

1st Tarumanagara International Conference on the Applications of Technology and Engineering (TICATE 2018)

The Implementation of Research Results
and Innovation for People's Prosperity

IOP Conference Series: Materials Science and Engineering
Volume 508

Jakarta, Indonesia
22 – 23 November 2018

Part 1 of 2

ISBN: 978-1-5108-8644-5
ISSN: 1757-8981

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.

This work is licensed under a Creative Commons Attribution 3.0 International Licence. Licence details:
<http://creativecommons.org/licenses/by/3.0/>.

No changes have been made to the content of these proceedings. There may be changes to pagination and minor adjustments for aesthetics.

Printed by Curran Associates, Inc. (2019)

For permission requests, please contact the Institute of Physics
at the address below.

Institute of Physics
Dirac House, Temple Back
Bristol BS1 6BE UK

Phone: 44 1 17 929 7481
Fax: 44 1 17 920 0979

techtracking@iop.org

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

PART 1

CIVIL AND ENVIRONMENTAL ENGINEERING

POTENTIAL STUDY OF GROUND WATER LEMBAH KERAMAT TIDORE ISLAND	1
<i>Wati Asriningsih Pranoto, Tri Suyono</i>	
MODE CHOICE ANALYSIS BETWEEN LRT AND CAR ROUTE KEBAYORAN LAMA-KELAPA GADING	6
<i>Najid</i>	
CRITICAL INDEX DETERMINATION METHOD ON VISUAL ASSESSMENT OF CONCRETE DAMAGE FOR BUILDINGS	12
<i>Henny Wiyanto, David Lie, James Kurniawan</i>	
EFFECT OF AXLE AND TIRE CONFIGURATIONS ON FLEXIBLE PAVEMENT RESPONSE	16
<i>A N Tajudin, R Priyatna</i>	
CONCEPT OF SEDIMENT FILTRATION INTAKE DESIGN FOR RAW WATER DRINKING WATER	22
<i>Muchlis, Wati Asriningsih Pranoto, Tri Suyono</i>	
EFFECT OF STEEL FIBER ON THE SHEAR STRENGTH OF REACTIVE POWDER CONCRETE	27
<i>Daniel Christianto, Tavio, Dennis Kurniadi</i>	
ANALYSIS OF DAMPING RATIO IN PASSIVE CONTROL DEVICES WITH GRADED SAND AS FILLERS IN THE SHAFT SECTION	37
<i>Daniel Christianto, David Surachmat, Eric Leonardy, Wilsen Hartanto Lim, Mauren Theodora</i>	
EARLY RISKS IDENTIFICATION ON SOURCES AND CAUSES WASTE ROAD CONSTRUCTION PROJECT MATERIALS	47
<i>Mega Waty, Hendrik Sulistio</i>	
THE APPLICATION OF SODIUM ACETATE AS CONCRETE PERMEABILITY-REDUCING ADMIXTURES	53
<i>Widodo Kushartomo, Andy Prabowo</i>	
ANALYSIS OF THE EFFECT OF TOLL GATE GEOMETRY DESIGNS ON TRAFFIC ACCIDENTS IN TOLL GATE ON TANGERANG-MERAK TOLL ROAD	62
<i>Kristianto, Leksmono Suryo Putranto</i>	
THE INFLUENCE OF DRIVER TRAINING ON SELF-REGULATED AND SAFE DRIVING BEHAVIOR. CASE STUDY: BUS DRIVER IN INDONESIA	68
<i>Ngakan Made Sidan Arnawa, Leksmono Suryo Putranto</i>	
SPRING WATER AS THE WATER SOURCE FOR CIREBON, KUNINGAN, AND MAJALENGKA REGION	74
<i>V Kurniawan</i>	
THE USE OF AN ONLINE SURVEY TO SPEED UP THE DATA COLLECTION PROCESS	79
<i>L S Putranto</i>	
SIMPLIFIED ACTIVITIES MODEL FOR EARNED DURATION CALCULATION	83
<i>Basuki Anondho, Yusuf Latief, Khrisna Mochtar, Joshua Aditya</i>	
DYNAMIC RESPONSE OF GROUND FLOOR SLAB DUE TO FRIEDLANDER LOCAL LOAD	89
<i>Wilianto Aulia, Sofia W. Alisjahbana</i>	
CIPULARANG TOLL ROAD SAFETY AUDIT OF TRAFFIC SIGNS AND ROAD MARKINGS	95
<i>Ni Luh Putu Shinta, M.I. Dewi Linggasari, Hendy Limawan, Antonius</i>	
DYNAMIC DEFLECTION OF CONCRETE PLATE IN SEMI-RIGID SUPPORTS AND VARIOUS DAMPING CONDITION	101
<i>Yenny Untari Liucius, Sofia W. Alisjahbana</i>	
PREDICTING THE SAFETY FACTOR OF ASH IMPOUNDMENT AGAINST LIQUEFACTION	106
<i>A.J Susilo, G.S Sentosa, A Prihatiningsih</i>	
ZERO RUN-OFF CONCEPT APPLICATION IN REDUCING WATER SURFACE VOLUME	116
<i>Endah Lestari, Chaidir A Makarim, Wati A Pranoto</i>	
IMPLEMENTATION OF BIORETENTION SYSTEM FOR ENVIRONMENTAL-BASED URBAN DRAINAGE PLANNING	122
<i>Endah Lestari, Agustinus Purna Irawan</i>	

