CURRICULUM VITAE

Emmanuel S. O. Ayedoun

Associate Professor of Human-Computer Interaction

Department of Electrical, Electronic and Information Engineering,
Faculty of Engineering Science, Kansai University, Osaka, Japan
Visiting Scholar, TIDE Research Group, Universitat Pompeu Fabra,
Barcelona

emay@kansai-u.ac.jp | emayedoun.com | ORCID 0000-0003-1041-6731 | Google Scholar | Osaka, Japan

17	57	50	550+	18
JOURNAL PAPERS	INTL. CONFERENCES	DOMESTIC PAPERS	CITATIONS	AWARDS

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.

Education

Apr 2018 – Mar 2020 — **Ph.D. in Informatics**
Graduate School of Humanities and Sustainable System Sciences, Osaka Prefecture University, Osaka, Japan
Thesis: *Embodied Conversational Agent to Enhance Second Language Learners' Willingness to Communicate.*

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

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.

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

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

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

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

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

2025

Exercise Support System with Self-Growing Avatars Using 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
doi.org/10.3156/jsoft.37.1_582

2025

Virtual Agent Driven Peer Learning System to Enhance Exercise Motivation
Sakaguchi, S., **Ayedoun, E.**, & Tokumaru, M.
Journal of the Japanese Society for Fuzzy Theory and Intelligent Informatics, Vol. 37, No. 1, pp. 520-523
doi.org/10.3156/jsoft.37.1_520

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

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

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

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

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

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

2020 **Towards Personalized Scaffolding and Fading of Motivational Support in L2 Learner-Dialogue Agent Interactions: An Exploratory Study**
Ayedoun, E., Hayashi, Y., & Seta, K.
IEEE Transactions on Learning Technologies, 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.
International Journal of Artificial Intelligence in Education, 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.
Transactions of Japanese Society for Information and Systems in Education, 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.
The Journal of Information and Systems in Education, 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.
2026 IEEE International Conference on Teaching, Assessment and Learning for Engineering (TALE 2026), Accepted, Pattaya, Thailand

2026 **Knowledge Graph-Based Support System for Autonomous Learning Path Design**
Ikushima, T., **Ayedoun, E.**, & Tokumaru, M.
2026 IEEE International Conference on Teaching, Assessment and Learning for Engineering (TALE 2026), 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.
GENEA Workshop 2026 (Generation and Evaluation of Non-verbal Behaviour for Embodied Agents), 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.
ECPAI Workshop @ 18th ACM SIGCHI Symposium on Engineering Interactive Computing Systems (EICS 2026), In press, Patras, Greece

2026 **Supporting Interest-Driven L2 Learning: An LLM-Powered Authoring Tool for Adaptive Dialogue Scenario Creation**
Ayedoun, E.
APSCE TBICS Festival of Learning 2026, 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.
Computational Affective Science (CAS) Workshop @ LREC 2026, pp. 244-255, Palma de Mallorca, Spain
doi.org/10.63317/4dhv236xuery

2025 **Multi-Dialogue Agents for Collaborative Learning Support Through Adaptive Opinion Integration**
Kawashima, A., **Ayedoun, E.**, & Tokumaru, M.
International Conference on Computers in Education (ICCE 2025), Chennai, India
doi.org/10.58459/icce.2025.6089

2025 **IEC Driven Guitar Etude Optimization System Considering Learner Preferences and Skills**
Tsubouchi, Y., **Ayedoun, E.**, & Tokumaru, M.
International Conference on Computers in Education (ICCE 2025), Chennai, India
doi.org/10.58459/icce.2025.6088

2025 **Exercise Support System Using Audience Robot Behavior**
Nakamura, H., **Ayedoun, E.**, & Tokumaru, M.
26th International Symposium on Advanced Intelligent Systems (ISIS 2025), 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.
26th International Symposium on Advanced Intelligent Systems (ISIS 2025), 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.
Learning and Collaboration Technologies, HCI International 2025 (HCII 2025), 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.
HCI International 2025 (HCII 2025), 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.
15th International Workshop on Spoken Dialogue Systems Technology (IWSDS 2025), 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.
32nd International Conference on Computers in Education (ICCE 2024), 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.
4th Workshop on Innovative Technologies for Enhancing Interactions and Learning Motivation @ ICCE 2024, 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.
4th Workshop on Innovative Technologies for Enhancing Interactions and Learning Motivation @ ICCE 2024, 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.
10th International Conference on Kansei Engineering and Emotion Research (KEER 2024), 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.
10th International Conference on Kansei Engineering and Emotion Research (KEER 2024), 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.
Joint 13th International Conference on Soft Computing and Intelligent Systems and 25th International Symposium on Advanced Intelligent Systems (SCIS&ISIS 2024), 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.
Joint 13th International Conference on Soft Computing and Intelligent Systems and 25th International Symposium on Advanced Intelligent Systems (SCIS&ISIS 2024), M-1-E-1, Himeji, Japan
doi.org/10.1109/scisisis61014.2024.10760170

