

1st International Multidisciplinary Conference on Education, Technology, and Engineering (IMCETE 2019)

**Innovation and Collaboration Research for
Smart Society in Empowering Industry 4.0**

Advances in Social Science, Education and Humanities
Research Volume 410

**Serang Banten, Indonesia
5 – 6 November 2019**

Editors:

**As'ari Djohar
Ade Gafar Abdullah
Mustafa bin Mamat
Sundarapandian
Vaidyanathan**

**Chang-Hua Lien
Yeyen Maryani
Mumu Komaro
Mujiarto**

ISBN: 978-1-7138-0766-7

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2020) by Atlantis Press
All rights reserved.
Copyright for individual electronic papers remains with the authors.

For permission requests, please contact the publisher:

Atlantis Press
Amsterdam / Paris

Email: contact@atlantis-press.com

Conference Website: <http://www.atlantis-press.com/php/pub.php?publication=imcete-19>

Printed with permission by Curran Associates, Inc. (2020)

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2633
Email: curran@proceedings.com
Web: www.proceedings.com

TABLE OF CONTENTS

SESSION: ENGINEERING AND TECHNOLOGY

REHABILITATION PLANNING BREAKWATER CONSTRUCTION AT LABUAN FISHING PORT LABUAN SUBDISTRICT.....	1
<i>Euis Amilia, Gunawan Noor, Eka Nurfika Putra</i>	
ELECTROSTATIC PRECIPITATOR FAILURE ANALYSIS USING FMEA METHOD ON STEAM TURBINE ELECTRICITY GENERATION (PLTU BANTEN 2 - INDONESIA).....	4
<i>Tatan Zakaria, Wawan Gunawan, Ahmad Faisal</i>	
CHARACTERIZATION OF ACTIVATED CARBON FROM MELINJO (GNETUM GNEMON) SHELLS WITH CHEMICAL-PHYSICAL ACTIVATION	7
<i>Apriliana Dwijayanti, Safril Kartika, Slamet, Yuliusman</i>	
RIGID PAVEMENT PLANNING AND ROAD LIGHTING (STUDY CASE ON MERAK-CILEGON ROAD, BANTEN PROVINCE, INDONESIA)	10
<i>Nila Prasetyo Artiwi, Telly Rosdiyani, Supriadi</i>	
FEATURE EXTRACTION OF GRAM-NEGATIVE BACTERIA TEXTURE USING GREY LEVEL CO-OCCURRENCE MATRIX AND SCALE-INVARIANT FEATURE TRANSFORM.....	13
<i>Budi Dwi Satoto, Imam Utoyo, Riries Rulaningtyas</i>	
EXPERT SYSTEM OF DIAGNOSING DISEASE IN BANANA PLANTS USING DEMPSTER-SHAFFER AND CERTAINTY FACTOR	18
<i>Freza Riana, Fitriah Satrya Fajar Kusumah</i>	
ANALYSIS OF QUALITY CONTROL OF STEEL PLATE PRODUCTS WITH SIX SIGMA METHOD AT PT. KRAKATAU POSCO.....	22
<i>Anita Dyah Juniarti, Sri Mukti Wirawati, Herry Kartika Gandhi</i>	
EVALUATION OF BREAKWATER DESIGN BINUANGEUN FISHING PORT, BANTEN PROVINCE	28
<i>M. Iawanul Yusup, Dasa Aprisandi, Darius</i>	
EVALUATION OF FABRICATION CONCRETE WAVE BREAKER PROJECT SCHEDULING WITH THE CRITICAL CHAIN PROJECT MANAGEMENT METHOD.....	31
<i>W Nugroho, M Faiizuddaroini, A Nalhadi, S Suryani, S Supriyadi</i>	
ALGORITHM FOR GENERATING COMPOUND POISSON PROCESS WHICH HAS NONHOMOGENEOUS POISSON PROCESS AND EXPONENTIAL DISTRIBUTION COMPONENTS	35
<i>Syarif Abdullah, Sidik Susilo, I Wayan Mangku, Fajri Ikhsan, Shofiatul Ula, Yazid Rukmayadi</i>	
DRONE (HEXACOPTER) VS CAR, EFFICIENCY OF DELIVERY BREAST MILK PROBLEM (CASE STUDY IN JAKARTA).....	41
<i>Med Irzal, Ari Hendarno, Debby Agustine</i>	
THE DESIGN AND THE IMPLEMENTATION OF SECURITY SYSTEM OFFICE DOOR USING RASPBERRY PI FACE DETECTION.....	43
<i>T H Iwan, H M Fahrezy, R P Merliasari</i>	

