

## 人工知能とサービス科学研究所

Research Center for Artificial Intelligence and Service Science

### 研究所の概要

#### 1. 目的

本研究所の目的は、長年研究されてきたAIの産業応用に  
関連しており、技術的側面に加えて、社会、人、組織などの  
特性やビジネス的側面を併せて研究することにより、当該分  
野の研究や産業応用がより実質的なものとなるようにする  
ことである。



#### 所長

松尾 徳朗

Tokuro Matsuo

#### 2. 設置期間

2017年4月1日～2026年3月31日

#### 3. メンバー

19名（所長を除く）

#### 4. 活動概要

人工知能技術の各種分野への応用手法が近年確立してきているが、さらなる多分野への適用や複  
合分野の融合手法やその実現手法については、さらなる研究が必要とされる。具体的に、近年注目  
を集めている、Cloud Computing、Crowd Computing、IoT、Big Data、インタフェースなどの各種技術  
は、人工知能技術を有機的に活用でき、極めて広い分野での適用が期待できる。また、これらの技  
術は、人間、組織、社会において関わりが深く、サービスの観点においても研究が必要である。と  
りわけ、サービスマネジメント、サービスマーケティング、サービスエコノミクスおよびビジネス  
的議論が必要不可欠であり、技術的観念および社会的観念の融合が必要であると予想される。そこ  
で、横断的、学際的な観点を取り入れつつ、次世代の人工知能研究を牽引し、社会活動を効果的に  
支援することを目的とする。

#### キーワード

マルチエージェントシステム、交渉と協調  
理論、社会実装、メカニズムデザイン

### 令和7（2025）年度の研究活動内容及び成果

#### 1. 活動内容

##### (1) JST CREST に関わる研究推進

大規模合意形成支援に関わる研究としてソーシャルリスニング手法を通じた民意の収集技術に  
関して Bina Nusantara University と共同で実施し、異文化圏を含んだ社会・組織・個人の意思決  
定支援の共通化に関する共通の支援プロセスと手法に関する知見の獲得を促進した。これらの結果  
を今後の研究に取り組むことで、エージェントによる補完的支援の使い分けアルゴリズムを開発で  
き、研究項目（信頼できるエージェント構築）の開発に貢献できる。また、社会実験と研究成果の  
促進にも寄与できた。

##### (2) コンピュータサイエンス分野の先端的AI適用

AIが適用できる研究範囲は格段に広がり、計算機科学や情報工学との有機的融合が必要とされて

きている。これらの研究活動について国際的なチームにおいて研究活動を行い卓越した研究実績を提供した。

### (3) AIT-BINUS International Symposium の開催およびアウトリーチ活動

令和元年度に国際交流協定を締結した BINUS 大学との共催・協力で、産業技術をテーマとして IT リスクマネジメント、確率推論、リサーチメソドロジー、Society 5.0、ビジネスマネジメント、IoTなどをテーマとして、講演および聴講者を交えたフォーラムディスカッションを実施した。

## 2. 成果

### (1) JST CREST に関わる研究推進およびコンピュータサイエンス分野の先端的 AI 適用

#### 【編著書】

1. Ford Lumban Gaol, Tokuro Matsuo, Takayuki Ito (Eds.), *Advances in Smart Knowledge Computing Towards Post Artificial Intelligence Era*, Springer, 2026

#### 【国際ジャーナル】

1. Oppir Hutapea, Ford Lumban Gaol, Tokuro Matsuo, Image classification using two neural networks and activation functions: a case study on fish species, *International Journal of Electrical and Computer Engineering (IJECE)*, January 2026 (SCOPUS Q3, H-index=47)
2. Andreas Winata, Nur Afny Catur Andryani, Alexander Agung Santoso Gunawan, Ford Lumban Gaol & Tokuro Matsuo, *MTAKD: multi-teacher agreement knowledge distillation for edge AI skin disease diagnosis*, *Scientific Reports*, 2025 (SCOPUS Q1, H-index=347)
3. Gintoro, Ford Lumban Gaol, Ahmad Nurul Fajar, Abba Suganda Girsang, Tokuro Matsuo: *Microservices Design Pattern in Action: Improving Modifiability in Microservices-Based Software Development*. *IEEE Access* 13: 163588-163606 (2025) (SCOPUS Q1, H-index=290)
4. Naohiro Ishii, Kazunori Iwata, Tokuro Matsuo: *Tracking and classification performances in the bio-inspired asymmetric and symmetric networks*. *Log. J. IGPL* 33(5) (2025) (SCOPUS Q2, H-index=33)
5. Naohiro Ishii, Kazunori Iwata, Kazuya Odagiri, Tokuro Matsuo: *Directed Vectors for Generation of Independent Subspaces in the Bio-inspired Networks*. *Int. J. Neural Syst.* 35(12): 2550079:1-2550079:15 (2025) (SCOPUS Q1, H-index=79)

