

Emmanuel S. O. Ayedoun



Associate Professor of Human-Computer Interaction

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Visiting Scholar, TIDE Research Group, Universitat Pompeu Fabra,
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17

JOURNAL PAPERS

57

INTL. CONFERENCES

50

DOMESTIC PAPERS

550+

CITATIONS

18

AWARDS

II Profile

I design emotionally intelligent, embodied conversational agents at the intersection of artificial intelligence, affective science and educational psychology. My research concerns how a system recognizes a learner's emotional state and calibrates its response to the situation, including when to withhold intimacy and cheerfulness. Application areas are second-language production support, group discussion, and collaborative knowledge construction. Current work covers LLM-based dialogue agents that facilitate group reasoning, and the design of support that withdraws as learner competence grows.

II Education

Apr 2018 – Mar 2020	Ph.D. in Informatics Graduate School of Humanities and Sustainable System Sciences, Osaka Prefecture University, Osaka, Japan Thesis: <i>Embodied Conversational Agent to Enhance Second Language Learners' Willingness to Communicate.</i>
Apr 2016 – Mar 2018	Master of Science in Informatics Graduate School of Humanities and Sustainable System Sciences, Osaka Prefecture University, Osaka, Japan
Apr 2012 – Mar 2016	Bachelor of Science in Informatics College of Sustainable System Sciences, School of Knowledge and Information Systems, Osaka Prefecture University, Osaka, Japan
2009 – 2011	Japanese Language Studies Yokohama and Tokyo, Japan

II Academic Appointments

Mar 2026 – Jan 2027	Visiting Scholar TIDE Research Group, Universitat Pompeu Fabra, Barcelona, Spain Ten-month research stay (March 2026 – January 2027) with Prof. Davinia Hernández-Leo. Computer-supported collaborative learning, generative AI, social agents, multimodal learning analytics.
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Apr 2025 – present	Associate Professor Dept. of Electrical, Electronic and Information Engineering, Faculty of Engineering Science, Kansai University, Osaka, Japan
Apr 2020 – Mar 2025	Assistant Professor Faculty of Engineering Science, Kansai University, Osaka, Japan
Apr 2018 – Mar 2020	Doctoral Research Fellow (DC1) Japan Society for the Promotion of Science (JSPS), Osaka Prefecture University, Osaka, Japan

II Research Funding

¥38,250,000 total awarded		¥14,590,000 as Principal Investigator	¥23,660,000 as Co-Investigator
Apr 2025 – Mar 2028	PI ACTIVE	Integrating Multimodal AI and Augmented Reality for Immersive Second Language Acquisition JSPS · Grant-in-Aid for Early-Career Scientists · No. 25K21363	¥4,980,000
Apr 2022 – Mar 2025	PI	Practical Evaluation of Effects of an Emotion-aware Conversational Agent in L2 Learning JSPS · Grant-in-Aid for Early-Career Scientists · No. 22K18011	¥4,550,000
Jun 2022 – Mar 2024	CO-PI	Exploring Emotional Communication to Enhance Learning Motivation JSPS · Grant-in-Aid for Challenging Research · No. 22K18595 · PI: Kazuhisa Seta	¥6,370,000
Apr 2020 – Mar 2022	PI	Semi-automatic Generation of English Dialogue Scenarios Based on Service Process Model JSPS · Grant-in-Aid for Research Activity Start-up · No. 20K23353	¥2,860,000
Apr 2018 – Mar 2021	CO-PI	A Model for Classroom Practice and Motivation with Dialogue Agents to Motivate Second Language Conversation JSPS · Grant-in-Aid for Scientific Research (B) · No. 18H03345 · PI: Kazuhisa Seta	¥17,290,000
Apr 2018 – Mar 2020	PI	Developing a Conversational Agent to Enhance Willingness to Communicate in a Second Language JSPS · Grant-in-Aid for JSPS Fellows (DC1) · No. 18J22445	¥2,200,000

II Honors & Awards

2026	Reproducibility Award Generation and Evaluation of Non-verbal Behaviour for Embodied Agents (GENEA) Workshop @ ICMI 2026, Naples, Italy
2026	Best Paper Award Computational Affective Science (CAS) Workshop @ LREC 2026, Palma, Spain
2024	Best Student Paper Award International Conference on Computers in Education (ICCE), Manila, Philippines
2024	NOMINATION Best Paper Nomination International Conference on Computers in Education (ICCE), Manila, Philippines
2024	Best Conference Paper Award International Conference on Kansei Engineering and Emotion Research (KEER), Taichung, Taiwan
2020	Research Excellence Award Japanese Society for Artificial Intelligence (JSAI)

2018	Young Scientist Encouragement Award SIG on Advanced Learning Science and Technology (SIG-ALST), JSAI
2018	Learning Innovation Excellence Award Learning Innovation Grand Prix (LIGP), Tokyo, Japan
2017	Young Scientist Encouragement Award SIG on Advanced Learning Science and Technology (SIG-ALST), JSAI
2017	NOMINATION Best Student Paper Nomination International Conference on Computers in Education (ICCE), Christchurch, New Zealand
2017	Best Poster Presentation Award International Conference on Artificial Intelligence in Education (AIED), Wuhan, China
2016	Audience Award Learning Innovation Grand Prix (LIGP), Tokyo, Japan
2016	Encouragement Award Learning Innovation Grand Prix (LIGP), Tokyo, Japan
2015	Best Poster Presentation Award International Conference on Knowledge Management (ICKM), Osaka, Japan
2015	Best Presentation Award Young Researchers Forum on Educational and Learning Support Systems, Chiba, Japan
2014	Best Presentation Award Young Scientists Research Contest, JSiSE Kansai Section, Osaka, Japan
2016–2019	President Excellence Awards (×4) Osaka Prefecture University

II Invited Talks & Academic Visits

Jul 2026	From Cognition to Calibrated Emotion: Designing Affectively Intelligent Conversational Agents Invited talk, NLP Seminar, National Research Council Canada
Feb 2026	Beyond Fluency: Crafting Imperfect Dialogue Interfaces for Emotion-Oriented Interactions Invited talk, Gdańsk University of Technology, Poland
Jun 2025	Beyond Cognition: Designing Emotionally Intelligent Conversational Agents for the Future of Human Learning Technical University of Munich, Germany. Hosted by Prof. Björn Schuller
May 2025	Emotion-Oriented Dialogue Systems for Language Learning Support TIDE Research Group, Universitat Pompeu Fabra, Barcelona, Spain
Mar 2024	Invited speaker Joint Symposium in Science and Engineering between Chung Yuan Christian University and Kansai University, Taoyuan, Taiwan

II Publications

17 journal articles · 57 international conference and workshop papers · 50 domestic conference papers. Author name in bold.