2024 **Virtual Agent Driven Peer Learning System to Enhance Exercise Motivation**
Sakaguchi, S., **Ayedoun, E.**, & Tokumaru, M.
Joint 13th International Conference on Soft Computing and Intelligent Systems and 25th International Symposium on Advanced Intelligent Systems (SCIS&ISIS 2024), S-3-E-3, Himeji, Japan
doi.org/10.1109/scisisis61014.2024.10760069

2024 **An IEC-driven Optimization of Gestures to Enhance Personality Traits in Communication Robots**
Mikawa, R., **Ayedoun, E.**, & Tokumaru, M.
Joint 13th International Conference on Soft Computing and Intelligent Systems and 25th International Symposium on Advanced Intelligent Systems (SCIS&ISIS 2024), 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.
26th International Conference on Human-Computer Interaction (HCII 2024), 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.
24th International Symposium on Advanced Intelligent Systems (ISIS 2023), 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.
24th International Symposium on Advanced Intelligent Systems (ISIS 2023), 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.
24th International Symposium on Advanced Intelligent Systems (ISIS 2023), 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.
24th International Symposium on Advanced Intelligent Systems (ISIS 2023), 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.
31st International Conference on Computers in Education (ICCE 2023), 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.
IEEE International Conference on Teaching, Assessment and Learning for Engineering (TALE 2023), 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.
9th International Symposium on Affective Science and Engineering (ISASE 2023), 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.
International Conference on Computers in Education (ICCE 2023), Matsue, Japan

2022 **Rhythm Correction System for Promoting Motivation Toward Exercise**
Kobayashi, R., **Ayedoun, E.**, & Tokumaru, M.
Joint 12th International Conference on Soft Computing and Intelligent Systems and 23rd International Symposium on Advanced Intelligent Systems (SCIS&ISIS 2022), 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.
Joint 12th International Conference on Soft Computing and Intelligent Systems and 23rd International Symposium on Advanced Intelligent Systems (SCIS&ISIS 2022), 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.
Joint 12th International Conference on Soft Computing and Intelligent Systems and 23rd International Symposium on Advanced Intelligent Systems (SCIS&ISIS 2022), 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.
6th Workshop on Computer-Supported Personalized and Collaborative Learning, 30th International Conference on Computers in Education (ICCE 2022), 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.
10th Workshop on Technology-Enhanced STEM Education, 30th International Conference on Computers in Education (ICCE 2022), 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.
4th Edition of Knowledge-aware and Conversational Recommender Systems Workshop (KaRS 2022) @ ACM RecSys 2022, 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.
HCI International 2022 (HCII 2022), 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.
HCI International 2022 (HCII 2022), 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.
International Symposium on Affective Science and Engineering (ISASE 2022), 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.**
International Symposium on Affective Science and Engineering (ISASE 2022), 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.
International Symposium on Affective Science and Engineering (ISASE 2022), 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.
29th International Conference on Computers in Education (ICCE 2021), Vol. 1, pp. 41-50, Online

2021

Shared Experience-Based Dialogue Robot: Implementation and First Impressions
Inoshita, K., **Ayedoun, E.**, & Tokumaru, M.
15th International Symposium on Science and Technology (ISST 2021), Osaka, Japan

2021

Can't Remember? Neither Can I: Implementing Purposeful Forgetfulness in Robot-Human Interactions
Liu, Y., **Ayedoun, E.**, & Tokumaru, M.
15th International Symposium on Science and Technology (ISST 2021), Osaka, Japan

2021

Fostering English Learners' Motivation with a Multiple Agents based Cooperative Learning Environment
Nakata, T., **Ayedoun, E.**, & Tokumaru, M.
15th International Symposium on Science and Technology (ISST 2021), Osaka, Japan

