FITRIA WULANDARI

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Perumahan Grand Fajar Asri No. 22,
Jl. Pembangunan, Sidirejo, Namorambe,
North Sumatra, 20356, Indonesia

RESEARCH INTERESTS

- Artificial Intelligence
- Machine Learning
- Deep Learning
- Neural Networks
- Evolutionary Algorithms
- Soft Robotics
- Image Processing
- Supervised & Unsupervised Learning
- Pattern Recognition
- Optimization
- Big Data
- Internet of Things

EDUCATION

2018 – 2020	Kyungpook National University, South Korea, Master of Science, GPA 3.88 / 4.3 Major: Evolutionary Computation and Intelligent System School of Electronics Engineering Advisor: Rammohan Mallipeddi (Associate Professor)
2010 – 2014	Universitas Harapan Medan, Indonesia, Bachelor of Engineering, GPA 3.49 / 4.0 Major: Informatics Engineering

THESIS

Master Thesis:

"Evolutionary Multi/Many-Objective Approaches for Next Release Optimization Problem"

Description:

1. *Hierarchical approaches for Many-objective optimization*. The proposed approach:
   - Utilizes the advantages provided by the AENS approach and shift-based density estimation to improve the performance of PDMOEAs in handling the MaOPs.
   - Aims at balancing both the convergence and diversity.
   - Employs Pareto-dominance along with approximate non-dominated sorting and Shift-based density estimation in the mating and environmental selections to select and preserve better solutions respectively

2. *Multi/Many-objective Approaches for Next Release Problem*. With proposed approaches:
   - We examined five objectives formulation in the Many Next Release Problem to propose a general method to explore solutions to the Many NRP, involving: maximum the customer profits, minimum the requirement costs, coverage of requirements for customers, fairness of customers, and fairness of resource allocation.

Undergraduate Thesis:

"Web Based Project Management Platform with Waterfall Development Method"

Description:
It is a project management and resource allocation platform that:

- Provide a basis to monitor and control project activities.
- Determine how best to allocate resources so peoples can achieve the project goal.
- Assess how time delays will impact the project.
- Can figure out where excess resources are available to allocate to other projects.
- Provide a basis to help peoples to track project progress.

ACADEMIC EMPLOYMENT

March 2018 - Present	**Graduate Research Assistant**, Kyungpook National University Cooperative Research Program for Agriculture Science & Technology Development (Project No.: PJ013871-02), Rural Development Administration, Republic of Korea
May 2018 - Present	**Graduate Research Assistant**, Kyungpook National University Institute of Information & Communications Technology Planning & Evaluation (IITP) grant funded by the Korea government (MSIT) (2016-0-00564, Development of Intelligent Interaction Technology Based on Context Awareness and Human Intention Understanding)
Fall 2018 - Spring 2019	**Graduate Teaching Assistant/Assistant Instructor** Kyungpook National University
Fall, 2016 - Spring, 2017	**Research Assistant**, Kyungpook National University Intelligent Robot Lab.

TEACHING EXPERIENCE

Fall 2018 - Spring 2019	**Graduate Teaching Assistant/Assistant Instructor**, for Computational Intelligent Systems and How to Write Research Papers Course, School of Electronics Engineering, Kyungpook National University, South Korea
Fall 2017 - Present	**Lecturer**, Department of Computer Science Panca Budi University, Medan , Indonesia
Fall 2016 - Spring 2017	**Teaching Instructor**, for Informatics and Programming Course Mega University, South Korea

TEACHING INTERESTS

Lectures: Introduction to Intelligent Systems, Computational Intelligent Systems, Neural Networks, Big Data, Introduction to Programming.

PUBLICATIONS

JOURNAL ARTICLES

Uyeh, D. D., **Ramlan, F. W**., Mallipeddi, R., Park, T., Woo, S., Kim, J., ... & Ha, Y. (2019). Evolutionary Greenhouse Layout Optimization for Rapid and Safe Robot Navigation. *IEEE Access*, *7*, 88472-88480. DOI: 10.1109/ACCESS.2019.2926566.

Ramlan, F. W., Palakonda, V., Mallipeddi, R. (under preparation). "Evolutionary Multi/Many-Objective Approaches for Next Release Optimization Problem". *IEEE Access*.

CONFERENCE ARTICLES

Ramlan, F. W., Palakonda, V., & Mallipeddi, R. (2019, October). Differential Evolutionary (DE) Based Interactive Recoloring Based on YUV Based Edge Detection for Interior Design. In *2019 International Conference on Information and Communication Technology Convergence (ICTC)* (pp. 597-601). IEEE. DOI: 10.1109/ICTC46691.2019.8939816.

CONFERENCE SUBMITTED FOR REVIEW

Ramlan, F. W., Palakonda, V., Mallipeddi, R. "Hierarchical Approach Based Evolutionary Algorithm For Many-Objective Optimization". International Conference on Artificial Intelligence and Soft Computing (ICAISC) . 4^{th} – 5^{th} September, 2019, Seoul, South Korea.

Ghorbanpour, S., Palakonda, V., **Ramlan, F. W.**, Mallipeddi, R. "An Experimental Short Review On Color Image Quantization."International Conference on Artificial Intelligence and Soft Computing (ICAISC). 4^{th} – 5^{th} September, 2019, Seoul, South Korea.

MAJOR COURSES

- Big Data Science and Analytics
- Neural Networks
- Computational Intelligence Application
- Data Engineering
- Pattern Recognition
- Intelligent System Design
- Sensor System
- Signal and System

WORK EXPERIENCES

2014 **PROGRAMMER**
STARTUP (Created a startup)
Medan, Indonesia

2012 - 2014 **WEB DEVELOPER**
CV. MAT Architect Team
Medan, Indonesia

2009 - 2012 **WEB DEVELOPER**
Indonesia Parental Institute
Medan, Indonesia

2008 **Internship Web Programmer**
PT. Webmedia
Medan, Indonesia

SKILLS AND ORGANIZATION

Computer

Designs : AUTOCAD, Photoshop, Matlab Simulink
Programming : C#, C++, Python, Java, MATLAB, PHP
Machine Learning Library : Tensorflow, Keras, Pandas, Sci-kit

TEST SCORES

TOEIC : 850 (Listening: 435, Reading: 415); Test Taken: Oct 24th, 2017

TOEFL : 627 (Listening: 60, Structure & Written Expression: 63, Reading: 65); Test Taken: April 27th, 2016

IELTS : To appear

GRE : To appear

SEMINAR AND WORKSHOP

1. Presented "Multi-agent Systems to Help Provide Data Comfort Into Users by Another Same Time Minimize The Energy Convergence", Joint Workshop on CESLeA Project, Kyungpook National University. Nov 30, 2018

SCHOLARLY ACTIVITY

2014 **SEMINAR and WORKSHOP**
National Seminar on Information and Communication Technology (SNASTIKOM)
Universitas Harapan Medan, Indonesia

2013 **TECHNOPRENEUR**
Indonesia Movement Building Industrial Informatics
Ministry of Communications and Information Technology, Indonesia

2013 **ANDROID PROGRAMMING**
PT. Webmedia Center
Medan, Indonesia

2008 **DEBATE COMPETITION**
US Consulate Medan's Great
PPIA English Course, Medan, Indonesia

HONOR AND AWARDS

1. KNU International Scholarships (KINGS), (2018 – 2020)
2. Research Assistant (RA) Scholarships, Kyungpook National University (2018 – 2020)
3. Brain Korea (BK21+) Scholarships, Kyungpook National University (2018 – 2020)

REFERENCES

Available Upon Request