#### 【国際会議基調講演】

1. *Computational Business Intelligence through Active Data Production*, ISCBI, 2026
2. *Cyber-Physical Event Business Systems*. SNPD-Summer 2025

### (2) AIT-BINUS International Symposium の開催およびアウトリーチ活動

1. Ciputra University, Indonesia
2. University of Surabaya, Indonesia
3. President University, Indonesia
4. Algoma University, Canada
5. Bina Nusantara University, Indonesia
6. International University of Batam, Indonesia

### 1. 研究活動内容

#### (1) JST CREST に関わる研究推進

大規模合意形成支援に関わる研究としてソーシャルリスニング手法を通じた民意の収集技術に関して Bina Nusantara University と共同で実施し、異文化圏を含んだ社会・組織・個人の意思決定支援の共通化に関する共通の支援プロセスと手法に関する知見の獲得を促進した。これらの結果を今後の研究に取り組むことで、エージェントによる補完的支援の使い分けアルゴリズムを開発でき、研究項目（信頼できるエージェント構築）の開発に貢献できる。また、社会実験と研究成果の促進にも寄与できた。

#### (2) コンピュータサイエンス分野の先端的 AI 適用

AI が適用できる研究範囲は格段に広がり、計算機科学や情報工学との有機的融合が必要とされてきている。これらの研究活動について国際的なチームにおいて研究活動を行い卓越した研究実績を提供した。

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#### (1) JST CREST に関わる研究推進およびコンピュータサイエンス分野の先端的 AI 適用

##### 【編著書】

1. Tokuro Matsuo, Takayuki Fujimoto, Ford Lumban Gaol (Eds.). (2023). Innovations in Applied Informatics and Media Engineering, Springer, 2023.
2. Tokuro Matsuo, Tsunenori Mine, Sachio Hirokawa (Eds.), New Trends in E-service and Smart Computing, Springer, 2018

##### 【国際ジャーナル論文】

1. Oppir Hutapea, Ford Lumban Gaol, Tokuro Matsuo, Image classification using two neural networks and activation functions: a case study on fish species, International Journal of Electrical and Computer Engineering (IJECE), January 2026 (SCOPUS Q3, H-index=47)
2. Andreas Winata, Nur Afny Catur Andryani, Alexander Agung Santoso Gunawan, Ford Lumban Gaol & Tokuro Matsuo, MTAKD: multi-teacher agreement knowledge distillation for edge AI skin disease diagnosis, Scientific Reports, 2025 (SCOPUS Q1, H-index=347)
3. Gintoro, Ford Lumban Gaol, Ahmad Nurul Fajar, Abba Suganda Girsang, Tokuro Matsuo: Microservices Design Pattern in Action: Improving Modifiability in Microservices-Based Software Development. IEEE Access 13: 163588-163606 (2025) (SCOPUS Q1, H-index=290)