CLUSTERING TOURIST DESTINATIONS BASED ON NUMBER OF VISITORS USING THE K-MEAN METHOD	48
<i>Eka Mala Sari Rochman, Aeri Rachmad</i>	
DETERMINATION OF DISTRIBUTION PRODUCTS USING MATRIX SAVING METHOD IN THE SERANG MARKETING OFFICE AREA	51
<i>Afni Khadijah, Achmad Syarifudin, Hartadi Wijaya</i>	
EFFECT OF AIR TEMPERATURE AND AIR VELOCITY FOR THERMAL COMFORT WITHIN STUDY CLUB ROOM.....	55
<i>Kemal Affandi, Bianca Marvella, Ruthy Elvana David, Judelia Kusuma Halim</i>	
INTERNET OF THINGS INDUSTRY IN SUPPORTING INDUSTRIAL REVOLUTION 4.0.....	59
<i>Galih Ariprawira, Mohamad Aghust Kurniawan</i>	
 <u>SESSION: EDUCATION</u>	
E-HAPPINESS USING RSTUDIO PROGRAMMING LANGUAGE	64
<i>Bagus Sumargo, Irsyad Hasari, Siti Rohmah Rohimah</i>	
IMPLEMENTATION OF STRENGTHENING RELIGIOUS CHARACTER EDUCATION AT ELEMENTARY SCHOOL QUR'ANI AL- IKHLASH RAPPANG SIDENRENG RAPPANG REGENCY	69
<i>Jumiati, Lababa</i>	
USING YOUTUBE TO EVALUATE AND PRACTICE ENGLISH SKILLS: A CASE STUDY OF BLENDED LEARNING	73
<i>Eva Fachriyah, R D M Badriyah, E Perwitasari</i>	
THE RELATIONSHIP BETWEEN COMPENSATION AND SOCIAL SECURITY WITH EMPLOYEE WORK MOTIVATION AT THE PUBLIC WORKS AND SPATIAL PLANNING OFFICE IN BANTEN PROVINCE	77
<i>Rohaelis Nuraisiah, Sev Rahmiyanti</i>	
LITERATURE REVIEW OF APPLICATION OF AGRICULTURAL DISTRIBUTION SYSTEMS: STATE OF THE ART AND RECENT DEVELOPMENTS	81
<i>Heru Winarno, Tomy Perdana, Yuanita Handayati, Dwi Purnomo</i>	
ANALYSIS OF INFORMATICS ENGINEERING STUDENTS IN COMPLETING THE PROBLEM OF CALCULUS I.....	89
<i>Nur Hidayanti</i>	
STUDY OF HIGHER SCHOOL MANAGEMENT FOR INTERNATIONAL LEVEL ACCELERATION IN MUHAMMADIYAH UNIVERSITY OF MALANG	92
<i>Partono Siswosuharjo, Langgeng Listiyoko, Achmad Fahrudin</i>	
DISTRIBUTED SYSTEM FOR REPORT EFFICIENCY IN MANUFACTURE RESEARCH AND DEVELOPMENT DIVISION	97
<i>L Listiyoko, M Purno</i>	
THE RELATIONSHIP BETWEEN SELF-ESTEEM AND SOCIAL MEDIA INSTAGRAM TOWARD WRITING SKILL OF EFL LEARNERS	101
<i>F Oktaviana, I Nuraida, I Rohiyatussakinah, Kurnianingsih</i>	