2021

Leveraging Cross-Modal Effect to Support Squat Exercise: a Preliminary Study
Yoshida, A., **Ayedoun, E.**, & Tokumaru, M.
15th International Symposium on Science and Technology (ISST 2021), Osaka, Japan

2021

Kansei Perception Support System to Promote Daily Life Awareness
Edama, I., **Ayedoun, E.**, Takenouchi, H., & Tokumaru, M.
HCI International 2021 (HCII 2021), 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.
HCI International 2021 (HCII 2021), Online

2021

User Preference and Suitability-Aware Eyeglasses Recommender System
Maruoka, S., **Ayedoun, E.**, Takenouchi, H., & Tokumaru, M.
HCI International 2021 (HCII 2021), 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.
HCI International 2020 (HCII 2020), 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.
20th International Conference on Artificial Intelligence in Education (AIED 2019), 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.
25th International Conference on Computers in Education (ICCE 2017), 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.
18th International Conference on Artificial Intelligence in Education (AIED 2017), 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.
7th Knowledge Co-creation Forum, 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.
11th International Conference on Knowledge Management (ICKM 2015), 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.
HAI Symposium 2026, P2-21, Osaka, Japan

2026 **Dynamically Adaptive English Conversation Agent Responding to Learner Difficulty**
Shimosaka, Y., **Ayedoun, E.**, & Tokumaru, M.
HAI Symposium 2026, 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.
Japan Society for Fuzzy Theory and Intelligent Informatics 30th Workshop on Ambiguous Feelings, 1-2, Fukushima, Japan

2025 **Goal-Setting Support System for English Learning Using Interactive Evolutionary Computation**
Yamamoto, S., **Ayedoun, E.**, & Tokumaru, M.
Japan Society for Fuzzy Theory and Intelligent Informatics 30th Workshop on Ambiguous Feelings, 2-1, Fukushima, Japan

2025 **Direct-Manipulation IEC Music Generation System Supporting Active User Exploration**
Ohya, K., **Ayedoun, E.**, & Tokumaru, M.
Japan Society for Fuzzy Theory and Intelligent Informatics 30th Workshop on Ambiguous Feelings, 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.
Japan Society for Fuzzy Theory and Intelligent Informatics 41st Fuzzy System Symposium, pp. 893-897, 3H1-3, Kumamoto, Japan

2025 **Exercise Support System Using Audience Robot Behavior**
Nakamura, H., **Ayedoun, E.**, & Tokumaru, M.
Japan Society for Fuzzy Theory and Intelligent Informatics 41st Fuzzy System Symposium, 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.
27th Annual Conference of Japan Society of Kansei Engineering (JSKE 2025), 2P01-14, Tokyo, Japan

2025 **Collaborative Learning Support System Using Multiple Dialogue Agents**
Kawashima, A., **Ayedoun, E.**, & Tokumaru, M.
27th Annual Conference of Japan Society of Kansei Engineering (JSKE 2025), 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.
20th Japan Society of Kansei Engineering Spring Conference, 1B01-06, Japan

2025 **Advertisement Text Optimization System for Consumer Type Classification**
Tominaga, Y., **Ayedoun, E.**, Takenouchi, H., & Tokumaru, M.
20th Japan Society of Kansei Engineering Spring Conference, 1B02-09, Japan

2024 **Generative AI and Interactive Evolutionary Computation Music Generation System Considering User Preferences**
Ohya, K., **Ayedoun, E.**, & Tokumaru, M.
26th Japan Society of Kansei Engineering Conference, P2-19, Japan

2024 **Exercise Support System Using Self-Growing Avatar with Interactive Evolutionary Computation**
Yamamoto, S., **Ayedoun, E.**, & Tokumaru, M.
Japan Society for Fuzzy Theory and Intelligent Informatics 40th Fuzzy System Symposium, pp. 621-626, 2G3-5, Japan

2024 **Exercise Motivation Improvement System through Peer Learning with Agents**
Sakaguchi, S., **Ayedoun, E.**, & Tokumaru, M.
Japan Society for Fuzzy Theory and Intelligent Informatics 40th Fuzzy System Symposium, 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.
Japan Society for Fuzzy Theory and Intelligent Informatics 40th Fuzzy System Symposium, pp. 283-288, 2A2-2, Japan

