

Yasser F. O. Mohammad

Citizenship : Egyptian • Date of birth : 7 September 1976



www.yasserm.com

Contact

Professional

Tel : +8180-5652-4120

Email: y.mohammad@aist.go.jp
yasserm@aun.edu.eg

Personal

Email : ymohammad@ieee.org
yasserfarouk@gmail.com

Address

Tokyo, Akishima shi, Tsutsujigaoka 3-4-7-104, Japan

Google Scholar : <http://scholar.google.com/citations?user=EdmGPiYAAAAAJ&hl=en>

Microsoft Academic Search:

<http://academic.research.microsoft.com/Author/3572082/yasser-f-o-mohammad>

DBLP:

http://www.informatik.uni-rier.de/~ley/pers/hd/m/Mohammad:Yasser_F=O=.html

Current Title

Researcher, AIST, Japan

Associate Professor, Assiut University, Egypt (on leave)

Education

- | | |
|---------------------|--|
| 2006 to 2009 | PhD in Intelligence Science and Technology (Robotics) [September 2009]
Graduate School of Informatics, Kyoto University, Japan |
| 2001 to 2005 | Msc. in Electrical Engineering (Computers and Systems) [June 2005]
Faculty of Engineering, Assiut University, Egypt |
| 1993 to 1998 | Bachelor of Electrical Engineering (Computers and Systems) [July 1998]
Faculty of Engineering, Assiut University, Egypt |

Research Interests

- ✓ Automatic Negotiation
- ✓ Data Mining and Time-series Analysis
- ✓ Human Behavior Understanding using Machine Learning techniques and Nonverbal HRI.
- ✓ Imitation Learning in Robotics.

Publications

- ✓ Co-Author of "Conversational Informatics: A data intensive approach", Springer 2014, [[springer](#) | [amazon](#)]
- ✓ Author of "Data Mining for Social Robotics", to appear from Springer by the beginnings of 2016. [[springer](#)]
- ✓ Author of "Imitation in Robotics", to appear from CRC Press in 2020 (contract signed)
- ✓ Published 90 scientific papers in international journals and conferences in the past 13 years.
- ✓ Two patent applications (Japanese) (特開 2019-087106, 特開 2019-061338)
- ✓ H-index = 15, i10-index=28 with 851 indexed citations (Google scholar on June 15th, 2019).

Awards and Honors

- ✓ Outstanding Paper Award of ICROS International Conference on Control, Automation and Systems (ICCAS) 2014, Seoul, South Korea (out of 337 accepted papers from 25 countries).
- ✓ Best Paper Award in IEEE SII 2012 (Control) (from 248 accepted papers)
- ✓ Best Presentation Award of the 3rd International Conference on Industrial Application Engineering, Kitakyushu, Japan, March 2015
- ✓ Best Paper Award in the Twenty Second International Conference Industrial, Engineering, and other applications of Applied Intelligent Systems (IEA/AIE 2009). Acceptance rate was 29% out of 286 submitted papers (ranked 46th among top 701 computer science conferences).
- ✓ Best Paper Award in the Twenty First International Conference Industrial, Engineering, and other applications of Applied Intelligent Systems (IEA/AIE 2008). Acceptance rate was 30% out of 270 submitted papers (ranked 46th among top 701 computer science conferences).
- ✓ JSPS long term post-doc fellowship for foreign researchers (2012-2014).
- ✓ GCOE Visiting Associate Researcher, Kyoto University, Japan (July-December 2011)
- ✓ KDDI High TOEIC score award, March 2017

Yasser F. O. Mohammad

International Recognition

- ✓ Senior IEEE Membership 2012
- ✓ Recognized as an HRI Pioneer researchers in HRI Pioneers 2008 Workshop.
- ✓ One of 10 student presenters and a panelist in the IEEE NEWHRI workshop 2008.

