129</b>
<i>Neeta Mishra</i>	
<b>Rhythmic Drills in Students' Dance Steps Performance .....</b>	<b>130</b>
<i>Leomar B. de los Santos, Ph. D.</i>	
<b>Embracing the K-12 Curriculum: Accounts of Philippine Teachers and Students .....</b>	<b>130</b>
<i>Naci John C. Trance, Lowe Ana Marie L. Trance</i>	
<b>Preparedness, Response, and Mitigation in Disaster Prone Areas: Basis for the Development of Community Based Learning Materials .....</b>	<b>131</b>
<i>Christy M. Desades</i>	
<b>Teachers' Awareness and Students' Perspective Towards Technology- Enhanced Learning Tools in Science .....</b>	<b>131</b>
<i>Ma. Sheena Dominique G. Timbad</i>	
<b>Ecological Justice from the Perspectives of Moulders of Society .....</b>	<b>132</b>
<i>Mary Josephine C. Bautista</i>	
<b>Technological Pedagogical Content Knowledge of Mathematics Teachers: Basis for the Development of Grade 10 Geometry Module .....</b>	<b>133</b>
<i>Nancy C. Donayre</i>	
<b>Indonesian Stock Market Capitalization Model on Syariah Share Pricing in Syariah Indonesian Index .....</b>	<b>133</b>
<i>Padrul Jana and Christina Eva Nuryani</i>	
<b>A History of Wellness Counseling .....</b>	<b>134</b>
<i>Enik Nur Kholidah</i>	
<b>Development of Mathematics Module Based on M-APOS Learning Model to Improve Students' Mathematical Problem Solving Ability .....</b>	<b>134</b>
<i>Abdul Aziz Saefudin<sup>1</sup>, Koryna Aviori<sup>2</sup>, Korinta Ayuningtyas</i>	
<b>An Analysis of Regional Financial Management Information System (Simda) in Improving The Quality of Financial Statements in Jombang .....</b>	<b>135</b>
<i>Dwi Ermayanti Susilo, Rachyu Purbowati, Yuniep Mujati Suaidah</i>	
<b>The Effect of Characteristics of Entrepreneur, Social Support, Product Innovations on Business Trade Development in Diy Giwangan Market .....</b>	<b>135</b>
<i>Saptaningsih Sumarmi</i>	
<b>Design and Implementation of CNC (Computer Numerical Control) Based Automatic Stamp Batik Machine Program with Automatic Gripper Using Mach 3 .....</b>	<b>136</b>
<i>Theofilus Bayu Dwinugroho, Dhananjaya Yama Hudha Kumarajati</i>	
<b>An analysis of Regional Financial Management Information System (SIMDA) in improving the Quality of Financial Statements in Jombang .....</b>	<b>136</b>
<i>Dwi Ermayanti Susilo, Rachyu purbowati, Yuniep Mujati Suaidah</i>	

<b>Generating Fuzzy Interval Data and its Application to Find The Relation Between Math Anxiety With Self Efficacy Using Fuzzy Correlations Analysis</b> .....	137
<i>H P Susanto, T Sutarti, and A S Hafidah</i>	
<b>The Implementation of Ips Education at Higher School (Case study at SMA Negeri Arjasa and Madrasah Aliyah Negeri 2 Jember)</b> .....	138
<i>Pudjo Suharso, Sukidin, Suratno</i>	
<b>Urgensi Identitas Diri Bagi Mahasiswa</b> .....	138
<i>Iis Lathifah N. dan Arum Setiowati</i>	
<b>Character Learning in Children: Pattern of Introduction Outstanding in Building Children's Personal Process</b> .....	138
<i>Yulia Palupi</i>	
<b>The Establishment of Youth - in - School Council to Prevent Students from Leaving School</b> .....	139
<i>Armida Natividad</i>	
<b>My Dragon Fruit Skin, Color is Seen</b> .....	139
<i>Czarina Tamario</i>	
<b>Organizational Commitment and 21st Century Skills Among Teachers of Caraga South District Division of Davao Oriental</b> .....	140
<i>Eric Paul Benson</i>	
<b>A Causal Model on Personal Attributes' Influence to Secondary School Teachers' Sense of Efficacy</b> .....	141
<i>Franco Gil A. Vega</i>	
<b>DNA Extraction and Characterization of Escherichia Coli (ATCC) Using Different Liquid Detergents as Surfactants</b> .....	141
<i>Genevieve Aponte, Allen Matthew Apolinario, Jed Dumo-os, Frits Carmelo</i>	
<b>The Environmental Kuznets Curve: as it Appears in the Rice Sector of The Philippines</b> .....	142
<i>Grace Edmar Elizar-Del Prado</i>	
<b>Environmental Literacy of 8th Grade Students in The Philippines</b> .....	143
<i>Jasper L. Pastrano, EdD</i>	
<b>The Internationalization Program of Iloilo Science and Technology University, Lapaz, Iloilo City, Philippines</b> .....	143
<i>Jojet Castronuevo, EdD</i>	
<b>Development of Geometry Modules Anchored on the Conceptualization and Contextualization Skills of Pre-Service Mathematics Teachers</b> .....	144
<i>Judel Protacio</i>	
<b>Greening Program in Higher Education Institution</b> .....	145
<i>Lauro E. Estecomen1, Renerio S. Mucas2</i>	
<b>Modified Lab Rotation Model: A Blended E- Learning Approach to Improve Student's Conceptual Understanding of English Verb Tense and Aspect</b> .....	145
<i>Lovely Rollaine B. Cruz</i>	