2024 **Investigation of Impressions Given by Conversational Robots' Worrying Gestures**
Azuma, R., **Ayedoun, E.**, & Tokumaru, M.
Japan Society for Fuzzy Theory and Intelligent Informatics 40th Fuzzy System Symposium, 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.
Japan Society for Fuzzy Theory and Intelligent Informatics 28th Workshop on Challenging Ambiguous Feelings, 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.
25th Japan Society of Kansei Engineering Conference, P1-18, Japan

2023 **Product Recommendation System for Selection Promotion Using Dominance Structuring Process**
Togo, T., **Ayedoun, E.**, & Tokumaru, M.
25th Japan Society of Kansei Engineering Conference, 3C02-1-02, Japan

2023 **POP Advertisement Generation System Based on Regulatory Focus Theory**
Tominaga, Y., **Ayedoun, E.**, & Tokumaru, M.
25th Japan Society of Kansei Engineering Conference, 3C02-1-01, Japan

2023 **Personalization of Image Generation Using Kansei Retrieval Agent and GAN**
Tsubokura, Y., **Ayedoun, E.**, Takenouchi, H., & Tokumaru, M.
25th Japan Society of Kansei Engineering Conference, 3C01-03, Japan

2023 **Unexpected Movie Recommendation System Focusing on Temporal Connections of Color Features**
Nagayasu, K., **Ayedoun, E.**, & Tokumaru, M.
25th Japan Society of Kansei Engineering Conference, 3C01-02, Japan

2023 **Optimization of Personality Expression Gestures Using Interactive Evolutionary Computation**
Mikawa, R., **Ayedoun, E.**, & Tokumaru, M.
Japan Society for Fuzzy Theory and Intelligent Informatics 39th Fuzzy System Symposium, pp. 30-34, 1A3-1, Nagano, Karuizawa, Japan

2023 **Harmony Generation System to Promote Group Exercise Motivation**
Kobayashi, R., **Ayedoun, E.**, & Tokumaru, M.
Japan Society for Fuzzy Theory and Intelligent Informatics 39th Fuzzy System Symposium, pp. 266-270, 1F2-1, Nagano, Karuizawa, Japan

2023 **Distance-Creating Robot Based on Politeness Theory Conversation Strategy**
Inaba, A., **Ayedoun, E.**, & Tokumaru, M.
Japan Society for Fuzzy Theory and Intelligent Informatics 39th Fuzzy System Symposium, 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.
Japan Society for Fuzzy Theory and Intelligent Informatics 39th Fuzzy System Symposium, 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.
Japan Society for Fuzzy Theory and Intelligent Informatics 33rd Soft Science Workshop, 3-2, Japan

2023 **Learning Support System Using Agents that Promote from Acquisition to Teaching**
Nakata, T., **Ayedoun, E.**, & Tokumaru, M.
Japan Society for Fuzzy Theory and Intelligent Informatics 33rd Soft Science Workshop, 3-3, Japan

2022 **Exercise Support System Using Harmony and Unity of Body Movement and Sound**
Tokumaru, M., Nakanishi, Y., & **Ayedoun, E.**
Japan Society for Fuzzy Theory and Intelligent Informatics 38th Fuzzy System Symposium, FA1-3, Japan

2022 **Rhythm Correction System to Promote Exercise Continuation Motivation**
Kobayashi, R., **Ayedoun, E.**, & Tokumaru, M.
Japan Society for Fuzzy Theory and Intelligent Informatics 38th Fuzzy System Symposium, FA2-1, Japan

2022 **Idea Support System by Presenting Others' Viewpoints Using Interactive Evolutionary Computation**
Sakabe, Y., **Ayedoun, E.**, & Tokumaru, M.
Japan Society for Fuzzy Theory and Intelligent Informatics 38th Fuzzy System Symposium, TC3-3, Japan

2022 **Robot Group Behavior for Enhancing Presence in Sports Viewing**
Yamamoto, F., **Ayedoun, E.**, & Tokumaru, M.
Japan Society for Fuzzy Theory and Intelligent Informatics 38th Fuzzy System Symposium, 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.
Japan Society for Fuzzy Theory and Intelligent Informatics 38th Fuzzy System Symposium, TF1-2, Japan