THE FLEXIBILITY OF STUDENTS' MATHEMATICAL CREATIVE THINKING IN SOLVING MATHEMATICAL PROBLEMS	104
<i>M D Saputri, I Pramudya, I Slamet</i>	
EDUCATIONAL MANAGEMENT BASED ON INDIGENOUS KNOWLEDGE (NARRATIVE STUDIES OF CULTURE OF INDIGENOUS KNOWLEDGE IN SOUTH NIAS)	109
<i>Martiman Suaizisiwa Sarumaha</i>	
THE IMPACT OF TEAM ASSISTED INDIVIDUALIZATION LEARNING MODEL WITH SCIENTIFIC APPROACH TOWARD MATHEMATICAL COMMUNICATION BASED ON STUDENT'S COOPERATIVE PERSONALITY ORIENTATION.....	113
<i>Ryan Hidayat Saputra, Mardiyana, Triyanto</i>	
THE IMPACT OF INFERENCE IN PUBLIC SERVICE ADVERTISEMENT TO THE LEARNING OF INDONESIAN LANGUAGE.....	117
<i>Siti Ansoriyah, Sifani Yuzka, Sintowati Rini Utami</i>	
IMPLEMENTATION OF SNORT IPS USING PFSense AS NETWORK FORENSIC IN SMK XYZ.....	120
<i>Saleh Dwiyatno, Widya Ayu Andriani, Ayu Purnama Sari, Sulistiyono</i>	
IMPLEMENTATION OF ICT IN TEACHING AND LEARNING ENGLISH.....	127
<i>Sisca Wulansari Saputri, Dede Rohadi Fajri, Aa Qonaatun</i>	
AN ANALYSIS OF STUDENTS' DIFFICULTIES IN COMPLETING OF THE ADJUSTMENT ENTRIES	131
<i>Fitri Nurlaili, Budi Mulyati</i>	
ANALYSIS OF THE ADEQUACY OF MANDARIN TEXTBOOKS IN INDONESIA	134
<i>Hudiyekti Prasetyaningtyas, Yumna Rasyid, Endry Boeriswati</i>	
HABITUATION BEHAVIOR TO ENHANCE STUDENT LEARNING	138
<i>Ika Candra Destiyanti, Setiana</i>	
IMPROVING STUDENTS' LISTENING ABILITY THROUGH DICTATION TECHNIQUE AT THE SECOND YEAR STUDENTS	142
<i>Rohadi</i>	
THE INFLUENCE OF VOCABULARY MASTERY AND REFLECTIVITY ON STUDENTS WRITING SKILL AT SENIOR HIGH SCHOOL	146
<i>Kety Soraya, Ujang Suparman, Elin Driana</i>	
DEVELOPMENT OF EDUCATION INFORMATION SYSTEM IN PERSONNEL DEPLOYMENT	150
<i>Leli Setyaningrum, Wayan Suparta, Agung Trisetyarso, Bahtiar Saleh Abbas</i>	
INFORMATION, COMMUNICATION, AND TECHNOLOGY-BASED ENGLISH INSTRUCTION: AN ETHNOGRAPHY RESEARCH.....	154
<i>Fadilla Oktaviana, Emzir, Yumna Rasyid</i>	
 <u>SESSION: COMPUTER AND MATHEMATICS</u>	
MATHEMATICAL CONJECTURING ABILITY IN JUNIOR HIGH SCHOOL STUDENTS ON THE MATERIAL OF ANGLES, LINES, AND TWO DIMENSIONAL FIGURE	158
<i>Yani Supriani, Ria Noviana Agus, Usep Sholahudin</i>	