JOURNAL ARTICLES

- 2026** **Prompt-Optimized Music Generation: A User Feedback-Adaptive AI System**
Ohya, K., Ayedoun, E., & Tokumaru, M.
Journal of Advanced Computational Intelligence and Intelligent Informatics (JACIII), Vol. 30, No. 2, pp. 579–588
doi.org/10.20965/jaciii.2026.p0579
-
- 2026** **Exercise Support System using Spectator Robot Behavior in Virtual Spaces**
Nakamura, H., Ayedoun, E., & Tokumaru, M.
Journal of Japan Society for Fuzzy Theory and Intelligent Informatics, Vol. 38, No. 1, pp. 537–541
doi.org/10.3156/jsoft.38.1_537
-
- 2026** **Advertising Statement Optimization System based on Consumer Type Classification**
Tominaga, Y., Ayedoun, E., & Tokumaru, M.
International Journal of Affective Engineering, Vol. 25, No. 1, pp. 119–136
doi.org/10.5057/ijae.ijae-d-25-00015
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- 2025** **Exercise Support System Using Self-Growing Avatar with Interactive Evolutionary Computation**
Yamamoto, S., Ayedoun, E., & Tokumaru, M.
Journal of the Japanese Society for Fuzzy Theory and Intelligent Informatics, Vol. 37, No. 1, pp. 582–585
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- 2025** **A System for Enhancing Exercise Motivation through Peer Learning with Agents**
Sakaguchi, S., Ayedoun, E., & Tokumaru, M.
Journal of the Japanese Society for Fuzzy Theory and Intelligent Informatics, Vol. 37, No. 1, pp. 520–523
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- 2024** **Leveraging Interactive Evolutionary Computation to Induce Serendipity in Informal Learning**
Inoue, S., Ayedoun, E., Takenouchi, H., & Tokumaru, M.
Multimodal Technologies and Interaction, Vol. 8, No. 11, Art. 103
doi.org/10.3390/mti8110103
-
- 2024** **Leveraging IEC and Others' Viewpoints Presentation to Support Creative Thinking**
Sakabe, Y., Ayedoun, E., & Tokumaru, M.
International Journal of Affective Engineering, Vol. 23, No. 2, pp. 157–168
doi.org/10.5057/ijae.ijae-d-24-00001
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- 2023** **Swarm Intelligence Inspired Approach for Dynamic Tracking of Members' Interests in Online Discussion Groups**
Ayedoun, E., Goto, M., & Tokumaru, M.
International Journal of Affective Engineering, Vol. 22, No. 3, pp. 209–220
doi.org/10.5057/ijae.IJAE-D-22-00012
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- 2023** **An Authoring Tool for Task-Oriented Dialogue Scenarios Design in EFL Context**
Ayedoun, E., Hayashi, Y., & Seta, K.
Research and Practice in Technology Enhanced Learning, Vol. 18, Art. 27
doi.org/10.58459/rptel.2023.18027
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- 2023** **Unleashing Fairness: How a Group Norm-Aware Agent Shakes Up the Ultimatum Game**
Fuse, Y., Ashida, B., Ayedoun, E., & Tokumaru, M.
IEEE Access, Vol. 11, pp. 36727–36740
doi.org/10.1109/ACCESS.2023.3266397
-
- 2023** **A Rhythm Compensation System to Foster Exercise Motivation**
Kobayashi, R., Ayedoun, E., & Tokumaru, M.
Journal of the Japanese Society for Fuzzy Theory and Intelligent Informatics, Vol. 35, No. 2, pp. 673–677
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- 2022** **Towards Emotionally Expressive Virtual Human Agents to Foster L2 Production: insights from a preliminary Woz experiment**
Ayedoun, E., & Tokumaru, M.
Multimodal Technologies and Interaction, Vol. 6, No. 9, pp. 77–91
doi.org/10.3390/mti6090077
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- 2022** **Group Norm-Aware Robot Adaptively Maintains Suitable Interpersonal Distance in Human-Robot Group**
Fuse, Y., Ayedoun, E., & Tokumaru, M.
International Journal of Affective Engineering, Vol. 21, No. 3, pp. 191–201
doi.org/10.5057/ijae.TJSKE-D-21-00078
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2020	Towards Personalized Scaffolding and Fading of Motivational Support in L2 Learner–Dialogue Agent Interactions: An Exploratory Study Ayedoun, E., Hayashi, Y., & Seta, K. <i>IEEE Transactions on Learning Technologies</i>, Vol. 13, No. 3, pp. 604–616 doi.org/10.1109/TLT.2020.2989776
2019	Adding Communicative and Affective Strategies to an Embodied Conversational Agent to Enhance Second Language Learners' Willingness to Communicate Ayedoun, E., Hayashi, Y., & Seta, K. <i>International Journal of Artificial Intelligence in Education</i>, Vol. 29, No. 1, pp. 29–57 doi.org/10.1007/s40593-018-0171-6
2019	Dialogue Agents and Learning Support Ayedoun, E., Hayashi, Y., & Seta, K. <i>Transactions of Japanese Society for Information and Systems in Education</i>, Vol. 36, No. 4, pp. 221–232
2016	Web-services Based Conversational Agent to Encourage Willingness to Communicate in EFL Context Ayedoun, E., Hayashi, Y., & Seta, K. <i>The Journal of Information and Systems in Education</i>, Vol. 14, No. 1, pp. 15–27 doi.org/10.12937/ejsise.15.15
INTERNATIONAL CONFERENCES & WORKSHOPS	
2026	Developing a Conversational Strategy Model for Dialogue Agents Considering Topic Weight in Collaborative Learning Sakagami, R., Ayedoun, E., & Tokumaru, M. <i>2026 IEEE International Conference on Teaching, Assessment and Learning for Engineering (TALE 2026)</i>, Accepted, Pattaya, Thailand
2026	Knowledge Graph-Based Support System for Autonomous Learning Path Design Ikushima, T., Ayedoun, E., & Tokumaru, M. <i>2026 IEEE International Conference on Teaching, Assessment and Learning for Engineering (TALE 2026)</i>, Accepted, Pattaya, Thailand
2026	From Wizard-of-Oz to Autonomous: A Hybrid Rule and LLM Backchannel Architecture for a Silent Listening Agent REPRODUCIBILITY AWARD Ayedoun, E. <i>GENEA Workshop 2026 (Generation and Evaluation of Non-verbal Behaviour for Embodied Agents)</i>, Companion Publication of the 28th International Conference on Multimodal Interaction (ICMI Companion '26), Naples, Italy doi.org/10.1145/3776591.3836662
2026	Whose Persona Is It? Typed-Authority Learner Models for Dialogue-Based Language Learning Ayedoun, E. <i>EPCAI Workshop @ 18th ACM SIGCHI Symposium on Engineering Interactive Computing Systems (EICS 2026)</i>, In press, Patras, Greece
2026	Supporting Interest-Driven L2 Learning: An LLM-Powered Authoring Tool for Adaptive Dialogue Scenario Creation Ayedoun, E. <i>APSCE TBICS Festival of Learning 2026</i>, In press, Kumamoto, Japan
2026	Beyond Toxic Positivity: Interpersonal Affect Regulation in LLM-Based Dialogue Agents using Discourse Politeness Theory BEST PAPER AWARD Sakagami, R., Ayedoun, E., & Tokumaru, M. <i>Computational Affective Science (CAS) Workshop @ LREC 2026</i>, pp. 244–255, Palma de Mallorca, Spain
2025	Multi-Dialogue Agents for Collaborative Learning Support Through Adaptive Opinion Integration Kawashima, A., Ayedoun, E., & Tokumaru, M. <i>International Conference on Computers in Education (ICCE 2025)</i>, Chennai, India
2025	IEC Driven Guitar Etude Optimization System Considering Learner Preferences and Skills Tsubouchi, Y., Ayedoun, E., & Tokumaru, M. <i>International Conference on Computers in Education (ICCE 2025)</i>, Chennai, India