4. Naohiro Ishii, Kazunori Iwata, Tokuro Matsuo: Tracking and classification performances in the bio-inspired asymmetric and symmetric networks. *Log. J. IGPL* 33(5) (2025) (SCOPUS Q2, H-index=33)
5. Naohiro Ishii, Kazunori Iwata, Kazuya Odagiri, Tokuro Matsuo: Directed Vectors for Generation of Independent Subspaces in the Bio-inspired Networks. *Int. J. Neural Syst.* 35(12): 2550079:1-2550079:15 (2025) (SCOPUS Q1, H-index=79)
6. Yehezkiel Gunawan, Ford Lumban Gaol, Tokuro Matsuo, Unveiling Risks through Machine Learning: Analyzing Indonesian User Feedback Dataset of Capsule Hotel Experiences, *Jurnal Penerapan Sistem Informasi (Komputer dan Manajemen)*
7. Masafumi Nagata, Tokuro Matsuo, Differences in competitors' market influence due to market structure: Evidence from Japanese gambling market, *Heliyon*, Volume 10, Issue 9, May 15, 2024. (SCOPUS Q1, H-index=115)
8. Masafumi Nagata & Tokuro Matsuo, Study of the relationship between increasing average unit price of BIG as the sports lottery and household consumption, *Cogent Social Sciences*, Volume 10, 2024. (SCOPUS Q2, H-index=33)
9. Hidekazu Yanagimoto, Wataru Tokioka, Kiyota Hashimoto, Tokuro Matsuo, Indoor Person Position Estimation With Channel State Information With Privacy Consideration, *IEEE Transactions on Electronics, Information and Systems*, 20 February 2025, Vol. 144 No. 9, pp. 955–961 (SCOPUS Q4, H-index=19)
10. Ezra Karuna Wijaya, Ford Lumban Gaol, Tokuro Matsuo. (February, 2024). The Decision-Support Modeling with Fuzzy Analytic Hierarchy Process (AHP) to Determine the Career Path for Bachelor Informatics Students. *Emerging Science Journal*, 8(1). (SCOPUS Q1, H-index=37)
11. Ford Lumban Gaol, Pramasiwo Alam, Muhammad Bio Franklyn, Kevins Angke, Tokuro Matsuo, Traffic Light System With Embedded GPS (Global Positioning System) and GSM (Global System for Mobile Communications) Shield, *International Journal of Ambient Computing and Intelligence*, Volume 14, Issue 1, 1 January 2023 (SCOPUS Q4, H-index=27)
12. Raden H. S. Mulyani, Ford Lumban Gaol, Tokuro Matsuo, Digital Transformation Governance at the Organization Using IT Infrastructure Library Framework, *Emerging Science Journal*, 7(6). (SCOPUS Q1, H-index=37)
13. Ford Lumban Gaol, Mohamad Fajar Deniansyah, Tokuro Matsuo Authors Info & Claims, The measurement impact of ERP system implementation on the automotive industry business process efficiency, *International Journal of Business Information Systems*, Volume 43, Issue 3, Pages 429 – 442 (SCOPUS Q3, H-index=37)
14. Diaz Saputra, Ford Lumban Gaol, Edi Abdurachman, Dana Indra Sensuse & Tokuro Matsuo, A model of service-oriented architecture of e-certification system to support boat registration and site visit inspection to support maritime safety and crew health inspection, *Marine Systems & Ocean Technology*, Volume 18, pages 45–63, (2023) (SCOPUS Q3, H-index=17)
15. Ford Lumban Gaol, Grahita Djati Nugraha, Tokuro Matsuo, Decision as a Service for Transaction Banking Using Service-Oriented Modeling Architecture Methodology, *IEEE Access*, Vol. 11, 2023 (SCOPUS Q1, H-index=290)