DECISION SUPPORT SYSTEM FOR DETERMINING EMPLOYEES STAYING USING THE SIMPLE ADDITIVE WEIGHTING METHOD	162
<i>Memed Saputra, Davy Jonathan, Harco Leslie Hendric Spits Warnars</i>	
E-HAPPINESS TOOL (WEB APPLICATION), MEASURING OF POOR FAMILY HAPPINESS	165
<i>Ari Hendarno, Bagus Sumargo, Agus Setiawan</i>	
SPY ROBOT THAT IS CONTROLLED BY BLUETOOTH ANDROID MOBILE.....	171
<i>Benny Suhendar, Yul Hendra</i>	
MANAGEMENT OF THE ELECTRONIC ARCHIVES FOR OPTIMIZING SERVICES AT BANTEN JAYA UNIVERSITY.....	174
<i>Sutanto, Ely Nuryani</i>	
ZAKAT CALCULATION SYSTEM BASED ON DESKTOP APPLICATION USING WATERFALL MODEL IN SERANG DISTRICT BAZNAS.....	179
<i>Edy Rakhmat, Rizki Fatullah</i>	
NETWORK INTEGRATION AND SECURITY USING IDS AND TUNNELING METHODS	183
<i>Edy Nasri, R. Kania, S Tsauri</i>	
DECISION SUPPORT SYSTEM TO DETERMINE PRIORITIES FOR HANDLING ROAD REPAIR IN BANTEN PROVINCE USING ANALYTICAL HIERARCHY PROCESS METHOD.....	187
<i>Irma Yunita Ruhawati, Untung Rahardja, Masaeni, Endang Kusnadi</i>	
SOFTWARE DESIGN COMPLETION OF SUDOKU GAME WITH BRANCH AND BOUND ALGORITHM.....	192
<i>Rustam Effendi, Indra Gunawan, Yasin Efendi</i>	
WATER QUALITY INDEX OF CISADANE RIVER AND CIUJUNG RIVER	197
<i>T Akbari, F S P Pangesti</i>	
E-LEARNING MODEL BASED ON THE ABILITY TEST TO CREATING COMMUNITY OF INQUIRY	201
<i>Embun Fajar Wati, Agus Junaidi, Ade Surya Budiman</i>	
TEXT CATEGORIZATION WITH FRACTIONAL GRADIENT DESCENT SUPPORT VECTOR MACHINE	205
<i>Dian Puspita Hapsari, Imam Utoyo, Santi Wulan Purnami</i>	
IMPLEMENTATION OF BLENDED LEARNING THROUGH GOOGLE CLASSROOM IN GENERATION Z.....	209
<i>A D Untari, A Millatussa'Adiyyah</i>	
THE GROUPING OF REGIONS ARE BASED ON THE UNEMPLOYMENT RATE IN THE ATTACKING DISTRICTS WITH THE K-MEANS METHOD.....	214
<i>Rudianto, Ramdani Budiman</i>	
CONTEXTUAL TEACHING AND LEARNING APPROACH USING TYPE WORD SQUARE BASED E-LEARNING THROUGH STUDENTS' THINKING ABILITY.....	223
<i>Lina Marlina, Anton Aulawi</i>	
SOFTWARE TESTING AS QUALITY ASSURANCE ON WEB APPLICATION	226
<i>Henderi, Anrie Suryaningrat</i>	