FEASIBILITY STUDY OF APARTMENT XYZ INVESTMENT BY REVIEWING THE PAYMENT ALTERNATIVES AND THE SUPPORTING VARIABLES	127
<i>Nur Agung Mulyana Halim, Iwan B. Santoso, Jason Lim</i>	
LOCAL WISDOM AS THE EMBODIMENT OF THE LATEST ARCHITECTURE THOUGHT	131
<i>Andi Surya Kurnia</i>	
CHANGING THE FACE OF MODERN ARCHITECTURE: BAMBOO AS A CONSTRUCTION MATERIAL. CASE STUDY: GREEN SCHOOL, BALI – INDONESIA	137
<i>F Lianto, R Trisno, D Husin, S W Teh</i>	
RELATION BETWEEN TRANSIT ORIENTED DEVELOPMENT (TOD) AND THE EFFECT OF ELECTROMAGNETIC FIELD WITH FENGSHUI ON RESIDENTIAL PLANNING	144
<i>S W Teh, F Lianto, R Trisno</i>	
RECONSTRUCTING THE PAST: FROM LANDFORM BATH TO SPA-SCRAPER OF TAMAN SARI	150
<i>C Thedyardi, D Husin</i>	
REDESIGNING THE ISOLATION ROOM FOR SCHIZOPHRENIA PATIENTS AFTER A PARTIAL REMISSION STAGE	157
<i>Margaretha Sandi, Theresia Budi Jayanti, Rio Sanjaya, Kevin Tobias</i>	
RE-DESIGNING FACADE OF KADIN TOWER BUILDING (APPLICATION OF RETROFIT PROGRAMME WITH OTTV)	164
<i>Kisy Riniardi, Naniek Widayati Priyomarsono, James Rilatupa</i>	
STREET NETWORK, TRANSPORTATION, AND TRANSIT ORIENTED DEVELOPMENT	172
<i>Doddy Yuono</i>	
PLANNING OF URBAN SLUM SETTLEMENT IN ADAPTATION TO LANDSLIDE DISASTER	178
<i>Liem Nadya Valencia, Suryono Herlambang, Liong Ju Tjung</i>	
REFERENCE FOR CONTEXTUAL DESIGN	185
<i>Franky Liauw</i>	
EFFECTIVENESS AND EFFICIENCY OF KITCHEN SPACE REVIEWED FROM THE KITCHEN TRIANGLE CONCEPT IN SMALL FLATS CASE STUDY 'RUSUNAWA' MANIS JAYA, TANGERANG CITY, BANTEN	189
<i>Ferdinand, R Trisno, S Gunanata, N Widayati, F Lianto, MB Susetyarto</i>	
THE DEVELOPMENT PLAN OF 'RUSUN' INTEGRATED MODERN MARKET (CASE STUDY: GROGOL MARKET)	197
<i>Muthiara Khairunnisa, Liong Ju Tjung</i>	
COMPARISON OF PERT AND M-PERT SCHEDULING FOR A CONSTRUCTION PROJECT IN MALANG, INDONESIA	204
<i>Joshua Reinaldo Handoko, Onnyxiforus Gondokusumo</i>	
HYDRAULIC ANALISYS OF DRINKING WATER PIPELINE INTER ISLAND	214
<i>Tri Suyono, Wati Asriningsih Pranoto, Agustinus Purna Irawan</i>	
CHILDREN FRIENDLY ENVIRONMENT IN CITY SETTLEMENT: STUDY CASE : 'KAMPUNG LUAR BATANG', NORTH JAKARTA	220
<i>Mariana, T Fatimah, R Trisno, S Gunanta, M Bambang, N Widayati, F Lianto</i>	
ORGANIZATIONAL CULTURE INFLUENCE ON IMPLEMENTATION OF KNOWLEDGE MANAGEMENT AND QUALITY MANAGEMENT SYSTEM FOR IMPROVING INDONESIAN CONSTRUCTION COMPANIES' PERFORMANCES	226
<i>Chairul Mubin, Yusuf Latief</i>	
THE LONG-TERM EFFECTS OF NANO-SILICA ON CONCRETE	232
<i>Jonbi, P H Simatupang, A Andreas, A Nugraha</i>	
THE MODELING OF DWELLING TIME OF BUSES AT BUS STOP	238
<i>Alfa Narendra, Siti Malkhamah, Bertha Maya Sopha</i>	
IDENTIFICATION OF RECHARGE AREA IN BENGAWAN SOLO INDONESIA CATCHMENT AREAS BASED ON GEOGRAPHIC INFORMATION SYSTEM	244
<i>Nindy Cahyo Kresnanto, Edy Sriyono</i>	
THE EFFECT OF BIOASPHALT ON AGED ASPHALT	254
<i>Atmy Verani Rouly Sihombing, Bambang Sugeng Subagio, Eri Susanto, Anwar Yamin</i>	
RETROFITTING OF SQUARE REINFORCED CONCRETE COLUMN BY WELDED WIRE MESH JACKETING WITH CONCENTRIC AXIAL LOAD	261
<i>Yosimson Petrus Manaha, Priyo Suprobo, Endah Wahyuni</i>	
CONTINUOUS BEAM AND SLAB BEHAVIOR IN COMPOSITE BRIDGE SUPPORT AREA WITHOUT USING EXPANSION JOINT	268
<i>Sandi Hidayat, Riawan Gunadi, Moeljono</i>	

