

CURRICULUM VITAE



Dr. Luthffi Idzhar Ismail
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 Universiti Putra Malaysia,
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Education

1. 2020, Ph.D, Doctor of Computer Science Engineering, Ghent University, Belgium
2. 2013, M.Sc, Master of Science in Mechanical Engineering, Universiti Teknologi MARA, Malaysia
3. 2010, B.Eng, Bachelor of Engineering (Hons.) Mechanical, Universiti Teknologi MARA, Malaysia

Areas of Interest

1. Robotics for Medical | Agriculture | Education
2. Human-Robot Interaction
3. Artificial Intelligence
4. Socially Assistive Technology

Professional Qualification/ Membership/ Affiliation

1. Graduate Engineer, Board of Engineers Malaysia (BEM)
2. Member, Institute of Electrical and Electronics Engineers (IEEE)
3. Member, IEEE Robotics and Automation Society (RAS)
4. Member, IEEE Circuits and Systems Society (CAS)
5. Member, IEEE Engineering in Medicine and Biology Society (EMBS)
6. Graduate Technologist, Malaysia Board of Technologists (MBOT)

Appointment

Position	Duration
1. Senior Lecturer, Department of Electrical and Electronic Engineering, Faculty of Engineering, UPM	Feb 2020 to date
2. Doctoral Researcher, Artificial Intelligence and Robotics Laboratory (AIRO), Ghent University, Belgium	Jan 2016 to Dec 2020
3. Research Assistant, Department of Electrical and Electronic Engineering, Faculty of Engineering, UPM	Feb 2015 to Nov 2015
4. Research Trainee, Katholieke Universiteit Leuven, Belgium.	Jan 2014 to Dec 2014

Publication

Journal

1. Ismail, L. I., Hanapiah, F. A., Belpaeme, T., Dambre, J., wyffels, F. (2020). Analysis of attention in child-robot interaction among children diagnosed with cognitive impairment. International Journal of Social Robotics, 1-12.
2. Ismail, L. I., Verhoeven, T., Dambre, J., wyffels, F. (2020). Leveraging robotics research for children with autism: A review. International Journal of Social Robotics, 11(3), 389-410.

3. Hafizan, H., Hanafiah, Y., Fazah, A. H., Syamimi, S., Luthffi, I., Norjasween, A. M. (2013). Robot-Assisted to Elicit Behaviors for Autism Screening, *Journal of Applied Mechanics and Materials*, Vol. 393, pp. 567-572
4. Aminullah, C. H., Mohd, A. M., Hanafiah, Y., Syamimi, S., Hafizan, H., Luthffi, I., (2013). Human-Robot Interaction (HRI) for Children with Autism to Augment Communication Skills, *Journal of Applied Mechanics and Materials*, Vol. 393, pp. 598-603
5. Luthffi, I. I., Syamimi, S., Hanafiah, Y., Fazah, A. H. and Ismarrubie, Z. N. (2012). Robot-based intervention program for autistic children with humanoid robot NAO: Initial response in stereotyped behavior, *Journal of Engineering Procedia for International Symposium on Robotics and Intelligent Sensors 2012 (IRIS2012)*, Elsevier, Vol. 41, pp. 1441-1447
6. Luthffi, I. I., Syamimi, S., Hanafiah, Y., Fazah, A. H. and Ismarrubie, Z. N. (2012). Estimation of concentration by eye contact measurement in Robot-based intervention program with autistic children, *Journal of Engineering Procedia for International Symposium on Robotics and Intelligent Sensors 2012 (IRIS2012)*, Elsevier, Vol. 41, pp. 1548-1552
7. Syamimi, S., Hanafiah, Y., Luthffi, I. I., Salina, M., Fazah, A. H. & Ismarrubie, Z. N. (2012). Initial response in HRI- A case study on evaluation of child with Autism Spectrum Disorders interacting with a humanoid robot NAO" *Journal of Engineering Procedia for International Symposium on Robotics and Intelligent Sensors 2012 (IRIS2012)*, Elsevier, Vol. 41, pp. 1448-1455
8. Syamimi, S., Hanafiah, Y., Luthffi, I. I., Salina, M., Fazah, A. H. & Ismarrubie, Z. N. (2012). Humanoid robot NAO interacting with autistic children of moderately impaired intelligence to augment communication skills, *Journal of Engineering Procedia for International Symposium on Robotics and Intelligent Sensors 2012 (IRIS2012)*, Elsevier, Vol. 41, pp. 1533-1538