2025	Exercise Support System Using Audience Robot Behavior Nakamura, H., Ayedoun, E., & Tokumaru, M. <i>26th International Symposium on Advanced Intelligent Systems (ISIS 2025)</i>, pp. 329–332, FA7–4, Cheongju, Korea
2025	A Cognitive Model that Derives Multiple Interpretations from a Single Fact for Narrative Therapy Applications Yamanaka, S., Ayedoun, E., & Tokumaru, M. <i>26th International Symposium on Advanced Intelligent Systems (ISIS 2025)</i>, pp. 333–336, FA7–5, Cheongju, Korea
2025	Enhancing L2 Learning Through AI-Powered Dialogue Scenario Generation: An Interactive Authoring System for Educators Ayedoun, E., Hayashi, Y., & Seta, K. <i>Learning and Collaboration Technologies, HCI International 2025 (HCII 2025)</i>, pp. 13–24, Gothenburg, Sweden doi.org/10.1007/978-3-031-93567-1_2
2025	Group Norm-Aware Agents in Human Ultimatum Games: Impact and Implications Fuse, Y., Ayedoun, E., & Tokumaru, M. <i>HCI International 2025 (HCII 2025)</i>, pp. 207–221, Gothenburg, Sweden doi.org/10.1007/978-3-031-92970-0_15
2025	Adaptive Psychological Distance in Japanese Spoken Human-Agent Dialogue: A Politeness-Based Management Model Inaba, A., Ayedoun, E., & Tokumaru, M. <i>15th International Workshop on Spoken Dialogue Systems Technology (IWSDS 2025)</i>, pp. 324–329, Bilbao, Spain
2024	MESHing Minds: Bridging the Gap Between Creativity and IoT Programming Through Collaborative Mixed Reality BEST STUDENT PAPER AWARD · NOMINATION FOR BEST OVERALL PAPER AWARD Sakabe, Y., Ayedoun, E., & Tokumaru, M. <i>32nd International Conference on Computers in Education (ICCE 2024)</i>, Vol. 1, pp. 145–154, Manila, Philippines doi.org/10.58459/icce.2024.4831
2024	Exploring the Benefits of Strategic Hesitations in Language Learning Robots Azuma, R., Ayedoun, E., & Tokumaru, M. <i>4th Workshop on Innovative Technologies for Enhancing Interactions and Learning Motivation @ ICCE 2024</i>, Vol. 2, pp. 592–598, Manila, Philippines doi.org/10.58459/icce.2024.5010
2024	Optimization of Non-Verbal Information for English Conversation Agents Using Interactive Evolutionary Computation Shimosaka, Y., Ayedoun, E., & Tokumaru, M. <i>4th Workshop on Innovative Technologies for Enhancing Interactions and Learning Motivation @ ICCE 2024</i>, Vol. 2, pp. 585–591, Manila, Philippines doi.org/10.58459/icce.2024.5008
2024	POP Advertisement Generation System based on Regulatory Focus Theory and IEC BEST CONFERENCE PAPER AWARD Tominaga, Y., Ayedoun, E., Takenouchi, H., & Tokumaru, M. <i>10th International Conference on Kansei Engineering and Emotion Research (KEER 2024)</i>, pp. 231–242, OAA–0034, Taichung, Taiwan
2024	Product Recommendation System That Promotes Selection Using Dominance Structuring Process Togo, T., Ayedoun, E., Takenouchi, H., & Tokumaru, M. <i>10th International Conference on Kansei Engineering and Emotion Research (KEER 2024)</i>, pp. 243–252, OAA–0035, Taichung, Taiwan
2024	Evolutionary Music Synthesis: A Generative AI System with Interactive User Feedback Ohya, K., Ayedoun, E., & Tokumaru, M. <i>Joint 13th International Conference on Soft Computing and Intelligent Systems and 25th International Symposium on Advanced Intelligent Systems (SCIS&ISIS 2024)</i>, M–2–G–2, Himeji, Japan doi.org/10.1109/scisisis61014.2024.10759906

