

2nd International Seminar on Science and Technology (ISSTEC 2019)

**Functional Materials for Sustainable
Innovation on Science and Technology**

Advances in Social Science, Education and Humanities
Research Volume 474

Yogyakarta, Indonesia
25 November 2019

Editors:

**Is Fatimah
Riyanto**

**Imam Sahroni
Oki Muraza**

ISBN: 978-1-7138-1972-1

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=isstec-19>

Printed with permission by Curran Associates, Inc. (2021)

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

QUADRATIC PROGRAMMING FOR OPTIMIZING THE DIVERSIFIED SHARIAH STOCK PORTFOLIO	1
<i>Noor Saif Muhammad Mussafi, Zuhaimy Ismail</i>	
DEVELOPED BI-OBJECTIVE PREDICTIVE CONTROL MODELING FOR MAX-PLUS LINEAR SYSTEM.....	10
<i>Lathifatul Aulia, Widowati, R. Heru Tjahjana, Sutrisno</i>	
FACTORS FOR IMPLEMENTING GREEN HIGHWAY CONCEPT IN TOLL ROAD DEVELOPMENT INVESTMENT IN INDONESIA	18
<i>Muhammad Yunus Asy'Ary, Christiono Utomo</i>	
EXPERIMENTS ON THE QUALITY OF THE OUTPUT TONE ON THE ELECTRIC SASANDO PRODUCED BY EDON AND OEBELO WITH A VARIETY OF WIRE MATERIALS	24
<i>Ali Warsito, Hery L. Sianturi, Juliany N. Mohamad</i>	
PREDICTION OF INFLATION IN INDONESIA USING NONPARAMETRIC REGRESSION APPROACH BASED ON LOCAL POLYNOMIAL ESTIMATOR.....	29
<i>V Fibriyani, N Chamidah</i>	
SOLVING OF FUZZY TRANSPORTATION PROBLEM USING FUZZY ANALYTICAL HIERARCHY PROCESS (AHP).....	37
<i>Farikhin, Muhammad Sam'An, Bayu Surarso, Bambang Irwanto</i>	
CHARACTERISTICS OF OZONE GENERATION IN AIR FED CYLINDRICAL DBD USING LOW FREQUENCY	43
<i>Eko Yulianto, Andi Wibowo Kinandana, Eva Sasmita, Muhammad Nur</i>	
PREDICTION OF ACIDITY LEVEL OF AVOMANGO (GADUNG KLONAL 21) USING LOCAL POLYNOMIAL ESTIMATOR.....	48
<i>M Ulya, N Chamidah</i>	
CONCEPTUAL APPROACH OF BIG DATA ARCHITECTURE MOZITA APPLICATION IN INDUSTRY 4.0.....	57
<i>Aris Puji Widodo, Djalal Er Riyanto, Mukhammad Fakhir Rizal</i>	
ON THE APPLICATION OF THE OPEN JACKSON QUEUING NETWORK IN HOSPITAL	64
<i>Arum Helmi Manggala Putri, Irwan Endrayanto</i>	
MODELLING THE NUMBER OF TUBERCULOSIS (TB) CASES IN INDONESIA USING POISSON REGRESSION AND NEGATIVE BINOMIAL REGRESSION.....	72
<i>Rahmadi Yotenka, Alfazrin Banapon</i>	
K-MEANS CLUSTERING OPTIMIZATION USING THE ELBOW METHOD AND EARLY CENTROID DETERMINATION BASED ON MEAN AND MEDIAN FORMULA.....	79
<i>Edy Umargono, Jatmiko Endro Suseno, S. K Vincensius Gunawan</i>	
SENTIMENT ANALYSIS OF VISITORS IN BOROBUDUR TEMPLE WITH SUPPORT VECTOR MACHINE BASED ON TRIPADVISOR REVIEW	88
<i>Edy Widodo, Gifa Delyani Nursyafitri, Ocktavia Nurima Putri, Yesih Nurmallasari</i>	