ANALYSIS OF PROJECT COST MANAGEMENT INDICATORS AT RESIDENTIAL BUILDINGS (CASE STUDY: BUILDING CONSTRUCTION PROJECT IN RUSUN PENGKILINGAN JAKARTA)	274
<i>A.S Manlian Ronald, Hendra Lumbantoruan</i>	
EFFECT OF NACL AND CACL₂ SOLUTIONS ON THE LIQUID LIMIT, PLASTIC LIMIT, AND PLASTICITY INDEX OF CLAY	280
<i>Budijanto Widjaja, Kevin Martandi Setianto</i>	
INFLUENTIAL FACTORS IN DEVELOPMENT OF INTEGRATED MANAGEMENT SYSTEM (QUALITY, OCCUPATIONAL SAFETY AND HEALTH AND ENVIRONMENT MANAGEMENT SYSTEM) IN MONITORING AND EVALUATION SYSTEM FOR PERFORMANCE IMPROVEMENT IN INDONESIA CONSTRUCTION COMPANY	286
<i>Yurim Hatamaiya Setyorini, Yusuf Latief</i>	
RECENT STUDY ON THE EFFECT OF BLAST LOADING ON COMPOSITE STRUCTURES	293
<i>Gunaryo, Bambang K. Hadi, Sigit P. Santoso, Yayat Ruyat</i>	
EFFECT OF RECYCLED MATERIALS ON MARSHALL PERFORMANCE OF HOT ASPHALT MIXTURE (HMA – RAP)	299
<i>R T Bethary, B S Subagio, H Rahman, N Suaryana</i>	
IMPLEMENTATION OF STANDARDIZED WBS (WORK BREAKDOWN STRUCTURE) FOR TIME AND COST PERFORMANCE. (STUDY CASE: BUILDING PROJECT PT. X, KUALA TANJUNG, SUMATERA UTARA)	305
<i>Ayu Herzanita</i>	
DESIGN OF EDUCATIONAL THERAPIC FACILITY FOR CHILDREN WITH CEREBRAL PALSY AND OTHER MOVEMENT DISABILITIES (CASE STUDY: SAYAP IBU FOUNDATION, BINTARO)	309
<i>Margaretha Sandi, Rio Sanjaya, Maria Veronica Gandha, Dewi Ratnaningrum</i>	
DEVELOPMENT OF MOUNT MASIGIT AREA WITH GEOPARK CONCEPT	314
<i>Brenda Charisma Giovanni, Priyendiswara AB, Parino Rahardjo</i>	

MECHANICAL ENGINEERING AND TECHNOLOGY

ERGONOMIC PORTABLE TOILET FOR WOMEN IN PUBLIC FACILITIES	320
<i>Lamto Widodo, Adianto, Debby, Siti Rohana Nasution</i>	
EFFECT OF CUTTING SPEED ON TEMPERATURE CUTTING TOOLS AND SURFACE ROUGHNESS OF AISI 4340 STEEL	326
<i>Sobron M. Lubis, Steven Darmawan' Adianto, Ericson</i>	
PRODUCT DESIGN OF CHAIRLESS CHAIR BASED ON LOCAL COMPONENTS TO PROVIDE SUPPORT FOR ACTIVE WORKERS	338
<i>Agustinus Purna Irawan, Didi Widya Utama, Enru Affandi, Michael, Herlambang Suteja</i>	
TENSILE PROPERTIES OF BAMBOO STRIP REINFORCED-EPOXY MATRIX COMPOSITE	344
<i>Sofyan Djamil, NPG Suardana, Agustinus Purna Irawan, IKG Sugita</i>	
THE EFFECT OF HOT ROLLING ON HARDNESS PROPERTIES AND MICROSTRUCTURE OF LATERITE STEEL	349
<i>E. Siahaan, A. Riza</i>	
THE PERFORMANCE OF NUMBERS OF BLADE TOWARDS PICOHYDRO PROPELLER TURBINE	362
<i>R Kurniawan, D A Himawanto, P J Widodo</i>	
ANALYSIS DESIGN OF THE GATING SYSTEM ON HIGH-PRESSURE DIE CASTING PROCESS FOR PRODUCTION EFFECTIVENESS	367
<i>Lukas Dwi Purnomo, Dwi Rahmalina, A. Suwandi</i>	
PROPERTIES OF HYBRID COMPOSITES USING CORAL REEFS WASTE AND COCONUT FIBER	374
<i>I Wayan Surata, Tjokorda Gde Tirta Nindhia, W. Edo Yolanda, I G. Ryan Trisna</i>	
EXPERIMENTAL STUDY ON THE BEHAVIOR OF GLASS/EPOXY COMPOSITE PLATE DUE TO BLAST LOADING	382
<i>Heriana, Bambang K. Hadi, Djarot Widagdo, Muh. Kusni</i>	
ANALYSIS OF THE TURBINE BLADE NUMBER TOWARDS THE MICRO GAS TURBINES PERFORMANCE	387
<i>Eko Prasetyo, Rudi Hermawan, Erlanda Augupta Pane, Ranti Dwi Puspita</i>	
MECHANICAL PROPERTIES OF PERVIOUS CONCRETE WITH SLAG AND SILICA FUME AS CEMENT SUBSTITUTION FOR HIGHWAY SHOULDER	396
<i>M H Andika, Suherman, J Endawati</i>	