2024	Exercise support system with self-growing avatars using interactive evolutionary computation Yamamoto, S., Ayedoun, E., & Tokumaru, M. <i>Joint 13th International Conference on Soft Computing and Intelligent Systems and 25th International Symposium on Advanced Intelligent Systems (SCIS&ISIS 2024)</i>, M-1-E-1, Himeji, Japan doi.org/10.1109/scisisis61014.2024.10760170
2024	Exercise motivation improvement system through peer learning with agent Sakaguchi, S., Ayedoun, E., & Tokumaru, M. <i>Joint 13th International Conference on Soft Computing and Intelligent Systems and 25th International Symposium on Advanced Intelligent Systems (SCIS&ISIS 2024)</i>, S-3-E-3, Himeji, Japan
2024	An IEC-driven Optimization of Gestures to Enhance Personality Traits in Communication Robots Mikawa, R., Ayedoun, E., & Tokumaru, M. <i>Joint 13th International Conference on Soft Computing and Intelligent Systems and 25th International Symposium on Advanced Intelligent Systems (SCIS&ISIS 2024)</i>, S-1-E-5, Himeji, Japan doi.org/10.1109/scisisis61014.2024.10760027
2024	Group Norm Awareness of Mobile Robots in Virtual Space Multi-Agent Simulation Fuse, Y., Ayedoun, E., & Tokumaru, M. <i>26th International Conference on Human-Computer Interaction (HCI 2024)</i>, pp. 91-104, Washington DC, USA doi.org/10.1007/978-3-031-60412-6_7
2023	Toward Natural Human-Robot Interaction: A Dialogue Management Model for Modulating Social Dialogue Distance Inaba, A., Ayedoun, E., & Tokumaru, M. <i>24th International Symposium on Advanced Intelligent Systems (ISIS 2023)</i>, pp. 18-24, TM1-4, Gwangju, South Korea
2023	Enhancing Movie Discovery: A Serendipity-Driven Recommendation System based on Temporal Relevance of Color Features Nagayasu, K., Ayedoun, E., & Tokumaru, M. <i>24th International Symposium on Advanced Intelligent Systems (ISIS 2023)</i>, pp. 18-24, TM1-4, Gwangju, South Korea
2023	Impact of Robot Appearance and Attitude Changes on Human Impressions: a Preliminary Study Kanazawa, Y., Ayedoun, E., & Tokumaru, M. <i>24th International Symposium on Advanced Intelligent Systems (ISIS 2023)</i>, pp. 12-17, TM1-3, Gwangju, South Korea
2023	Combining Kansei Retrieval and GAN to Foster Personalized Illustration Generation Tsubokura, Y., Ayedoun, E., & Tokumaru, M. <i>24th International Symposium on Advanced Intelligent Systems (ISIS 2023)</i>, pp. 6-11, TM1-2, Gwangju, South Korea
2023	Overcoming Barriers to Sustainable Dissemination of L2 Learning Resources: An Integrated Framework for Creating and Distributing Dialogue Scenarios Ayedoun, E., Hayashi, Y., & Seta, K. <i>31st International Conference on Computers in Education (ICCE 2023)</i>, pp. 123-125, Matsue, Japan doi.org/10.58459/icce.2023.954
2023	A Collaborative English Learning System with Role Reversal Feature Nakata, T., Ayedoun, E., & Tokumaru, M. <i>IEEE International Conference on Teaching, Assessment and Learning for Engineering (TALE 2023)</i>, pp. 1-6, Auckland, New Zealand doi.org/10.1109/TALE56641.2023.10398383
2023	Leveraging Cross-Modal Effects to Support Squat Exercise Yoshida, A., Ayedoun, E., & Tokumaru, M. <i>9th International Symposium on Affective Science and Engineering (ISASE 2023)</i>, PM-1B-04, Online doi.org/10.5057/isase.2023-c000035
2023	Inducing Serendipity in Informal Learning using IEC Inoue, S., Ayedoun, E., Takenouchi, H., & Tokumaru, M. <i>International Conference on Computers in Education (ICCE 2023)</i>, Matsue, Japan

