

# Arry Rahmawan Destyanto

Department of Industrial Engineering, Faculty of Engineering, Universitas Indonesia  
Kampus Baru UI Depok, Jawa Barat 16424, Indonesia

## PROFESSIONAL SUMMARY

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An Industrial Engineer who has a strong interest in policy analysis, serious games, and system simulation. Established various portfolio (simulation games and research papers) in serious games development for learning and policy intervention purpose with 3+ year experience working as a full-time researcher in Systems Engineering, Modeling, and Simulation Laboratory, Universitas Indonesia. A highly motivated learner, adaptive, and capable of working in the highly-pressure environment.

## ACADEMIC QUALIFICATION

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- 2013 – 2014**     **M.T. (Equivalent to M. Eng) in Systems Engineering | GPA 4.0/4.0**  
Department of Industrial Engineering, Faculty of Engineering, Universitas Indonesia  
Thesis: Finding Effective Strategy for Reducing Employee Turnover using System Dynamics (Case Study: Public Accounting Firm)
- Fast-Track scholarship awardee, from Ministry of Research, Technology, and Higher Education (MENRISTEKDIKTI), Republic of Indonesia
  - As a result, two papers had been presented in Asia-Pacific System Dynamic Conference (APSDC) 2017, in National University of Singapore (NUS), Singapore.
- 2009 – 2013**     **S.T. (Equivalent to B. Eng) in Industrial Engineering | GPA 3.78/4.0**  
Department of Industrial Engineering, Faculty of Engineering, Universitas Indonesia  
Thesis Project: Modeling Policy Intervention for Optimizing Impact of Masterplan for Acceleration and Expansion of Indonesia's Economic Development (MP3EI) using System Dynamics.

## RELEVANT WORK EXPERIENCE

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- NOV 2016 – CURRENT**     **RESEARCHER OF SERIOUS SIMULATION GAMING DESIGN AND DEVELOPMENT**  
Systems Engineering, Modeling, and Simulation (SEMS) Laboratory, Universitas Indonesia  
Profile: <http://systems.ie.ui.ac.id/researchers/arry-rahmawan/>
- Being responsible for researching, developing, and commercialize serious games for learning and policy intervention purpose through Signifier Games (<http://signifiergames.com>) as a center of expertise in serious gaming at Universitas Indonesia.
  - Being responsible primarily for publishing various serious games research papers in the international journal or international conference proceedings.
  - Being responsible for being a finishing co-author of various research papers in modeling and simulation topics, including system dynamics, discrete event simulation, and optimization.
- JAN 2015 – CURRENT**     **LECTURER AT INDUSTRIAL ENGINEERING DEPARTMENT**  
Faculty of Engineering, Universitas Indonesia
- Since 2015, Being responsible for planning, designing, delivering, and evaluating the course in the various subject, including System Modeling (ENIE605020), Industrial Simulation (ENIE606025), and Serious Games Design (ENIE616060)
- JUL 2014 – JUL 2018**     **INSTRUCTIONAL DESIGNER AND PROFESSIONAL TRAINER**  
Directorate of Innovation and Business Incubator, Universitas Indonesia
- Being responsible for planning, designing, delivering and evaluating training and instruction materials in entrepreneurship development
  - Being responsible for planning, designing, delivering, and evaluating training materials in innovation, product development, and design thinking

## RESEARCH PROJECTS EXPERIENCE

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- JAN 2018 – OCTOBER 2018**     **PITTA GRANT PROJECT 2018: "Exploring National Industrial Activity and Its Effect to Indonesia Sustainable Development Indicator,"** Funded by Directorate of Research and Community Engagement, Universitas Indonesia.
- Constructed digital serious games for corporate learners to understand sustainable supply chain management concept for Biofuel Production
  - The research outcome was accepted to present at 5<sup>th</sup> International Conference on Power and Energy Systems Engineering (CPESE) 2018 in Nagoya, Japan

## JAN 2018 – SEPTEMBER 2018

JOINT RESEARCH PROJECT WITH KÜHNE HELP LOGISTICS ASIA 2018: “**Serious Game development for Humanitarian Logistics Sourcing Training,**” Funded jointly by Systems Engineering, Modeling, and Simulation (SEMS) Lab and Kühne HELP Logistics Asia

- Being responsible as a representative leader from Universitas Indonesia to collaborate with Kühne HELP Logistics Asia
- The research still in progress. However, the conceptual model of this game has been presented at the 5<sup>th</sup> International Conference on Disaster Management (ICDM 2018), Padang.

## MARCH 2017 – JULY 2018

UI INCUBATE GRANT 2017: “**Signifier Games as a Center of Expertise in Serious Simulation Game Development for Learning and Policy Intervention Purpose.**” Funded by Directorate of Innovation and Business Incubator, Universitas Indonesia.

- Being responsible as supervisor to establish the sub-research group, called “Signifier Games,” from strategic planning, implementation, and organizational evaluation phase.
- Being responsible as supervisor to research and finishing two game projects: Project Management Game (PMG) and Operations Management Game (OMG!)
- The research outcome (PMG) is protected under the copyright by Ministry of Law and Human Rights, Republic of Indonesia

## JAN 2017 – DECEMBER 2017

PITTA GRANT PROJECT 2017: “**Exploration of Supporting and Obstacle Factors in Indonesia Transition to Cleaner and More Sustainable Energy.**” Funded by Directorate of Research and Community Engagement, Universitas Indonesia.