ANALYTICAL MODEL OF RETROFITTED REINFORCED CONCRETE BEAM COLUMN JOINTS AFTER EXPERIENCING SEVERE DAMAGE FROM EARTHQUAKE LOAD SIMULATION USING SAP2000	402
<i>N Gosal, I Imran, M Riyansyah</i>	
FRICITION STIR WELDING OF ALUMINIUM ALLOY 6061-T651	412
<i>Richard A M Napitupulu, Sutan L M H Simanjuntak, Charles Manurung, Chilinton Hutabarat, S Sitompul, J N Aoh</i>	
NUMERICAL SIMULATION OF STYROFOAM AND ROCKWOOL HEAT TRANSFER FLAT-PLATE TYPE SOLAR COLLECTOR	419
<i>Parulian Siagian, Richard Napitupulu, Sibuk Ginting, Miduk Tampubolon, Soeprpto Manurung</i>	
THE BEHAVIOR OF VARIOUS THIN-WALLED ALUMINUM PRISMS SUBJECTED BY AXIAL IMPACT LOADING IN RELATION TO THE ENERGY ABSORPTION ABILITIES	424
<i>Witono Hardi</i>	
EULERIAN MULTI-FLUID SIMULATION OF BIOMASS GASIFICATION IN CIRCULATING FLUIDIZED BEDS: EFFECTS OF EQUIVALENCE RATIO	433
<i>H Wahyudi, I Rosyadi, M P Pinem</i>	
ANALYSIS OF NEAR WAKE RECOVERY SCALE MODEL VAWT HYBRID WIND TURBIN IN WIND TUNNEL	441
<i>Erwin Erwin, Tresna Priana Soemardi, Adi Surjosatyo, Yulianto Sulisty Nugroho, Kurnia Nugraha, Ratih Diah Andayani, Ismail</i>	
MULTIPLE KNAPSACK PROBLEM FOR RACKING SELECTION MODEL	449
<i>Danan Anbiyaa, Erlangga Bayu Setyawan, Humiras Hardi Purba</i>	
COMPARISON ANALYSIS OF OVERLAY THICKNESS USING THE AASHTO 1993 METHOD AND THE EVERSERIES PROGRAM	456
<i>Faisal Gerardo, Bambang Sugeng Subagio, Jongga Jihanny, Gusfina Try Andari</i>	
EFFECTS OF ALKALI AND STEAMING ON TENSILE STRENGTH OF AREN (ARENGA PINNATA) FIBER	463
<i>S Darmanto, S Sugeng, Indartono, E J Sasono</i>	

PART 2

INFLUENCE OF REACTION LAYER THICKNESS ON SURFACE/SUBMERGED FLAME DURING POROUS MEDIA COMBUSTION OF MICRO BURNER	467
<i>Ayub Ahmed Janvekar, M. Z. Abdullah, Zainal Arifin Ahmad, Aizat Abas, A K Ismail, Mohammad Nishat Akhtar, Hafifi Hafiz Ishak, Mazlan Mohamed</i>	
OPTIMIZATION OF OPEN GEAR DESIGN FOR DRYER PAPER MACHINE TRANSMISSION SYSTEM	475
<i>Renaldo, Agustinus Purna Irawan, Agus Halim</i>	
THE EFFECT OF COPPER CONTENT ON MECHANICAL PROPERTIES OF AL3SI-AL₂O₃/SiC HYBRID COMPOSITE	480
<i>Dwi Rahmalina, Hendri Sukma, Novan Kamanda, M Luthfi Aldiyansyah</i>	