Conference Proceeding

1. Ismail, L. I., Hanapiah, F. A., Belpaeme, T., Dambre, J., & wyffels, F. (2019). Leveraging deep learning for eye contact analysis in child-robot interaction. FEA Research Symposium.
2. Ismail, L., Hanapiah, F., Belpaeme, T., & wyffels, F. (2019). Response Pattern of Child-Robot Interaction among Children with Cognitive Impairment. In The Fifth International Conference on Human and Social Analytics. IARIA XPS Press.
3. Ismail, L., Hanapiah, F. A., & wyffels, F. (2019). The 10th International Conference on Robotics in Education. In The 10th International Conference on Robotics in Education, Austria
4. Luthffi, I. I., Hanafiah, Y., Syamimi, S., Fazah A. H., Ismarrubie Z. N. (2013). Relationship of IQ levels toward initial response in robotic intervention for children with autism, *Proceedings of the 7th International Convention on Rehabilitation Engineering and Assistive Technology*, pp 64.
5. Syamimi, S., Hanafiah, Y., Salina, M., Fazah, A. H., Luthffi I. I., (2013). Stereotyped behavior of autistic children with lower IQ level in HRI with a humanoid robot, *Proceeding of IEEE Workshop on Advanced Robotics and its Social Impacts*, pp 175-180.
6. Hanafiah, Y., Luthffi, I. I., Syamimi S., Fazah, A. H., Salina, M., Hanizah A. P., Sakinah, I., Hafizan, H., Ismarrubie Z. N. (2012). Human-Robot Interaction intervention therapy procedure for initial response of autism children with humanoid robot" *Proceeding of 1st Joint International Symposium on System-Integrated Intelligence 2012*, pp. 148-150

7. Syamimi S., Hanafiah Y., Luthffi, I., Fazah A. H., Salina, M., Hanizah A.P., Ismarrubie Z. N. (2012). Initial response of autistic children in Human-Robot Interaction therapy with humanoid robot NAO, *Proceeding of 2012 IEEE 8th International Colloquium on Signal Processing and its Applications*, pp. 188-193
8. Luthffi, I., Syamimi, S., Hanafiah, Y., Hafizan, H., Saiful, B., Ahmed, J. & Ismarrubie, Z. (2011). Face detection technique of humanoid robot NAO for application in robotic assistive therapy, *Proceeding of 2011 IEEE International Conference on Control System, Computing and Engineering*, pp. 517-521.
9. Syamimi, S., Luthffi, I. I., Hanafiah, Y., Ismarrubie, Z. N., Saiful, B., Hafizan, H. & Ahmed, J. (2011). Humanoid robot NAO: Review of control and motion exploration, *Proceeding of 2011 IEEE International Conference on Control System, Computing and Engineering*, pp. 511-516.

Article Reviewer			
No	Name of Journal	Publisher	Year
1.	International Journal of Social Robotics	Springer	2019-present
2.	International Journal of Research in Developmental Disabilities	Elsevier	2021-present

Professional Service			
No	Activity	Organiser	Month/Year
1	Online Speaker for Malaysian Society for Automatic Control Engineer (MACE). "Improvement of child-robot interaction among children diagnosed with cognitive impairments"	Center of Artificial Intelligence and Robotics	Oct 2020
2	Invited lecture for Kolej Universiti Antarabangsa PICOMS. "Child-robot interaction for children with special needs: Perspectives and Challenges"	Kolej Universiti Antarabangsa PICOMS	Mac 2021

Research Grant				
No	Project Title	Amount (RM)	Year	Source of Fund
1	Design and Prototype Implementation of Robotic Arm and Software for Remote Ultrasound Examination and Diagnosis with AI in Healthcare – Co-researcher (Submitted for approval)	700,000	2021	Malaysia Industry-Government Group for High Technology (MIGHT)
2	Design and development of Malaysian culture based social robot for children diagnosed with cognitive impairments – Project leader (in progress)	200,000	2021	Fundamental Research Grant Scheme (FRGS)
3	Towards deep learning based behavioral analysis in child-robot interaction - Project leader (in progress)	60,000	2021	PUTRA-IPS
4	Development of an autonomous internal anatomy recognition system during robotics surgery - Project leader (in progress)	15,000,000	2021	MOSTI

International Networking Visit			
No	Institution	Country	Year
1.	Ghent University	Belgium	2020
2.	TU Eindhoven	Netherlands	2019
3.	Erasmus MC	Netherlands	2019

Community Engagement			
No	Name of Activity	Involvement	Year
1.	Belgium-Malaysia Robotics Training	Train the trainers	2018
2.	Malaysians Student Association in Belgium	Student Representative	2018

References

- 1) Professor Dr Fazah Akhtar Hanapiah,
MBBCh. BAO (Ireland) M.Rehab.Med (U.Malaya)
Head, Clinical Specialist & Senior Lecturer, Discipline of Rehabilitation Medicine,
Faculty of Medicine UiTM, Sungai Buloh Campus, Selangor, Malaysia
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- 2) Associate Professor Dr Adzrool Idzwan Ismail, PhD
Brother
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