16. Gaol, Ford Lumban, Siswanto, Rezaka Ardho, Matsuo, Tokuro, Architectural modeling of data warehouse and analytic business intelligence for Bedstead manufacturers, *Open Engineering*, Volume 13, Issue 1, 2023 (SCOPUS Q2, H-index=40)
17. Diaz Saputra, Ford Lumban Gaol, Edi Abdurachman, Dana Indra Sensuse, Tokuro Matsuo, Architectural Model and Modified Long Range Wide Area Network (LoRaWAN) for Boat Traffic Monitoring and Transport Detection Systems in Shallow Waters *Emerging Science Journal*, 7(4). (SCOPUS Q1, H-index=37)
18. Anggaragita, Andry Hartanto, Tokuro Matsuo. (December, 2022). Effects of Social e-Commerce on Consumer Behavior. *HighTech and Innovation Journal*, 3(4), 376-384. (SCOPUS Q2, H-index=20)
19. Ford Lumban Gaol, Andry, Tokuro Matsuo (October, 2022). Development and implementation of disaster recovery plan in stock exchange industry in Indonesia. *Open Engineering*, 12(1), 605-615. (SCOPUS Q2, H-index=40)
20. Ford Lumban Gaol, Steven Santoso, Tokuro Matsuo. (September, 2022). Design and development of the application monitoring the use of server resources for server maintenance. *Open Engineering*, 12(1), 524-538. (SCOPUS Q2, H-index=40)
21. Naohiro Ishii, Toshinori Deguchi, Masashi Kawaguchi, Hiroshi Sasaki, Tokuro Matsuo. (August, 2022). Adaptive Orthogonal Characteristics of Bio-Inspired Neural Networks Get access Arrow. *Logic Journal of the IGPL*, 30(4), 578–598. (SCOPUS Q2, H-index=33)
22. Diaz Saputra, Ford Lumban Gaol, Edi Abdurachman, Dana Indra Sensuse, Tokuro Matsuo. (April, 2022). Designing and testing of Bluetooth Low Energy (BLE) system for small wooden boat identification and e-certification. *SN Applied Sciences*, 4(5), 136. (SCOPUS Q2, H-index=74)
23. Andi Nugroho, Harco Leslie Hendric Spits Warnars, Ford Lumban Gaol, Tokuro Matsuo. (2022). Trend of Stunting Weight for Infants and Toddlers using Decision Tree. *IAENG International Journal of Applied Mathematics*. (SCOPUS Q3, H-index=24)
24. Ayesha Ayub Syed, Ford Lumban Gaol, Wayan Suparta, Edi Abdurachman, Agung Trisetyarso, Tokuro Matsuo. (February, 2022). Prediction of the Impact of Covid-19 Vaccine on Public Health Using Twitter. *Iaeng International Journal of Computer Science*, 49(1). (SCOPUS Q3, H-index=31)
25. Ayesha Ayub Syed, Ford Lumban Gaol, Yosef Dedy Pradipto, Tokuro Matsuo. (November 2021). Augmented and Virtual Reality in E-commerce – A Survey. *ICIC Express Letters*, 15(11), 1227-1233. (SCOPUS Q4, H-index=25)
26. Naohiro Ishii, Tokuro Matsuo. (October, 2021). Generation of Chow Parameters and Reduced Variables Through Nearest Neighbor Relations in Threshold Networks. *International Journal of Neural Systems*, 31(10). (SCOPUS Q1, H-index=79)
27. Lidia Sandra, Ford Lumban Gaol, Tokuro Matsuo. (October, 2021). Machine Learning Algorithm to Predict Student's Performance: A Systematic Literature Review. *TEM Journal*, 10(4), 1919-1927. (SCOPUS Q3, H-index=26)
28. Masmur Tarigan, Ford Lumban Gaol, Harco Leslie Hendric Spits Warnars, Benefano Soewito,