2022	Rhythm Correction System for Promoting Motivation Toward Exercise Kobayashi, R., Ayedoun, E., & Tokumaru, M. <i>Joint 12th International Conference on Soft Computing and Intelligent Systems and 23rd International Symposium on Advanced Intelligent Systems (SCIS&ISIS 2022)</i>, W-3-G-2, Ise-Shima, Mie, Japan doi.org/10.1109/scisisis55246.2022.10001947
2022	Impression of Robots Adaptively Refraining from Actions in Human-Robot Cooperative Scenario Fuse, Y., Nomoto, R., Ayedoun, E., & Tokumaru, M. <i>Joint 12th International Conference on Soft Computing and Intelligent Systems and 23rd International Symposium on Advanced Intelligent Systems (SCIS&ISIS 2022)</i>, T-3-H-2, Ise-Shima, Mie, Japan doi.org/10.1109/scisisis55246.2022.10001993
2022	Human-Robot Interaction Environment to Enhance the Sense of Presence in Remote Sports Watching Yamamoto, F., Ayedoun, E., & Tokumaru, M. <i>Joint 12th International Conference on Soft Computing and Intelligent Systems and 23rd International Symposium on Advanced Intelligent Systems (SCIS&ISIS 2022)</i>, T-3-H-1, Ise-Shima, Mie, Japan doi.org/10.1109/scisisis55246.2022.10002053
2022	Proposing a Collaborative Multi-agents System for English Learning Support Nakata, T., Ayedoun, E., & Tokumaru, M. <i>6th Workshop on Computer-Supported Personalized and Collaborative Learning, 30th International Conference on Computers in Education (ICCE 2022)</i>, Vol. II, pp. 547-552, Kuala Lumpur, Malaysia
2022	Leveraging IEC and others' viewpoints presentation to foster breeding of creative IoT gadgets Sakabe, Y., Ayedoun, E., & Tokumaru, M. <i>10th Workshop on Technology-Enhanced STEM Education, 30th International Conference on Computers in Education (ICCE 2022)</i>, Vol. II, pp. 311-317, Kuala Lumpur, Malaysia
2022	Combining IGA and KG for Serendipitous Learning Contents Recommendation Ayedoun, E., Inoue, S., Takenouchi, H., & Tokumaru, M. <i>4th Edition of Knowledge-aware and Conversational Recommender Systems Workshop (KaRS 2022) @ ACM RecSys 2022</i>, Vol. 3294, No. 2, pp. 12-17, Seattle, USA
2022	Towards Emotionally Expressive Virtual Agent to Foster Independent Speaking Tasks: a Preliminary Study Ayedoun, E., & Tokumaru, M. <i>HCI International 2022 (HCII 2022)</i>, Vol. 1582, pp. 12-18, Online doi.org/10.1007/978-3-031-06391-6_2
2022	Decision-Making Model for Robots that Consider Group Norms and Interests Fuse, Y., Ashida, B., Ayedoun, E., & Tokumaru, M. <i>HCI International 2022 (HCII 2022)</i>, Vol. 13303, pp. 475-485, Online doi.org/10.1007/978-3-031-05409-9_35
2022	Towards Dynamic Formation of Online Discussion Groups: Capturing Variations in Group Members' Interests based on Topics Flow Ayedoun, E., Goto, M., & Tokumaru, M. <i>International Symposium on Affective Science and Engineering (ISASE 2022)</i>, PM-1A-3, Online doi.org/10.5057/isase.2022-C000034
2022	Human Impressions on Imperfect Robots in Cooperative Relationship Kawai, T., Tokumaru, M., & Ayedoun, E. <i>International Symposium on Affective Science and Engineering (ISASE 2022)</i>, PM-2A-4, Online doi.org/10.5057/isase.2022-C000028
2022	Optimization of fuzzy rules in sports highlight extraction method based on genetic algorithm Wang, L., Ayedoun, E., Takenouchi, H., & Tokumaru, M. <i>International Symposium on Affective Science and Engineering (ISASE 2022)</i>, PM-2A-5, Online doi.org/10.5057/isase.2022-C000029
2021	Authoring Tool for Semi-automatic Generation of Task-Oriented Dialogue Scenarios Ayedoun, E., Hayashi, Y., & Seta, K. <i>29th International Conference on Computers in Education (ICCE 2021)</i>, Vol. 1, pp. 41-50, Online

2021	Shared Experience-Based Dialogue Robot: Implementation and First Impressions Inoshita, K., Ayedoun, E., & Tokumaru, M. <i>15th International Symposium on Science and Technology (ISST 2021)</i> , Osaka, Japan
2021	Can't Remember? Neither Can I: Implementing Purposeful Forgetfulness in Robot-Human Interactions Liu, Y., Ayedoun, E., & Tokumaru, M. <i>15th International Symposium on Science and Technology (ISST 2021)</i> , Osaka, Japan
2021	Fostering English Learners' Motivation with a Multiple Agents based Cooperative Learning Environment Nakata, T., Ayedoun, E., & Tokumaru, M. <i>15th International Symposium on Science and Technology (ISST 2021)</i> , Osaka, Japan
2021	Leveraging Cross-Modal Effect to Support Squat Exercise: a Preliminary Study Yoshida, A., Ayedoun, E., & Tokumaru, M. <i>15th International Symposium on Science and Technology (ISST 2021)</i> , Osaka, Japan
2021	Kansei Perception Support System to Promote Daily Life Awareness Edama, I., Ayedoun, E., Takenouchi, H., & Tokumaru, M. <i>HCI International 2021 (HCII 2021)</i> , pp. 241-247, Online doi.org/10.1007/978-3-030-78642-7_32
2021	A Companion Robot to Promote Daily Life Awareness Suto, Y., Ayedoun, E., Takenouchi, H., & Tokumaru, M. <i>HCI International 2021 (HCII 2021)</i> , Online
2021	User Preference and Suitability-Aware Eyeglasses Recommender System Maruoka, S., Ayedoun, E., Takenouchi, H., & Tokumaru, M. <i>HCI International 2021 (HCII 2021)</i> , pp. 358-365, Online doi.org/10.1007/978-3-030-78635-9_47
2020	Services Task Model Based Dialogue Scenarios Design Towards L2 WTC Support Oriented Dialogues Authoring Tool Ayedoun, E., Hayashi, Y., & Seta, K. <i>HCI International 2020 (HCII 2020)</i> , Vol. 12185, pp. 145-163, Online doi.org/10.1007/978-3-030-50017-7_10
2019	L2 Learners' Preferences of Dialogue Agents: A Key to Achieve Adaptive Motivational Support? Ayedoun, E., Hayashi, Y., & Seta, K. <i>20th International Conference on Artificial Intelligence in Education (AIED 2019)</i> , Vol. 11626, pp. 19-23, Chicago, USA doi.org/10.1007/978-3-030-23207-8_4
2017	Can Conversational Agents Foster Learner's Willingness To Communicate in a Second Language?: Effects of Communication Strategies and Affective Backchannels NOMINATION FOR BEST STUDENT PAPER Ayedoun, E., Hayashi, Y., & Seta, K. <i>25th International Conference on Computers in Education (ICCE 2017)</i> , pp. 835-844, Christchurch, New Zealand
2017	Communication Strategies and Affective Backchannels for Conversational Agents to Enhance Learners' Willingness to Communicate in a Second Language BEST POSTER PRESENTATION AWARD Ayedoun, E., Hayashi, Y., & Seta, K. <i>18th International Conference on Artificial Intelligence in Education (AIED 2017)</i> , Vol. 10331, pp. 459-462, Wuhan, China doi.org/10.1007/978-3-319-61425-0_40
2017	Towards Language-barrier free Knowledge Co-creation: Enhancing Learners' Willingness To Communicate in English with an Embodied Conversational Agent Ayedoun, E., Hayashi, Y., & Seta, K. <i>7th Knowledge Co-creation Forum</i> , V.14-1, Osaka, Japan
2015	HCI Approach to Enhancing Willingness to Communicate in EFL Context BEST POSTER PRESENTATION AWARD Ayedoun, E., Hayashi, Y., & Seta, K. <i>11th International Conference on Knowledge Management (ICKM 2015)</i> , pp. 449-451, Osaka, Japan

