

|| AZIZI.AB.AZIZ ||

CORRESPONDENCE ADDRESS

Relational Machines Group, Human-Centred Computing Research Lab
School of Computing, Universiti Utara Malaysia,
06010 UUM, Sintok, Kedah.

E-mail: aziziaziz@uum.edu.my

URL: <https://aziziaziz.weebly.com/>

Personal: +612-403-3654 **Office:** +604-9285179 **Fax:** +604-9285297



ACADEMIC QUALIFICATIONS

2011 Ph.D (Artificial Intelligence & Cognitive Science)
Agent & Robotic Systems Research Lab, Vrije Universiteit Amsterdam, The Netherlands.
Thesis: “Exploring Computational Models for Intelligent Robots to Support Persons with Depression.”

**funded by Assistant-in-Opleiding (AIO) Nederlandse Wetenschappen Organisatie & SIKS-VU Amsterdam research programme.*

2003 MSc Information Technology (Research)
Universiti Utara Malaysia
Thesis: “Hybrid Neuro-Apriori Algorithm for Business Insolvency Models.”

**funded by Ministry of Science, Technology and Innovation Malaysia.*

1999 BSc Information Technology (Hons) – major in Artificial Intelligence
Universiti Utara Malaysia
Project: “A Multi-Objective Genetic Algorithms Approach for Container Stacking & Retrieval Systems.”

**funded by Japanese International Cooperation Agency Research Project*

TECHNICAL SKILLS

- *Technology:* Multi-Agent Systems, Social Artificial Intelligence, Sociable & Collaborative Robotics, Data Science & Machine Learning, Cognitive Engineering, Computational Modeling.
- *Tools/Programming:* Visual Studio.Net, C/C++, R, Raspberry Pi, Arduino, Octave/Matlab, Python, UML, NetLogo, WEKA Machine Learning, Orange Data Analytics, LEADSTO.

ADVISORY COMMITTEE MEMBER

- National TVET Advisory Council for Artificial Intelligence Curriculum
- Artificial Intelligence for Kids Curriculum Development
- Kedah STEM Education Technical Member
- Ministry of Higher Education-MyRAS National Robotics Innovation and Accelerator Hub Advisory Member
- Focus Group Member for Digital Opportunity (FG-DO) for the 11th Malaysia Plan
- Steering Committee Member for National Bridging Digital Divide Programmes
- Technical Committee Member for National Big Data Initiative
- Steering Committee Member for Kedah Digital Initiative
- Task Force for Youth Empowerment in the Digital Malaysia Programme
- Project Coordinator for Asia-Pacific Economic Exchange Cooperation (APEC) Digital Opportunity ICT Cluster Programme

EXPERIENCES

- [2023-now] Associate Professor of Human-Centred Artificial Intelligence, School of Computing, UUM
- [2022-2023] Director, UUM-STEM Academy, UUM
- [2013-2022] Senior Lecturer at Dept. of Computer Science, School of Computing, UUM
- [2018- 2021] Director, U-Assist One Stop Service Centre, Dept. of Student Affairs, UUM
- [2015-2017] Deputy Dean, Awang Had Salleh Graduate School of Arts and Sciences, UUM
- [2013-2014] Deputy Director (Research & Community Development), ITU-UUM Asia Pacific CoE for Rural ICT Development
- [2011-2012] Postdoctoral Scientist, Amsterdam Media Lab, Amsterdam Science Park, Netherlands.
- [2008-2011] AIO Researcher, Agent & Robotic Systems Research Lab, Vrije Universiteit Amsterdam, Netherlands (visiting graduate researcher at MIT Media Lab Massachusetts Institute of Technology (USA), Human-Machine Interaction Lab – École Polytechnique Fédérale de Lausanne (Switzerland) and Centre of AI - University of Wollongong (Australia).
- [2006-2007] Lecturer, Faculty of Information Technology, UUM
- [2003-2005] Lead Project Developer (Software Innovation & Development), B|Braun (M) Berhad
- [1999-2002] AI Software Engineer, Artificial Intelligence System Development Laboratory, SIRIM Berhad, Malaysia.