Teaching Experience

Worked as an Assistant/Associate Professor in Assiut University since 2010 teaching the following courses (among others):

Introduction to Robotics	Pattern Recognition (Graduate)	Network/Computer Security
Robotics Engineering	Numerical Analysis	Database Systems
Robot Motion Planning (Graduate)	Probabilistic Inference (Graduate)	Data Sciences and BigData (Graduate)
Introduction to Computer Science	Computer Organization/Architecture	Digital Signal Processing
Intelligent Control (Graduate EJUST)	Microprocessors	Graphical User Interfaces

As a TA in AUN I assisted in teaching several courses including (among many others):

C, C++, and C#	Computer Organization	Data Structures	Microprocessor Interfacing
Digital Design	Computer Architecture	Operating Systems	Electrical Measurements
Algorithms	Electrical Fields	Windows Programming	Database Design

Academic Work Experience

Kyoto University, Kyoto, Japan

JSPS PostDoc Fellow

September 2012 – September 2014

- ✓ Conducting research in imitation learning

Visiting Associate Researcher

July 2011 – December 2011

- ✓ Conducting research in Applied Intelligence Dept. in collaboration with Prof. Toyoaki Nishida.

EJUST University, Alexandria, Egypt

Adjunct Professor

October 2015 – June 2016

- ✓ Teaching Intelligent Control Course
- ✓ Participating in the supervisory committee of one student

Assiut University, Assiut, Egypt

Associate Professor

August 2016 – NOW

- ✓ Teaching courses in Electrical Engineering Dept., Informatics and Mechatronics and Robotics Dept.
- ✓ Conducting research in the area of applied intelligence and robotics (AIR)

Assistant Professor (Lecturer)

January 2010 – July 2016

- ✓ Teaching courses in Electrical Engineering Dept., Informatics and Mechatronics and Robotics Dept.
- ✓ Conducting research in the area of applied intelligence and robotics (AIR)

Teaching Associate

June 2005 – December 2009

- ✓ Assisting in teaching courses to students of Electrical Engineering, Mechanical Engineering and introductory Engineering courses and supervising graduation-projects

Teaching Assistant

April 2000 – June 2005

- ✓ Assisting in teaching courses to students of Electrical Engineering, Mechanical Engineering and introductory Engineering courses.
- ✓ Supervising graduation-projects

Developer –Software and Computers Technology Unit (SCTU)

April 2004 – October 2005

- ✓ Developing Assiut University Information Systems Internet Portal
- ✓ Designing and developing software for university automation

South Valley University, Aswan, Egypt

Teaching Associate

September 1999 – April 2000

- ✓ Assisting in teaching courses to students of Electrical Engineering, Mechanical Engineering and introductory Engineering courses.
- ✓ Supervising graduation-projects

Yasser F. O. Mohammad

Industrial Work Experience

Researcher AIST-NEC Lab., AIRC, AIST, Japan

November 2017 – NOW

- ✓ Research in automatic negotiation specially preference elicitation during negotiation.
- ✓ Development of automatic negotiation systems and platforms.

Research Engineer, KDDI Research, Japan (kddi-research.jp)

November 2016 – November 2017

- ✓ Conducting state of the art research in human behavior understanding using machine learning techniques.
- ✓ Mainly using python and C++. Applying pattern recognition and deep learning techniques to time-series data mining.

Data Science Advisor, Xtrava, USA (xtrava.co)

June 2017 – November 2017

- ✓ Developing innovative real-time machine learning systems for biosensor data analysis.
- ✓ Mainly using MATLAB and Python for research
- ✓ Involves embedded system implementations on ARM processors

Technical Executive Officer, Ayonix Inc. Japan (www.ayonix.com)

January 2007 – March 2009

- ✓ Developed the complete first version of Ayofa SDK (A face detection/recognition SDK).
- ✓ Developed a system for automatic segmentation and recognition of road signs from videos.
- ✓ Managed the development team of all products in the company including a face recognition SDK (Ayofa), an embedded system for automatic recognition of road signs for cars, and several applications.
- ✓ Development was mostly done in C and implementations on different embedded systems.

Funded Projects

Theoretical Framework for Interaction Game Design (>10,000,000 Yen)

May 2014 – May 2016

Role Investigator

Sponsor Asian Office of Aerospace Research and Development (AFOSR/AOARD)

Goal To establish a theoretical framework for achieving content-rich, proficient and reliable communication between people and robots

Fluid Imitation Learning (~2,500,000Yen)

Sep. 2012 –Aug. 2014

Role Principle Investigator

Sponsor Japanese Society for Promotion of Science (JSPS)

Goal To design, implement and evaluate an imitation engine for humanoid robots (implemented on a NAO) that achieves fluid imitation by autonomously discovering interesting motions to imitate during its interaction with humans

Results

- ✓ A concept learning framework that works without rewards or supervision
- ✓ A motif discovery algorithm that can discover multiple motifs in a single run two orders of magnitude faster than a naïve extension of the state-of-art MK algorithm
- ✓ A novel imitation engine based on extending the SAX timeseries representation.