2022 **Visualization Interface of Relationships between Occupations and Classes Aimed at Promoting Learning Motivation**
Endo, M., **Ayedoun, E.**, & Tokumaru, M.
24th Japan Society of Kansei Engineering Conference, 1A-2-02, Japan

2022 **Visualization Interface of Relationships between Occupations and Classes Aimed at Promoting Learning Motivation**
Koike, Y., **Ayedoun, E.**, & Tokumaru, M.
Human Interface Symposium 2022, pp. 622-625, Japan

2021 **Impression Investigation of Robots Conversing Based on Shared Experiences**
Inoshita, K., **Ayedoun, E.**, & Tokumaru, M.
37th Fuzzy System Symposium, 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.
37th Fuzzy System Symposium, pp. 253-258, TB2-3, Japan

2021 — **Learning Support System Using Multiple Agents with Different Characteristics**
Nakata, T., **Ayedoun, E.**, & Tokumaru, M.
37th Fuzzy System Symposium, pp. 206-210, TD1-3, Japan

2021 — **Verification of Load Reduction in Squat Exercise Using Cross-Modal Effect**
Yoshida, A., **Ayedoun, E.**, & Tokumaru, M.
37th Fuzzy System Symposium, 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.**
37th Fuzzy System Symposium, 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.
Japan Society for Fuzzy Theory and Intelligent Informatics 31st Soft Science Workshop & 25th Workshop on Challenging Ambiguous Feelings, pp. 35-38, Japan

2021 — **Kansei Cognitive Support System to Promote Daily Awareness**
Edama, I., **Ayedoun, E.**, Takenouchi, H., & Tokumaru, M.
Japan Society for Fuzzy Theory and Intelligent Informatics 31st Soft Science Workshop & 25th Workshop on Challenging Ambiguous Feelings, pp. 31-34, Japan

2021 — **Robot Role Recognition Model Considering Group Norms**
Katsuda, R., Fuse, Y., **Ayedoun, E.**, & Tokumaru, M.
16th Japan Society of Kansei Engineering Spring Conference, 4F-03, Japan

2021 — **Idea Support System Using Augmented Reality in STEM Education**
Furukawa, K., **Ayedoun, E.**, Takenouchi, H., & Tokumaru, M.
16th Japan Society of Kansei Engineering Spring Conference, 1D-05, Japan

2021 — **Semi-Automatic Authoring of Task-Oriented English Dialogue Scenarios** RESEARCH EXCELLENCE AWARD
Ayedoun, E., Hayashi, Y., & Seta, K.
Japanese Society for Artificial Intelligence 91st SIG Advanced Learning Science and Technology, pp. 20-27, SIG-ALST-C003-04, Japan

2020 — **Semi-automatic Generation of Spoken English Dialogue Scenarios Based on Service Process Model**
Ayedoun, E., Hayashi, Y., & Seta, K.
34th Japanese Society for Artificial Intelligence National Conference, 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.
Japanese Society for Artificial Intelligence 84th SIG Advanced Learning Science and Technology, 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.
Japanese Society for Artificial Intelligence 80th SIG Advanced Learning Science and Technology, 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.
31st Japanese Society for Artificial Intelligence National Conference, 1B3-3, Japan

2015 — **Conversational Agent to Enhance English Communication Willingness** EXCELLENT PRESENTATION AWARD
Ayedoun, E., Hayashi, Y., & Seta, K.
2015 Spring JSiSE Student Research Presentation, pp. 67-68, Japan

Teaching

COURSES AT KANSAI UNIVERSITY

Special Topics on Human Interface
Kansai University · 2025 – Current

Problem-Based Learning (3D Interfaces Design)
Kansai University · 2025 – Current

Global Problem-Based Learning (Arduino Circuits)
Kansai University · 2021 – Current

Applied Programming (C Language)
Kansai University · 2020 – Current

Programming Project (Java Language)
Kansai University · 2020 – Current

Electrical Systems and Circuits (Operational Amplifiers)
Kansai University · 2020 – Current

TEACHING ASSISTANTSHIPS

Introduction to Information Systems
Osaka Prefecture University · 2017 – 2018

Knowledge Modeling
Osaka Prefecture University · 2016

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

Languages

French
Native

Nagot
Native

English
Fluent (working language)

Japanese
Fluent (working language)

Fongbe
Daily conversation

Spanish
Daily conversation