SELECTED PUBLICATIONS

- Aziz, A.A. & Jemili, M.F (2022). Conceptual Design of a Socially Intelligent Agent with Triadic Empathy and Theory of Mind for Mental Health Support, *Journal of Human-Centred Technology*, 23-33, UTM Press.
- Aziz, A. A. & Hussain, W. A (2022). Computational Model of Human-Robot Collaboration Trust and Its Application in Simulated Military Operative Domain, *Defense S and T Technical Bulletin, Science & Technology Research Institute for Defence (STRIDE)*, 4(2), 239-257.
- Aziz A.A., & Abdhussain W.A (2022). Computational Analysis of a Human–Robot Working Alliance Trust in Robot-Based Therapy. In: Nanda P., Verma V.K., Srivastava S., Gupta R.K., Mazumdar A.P. (eds) *Data Engineering for Smart Systems. Lecture Notes in Networks and Systems*, vol 238, Springer.
- Aziz, A. A., Yusop, N., Mat Aji, Z. A, & Md Dahalin, Z (2021). Computational Agent Model for Temporal Dynamics in Virtual Community Cohesion, *The 20th IEEE/WI/ACM International Conference on Web Intelligence and Intelligent Agent Technology (Special Track on Social Computing)*, 22-28.
- Aziz, A.A., Rateb, R, & Bimo, A.M. (2021). Mood Support: A Personalized Intelligent Support Assignment System using an Agent-based Dynamic Configuration Model, *The 34th International Conference on Industrial, Engineering & Other Applications of Applied Intelligent Systems (IEA/AIE 2021)*, LNCS Springer, 399-411. **Best Paper (Special Session) Award*
- Aziz, A. A. & Ghanimi M.H.A. (2020). Reading with Robots: A Personalized Robot-Based Learning Companion for Solving Cognitively Demanding Tasks, *International Journal on Advanced Science, Engineering and Information Technology*, 10(4), pp. 1489-1496.
- Aziz, A.A. & Arbaoui, B. (2020). Cognitive Agent Modelling and Analysis of the Dynamics of Workplace Stress, *4th International Conference on Computer-Assisted System in Health, Education and Sustainable Development (CASH2020)*, to appear.
- Ajoge, N. S., Aziz, A. A., & Mohd Yusof, S. A. (2020) A Computational Model of Temporal Dynamics for Anxiety in Interviewee Mental State. *Journal of Information and Communication Technology*, 19(2), pp. 185-206.