- Tokuro Matsuo. (August, 2021). Supply Chain Optimization using Genetic Algorithm in Industry Manufacture: A Systematic Literature Review. *Journal of Theoretical and Applied Information Technology*. 99(16), 4141-4152. (SCOPUS Q4, H-index=42)
29. Ford Lumban Gaol, Ananda Dessi Budiansa, and Yohanes Paul Weniko, Tokuro Matsuo. (March, 2021). Risk Mitigation for Cyber Crime in Non-Banking Organizations. *Journal of Theoretical and Applied Information Technology*, 99(05). (SCOPUS Q4, H-index=42)
  30. Shofa Shofiah Hilabi, Ford Lumban Gaol, Tokuro Matsuo. (February, 2021). Enterprise Architecture Design for Regional Parliament Information Systems Using the Standard Government and Architecture Application (SAGA) Framework. *ICIC-Express Letter*, 15(2), 173-181. (SCOPUS Q4, H-index=25)
  31. Leli Setyaningrum, Ford Lumban Gaol, Tokuro Matsuo. (February, 2021). Development of Military Education Information System (MEIS) and Human Resource Information System (HRIS) in the Pattern of Career Military Personnel. *ICIC-Express Letter*, 15(2), 183-191. (SCOPUS Q4, H-index=25)
  32. Yakob Utama Chandra, Ford Lumban Gaol, Tokuro Matsuo. (February, 2021). Enterprise Architecture on Digital Services Industry for Electronic Customer Feedback Using TOGAF. *International Journal of Innovative Computing, Information and Control (IJICIC)*, 17(1), 297-313. (SCOPUS Q3, H-index=56)
  33. Ayesha Ayub Syed, Ford Lumban Gaol, Tokuro Matsuo. (January 2021). A Survey of the State-of-the-Art Models in Neural Abstractive Text Summarization. *IEEE Access*, 9, 13248-13265. (SCOPUS Q1, H-index=290)
  34. Ford Lumban Gaol, Lufty Abdillah, Tokuro Matsuo. (November, 2020). Adoption of Business Intelligence to Support Cost Accounting Based Financial Systems – Case Study of XYZ Company. *Open Engineering*, 11(1), 14-28. (SCOPUS Q2, H-index=40)
  35. Ford Lumban Gaol, Ardian Maulana, Tokuro Matsuo. (October, 2020). News consumption patterns on Twitter: fragmentation study on the online news media network, *Heliyon*, 6(10), e05169. (SCOPUS Q1, H-index=115)
  36. Ford Lumban Gaol, Arsyhan Syahir, Tokuro Matsuo. (September, 2020). Application and Use of Business Intelligence to Monitor Corporate Finance. *Technology Reports of Kansai University*, 62(8)
  37. Ford Lumban Gaol, Tokuro Matsuo. (August, 2020). The Simulation of Implications of Sensor Technology on the New Product Development to Solve Lot-Sizing Problems with Fuzzy Approach. *Journal of Sensors*, Article ID 3503895. (SCOPUS Q3, H-index=70)
  38. Ford Lumban Gaol, Suci Rahayu, and Tokuro Matsuo. (August, 2020). The Development of Information System with Strategic Planning for Integrated System in the Indonesian Pharmaceutical Company. *Open Engineering*, 10(1). (SCOPUS Q2, H-index=40)
  39. Maryani, Ford Lumban Gaol, Tokuro Matsuo. (July, 2020). The Digital Transformation of Enterprise Architecture on Culinary SMEs: A Case Study – Culinary SMEs in DKI Jakarta Province. *International Journal of Innovation, Creativity and Change*, 14(2), 275-289
  40. Ford Lumban Gaol and Tokuro Matsuo. (March 2020). Evaluating ERP System Merging

Success in Chemical Companies: System Quality, Information Quality, And Service Quality. *Open Engineering*, 10, 282-293. (SCOPUS Q2, H-index=40)

41. Ford Lumban Gaol and Tokuro Matsuo. (January 2020). Solving the Graph Problem on the Maximal Clique Problem on the P-Systems with Mitochondria Enzymes Layer. *Applied Sciences*, 10(1), 275. (SCOPUS Q2, H-index=162)
42. Tomomichi Hayakawa, Teruhisa Hochin, Tokuro Matsuo. (November 2019). Privacy Protection for Multi-Option Problem of Participatory Sensing Using Random Noise Addition. *International Journal of Service and Knowledge Management*, 3(2), 1-14.
43. Yasushi Sugiyama, Jianping Zheng, Tokuro Matsuo, Hidekazu Iwamoto, Teruhisa Hochin. (November 2019). Internet Review Analysis of Foreign Visitors to Regional Cities in Japan. *Information Engineering Express*, 5(2), 73-82.
44. Yasushi Sugiyama, Tokuro Matsuo, Hidekazu Iwamoto, Teruhisa Hochin. (November 2019). Motivation Analysis of Foreign Participants to International Conferences held in Japan. *International Journal of Service and Knowledge Management*, 3(2), 82-94.
45. Ford Lumban Gaol, Jonathan Danny, Tokuro Matsuo. (November 2019). Application of organization goal-oriented requirement engineering (OGORE) methods in erp-based company business processes. *Open Engineering*, 9(1), 545-553. (SCOPUS Q2, H-index=40)
46. Ford Lumban Gaol, Tokuro Matsuo and Ardian Maulana. (September 2019). Network Model for Online News Media Landscape in Twitter. *Information*, 10(9), 277. (SCOPUS Q2, H-index=72)
47. Tomomichi Hayakawa, Teruhisa Hochin, Tokuro Matsuo. (May 2019). Implementation of Incentive Mechanism in Participatory Sensing-Based River Management System. *International Journal of Service and Knowledge Management*, 3(1), 35-50.
48. Hidekazu Iwamoto, Tokuro Matsuo, Sachio Hirokawa. (2018). Extraction of know-how for attracting international conventions from a questionnaire survey of experienced person. *Journal of Global Tourism Research*, 3(2), 103-106.