ELECTRICAL ENGINEERING

PERFORMANCE ANALYSIS AT THE OFF BODY ENVIRONMENT IN TERMS OF IMPEDANCE MATCHING, RETURN LOSS AND VSWR FOR WEARABLE ANTENNA SYSTEM ON DIFFERENT MATERIALS	485
<i>Joni Fat, Syah Alam, Indra Surjati</i>	
REAL TIME FACE DETECTION USING HAAR-LIKE FEATURE METHOD AND LOCAL BINARY PATTERN METHOD	490
<i>D Junaidy, M Wulandari, H Tanudjaja</i>	
LIGHTING SIMULATION OF FLAT AND SLIGHTLY ARCHED TYPE TUNNEL BASED ON PASAR REBO TUNNEL DATA	495
<i>Endah Setyaningsih, Jeanny Pragantha</i>	
IMPLEMENTATION OF IMPROVED 3D INTERPOLATION TECHNIQUE ON HRIR MODELS USING PCA	502
<i>Hugeng Hugeng, Irfan Naufal</i>	
DEPLOYMENT OF MODELS OF HRIRS USING PCA IN DIGITAL SIGNAL PROCESSING BOARD	508
<i>Hugeng Hugeng, Tommy Sutiawan</i>	

SAFE ZONE ANALYSIS OF LIGHTNING PROTECTION SYSTEM IN ANTENNA USING RADOME	515
<i>Arif Hidayat, Dedi Irawadi, Alfin Hikmaturokhman, Andrianingsih</i>	
AN ECONOMETRIC ANALYSIS OF ENERGY INPUT IN THE AGRICULTURAL SECTOR AND ITS IMPACT ON CO2 EMISSIONS: A CASE OF INDONESIA	526
<i>Charles O.P. Marpaung</i>	
PROPORTIONAL INTEGRAL DERIVATIVE DC MOTOR SPEED CONTROL SYSTEM FOR XY PLANE MOVEMENTS	532
<i>Hadian Satria Utama, William Wijaya, Joni Fat</i>	

INDUSTRIAL ENGINEERING

ANALYSIS OF MAK DIESEL ENGINE SERVICES AT MERAWANG POWER PLANT USING FMEA METHOD	544
<i>Lina Gozali, Kenty Lieanda, Lilyana Jap, Frans J. Daywin</i>	
DECISION SUPPORT SYSTEM (DSS) ANALYSIS IN RAW MATERIAL WAREHOUSE USING SYSTEM DYNAMICS MODEL (CASE STUDY: PT. MODERA FURINTRACO INDUSTRI)	551
<i>Ahmad Manbas, Lilyana, Kevin Oktavian</i>	
ANALYSIS AND IMPROVEMENT OF WORKING METHODS TO INCREASE PRODUCTIVITY (CASE STUDY: FLOAT GLASS COLLECTING PROCESS)	562
<i>Marcella, I Wayan Sukania, Lamto Widodo, Siti Rohana Nasution</i>	
ANALYSIS OF PRODUCTIVITY IMPROVEMENT IN HARD DISC SPARE PARTS PRODUCTION MACHINES BASED ON OEE, FMEA, AND FUZZY VALUE IN BATAM	568
<i>Zeny Fatimah Hunusalela, Surya Perdana, Ridwan Usman</i>	
MINERALS COMPOSITIONS IN WOOD PROCESSING WASTE FOR GEOPOLYMER BASE INGREDIENT	574
<i>J M Supit, A D U Raharjo, J V Morin, N P P Nugroho</i>	
INTERNALIZATION OF THE CHAMPION CORE VALUES IN WORK SYSTEM DESIGN AND ERGONOMICS LEARNING	579
<i>Heri Setiawan, Rinamurti</i>	
REDUCING TYRE SCRAP BLISTER UNDER TREAD WITH PDCA APPROACH: A CASE STUDY IN MANUFACTURING INDUSTRY	587
<i>Wendi Kurniawan, Fery Andrianto Susilo, Humiras Hardi Purba, Siti Aisyah</i>	
DETERMINATION OF OPTIMUM TIME OF REPLACEMENT WITH AGE REPLACEMENT MODEL	593
<i>N Sembiring, M M Tambunan, F I Siahaan</i>	
SUPPLIER SELECTION IN RUBBER INDUSTRY USING ANALYTIC NETWORK PROCESS (ANP) AND TECHNIQUE FOR ORDER PREFERENCE METHODS BY SIMILARITY TO IDEAL SOLUTION	599
<i>Nurhayati Sembiring, Nazaruddin Matondang, Abdul Rozak Dalimunthe</i>	
REDUCING NON CONFORMANCE QUALITY OF YARN USING PARETO PRINCIPLES AND FISHBONE DIAGRAM IN TEXTILE INDUSTRY	605
<i>Fajar Pitarsi Dharma, Zulfa Fitri Ikatrinasari, Humiras Hardi Purba, Winda Ayu</i>	
DETERMINATION OF CRITICAL INDICATORS IN EFFORTS TO IMPROVE PERFORMANCE OF INDONESIAN CHOCOLATE SMES WITH LEAN AND AGILE APPROACHES	612
<i>Siti Aisyah, Humiras Hardi Purba</i>	
INTEGRATED MANUFACTURING SYSTEM FRAMEWORK FOR SUSTAINABLE MARITIME TOURISM	617
<i>Y Prasetyawan, L Yuwana, A Yuniarto, A Tira, F R Kurniawan, I O K Wardani</i>	
MANUFACTURING STRATEGY IMPROVEMENT BASED ON LEAN METHODOLOGY	624
<i>Yudha Prasetyawan, Mokh Suef, Nauval Rifqy, Intan Oktasari Kusuma Wardani</i>	
AUTOMATION STRATEGY FOR LOCAL COMMODITY ENHANCEMENT	629
<i>Yudha Prasetyawan, Elly Agustuan, Intan Oktasari Kusuma Wardani</i>	
ULTIMATE ANALYSIS AND ACID VALUE OF BIODIESEL FROM WASTE OIL AND ETHANOL	633
<i>I Wayan Bandem Adnyana, Ni Made Suaniti</i>	
BIODIESEL SYNTHESIS FROM USED FRYING OIL THROUGH PHOSPHORIC ACID REFINED AND CAO CATALYZED TRANSESTERIFICATION	637
<i>Ni Made Suaniti, I Wayan Bandem Adnyana</i>	