- Aziz, A. A., Hussain W., & Jemili, M.F. (2020) Human-Robot Interaction Design Requirements for Therapeutic Robots, National Symposium Human-Computer Interaction (FUSION2020), pp. 31-37.
- Aziz, A.A., Yusoff, Mohd-Yusof, S.A. & Ahmad, F.K. N. (2019). Towards Robot Therapist in-the-loop for Persons with Anxiety Traits., International Conference on Universal Wellbeing.
- Mustapha, R, Yuhanis, Y, & Aziz, A.A. (2019). Computational-Rabi's Driver Training Model for Prime Decision-making in Driving, *Journal of Theoretical and Applied Information Technology*, 97:17, pp. 3540-3558.
- Ghanimi, H.M.A., & Aziz, A.A. (2019). Computational Analysis of Dynamics in an Agent-Based Model of Cognitive Load and Reading Performance. In: Saeed F., Gazem N., Mohammed F., Busalim A. (eds) Recent Trends in Data Science and Soft Computing. IRICT 2018. Advances in Intelligent Systems and Computing, Springer, vol 843.
- Aziz, A.A., Mohd-Shabli, A.H., & Ghanimi, H.M.A. (2017). Formal Specifications and Analysis of an Agent-Based Model for Cognitive Aspects of Fear of Crime, Multi-disciplinary in Artificial Intelligence, Springer, pp. 331-345.
- Aziz, A.A., Saad, A., & Ahmad, F. (2017). CAKNA: A Personalized Robot-based Platform for Anxiety States Therapy, *Intelligent Environments*, IOS Press, pp.141-150.
- Aziz, A.A. (2016). Knowing When to Support: A Human-Aware Agent Model in a Psychological Domain, *Journal of Human Factors and Ergonomics*, 1(1), pp.45-54. (*best paper award for HFEM 2016 Conference, the runner-up*)
- Aziz, A.A., Ahmad, F., Yusoff, N., Ahmad, F.K., & Mohd-Yusof, S.A. (2016). Formal Analysis of Temporal Dynamics in Anxiety States and Traits for Virtual Patients, *Journal of Telecommunication, Electronic, and Computer Engineering*, 8(8), pp. 133-138.
- Aziz, A.A., Hussain, W.A., Ahmad, F., Yusoff, N., & Mohd-Yusof, S.A. (2016), An Agent Model for Analysis of Trust Dynamics in Short-Term Human Robot-Interaction, *Computational Intelligence in Information Systems*, Springer, pp. 81-93.
- Aziz, A.A., Ahmad, F., Yusoff, N., & Mohd-Yusof, S.A. (2015). Designing a Robot-Assisted Therapy for Individuals with Anxiety Traits and States, *Agents, Multi-Agent Systems and Robotics*, IEEE Computer Society, pp. 80-87
- Aziz, A.A., & Ahmad, F. A. (2013). Multi-Agent Model for Support Exchange Dynamics in Social Support Networks during Stress, *Brain and Health Informatics*, Springer, pp. 103-114.
- Aziz, A.A., & Klein, M.C.A. (2012). Incorporating an Ambient Agent to Support People with a Cognitive Vulnerability, Chapter in Human-Computer Interaction: The Agency Perspective, *Studies in Computational Intelligence*, Springer, pp. 169-192
- Aziz, A.A., & Klein, M.C.A. (2011). Computational Modeling of Therapies Related to Cognitive Vulnerability and Coping, *Biologically Inspired Cognitive Architectures*, IOS Press, pp.16-25.
- Aziz, A.A. Treur, J. & Wal, C.N. van der (2011). An Agent-Based Model for Integrated Contagion and Regulation of Negative Mood, *Principles and Practice of Multi-Agent Systems*, Springer Verlag, pp. 83-96.
- Aziz, A. A., Klein, M.C.A., & Treur, J. (2010). An Integrative Ambient Agent Model for Unipolar Depression Relapse Prevention. *Journal of Ambient Intelligent and Smart Environment (JAISE)*, 2(1), IOS Press, pp.5-20.
- Aziz, A.A. & Treur, J. (2009). Modeling Dynamics of Social Support Networks for Mutual Support in Coping with Stress, *Computational Collective Intelligence*, Springer Verlag, pp. 167-179.
- Aziz, A.A., Klein, M.C.A., & Treur, J. (2009). An Ambient Intelligent Agent for Relapse and Recurrence Monitoring in Unipolar Depression. *Artificial Intelligence in Medicine*, Springer Verlag, pp. 186-190.