**【国際会議基調講演】**

1. Tokuro Matsuo (Keynote Address). Computational Business Intelligence through Active Data Production, ISCBI, 2026
2. Tokuro Matsuo (Keynote Address). Cyber-Physical Event Business Systems. SNPD-Summer 2025
3. Tokuro Matsuo (Keynote Address). Cyber-Physical Marketing Innovations, International Conference Economy and Business-Management Science (The 2024 ICEBMS), Tashkent, June 13, 2024.
4. Tokuro Matsuo (Keynote Address). Towards an Era of Hyperdemocracy, 9th IEEE/ACIS International Conference on Big Data, Cloud Computing, and Data Science (BCD 2024-Summer), Kitakyushu, July 16-18, 2024.
5. Tokuro Matsuo (Keynote Address). Behavioral Data and Event Business Systems, 2025 International Conference on Data Engineering and Enterprise System (ICDEES 2024), Yogyakarta, Indonesia, Nov 29-30, 2024.

6. Tokuro Matsuo (Keynote Address). Towards Smart Applied Sciences with Multiple Sensors, International Conference on Applied Sciences and Technologies (InCASST), Yogyakarta, Indonesia, October 18, 2023.
7. Tokuro Matsuo (Keynote Address). Toward the Development of Integrated Support System, ICICI 2023 @ Politeknik Negeri Banjarmasin, May 31, 2023.
8. Tokuro Matsuo (Keynote Address). Practical Cyber-Physical Systems in Industry 4.0 and Society 5.0, 7th IEEE/ACIS International Conference on Big Data, Cloud Computing, and Data Science Engineering (BCD 2022) August 4-6, 2022, Danang
9. Tokuro Matsuo (Keynote Address). Service Design towards Industry 4.1, 2nd IIAI-International Conference on Applied Informatics and Media Design, February 26-27, 2022.
10. Tokuro Matsuo (Keynote Address). Consensus Formation Support Innovation in Industry 4.0 and Society 5.0 Era, The 7th International Conference on Cyber and IT Service Management (CITSM 2019), November 6, 2019, Jakarta Convention Center, Indonesia.
11. Tokuro Matsuo (Keynote Address). Towards Practical Cyber-Physical Environments in Consensus Formation, 11th Asian Conference on Intelligent Information and Database Systems (ACIIDS 2019), April 9, 2019, Yogyakarta, Indonesia.
12. Tokuro Matsuo (Keynote Address). Integrating Cyber and Physical Environments in Consensus Formation. The 6th International Conference on Advances in Intelligent Systems in Bioinformatics, Chem-Informatics, Business Intelligence, Social Media and Cybernetics 2018, October 7-8, 2018, Bali Indonesia.
13. Tokuro Matsuo (Keynote Address). Towards Interdisciplinary Research on Informatics, Social Science and Natural Science. The 6th International Conference on Manufacturing, Optimization, Industrial and Material Engineering 2018 (MOIME 2018), March 24, 2018, Bandung, Indonesia.
14. Tokuro Matsuo (Keynote Address). Towards Sensor-based Cyber-Physical Environment for Smart Marketing. The 2017 International Conference on Recent Trends on Smart Systems, Application and Technologies (RT-SMART 2017), November 25, 2017, Jakarta, Indonesia.
15. Tokuro Matsuo (Keynote Address). Towards Cyber-Physical Discussion Support and Its Effectiveness. The International Conference on Advanced Management and Information Technology Services, September 26, 2017, Labuan Bajo, Indonesia.
16. Tokuro Matsuo (Keynote Address). Software Innovations in Tourism and Event Services. The International Joint Conference on Computer Science and Software Engineering (JCSSE), July 13, 2017, Nakhon Si Thammarat, Thailand.

(2) 研究所共催国際シンポジウムの開催

2024年度は、福井商工会議所において2025年3月3日から5日にかけて、「International Forum on AI and Social Research Innovations」を開催した。ここでは、1件の基調講演、9件の招待講演によるシンポジウムを実施した。社会心理学、社会最適化、人工知能、エージェント工学、コンベンション学、ミクロ経済学などをテーマとして実施した。

2023年度は、香川県高松市のレグザムホール高松において2024年3月6日から7日にかけて、「International Symposium on Applied Information Technologies and Innovative Applications」を

開催した。ここでは、1件の基調講演、11件の招待講演によるシンポジウムを実施した。社会心理学、社会最適化、人工知能、エージェント工学、コンベンション学、マイクロ経済学などをテーマとして実施した