2015 **A Conversational Agent to Encourage Willingness To Communicate in the Context of English as a Foreign Language**
 Ayedoun, E., Hayashi, Y., & Seta, K.
19th International Conference on Knowledge-Based and Intelligent Information and Engineering Systems (KES 2015), Vol. 60, pp. 1433–1442, Singapore
doi.org/10.1016/j.procs.2015.08.219

DOMESTIC CONFERENCES & SYMPOSIA (JAPAN)

2026	Hesitating English Conversation Robot: Disfluency to Reduce Learners' Psychological Barriers EXCELLENT POSTER PRESENTATION AWARD Azuma, R., Ayedoun, E., & Tokumaru, M. <i>HAI Symposium 2026</i> , P2–21, Osaka, Japan
2026	Dynamically Adaptive English Conversation Agent Responding to Learner Difficulty Shimosaka, Y., Ayedoun, E., & Tokumaru, M. <i>HAI Symposium 2026</i> , P1–26, Osaka, Japan
2025	A System for Enhancing Exercise Motivation through a Growing Collaborative Learning Agent Adapted to User Characteristics Sakaguchi, S., Ayedoun, E., & Tokumaru, M. <i>Japan Society for Fuzzy Theory and Intelligent Informatics 30th Workshop on Ambiguous Feelings</i> , 1–2, Fukushima, Japan
2025	Goal-Setting Support System for English Learning Using Interactive Evolutionary Computation Yamamoto, S., Ayedoun, E., & Tokumaru, M. <i>Japan Society for Fuzzy Theory and Intelligent Informatics 30th Workshop on Ambiguous Feelings</i> , 2–1, Fukushima, Japan
2025	Direct-Manipulation IEC Music Generation System Supporting Active User Exploration Ohya, K., Ayedoun, E., & Tokumaru, M. <i>Japan Society for Fuzzy Theory and Intelligent Informatics 30th Workshop on Ambiguous Feelings</i> , 2–2, Fukushima, Japan
2025	A Cognitive Model that Derives Multiple Interpretations from a Single Fact for Narrative Approach Yamanaka, S., Ayedoun, E., & Tokumaru, M. <i>Japan Society for Fuzzy Theory and Intelligent Informatics 41st Fuzzy System Symposium</i> , pp. 893–897, 3H1–3, Kumamoto, Japan
2025	Exercise Support System Using Audience Robot Behavior Nakamura, H., Ayedoun, E., & Tokumaru, M. <i>Japan Society for Fuzzy Theory and Intelligent Informatics 41st Fuzzy System Symposium</i> , pp. 683–686, 2H3–3, Kumamoto, Japan
2025	Guitar Etude Optimization System Using Interactive Evolutionary Computation Considering Learner Preferences and Skills Tsubouchi, Y., Ayedoun, E., & Tokumaru, M. <i>27th Annual Conference of Japan Society of Kansei Engineering (JSKE 2025)</i> , 2P01–14, Tokyo, Japan
2025	Collaborative Learning Support System Using Multiple Dialogue Agents Kawashima, A., Ayedoun, E., & Tokumaru, M. <i>27th Annual Conference of Japan Society of Kansei Engineering (JSKE 2025)</i> , 3P02–17, Tokyo, Japan
2025	Toward Natural Human-Robot Interaction: A Dialogue Control Model for Adjusting Psychological Distance According to Human Preferences Inaba, A., Ayedoun, E., & Tokumaru, M. <i>20th Japan Society of Kansei Engineering Spring Conference</i> , 1B01–06, Japan
2025	Advertisement Text Optimization System for Consumer Type Classification Tominaga, Y., Ayedoun, E., Takenouchi, H., & Tokumaru, M. <i>20th Japan Society of Kansei Engineering Spring Conference</i> , 1B02–09, Japan