KEYNOTE / INVITED TALKS

- AI-based Social Simulation - Studying Group Dynamics on a Screen, (Sept 2023), Institute for Development Studies, Sabah, Malaysia.
- Artificial Intelligence @ Workplace, (August, 2023), Universiti Kebangsaan Malaysia, Malaysia.
- Sociable Robots: The Next Artificial Intelligence Technologies in the Wild, (July, 2023), IEEE Chapters The Philippines, Isabella State University, Echague, The Philippines.
- Living with Artificial Intelligence - How It Will Change our Lifestyle and Interaction with Others (March 2023), U-Science UMS, Malaysia.
- Impacts on Social Robots in Malaysia, (Dec 2023), Furhat Social Robotic Conference, Sweden.
- Living with Smart Systems - Towards Social Artificial Intelligence, (Dec 2022), Unimap-15th IMK Seminar Webinar Series, Malaysia.
- Artificial Intelligence: The Peril of Human Rights? (Nov 2022), 6th AUN-HRE Regional Network Meeting on Human Rights Education, Thailand.
- Living with Smart Systems - Towards Social Artificial Intelligence, (Dec 2022), Unimap-15th IMK Seminar Webinar Series, Malaysia.
- Everyday AI, EPF (KWSP) Learning Campus Programme, (May 2022), Kuala Lumpur.
- Living on the Edge of Artificial Intelligence, SEGi College Knowledge Transfer Session, (Sept 2021), SEGi College Subang Jaya Malaysia.
- Compassionate Artificial Intelligence Through Agents and Multi-Agent Systems, UTHM Artificial Intelligence Webinar Series, (June, 2021), Universiti Tun Hussein Onn Malaysia.
- Benevolent vs Malevolent Artificial Intelligence: Towards Friendly AI, Webinar (UUM-Siberian Federal University Russia, (February 2021).
- Big Data Analytics: Why it Matters?, Embracing the Industrial Revolution 4.0 Towards Optimization of Automation and Technology, MREPC Technical Talk, (July 2020), Kuala Lumpur, Malaysia.
- Artificial Intelligence for Social Scientists, Universiti Utara Malaysia Webinar Series, (April 2020), Kedah, Malaysia.
- I, Artificial Intelligence, Empowering Junior Scientist Talk, Universiti Malaysia Sabah, (November 2019), Sabah.
- Towards Friendly AI: Designing Sociable & Collaborative Systems, Digital Lifestyle Expo, (November 2019), Kedah, Malaysia.
- Friendly AI: Designing Socially Aware Systems, 4th Rangsit University International Research Conference in Science, Tech and Humanities, (April 2019), Bangkok, Thailand.
- Data Science for Decision Makers, Kedah Digital Transformation Centre, (May 2019), Kedah.
- Thinking Machines: The Crossroad of Humans and Machine Intelligence, Centre for Foundation Studies in Management, UUM, (March 2019), Kedah, Malaysia.
- Artificial Intelligence & Human-Centred Computing, 4th ICT Research Conference & Festival, (Dec 2018), Zamboanga De Norte, The Philippines.
- Designing Human-Aware Systems, Invited Talk at Intelligent Environment & Simulation Research Lab, Murdoch University, (December 2017), Perth, Australia.
- Towards Human-Centred Systems, Invited Talk at Bansomdejchaopraya Rajabhat University, (September 2017), Bangkok, Thailand.
- Digital Sherlock Holmes: Crime Analytics using Big Data, Living Lab Talk, (February 2017), Kedah, Malaysia.
- Beyond Digital Divide, Seminar Institute of Social Informatics and Technological Innovations (ISITI), UNIMAS, (Oct 2014), Sarawak, Malaysia.
- ICT and Entrepreneurship: Leveraging Potentials among SMMEs (August 2013), Taipei, Taiwan.

- Human Knowledge Function in Model-Based Reasoning, Workshop on Conscious and Unconscious Mental Functions (Sept 2012), International Conference on Neural Networks, ICANN 2012, Lausanne, Switzerland.
- Designing a Human-Aware System, Technical Talk (Behaviour Laboratory, School of Mechatronic Engineering, UNIMAP) (Jun 2012), Perlis, Malaysia.
- Beating the Blues: A Human-Aware Technology for Intelligent Support of Persons with Depression (Nov 2011), IEEE Systems, Machines, and Cybernetics Student Chapter Talk, Murdoch University, Perth, Australia.
- When Love & Hate Collide: Dynamics in a Social Ties Selection Process during Stress (Oct 2009), WAI Invited Lecture FEW VU Amsterdam, The Netherlands.