<b>Needs Assessment Survey of Barangay Nabitasan, La Paz, Iloilo City: A Basis for Extension Services of ISATU .....</b>	<b>146</b>
<i>Ma. Aletha Hobilla</i>	
<b>Readiness of Grade 7 English Teachers .....</b>	<b>147</b>
<i>Marivic A. Somejo, Phd</i>	
<b>Level of Effectiveness of Instruction and Activities of Faculty with Managerial Functions .....</b>	<b>147</b>
<i>Merlinda Buenviaje1, Noel S. Quidato, Eric de la Vega, Virgie Rodrigues</i>	
<b>The Effect of Cooperative-inferential Method of Teaching Organism Biology .....</b>	<b>148</b>
<i>Proserpina Abam</i>	
<b>Near Real-time Watershed Streamflow Forecasting Using the Soil and Water Assessment Tool .....</b>	<b>149</b>
<i>Nelson H. Tejara1, Concepcion L. Khan</i>	
<b>Action Research on the Effectiveness of Differentiated Instruction in Teaching Science for Grade Five Classes .....</b>	<b>149</b>
<i>Rheo Tuyogon</i>	
<b>Increasing The Happiness Quotient Through Peace Education .....</b>	<b>150</b>
<i>Ms. Seema Shaikh</i>	
<b>The Mighty Electric Fan .....</b>	<b>150</b>
<i>William Ladia</i>	



## Technological Pedagogical Content Knowledge of Mathematics Teachers: Basis for the Development of Grade 10 Geometry Module

Nancy C. Donayre

Visayas State University Laboratory High School, VSU, ViSCA,  
Baybay City, Leyte, Philippines, 6521

[nancy.donayre@vsu.edu.ph](mailto:nancy.donayre@vsu.edu.ph),

**Abstract.** This paper describes and assessed the level of technological pedagogical content knowledge (TPACK) of mathematics teachers including pre-service teachers (PSTs) and mathematics teacher educators (MTEs). Phase one of the study utilized a TPACK survey instrument. It also included questions regarding on what technologies that might be used by the mathematics teacher educators in their mathematics classes, frequency of use, and reason(s) for using those technologies. The research instrument went validation and was reliability-tested with a Cronbach's alpha of 0.977 which suggested that the items had relatively high internal consistency. The results in Phase one were taken as bases for developing a TPACK – based teacher's module in Grade 10 Mathematics. Based from the results of the module's evaluation, the students had a high rating and also the teachers had a high rating on the usability and applicability of the module demonstrating TPACK

## Indonesian Stock Market Capitalization Model on Syariah Share Pricing in Syariah Indonesian Index

Padrul Jana and Christina Eva Nuryani

Mathematic Education, Faculty of Teacher Training, University of PGRI Yogyakarta

[padrul.jana@upy.ac.id](mailto:padrul.jana@upy.ac.id)

**Abstract.** The ability to read, analyze data and execute the decision by the agents of Syariah economic market becomes something that is possible to happen. This research aims to help agents, and those are how to read the data, analyze and to model the data by providing the perspectives regarding the stock pricing in the future. The research method being employed was Autoregressive Integrated Moving Average (ARIMA) which has steps of data plotting, transforming, estimating the model and forecasting. The results of this research found that ARIMA (1,1,0) is the best model of Syariah stock pricing on Indonesian Syariah Stock Indexing (ISSI). The test of model reliability employs RMSE, AIC, BIC/SBC which is resulted in the fair competitive suitable test to the employed model.

**Keywords:** AIC, ARIMA, BIC/SBC, Indonesian Syariah Stock Indexing.