2022年度は、1年間を通じて2回のシンポジウムへの協賛および13回のフォーラムを実施した。社会心理学、社会最適化、人工知能、エージェント工学、コンベンション学、マイクロ経済学などをテーマとして実施した。

2021年度は、1年間を通じて17回のシンポジウムおよびフォーラムを実施した。社会心理学、社会最適化、人工知能、エージェント工学、コンベンション学、マイクロ経済学などをテーマとして実施した。

### (3) AIT-BINUS の協定に基づいたアウトリーチ活動

アウトリーチ活動として、次の研究機関において先端分野の講演を行うとともに、現地研究者に対して研究方法論、論文執筆方略、研究管理などについて教授した。

#### (2025年度)

1. Bina Nusantara University, Indonesia
2. International University of Batam, Indonesia
3. University of Surabaya, Indonesia
4. Ciputra University, Surabaya, Indonesia
5. President University, Indonesia

#### (2024年度)

6. International University – VNU, Vietnam
7. Ho Chi Minh University of Technology, Vietnam
8. Bina Nusantara University, Indonesia
9. University of Surabaya, Indonesia
10. International University of Batam, Indonesia
11. UNIKOM Bandung, Indonesia
12. University of Multimedia Nusantara, Indonesia
13. King Mongkut's Institute of Technology, Thailand
14. Chulalongkorn University, Thailand

#### (2023年度)

15. Petra Christian University, Surabaya, Indonesia
16. International University of Batam, Indonesia
17. University of Atma Jaya, Makassar, Indonesia
18. University of Atma Jaya, Yogyakarta, Indonesia
19. University of Udayana, Bali, Indonesia
20. Bina Nusantara University, Indonesia
21. Politeknik Negeri Banjarmasin, Indonesia
22. ITB STIKOM Bali, Indonesia
23. Universitas Aishah Pringsewu, Lampung, Indonesia
24. Atma Jaya Makassar University, Indonesia

25. Widya Gama Mahakam University, Indonesia  
(2022 年度)
26. Universitas Widya Gama Mahakam Samarinda, Indonesia
27. APTIKOM Kalsel, Indonesia
28. Universitas Kristen Satya Wacana, Salatiga, Indonesia
29. Universitas Kristen Duta Wacana, Yogyakarta, Indonesia
30. Atmajaya University, Yogyakarta, Indonesia
31. Ciputra University, Surabaya, Indonesia
32. Universitas Logistik dan Bisnis Internasional, Bandung, Indonesia
33. Bumigora University, Lombok, Indonesia
34. Institut Teknologi Dan Bisnis STIKOM, Bali, Indonesia
35. Bina Nusantara University, Semarang, Indonesia
36. Bina Nusantara University, Malang, Indonesia
37. Bina Nusantara University, Bandung, Indonesia
38. Dong Nai Technology University, Dong Nai, Vietnam
39. Nguyen Tat Thanh University, Ho Chi Minh, Vietnam
40. FPT University, Hanoi, Vietnam
41. Phenikaa University, Hanoi, Vietnam
42. Bina Nusantara University, Jakarta, Indonesia
- (2021 年度)
43. Bina Nusantara University, Indonesia
- (2020 年度)
44. Bina Nusantara University, Indonesia
- (2019 年度)
45. Kalbis Institute & IEEE Indonesia Section, Jakarta, Indonesia.
46. Dili Institute of Technology, Timor Leste
47. Ciputra University, Indonesia
- (2018 年度)
43. University of Udayana, Indonesia
44. Widya Gama Mahakam University, Indonesia
45. Atma Jaya University, Indonesia
46. Politeknik Negeri Manado, Indonesia
47. Bina Nusantara University, Indonesia
48. Sanata Dharma University, Indonesia
49. Yayasan Pendidikan Bina Ilmu, Indonesia
50. Politeknik Caltex Riau, Indonesia
51. Bina Darma University, Indonesia
52. International University of Batam, Indonesia
53. Satya Wacana Christian University, Indonesia
54. STMIK Banjarmasin, Indonesia

55. STMIK Banjarbaru, Indonesia
  56. Bumigora University, Indonesia
  57. University of Udayana, Indonesia
- (2017 年度)
58. University of Malaya, Kuala Lumpur, Malaysia