EFFECT OF VARIOUS TEMPERATURES TO LIQUID LIMIT, PLASTIC LIMIT, AND PLASTICITY INDEX OF CLAYS	642
<i>Budijanto Widjaja, Angela Florencea Nirwanto</i>	
FATIGUE RECOVERY MATHEMATICAL MODELLING FOR INCREASING PRODUCTIVITY OF A MEDIUM-WORKLOAD WORKER IN INDONESIA	647
<i>Iwan Ang Soenandi, Vincent Ardian</i>	
DYNAMIC CAPABILITY AND DISRUPTIVE INNOVATION WITHIN PERSPECTIVES OF INDUSTRY 4.0, RESEARCH RESULT AND INNOVATION ON PEOPLE'S PROSPERITY	653
<i>Khristian Edy Nugroho Soebandrija</i>	
IMPACT OF UPGRADING ISO 9001:2008 TO ISO 9001:2015 ON INTERNAL REJECTS IN AUTOMOTIVE COMPANY	658
<i>Afriyuddin, Diky Herdiawan, Humiras Hardi Purba, Hasbullah</i>	
ANALYSIS OF HOSPITAL PERFORMANCE MEASUREMENT USING PERFORMANCE PRISM METHOD	664
<i>Rusmin Nuryadin, Ahmad Mughni, Humiras Hardi Purba, Afriyuddin, Euis Nina Saparina Yuliani</i>	
THE KNOCK DOWN SYSTEM OF RATTAN FURNITURE FOR GLOBAL MARKET	670
<i>Eddy Supriyatna Marizar, Agustinus Purna Irawan, Jap Tji Beng</i>	
NEW DEVELOPMENT FIBER MATERIAL : USE DOE APPROACH TO DETERMINE THE BEST FORMULA FOR BLENDED FIBER SILK (SAMIYA CYNTHIA RICCINI AND SEMI-NATURAL FIBER)	675
<i>Fajar Pitarsi Dharma, HENDI Dwi Hardiman, Zulfa Fitri Ikatrinasari, Humiras Hardi Purba</i>	
EMPIRICAL RESEARCH OF ENTERPRISE RESOURCE PLANNING SYSTEM IMPLEMENTATION IN INDONESIA: A PRELIMINARY STUDY	682
<i>Wilson Kosasih, Lithrone L. Salomon, Carla O. Doaly, R. Ryandi, S. Liman</i>	
DECREASING OF MUSCULOSKELETAL COMPLAINTS THROUGH REDESIGNS HANDLING ARIT AND PALU PRODUCTS	690
<i>Wahyu Susihono, Ellysa Kusuma Laksanawati, Suryanawati</i>	
THE ERGONOMICS DESIGN OF THE MILITARY BACKPACK FOR INDONESIAN NATIONAL SOLDIERS USING VIRTUAL ENVIRONMENT MODEL	697
<i>Erlinda Muslim, Boy Nurtjahyo Moch, Bagus Anugrah Ramadhan Muhammad Rasyad, Pito Ananda Risyia</i>	
ERGONOMIC DESIGN OF ELECTRIC VEHICLE INSTRUMENT PANEL: A STUDY CASE ON UNIVERSITAS INDONESIA'S NATIONAL ELECTRIC CAR	703
<i>Erlinda Muslim, Boy Nurtjahyo Moch, Reshinta A Lestari, Ghassani Shabrina, Rinda Ramardhiani</i>	
USER INTERFACE EVALUATION OF MOBILE APPLICATION KRL ACCESS USING USER EXPERIENCE APPROACH	709
<i>Erlinda Muslim, Reshinta A Lestari, Asa Ibnu Hazmy, Sitti Alvina</i>	
BATIK INDUSTRY WASTEWATER TREATMENT USING FITO REMEDIATION OF WATER HYACINTH WITH ADSORBENT CONSIST OF ORGANIC WASTE BAGASSE, RICE HUSKS AND BAMBOO CHARCOAL	715
<i>Koosdaryani, M. Masykuri, Edy Purwanto, Suranto</i>	
DECISION SUPPORT SYSTEM TO CHOOSE PRIVATE HIGHER EDUCATION BASED ON MARKETING MIX MODEL CRITERIA IN INDONESIA	721
<i>Ragil Pardiyono, Rina Indrayani</i>	
USER INTERFACE REDESIGN OF E-COMMERCE PLATFORM MOBILE APPLICATION (KUDO) THROUGH USER EXPERIENCE EVALUATION TO INCREASE USER ATTRACTION	727
<i>Erlinda Muslim, Boy Nurtjahyo Moch, Yosua Wilgert, Fristya Fadhillah Utami, Dea Indriyani</i>	
DEVELOPMENT OF DELIVERY CONSOLIDATION PROCEDURES AT COURIER SERVICE COMPANIES USING MONTE CARLO SIMULATION	733
<i>Dody Hartanto, Arsyad Bunyannudin</i>	
EFFECT OF GENOTYPE AND STORAGE DURATION ON TASTE AND ECOVALENCE OF ROASTED BEANS OF ARABICA COFFEE (COFFEA ARABICA L.)	738
<i>Sabam Malau, Maria Rumondang Sihotang, Rosnawyta Simanjuntak</i>	