HUMAN HEALTH SIGNIFICANCE OF CHLORPYRIFOS PESTICIDE RESIDUE ON BROCCOLI: EXAMINING EFFECTS OF ELEVATION.....	231
<i>Euis Amilia</i>	
EFFECTIVENESS OF E-COURT IN IMPROVING SERVICE QUALITY AT SERANG RELIGIOUS COURTS	235
<i>Anton Aulawi, Muhamad Asmawi</i>	
A REVIEW OF STUDENTS' GRADUATION CLASSIFICATION: A COMPARISON OF NAIVE BAYES CLASSIFIER AND K-NEAREST NEIGHBOUR	239
<i>Via Tuhamah Fauziastuti, Lilis Aslihah Rakhman</i>	
THE ANALYSIS OF WASTE IN PAVING PRODUCTION PROCESS BY USING LEAN SIX SIGMA METHOD	242
<i>W O Widyarto, E I Yuslistyari, L L Ekayani</i>	
THE DEVELOPMENT OF DAILY EXAM QUESTION WITH LOCAL CONTENT FOR MATHEMATICS LESSON JUNIOR HIGH SCHOOL.....	246
<i>M K Abadi, M Yanuar, Firdaus</i>	
SERVICE PERFORMANCE IMPROVEMENT OF AIRPORT PUBLIC TRANSPORTATION (CASE STUDY OF AIRPORT BUS IN TERMINAL 3 SOEKARNO-HATTA INTERNATIONAL AIRPORT)	249
<i>Yoko Harianto, Santi Novani</i>	
THEORETICAL STUDY OF FOURIER SERIES ESTIMATOR IN SEMIPARAMETRIC REGRESSION FOR LONGITUDINAL DATA BASED ON WEIGHTED LEAST SQUARE OPTIMIZATION	256
<i>Kuzairi, N Chamidah, I N Budiantara</i>	
ANALYSIS OF FACTORS AFFECTING YOUTH MOTIVATION IN MADURA TO IMPROVE EDUCATION WITH THE STRUCTURAL EQUATION MODELING METHOD	260
<i>Kuzairi, Mff Mardianto, Mawaddah, Ahmad, H Sakdiyah, Faisol</i>	
CHARACTERIZATION OF ZSM-5 ZEOLITE MEMBRANE SYNTHESIS RESULTS WITH 304-200 GAUZE SUPPORTS WITH PRETREATMENT VARIATIONS.....	264
<i>A H Mukaromah, T Ariyadil, I H Azizah, Mifbakhuddin</i>	
DECISION SUPPORT SYSTEM SELECTION OF STUDY PROGRAMS STMIK MUHAMMADIYAH BANTEN'S NEW STUDENTS WITH THE FUZZY METHOD	269
<i>Fahmi Rizky Nugraha, Deny Purna Ramadan, Harco Leslie Hendric Spits Warnars</i>	
DSS TO DETERMINE THE LOCATION OF HOUSING USING THE FUZZY METHOD	273
<i>Deny Purnama Ramadan, Fahmi Rizky Nugraha, Harco Leslie Hendric Spits Warnars</i>	
IMPROVEMENT OF STEGANOGRAPHY TECHNIQUE: A SURVEY	277
<i>E Ardhiyanto, H L H S Warnars, B Soewito, F L Gaol, E Abdurachman</i>	
THE GEOSPATIAL JOB PLACEMENT MODEL USING DECISION TREE BASED ON MOBILE APPLICATION IN INDONESIA	281
<i>B. Susetyo, I. Nurhayati, I. Purnahayu, P. Eosina</i>	
MOBILE-BASED PLUS-SIZE FASHION AND CUSTOM ONLINE MARKETPLACE PROTOTYPE.....	286
<i>Maryani, B S Abbas, A Trisetyarso, W Saputra</i>	

E-PARTICIPATION PLATFORM MODEL FOR E-GOVERNMENT CASE STUDY IN KARAWANG CITY	291
<i>Shofa Shofia, Agung Trisetyarso, Bahtiar Saleh Abbas, Wayan Suparta</i>	

SESSION: SOCIAL SCIENCE

IMPLEMENTATION OF E-GOVERNMENT POLICY IN BANTEN PROVINCE	295
<i>Toni Anwar Mahmud</i>	

THE ROLE OF FOREIGN LANGUAGE ON MULTINATIONAL COMPANIES IN INDONESIA ECONOMIC DEVELOPMENT	299
<i>Cucu Sutini, Ninip Hanifah</i>	

TEACHER PROFESSIONALISM, LEARNING FACILITIES, AND STUDENT INTEREST IN IMPROVING THE INTELLECTUAL INTELLIGENCE OF ELEMENTARY STUDENTS IN PANDEGLANG REGENCY	306
<i>E. Nita Prianti, Khristina Sri Prihatin</i>	