2024	Generative AI and Interactive Evolutionary Computation Music Generation System Considering User Preferences Ohya, K., Ayedoun, E. , & Tokumaru, M. <i>26th Japan Society of Kansei Engineering Conference</i> , P2-19, Japan
2024	Exercise Support System Using Self-Growing Avatar with Interactive Evolutionary Computation Yamamoto, S., Ayedoun, E. , & Tokumaru, M. <i>Japan Society for Fuzzy Theory and Intelligent Informatics 40th Fuzzy System Symposium</i> , pp. 621-626, 2G3-5, Japan
2024	Exercise Motivation Improvement System through Peer Learning with Agents Sakaguchi, S., Ayedoun, E. , & Tokumaru, M. <i>Japan Society for Fuzzy Theory and Intelligent Informatics 40th Fuzzy System Symposium</i> , pp. 616-620, 2G3-4, Japan
2024	Optimization of Non-Verbal Information for English Conversation Agents Using Interactive Evolutionary Computation Shimosaka, Y., Ayedoun, E. , & Tokumaru, M. <i>Japan Society for Fuzzy Theory and Intelligent Informatics 40th Fuzzy System Symposium</i> , pp. 283-288, 2A2-2, Japan
2024	Investigation of Impressions Given by Conversational Robots' Worrying Gestures Azuma, R., Ayedoun, E. , & Tokumaru, M. <i>Japan Society for Fuzzy Theory and Intelligent Informatics 40th Fuzzy System Symposium</i> , pp. 277-282, 2A2-1, Japan
2023	Robot Emotion Expression Model Considering Group Intimacy under Conflict of Interest Matsumoto, T., Fuse, Y., Ayedoun, E. , & Tokumaru, M. <i>Japan Society for Fuzzy Theory and Intelligent Informatics 28th Workshop on Challenging Ambiguous Feelings</i> , pp. 17-22, Japan
2023	Evaluation of Agents Attempting Adaptive Movement within Groups Based on Estimation of Others' Distance Norms BEST PRESENTATION AWARD Fuse, Y., Ayedoun, E. , & Tokumaru, M. <i>25th Japan Society of Kansei Engineering Conference</i> , P1-18, Japan
2023	Product Recommendation System for Selection Promotion Using Dominance Structuring Process Togo, T., Ayedoun, E. , & Tokumaru, M. <i>25th Japan Society of Kansei Engineering Conference</i> , 3C02-1-02, Japan
2023	POP Advertisement Generation System Based on Regulatory Focus Theory Tominaga, Y., Ayedoun, E. , & Tokumaru, M. <i>25th Japan Society of Kansei Engineering Conference</i> , 3C02-1-01, Japan
2023	Personalization of Image Generation Using Kansei Retrieval Agent and GAN Tsubokura, Y., Ayedoun, E. , Takenouchi, H., & Tokumaru, M. <i>25th Japan Society of Kansei Engineering Conference</i> , 3C01-03, Japan
2023	Unexpected Movie Recommendation System Focusing on Temporal Connections of Color Features Nagayasu, K., Ayedoun, E. , & Tokumaru, M. <i>25th Japan Society of Kansei Engineering Conference</i> , 3C01-02, Japan
2023	Optimization of Personality Expression Gestures Using Interactive Evolutionary Computation Mikawa, R., Ayedoun, E. , & Tokumaru, M. <i>Japan Society for Fuzzy Theory and Intelligent Informatics 39th Fuzzy System Symposium</i> , pp. 30-34, 1A3-1, Nagano, Karuizawa, Japan
2023	Harmony Generation System to Promote Group Exercise Motivation Kobayashi, R., Ayedoun, E. , & Tokumaru, M. <i>Japan Society for Fuzzy Theory and Intelligent Informatics 39th Fuzzy System Symposium</i> , pp. 266-270, 1F2-1, Nagano, Karuizawa, Japan

2023	Distance-Creating Robot Based on Politeness Theory Conversation Strategy Inaba, A., Ayedoun, E., & Tokumaru, M. <i>Japan Society for Fuzzy Theory and Intelligent Informatics 39th Fuzzy System Symposium</i> , pp. 311-316, 2A1-4, Nagano, Karuizawa, Japan
2023	Investigation of Impressions Given by Robot Appearance and Attitude Changes Kanazawa, Y., Ayedoun, E., & Tokumaru, M. <i>Japan Society for Fuzzy Theory and Intelligent Informatics 39th Fuzzy System Symposium</i> , pp. 522-527, 2D4-2, Nagano, Karuizawa, Japan
2023	Verification of Exercise Support by Cross-Modal Effect Considering Individual Immersion Tendencies Yoshida, A., Ayedoun, E., & Tokumaru, M. <i>Japan Society for Fuzzy Theory and Intelligent Informatics 33rd Soft Science Workshop</i> , 3-2, Japan
2023	Learning Support System Using Agents that Promote from Acquisition to Teaching Nakata, T., Ayedoun, E., & Tokumaru, M. <i>Japan Society for Fuzzy Theory and Intelligent Informatics 33rd Soft Science Workshop</i> , 3-3, Japan
2022	Exercise Support System Using Harmony and Unity of Body Movement and Sound Tokumaru, M., Nakanishi, Y., & Ayedoun, E. <i>Japan Society for Fuzzy Theory and Intelligent Informatics 38th Fuzzy System Symposium</i> , FA1-3, Japan
2022	Rhythm Correction System to Promote Exercise Continuation Motivation Kobayashi, R., Ayedoun, E., & Tokumaru, M. <i>Japan Society for Fuzzy Theory and Intelligent Informatics 38th Fuzzy System Symposium</i> , FA2-1, Japan
2022	Idea Support System by Presenting Others' Viewpoints Using Interactive Evolutionary Computation Sakabe, Y., Ayedoun, E., & Tokumaru, M. <i>Japan Society for Fuzzy Theory and Intelligent Informatics 38th Fuzzy System Symposium</i> , TC3-3, Japan
2022	Robot Group Behavior for Enhancing Presence in Sports Viewing Yamamoto, F., Ayedoun, E., & Tokumaru, M. <i>Japan Society for Fuzzy Theory and Intelligent Informatics 38th Fuzzy System Symposium</i> , TF2-1, Japan
2022	Investigation of Human Impressions of Robots Showing Restraint Behavior in Groups Working on Collaborative Tasks Fuse, Y., Nomoto, R., Ayedoun, E., & Tokumaru, M. <i>Japan Society for Fuzzy Theory and Intelligent Informatics 38th Fuzzy System Symposium</i> , TF1-2, Japan
2022	Visualization Interface of Relationships between Occupations and Classes Aimed at Promoting Learning Motivation Endo, M., Ayedoun, E., & Tokumaru, M. <i>24th Japan Society of Kansei Engineering Conference</i> , 1A-2-O2, Japan
2022	Visualization Interface of Relationships between Occupations and Classes Aimed at Promoting Learning Motivation Koike, Y., Ayedoun, E., & Tokumaru, M. <i>Human Interface Symposium 2022</i> , pp. 622-625, Japan
2021	Impression Investigation of Robots Conversing Based on Shared Experiences Inoshita, K., Ayedoun, E., & Tokumaru, M. <i>37th Fuzzy System Symposium</i> , pp. 538-542, WC1-1, Japan
2021	Robot Decision-Making Model Considering Group Norms under Conflict of Interest Fuse, Y., Ashida, M., Ayedoun, E., & Tokumaru, M. <i>37th Fuzzy System Symposium</i> , pp. 253-258, TB2-3, Japan
2021	Learning Support System Using Multiple Agents with Different Characteristics Nakata, T., Ayedoun, E., & Tokumaru, M. <i>37th Fuzzy System Symposium</i> , pp. 206-210, TD1-3, Japan
2021	Verification of Load Reduction in Squat Exercise Using Cross-Modal Effect Yoshida, A., Ayedoun, E., & Tokumaru, M. <i>37th Fuzzy System Symposium</i> , pp. 124-127, MC2-4, Japan