INFORMATIC ENGINEERING & TECHNOLOGIES

IMPERVIOUS LAND CLASSIFICATION USING BOOTSTRAP PRINCIPAL COMPONENT ANALYSIS	744
<i>Janson Hendryli, Dyah Erny Herwindiati, Junita Merdi</i>	
PARTICIPATORY GIS FOR COLLABORATIVE DECISION MAKING DEVELOPMENT OF VILLAGE RESOURCE POTENTIAL	749
<i>Dedi Trisnawarman, Zyad Rusdi, Farid</i>	

INCREASING REGIONAL ORIGINAL INCOME (PAD) USING CLOUD COMPUTING INFORMATION COMMUNICATION TECHNOLOGY	756
<i>Ishak Ramli, Agus Zainul Arifin, Yanuar</i>	
HEART SOUND DIAGNOSE SYSTEM WITH BFCC, MFCC, AND BACKPROPAGATION NEURAL NETWORK	763
<i>Chairisni Lubis, Felicia Gondawijaya</i>	
A REVIEW ON ENERGY HARVESTING AND STORAGE FOR RECHARGEABLE WIRELESS SENSOR NETWORKS	769
<i>A Tony, Lely Hiryanto</i>	
BAYESIAN NETWORKS MODELING USING PARTIAL LEAST SQUARES APPROACH TO PREDICT STROKE DISEASE	775
<i>Dedi Trisnawarman, Tris Sutrisno, Novario Jaya Perdana, Sugesti</i>	
GEOGRAPHIC INFORMATION SYSTEMS OF FIRE VULNERABILITY AREA IN WEST JAKARTA	782
<i>N D Anggraini, D Trisnawarman, Wasino, D Arisandi</i>	
RECOMMENDATION PRODUCT BASED ON CUSTOMER CATEGORIZATION WITH K-MEANS CLUSTERING METHOD	788
<i>Bagus Mulyawan, M. Viny Christanti, Riyan Wenas</i>	
SECURITY SYSTEM DEVELOPMENT FOR VEHICLE USING THE METHOD OF "MAIL NOTIFICATION" AT VILLA RIZKI ILHAMI TANGERANG RESIDENTIAL	794
<i>R Destriana, A A Permana, S D Legawa, Yanuardi, H Irawan</i>	
MODELING THE EFFECTS OF SOCIAL MEDIA, MATERIALISM, AND CAR USE HABIT ON STUDENT'S RIDESHARING BEHAVIOR	802
<i>Rudy Setiawan</i>	
LOW-COST ARRAY ANTENNA DESIGN FOR S-BAND MARITIME RADAR BY USING SPARSE ARRAY METHOD	808
<i>Efri Sandi, Ratna Addafiah, Pitoyo Yuliatmojo</i>	
FAKE TWITTER MESSAGE IDENTIFICATION USING ECDSA MESSAGE VALIDATION	814
<i>Prasetyo Adi Wibowo Putro</i>	
BID-FISH: AN ANDROID APPLICATION FOR ONLINE FISH AUCTION BASED ON CASE STUDY FROM MUARA ANGKE, INDONESIA	821
<i>Amalia Nurul Balqis, Lianda Ramadhana, Rio Wirawan, Ika Nurlaili Isnainiyah</i>	
PERFORMANCE COMPARISON OF REPORTING ENGINE BIRT, JASPER REPORT, AND CRYSTAL REPORT ON THE PROCESS BUSINESS INTELLIGENCE	828
<i>Bambang Prasetya Adhi, Dendy Nanda Prasetya, Widodo</i>	
MODELING ON CLINICAL GROUP DECISION SUPPORT SYSTEM FOR SCREENING AND WORKING DIAGNOSIS ACUTE RESPIRATORY INFECTIONS	835
<i>Muhammad Syaokani, Sri Hartati, Hari Kusnanto, Suryo Guritno</i>	
DESIGN AND THEORETICAL ANALYSIS OF THE APPLICATION OF THE CERTIFICATELESS PUBLIC KEY ENCRYPTION SCHEME FOR HOME MONITORING SYSTEM SECURITY	842
<i>Hadyan Radifan, Amiruddin Amiruddin</i>	
IMPLEMENTATION OF SALSA20 STREAM CIPHER ALGORITHM AS AN ALTERNATIVE CIPHER SUITE SSL-VPN FOR VOIP SECURITY	848
<i>Aghnia Luthfy Nugrahtama, Yogha Restu Pramadi</i>	
RECORDING APPLICATION WITH MANAGERIAL PREDICTION FEATURES FOR SKENOO BUSINESS	854
<i>Aileen, Hery, Andree Emmanuel Widjaja, John Tampil Purba, Kristina Gloria Simanjuntak</i>	
IMPLEMENTATION OF HONEYWORDS AS A CODEIGNITER LIBRARY FOR A SOLUTION TO PASSWORD-CRACKING DETECTION	860
<i>Ardian Budi Kusuma, Yogha Restu Pramadi</i>	
A REVIEW OF AUTHENTICATION PROTOCOLS FOR RFID SECURITY ON SMART HEALTHCARE	866
<i>Hanif Restu Dearfian, Amiruddin Amiruddin</i>	
SECURITY TESTING OF A USER-PARTICIPATING AUTHENTICATION SCHEME IMPLEMENTATION ON WEB-BASED LOGIN SYSTEM	873
<i>Muhammad Akmaluddin, Yogha Restu Pramadi</i>	
WEBSITE AS AN INFORMATION SYSTEM FOR DISTANCE LEARNING HOW TO BUILD HYDROPONICS WITH A GREENHOUSE	879
<i>Wiwini Windihastuty, Windarto, Samsinar</i>	