MODEL POLICY GOVERNANCE OF PUBLIC TRANSPORTATION IN SIDENRENG RAPPANG REGENCY.....	311
<i>Jamaluddin Ahmad, Ani Ardian, Andi Nilwana, Sahar</i>	

INDIVIDUAL ETHICAL DECISION MAKING OF ACCOUNTING LECTURERS BETWEEN IDEALISM AND RELATIVISM IN TANGERANG	314
<i>S Winata, A Kusnawan, Limajatini, S Simbolon</i>	

THE ROLE OF EDUCATION IN INDIVIDUAL ETHICAL DECISION MAKING OF ACCOUNTING LECTURER IN TANGERANG	317
<i>S Wibowo, P T Resi, Sutandi, E Hermawan</i>	

ETHICAL DECISION MAKING TRAINER FOR ACCOUNTING FIRM STAFF IN TANGERANG BY GENDER SELECTION	319
<i>G Widijanto, S Santosa, Sutrisna, Pujiarti</i>	

THE EFFECTS OF AGE AND EXPERIENCE ON THE DECISION MAKING OF ACCOUNTING LECTURERS	323
<i>D Anggraeni, Peng Wi, E Herijawati</i>	

COLLABORATIVE GOVERNANCE APPROACH FOR COMMUNITY-BASED AGRITOURISM: A CASE STUDY OF VILLA TERNAK CIKERAI CILEGON	326
<i>M. Muhlisin, Y Suharyana, Y Rahayuningsih, M F Cahyandito</i>	

PHENOMENON OF THE FIRST STAGE KOHLBERG'S THEOREM IN ACCOUNTING LECTURER'S ETHICAL DECISION MAKING	330
<i>Suryadi Winata, Tan Salikim, Andy</i>	

CHILD GESTURE AS A FORM OF NON-VERBAL COMMUNICATION	334
<i>Siti Noor Rochmah, Mutiara Swandhina, Redi Awal Maulana</i>	

EFFECT OF OWNERSHIP STRUCTURE, COMPANY SIZE ON COMPANY PERFORMANCE WITH DIVIDEND POLICY AS A MEDIATING VARIABLE IN COMPANIES IN MINERAL AND OTHER METAL SUB-SECTORS THAT ARE LISTED ON THE INDONESIA STOCK EXCHANGE FOR THE PERIOD 2011–2015 (CASE STUDY ON SELECTED COMPANIES THAT REGISTER ON THE INDONESIA STOCK EXCHANGE 2011–2015)	337
<i>Asih Kurnianingsih, Lona Noviani</i>	

NON-EQUIVALENCE AT WORD LEVEL AND ABOVE LEVEL IN HARRY POTTER: THE ORDER OF THE PHOENIX	344
<i>Elih Solihatulmillah, Aisyah Hamidiyah</i>	

SESSION: SCIENCE

ANALYSIS OF ECONOMIC POTENCIAL OF URBAN FORESTS IN SERANG CITY	348
<i>I. Rahmawati, A. Masyuroh</i>	

COMMITMENT MANAGEMENT AS A DETERMINING FACTOR IN THE SUCCESSFUL ERP IMPLEMENTATION AT MANUFACTURING COMPANIES	351
<i>Dadang Amiruddin, Sam'Un Jaja Raharja</i>	

DEVELOPING HUMAN RESOURCES THROUGH MANDIRI'S MIND PATTERNS AND ENTREPRENEURSHIP FOR STUDENTS (CASE STUDY OF BANTEN JAYA UNIVERSITY STUDENTS IN SERANG-BANTEN CITY).....	355
<i>Sukarta Atmaja, Achmad Rifa'I</i>	

EDUCATING AND ENCOURAGING INNO-CREATIVE INDUSTRY: IMPLICATIONS FOR MARKETING STRATEGY	357
<i>M A Khairusy, Riswanda</i>	

Author Index