A PANEL DATA ANALYSIS OF RICE PRODUCTION IN NGAWI REGENCY, EAST JAVA	92
<i>Dina Tri Utari, Tyas Yuliana, Andrie Pasca Hendradewa</i>	
CLASSIFICATION OF STUDENT GRADE BASED ON ACADEMIC RECORDS USING SUPPORT VECTOR MACHINE.....	98
<i>Amalia Dwi Nurfadzilah, Ayundyah Kesumawati</i>	
IMPLEMENTATION OF NAIVE BAYES CLASSIFICATION METHOD FOR SENTIMENT ANALYSIS ON COMMUNITY OPINION TO INDONESIAN CRIMINAL CODE DRAFT	105
<i>Sheila Farach Diba, Jaka Nugraha</i>	
ANALYSIS OF PENALIZED SEMIPARAMETRIC REGRESSION MODEL ON BI-RESPONSE LONGITUDINAL DATA.....	112
<i>Kosmaryati, Mujiati Dwi Kartikasari</i>	
DETECTION OF OBSTRUCTIVE SLEEP APNEA USING WIDTH AND GRADIENT OF QRS COMPLEX WITH DISCRIMINANT ANALYSIS	119
<i>Aida Noor Indrawati, Nuryani, Anto Satriyo Nugroho, Friescha Septiyani</i>	
CLASSIFYING STUDENT'S DURATION OF STUDY IN FACULTY OF SCIENCE AND TECHNOLOGY UNAIR USING NAÏVE BAYES AND NEURAL NETWORK CLASSIFIERS.....	125
<i>Siti Maghfirotul Ulyah, Marisa Rifada, Elly Ana</i>	
EXPERT SYSTEM FOR SELECTING PRODUCT PACKAGING MATERIALS AS A MEANS TO ACHIEVE SUSTAINABLE DEVELOPMENT GOALS	136
<i>Nazula Rukhiana Mukarromah, Andrie Pasca Hendradewa, Dina Tri Utari</i>	
SIMULATION OF CROP INSURANCE PREMIUM WITH POISSON PROCESS AND EXPONENTIAL DISTRIBUTION; CASE STUDY ON RICE FARMING IN VILLAGE OF SUKARATU-EAST JAVA.....	144
<i>Primadina Hasanah, Muhammad Azka, Novita Lestari Payung</i>	
FETAL ELECTROCARDIOGRAM EXTRACTION FROM ABDOMINAL ELECTROCARDIOGRAM USING WAVELET.....	148
<i>Friescha Septiyani, Nuryani, Anto Satriyo Nugroho, Aida Noor Indrawati, Trio Pambudi Utomo</i>	
MODELLING OF POVERTY PERCENTAGE BASED ON MEAN YEARS OF SCHOOLING IN INDONESIA USING LOCAL LINEAR ESTIMATOR.....	154
<i>N Chamidah, M F F Mardianto, E E Limanta, D R Hastuti</i>	
TOPIC MODELING USING LATENT DIRICHLET ALLOCATION (LDA) AND SENTIMENT ANALYSIS FOR MARKETING PLANNING TIKET.COM.....	159
<i>Berlin Helmi Puspita, Muhammad Muhajir, Hafizhan Aliady</i>	
REPETITIVE PATTERN OF L(2,1)-LABELLING ON SIERPINSKI GRAPHS	166
<i>Yuri C Sagala, Susilo Hariyanto, Srrm Titi Udjani, M. Rafid Fadil</i>	
ANALYZING THE FACTORS WHICH INFLUENCE THE DEVELOPMENT OF MANGROVE FOREST IN KULON PROGO USING BINARY LOGISTIC REGRESSION AND REMOTE SENSING METHOD	173
<i>Muhammad Hasan Sidiq Kurniawan, Akhmad Fauzy, Muhammad Muhajir</i>	
IMPROVING THE ACCURACY OF STUDENT PROBLEM IDENTIFICATION USING RULE- BASED MACHINE LEARNING	179
<i>Budi Sulistiyo, Bayu Surarso, Wahyul Amien Syafei</i>	

VECTOR AUTOREGRESSIVE MODELLING OF PROFITABILITY SHARIA RURAL BANK IN INDONESIA	184
<i>Alfazrin Banapon, Rahmadi Yotenka</i>	
SIMULATION OF NEW PREDICTING YARN CHARACTERISTICS ON OPEN-END (OE) YARN BASED ON TORUS COORDINATE	194
<i>Valentinus Galih Vidia Putra, Irwan, Juliany Ningsih Mohamad, M. Farchani Rosyid, Guntur Maruto</i>	
RICE PRODUCTION MODELLING IN INDONESIA WITH THE SPATIAL AUTOREGRESSIVE (SAR) APPROACH	203
<i>Tuti Purwaningsih, Nur Hargita Padmarini</i>	
BUILDING AN INITIATION OF FINANCIAL REPORTING SYSTEM USING BLOCKCHAIN AND CLASSIFICATION ANALYSIS TO FINANCIAL DISTRESS	208
<i>Arum Handini Primandari, Masthura</i>	
APPLICATION OF BINARY LOGISTIC REGRESSION IN MODELLING WOMEN’S PARTICIPATION IN IMPROVING THE WELFARE OF FISHERMEN FAMILIES	215
<i>Kariyam, Fatma Hanani</i>	
APPLICATION OF CLUSTERING ALGORITHM AND SPATIAL ANALYSIS FOR INDUSTRIAL OPTIMIZATION.....	222
<i>Achmad Fauzan, Ginanjar Wiro Sasmito, Sekti Kartika Dini</i>	

Author Index