PROTOTYPE OF HOME SECURITY SYSTEM USING PASSIVE INFRA RED AND VIBRATION SENSOR BASED ANDROID	884
<i>Irma Saraswati, Reyndra Oktavfazrin, Rian Fahrizal</i>	
ELECTRICAL POWER FACTOR OPTIMIZATION THROUGH WIRELESS SENSOR NETWORK	890
<i>Nina Hendrarini, Niko Andrianto</i>	
A SEARCH-BASED SOFTWARE ENGINEERING FOR DEFECT PREDICTION IN UBUNTU ECOSYSTEM	897
<i>I Made Murwantara, Sutrisno, Joseph</i>	
STUDY ON IMPLEMENTING TOR COMMUNICATION IN CONNECTION TO STORAGE SERVICE PROVIDER	903
<i>Erika Ramadhani, Fietyata Yudha</i>	

MEDICAL & HEALTH TECHNOLOGY

INSIGHTS AND CHALLENGES OF INDONESIA'S ACUTE CORONARY SYNDROME TELECARDIOLOGY NETWORK: THREE YEAR EXPERIENCE FROM A SINGLE CENTER AND IN WEST JAKARTA, INDONESIA	909
<i>Anthony Paulo Sunjaya, Angela Felicia Sunjaya, Andria Priyana</i>	
CHARACTERIZED AND SYNTHESIS OF CHITOSAN NANOPARTICLE AS NANOCARRIER SYSTEM TECHNOLOGY	916
<i>Linda Julianti Wijayadi, Taty Rusliati Rusli</i>	
URGENCY OF THE IMPLEMENTATION OF HEALTH TECHNOLOGY ASSESSMENT TO SUPPORT INDONESIAN NATIONAL HEALTH SECURITY SYSTEM	922
<i>Gunawan Widjaja, Hotmaria H. Sijabat</i>	
IMMENSE ADDITION OF ROYAL JELLY APIS MELLIFERA (CEIBA PENTANDRA) INSUFFICIENT TO INCREASE FIBROBLAST PREPUTIUM PROLIFERATION	927
<i>A Pramono, N Bustamam, M Amalia, M Sahlan</i>	
HIGH TETRAGONULA SP HONEY ADDITION REDUCE CELL PROLIFERATION ON FIBROBLAST PREPUTIUM CULTURE	932
<i>M Shafira, A Pramono, N Nugrohowati, M Sahlan</i>	
THE EFFECT OF TOBACCO LEAVES PYROLYSIS EXTRACT (NICOTIANA TABACUM L.VAR. VIRGINIA) AGAINST THE FORMATION OF BIOFILM BY STAPHYLOCOCCUSAUREUS: AN IN-VITRO STUDY	937
<i>D A Ario Putra, A Pramono, Anisah, A Fauzantoro, M Gozan</i>	
Author Index	