SELECTED PROGRAMME / ORGANIZING COMMITTEE

- 33rd International Joint Conference on Artificial Intelligence (IJCAI 2024)
- International Conference on Autonomous Agents and Multiagent Systems (AAMAS 2018, 2019, 2020, 2021, 2022, 2023, 2024)
- SIHVA 2024: Special Session on Computational Modeling of Social Interaction for Human and Virtual Agents at 16th Asian Conference on Intelligent Information and Database Systems (ACIIDS 2024)
- International Conference on Brain-Inspired Cognitive Architectures for Artificial Intelligence (BICA*AI, 2023)
- International Conference on Intelligent Systems and Applications (INTELLI 2017, 2018, 2019, 2022, 2023, 2024)
- Asia Conference on Artificial Intelligence, Machine Learning and Robotics (AIMLR 2023)
- 4th International Conference in Intelligent Systems (CIIS 2020)
- 11th International Multi-Disciplinary Workshop on Artificial Intelligence (MIWAI 2017)
- Session chair - Artificial Intelligence: Computational Intelligence & Information Systems (CIIS 2016)
- 6th International Conference on Simulation and Modeling Methodologies, Technologies and Applications (SIMULTECH)
- International Symposium on Agents, Multi-Agent Systems and Robotics (ISAMSR 2015, ISAMSR 2016)
- Session chair - Artificial Intelligence: Information Science and Applications (ICISA) 2016
- Social Intelligence Workshop, International Conference on Social Robotics (ICSR 2014)
- 10th Asia Information Retrieval Society Conference (AISR 2014)
- International Conference on Industrial, Engineering & Other Applications of Applied Intelligent Systems (IEA-AIE 2013, IEA-AIE 2014, IEA-AIE 2015, IEA-AIE 2016)
- Computational Intelligence in Social Web, Network Analysis and Mining (Special Session in WCCI 2012).
- Modelling and Support of Cognitive and Affective Human Processes (Special Session in IEA-AIE 2011).
- Session chair - Cognition: Human-Robot Interaction (CogSci 2010).

SELECTED TECHNICAL PAPER REVIEWER

- Journal of Cognitive Computation (Springer)
- Journal of Brain Informatics (Springer)
- Journal PLOS (Digital Health)
- International Conference on Autonomous Agent and Multi-Agent Systems (AAMAS)

- Journal of Reliable Intelligent Environments (Springer)
- Journal of Parallel and Distributed Computing (Elsevier)
- International Symposium on Agents, Multi-Agent Systems and Robotics (ISAMSR)
- International Conference on Simulation and Modeling Methodologies, Technologies, and Applications (SIMULTECH)
- International Conference on Applied Computing, Mathematical Sciences and Engineering
- Book Chapter (Human Aspects in Ambient Intelligence) (Springer)
- Journal in Information and Communication Technology (JICT)
- International Conference on Industrial, Engineering & Other Applications of Applied Intelligent Systems
- International Visual Informatics Conference
- International Workshop on Human Aspects in Ambient Intelligence (HAI-2012)
- IEEE / WIC / ACM International Conference on Intelligent Agent Technology (IAT 2011)
- IEEE/RSJ Intelligent Robots and Systems (IROS) (Human-Robot Interaction Section)
- The Annual Meeting of Cognitive Science Society Conference (CogSci 2010)
- International Conference of Artificial Intelligence and Agents (ICAART 2009)
- International Conference on Affective Computing and Intelligent Interaction (ACII 2009)
- 10th Multi-Agent Systems Based Simulation Workshop (MBAS 2009)

SELECTED ACHIEVEMENTS

- Best Paper Award Springer Nature (Special Session) at the 34th International Conference on Industrial, Engineering & Other Applications of Applied Intelligent Systems (IEA/AIE 2021).
- Best Presenter Award, National 2021 Human Centred Technology Symposium (HumEnTech 2021).
- Gold and Best of the Best medal: Perintis 2016 (*Robot's Voice Reply for Learning, Reading and Mathematics*).
- Silver medal: Malaysia Technology Expo 2016 (*BacaBOT: Robot-Mediated Learning Tool for Dyslexic Kids*).
- Gold and Silver medal: Malaysia Technology Expo 2014 (*ComPDA: Personalized Decision Support Tool for Youth* and *The Analytic Simulator for Public ICT Access Centre Evaluation*).

REFERENCE

Prof (Emeritus) Dr. Jan Treur
 Director of Social Artificial Intelligence Group, Department of Artificial Intelligence
 Faculty of Science Vrije Universiteit Amsterdam, The Netherlands.
 Boelelaan 1083a , 1081 HV Amsterdam, The Netherlands
 E-mail: treur@cs.vu.nl

Prof. Dr. Tibor Bosse
 Director Communication & Media Group
 Behavioural Science Institute
 Radboud University
 Thomas van Aquinostraat 4
 6525 GD Nijmegen, The Netherlands
 E-mail: tibor.bosse@ru.nl