- Constructed digital serious games for increasing awareness about the urgency of a transition to cleaner and more sustainable energy
- The research outcome was published in IOP Conf. Series: Earth and Environmental Science 94 (2017), DOI: 10.1088/1755-1315/94/1/012157 (Scopus Indexed)

## FEB 2016 – DEC 2016

JOINT RESEARCH PROJECT WITH INTERNATIONAL SCHOOL OF MANAGEMENT (ISM), FRANKFURT 2016: “**Serious Game development for Training in Strategic Sourcing Management.**”

- Being responsible for formulating game mechanism of the Strategic Sourcing Management Game (SSMG), based on strategic sourcing concept from ISM professor, Prof. Mario Büsch.
- The research outcome (PMG) is protected under the copyright by Ministry of Law and Human Rights, Republic of Indonesia

## SELECTED RESEARCH PAPERS

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Hidayatno, A., Zulkarnain, Hasibuan, R. G., Nimpuno, G. C. W., **Destyanto, A. R.** (2018). “Designing a Serious Simulation Game as a Learning Media of Sustainable Supply Chain Management for Biofuel Production.” Accepted for presentation at 5th International Conference on Power and Energy Systems Engineering (CPESE 2018), 19-21 September 2018, Nagoya University, Nagoya. Accepted paper will be published in Energy Procedia (ISSN: 1876-6102).

**Destyanto, A. R.**, Hidayatno, A., Moeis, A. O., Iman, M. R. N. (2018). “Co-Creating Prototype Improvement using Participatory Design on the Development of a Serious Game in Financial Literacy Skills.” Proceeding ISAGA2018: International Conference, after a presentation at the 49th International Simulation and Gaming Association (ISAGA) Conference, Nakorn Pathom, Thailand, 9-13 July 2018.

Moeis, A. O., Hidayatno, A., Wangsa, D., **Destyanto, A. R.**, Iman, M. R. N. (2018). “Developing Serious Games for Corporate Learners: A Case Study in Operations Management Game.” Proceeding ISAGA2018: International Conference pp. 382-396, after presentation at the 49th International Simulation and Gaming Association (ISAGA) Conference, Nakorn Pathom, Thailand, 9-13 July 2018.

Hidayatno, A., **Destyanto, A. R.**, Nimpuno, G. C. W. (2018). “Constructing a Conceptual Model of Humanitarian Logistics Management in Designing a Serious Simulation Game for Organizational Coordination Learning.” Accepted to published in International Journal on Advanced Science, Engineering, and Information Technology (Vol. Pending), after a presentation at the 5th International Conference on Disaster Management (ICDM) 2018, Padang, Indonesia, 2 – 4 May 2018.

**Destyanto, A. R.**, Hidayatno, A., Amalia, A. (2017). “Analysis of the Effects of CO<sub>2</sub> Emissions from coal-fired power plants on the gross domestic regional product in Jakarta (using System Dynamics). International Journal of Technology 8 (No. 7), 1345 – 1355. <https://doi.org/10.14716/ijtech.v8i7.783>

**Destyanto, A. R.**, Hidayatno, A., Iman, M. R. N. (2017). “System dynamics approach for managing the turnover problem in a professional service firm.” Conference Proceedings of the 2nd Asia-Pacific Region System Dynamics Conference of the System Dynamics Society. Singapore, 19 – 22 February 2017.

Hidayatno, A., **Destyanto, A. R.**, Moeis, A. O., Iman, M. R. N. (2017). “Scenario planning using system dynamics for reducing uncertainty on managing employee turnover.” Conference Proceedings of the 2nd Asia-Pacific Region System Dynamics Conference of the System Dynamics Society. Singapore, 19 – 22 February 2017.

**Destyanto, A. R.**, Putri, O. A., Hidayatno, A. (2017). “Serious simulation game development for energy transition education using integrated framework game design.” IOP Conf. Series: Earth and Environmental Science 94 (2017) 012157, after a presentation at the 2nd International Conference on Advances in Energy and Environment Research (ICAEER 2017), Guangzhou, China, 11-13 August 2017. DOI: 10.1088/1755-1315/94/1/012157 (Scopus Indexed)

## ADDITIONAL INFORMATION

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### MOTHER TONGUES

Bahasa Indonesia, Basa Jawa (Javanese)

### OTHER LANGUAGE(S)

**ENGLISH** (TOEFL iBT: 97 / 120)

UNDERSTANDING		SPEAKING	WRITING
Reading	Listening		
26	24	22	25
C1	C1	B2	C1

### CERTIFICATE IN PEDAGOGY

Pelatihan Pembelajaran Aktif Perguruan Tinggi / PAPT  
Training of Active Learning in Higher Education  
Certified from the Directorate of Academic Development, Universitas Indonesia

Pelatihan Peningkatan Keterampilan Dasar Teknik Instruksional / PEKERTI  
Training of Skill Development in Instructional Techniques  
Certified from the Directorate of Academic Development, Universitas Indonesia

### PROFESSIONAL MEMBERSHIP

Persatuan Insinyur Indonesia (Indonesian Engineer Association)  
Registered Junior Professional Engineer No. 1025.07.031716

### REFERENCES

**Dr. Akhmad Hidayatno, ST, MBT**

Head of Systems Engineering, Modeling, and Simulation Lab, Universitas Indonesia  
[REDACTED]

Dr. Komarudin, ST, M.Eng

Secretary and Lecturer of Industrial Engineering Department, Universitas Indonesia  
[REDACTED]

Dr. rer. pol. Romadhani Ardi, ST, MT

Assistant Professor and Researcher of Manufacturing System Lab, Universitas Indonesia  
[REDACTED]