FITRIA WULANDARI

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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 3.98 / 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) . 4th – 5th 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). 4th – 5th 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