2021	Harmonized Fitness: An Attempt to Create Harmony through Synergistic Effects of Exercise and Music Tokumaru, M., Murakami, T., & Ayedoun, E. <i>37th Fuzzy System Symposium</i> , pp. 45–48, MC1–4, Japan
2021	Study of Optimization Methods in Eyeglass Design Recommendation System Considering User Preferences and Suitability Maruoka, S., Ayedoun, E., Takenouchi, H., & Tokumaru, M. <i>Japan Society for Fuzzy Theory and Intelligent Informatics 31st Soft Science Workshop & 25th Workshop on Challenging Ambiguous Feelings</i> , pp. 35–38, Japan
2021	Kansei Cognitive Support System to Promote Daily Awareness Edama, I., Ayedoun, E., Takenouchi, H., & Tokumaru, M. <i>Japan Society for Fuzzy Theory and Intelligent Informatics 31st Soft Science Workshop & 25th Workshop on Challenging Ambiguous Feelings</i> , pp. 31–34, Japan
2021	Robot Role Recognition Model Considering Group Norms Katsuda, R., Fuse, Y., Ayedoun, E., & Tokumaru, M. <i>16th Japan Society of Kansei Engineering Spring Conference</i> , 4F–03, Japan
2021	Idea Support System Using Augmented Reality in STEM Education Furukawa, K., Ayedoun, E., Takenouchi, H., & Tokumaru, M. <i>16th Japan Society of Kansei Engineering Spring Conference</i> , 1D–05, Japan
2021	Semi-Automatic Authoring of Task-Oriented English Dialogue Scenarios RESEARCH EXCELLENCE AWARD Ayedoun, E., Hayashi, Y., & Seta, K. <i>Japanese Society for Artificial Intelligence 91st SIG Advanced Learning Science and Technology</i> , pp. 20–27, SIG–ALST–CO03–04, Japan
2020	Semi-automatic Generation of Spoken English Dialogue Scenarios Based on Service Process Model Ayedoun, E., Hayashi, Y., & Seta, K. <i>34th Japanese Society for Artificial Intelligence National Conference</i> , Japan
2018	Learners' Preferences of Conversational Strategies and L2 WTC Outcomes in Using a Dialogue Agent YOUNG SCIENTIST ENCOURAGEMENT AWARD Ayedoun, E., Hayashi, Y., & Seta, K. <i>Japanese Society for Artificial Intelligence 84th SIG Advanced Learning Science and Technology</i> , pp. 1–8, SIG–ALST B802–01, Japan
2017	Motivational Strategies Enhanced Conversational Agent to Increase L2 Learners' WTC YOUNG SCIENTIST ENCOURAGEMENT AWARD Ayedoun, E., Hayashi, Y., & Seta, K. <i>Japanese Society for Artificial Intelligence 80th SIG Advanced Learning Science and Technology</i> , pp. 13–20, SIG–ALST–B507–03, Japan
2017	Embodied Conversational Agent to Motivate Learners towards Communication in English Ayedoun, E., Hayashi, Y., & Seta, K. <i>31st Japanese Society for Artificial Intelligence National Conference</i> , 1B3–3, Japan
2015	Conversational Agent to Enhance English Communication Willingness EXCELLENT PRESENTATION AWARD Ayedoun, E., Hayashi, Y., & Seta, K. <i>2015 Spring JSiSE Student Research Presentation</i> , pp. 67–68, Japan

II Teaching

COURSES AT KANSAI UNIVERSITY

Special Topics on Human Interface

Kansai University · 2025 – Current

Global Problem-Based Learning (Arduino Circuits)

Kansai University · 2021 – Current

Problem-Based Learning (3D Interfaces Design)

Kansai University · 2025 – Current

Applied Programming (C Language)

Kansai University · 2020 – Current

TEACHING ASSISTANTSHIPS

Introduction to Information Systems
Osaka Prefecture University · 2017 – 2018

Knowledge Modeling
Osaka Prefecture University · 2016

II Professional Service

CONFERENCE ORGANIZATION AND COMMITTEES

2025	Extended Summaries Chair 33rd International Conference on Computers in Education (ICCE 2025), Chennai, India. APSCE
2025	Program Chair 8th International Symposium on Electrical Engineering and Computer Science, Osaka, Japan
2024	Extended Summaries Co-Chair 32nd International Conference on Computers in Education (ICCE 2024), Manila, Philippines. APSCE
2023 – 2025	Program Co-Chair Annual Meeting of the Japanese Society for Information and Systems in Education (JSiSE)
2023	Program Committee Member 31st International Conference on Computers in Education (ICCE 2023), Matsue, Japan. APSCE
2023	Local Chair Japan Young Researchers Forum on Educational and Learning Support Systems
2023	Master of Ceremonies ICCE 2023 Welcome Reception and Banquet Dinner, Matsue, Japan
2021	Program Committee Member International Symposium on Science and Technology (ISST 2021)

PEER REVIEW

2020 – present	Journal reviewer International Journal of Artificial Intelligence in Education (IJAIED); IEEE Transactions on Learning Technologies; Research and Practice in Technology Enhanced Learning (RPTEL); SAGE Open; International Journal of Human-Computer Interaction (IJHCI)
2025	Conference reviewer International Conference on Computers in Education (ICCE). APSCE

PROFESSIONAL MEMBERSHIP

2017 – present **Asia-Pacific Society for Computers in Education (APSCE)**
ICCE participation: 2015 (student volunteer), 2017, 2021, 2022, 2023, 2024, 2025

II Languages

French

Nagot

English

Native	Native	Fluent (working language)
Japanese Fluent (working language)	Fongbe Daily conversation	Spanish Daily conversation