Grounded Action Segmentation and Association (1,000,000Yen)

Nov. 2008 – Mar. 2009

Role Principal Investigator

Sponsor Global Center of Excellence (GCOE) Young Researcher Program – Kyoto University

Goal To build and evaluate an unsupervised algorithm for learning interactive behavior both in implicit and explicit nonverbal communication settings.

Results

- ✓ A novel algorithm for constrained motif discovery and its application to learning gesture interface during guided robot navigation.
- ✓ One international conference publication (IEEE IROS 2009).
- ✓ Exhibited in Kyoto University ICT Innovation Fair 2009. Kyoto University.

Natural Listening for a Humanoid Robot (~1,500,000Yen)

Dec. 2007 – Mar. 2008

Role Principal Investigator

Sponsor Global Center of Excellence (GCOE) Young Researcher Program – Kyoto University

Goal Designing and implementing a learning system that can help the robot achieve natural listening behavior in an automatic way.

Results

- ✓ A novel algorithm for learning and adapting hierarchies of dynamical systems representing interaction protocols.
- ✓ Four international conference and journal publications
- ✓ Exhibited in Kyoto University ICT Innovation Fair 2008. Kyoto University, Clock Tower, February 19th 2008.

Yasser F. O. Mohammad

Activities and Memberships

- ✓ Member of the reviewing/editorial board of Applied Intelligence (Springer), New Generation Computing (Springer) and International Journal on Advances in Intelligent Systems.
- ✓ Reviewer for the following international journals (among others):
 - IEEE Transaction on Systems Man and Cybernetics, IEEE Transaction on Industrial Electronics, Neurocomputing, Social Robotics (Springer), AI & Society (Springer), Journal of Intelligent Learning Systems and Applications, Robotics and Autonomous Systems (Elsevier), IETE Technical Review, Computer Methods and Programs in Biomedicine (Elsevier)....
- ✓ Program committee member of the following international conferences (among others):
 - DATA, IEA.AIE, ISIEA, PECON, ACHI, ICCCI, ICAS, KUI, ...
- ✓ Co-chair of the Special Session on Social and Cultural Interaction, 2011th International conference on Granular Computing, Kaohsiung, Taiwan and Chaired pattern recognition session in IEEE ICIA conference 2008.
- ✓ Served as reviewer for the following international journals and conferences: IEEE RO-MAN, IEEE HRI, KUI, ICAS, IROS, etc.
- ✓ Member of the following societies: IEEE Senior Member, IEEE RAS, ISAI, ICASE, etc

Languages

Arabic (native)

English (fluent, TOEFL 667 in 2005, TOEIC 945 in 2017)

Japanese (basics)

Data science skills

- ✓ Over 15 years of experience in developing state of the art machine learning algorithms including Bayesian systems, deep neural networks, and GOFAL.
- ✓ Ten years of experience working with time-series data (e.g. biosensors, speech, video, EEG, ECG, Skeletal data, etc).
- ✓ Comfortable with development using ANSI C, C++, Java, Python, MATLAB, PHP+Laravel on Mac, Linux and Windows machines
- ✓ Daily work with tensorflow, keras, DEAP, etc

References

Prof. Toyooki Nishida

Graduate School of Informatics, Kyoto University, Japan

nishida@i.kyoto-u.ac.jp

Prof. Yasuyuki Sumi

Faculty of Systems Information Science, Future University, Japan

sumi@acm.org

Assoc. Prof. Hung-Hsuan Huang

College of Information Science and Engineering, Ritsumeikan University, Japan

huang@fc.ritsumei.ac.jp

Assoc. Prof. Shogo Okada

Computational Intelligence and System Science, Tokyo Institute of Technology, Japan

okada@ntt.dis.titech.ac.jp

Assoc. Prof. Atsushi Nakazawa

Graduate School of Informatics, Kyoto University, Japan

nakazawa.atsushi@i.kyoto-u.ac.jp

Yasser F. O. Mohammad

Patents / Patent Applications

1. 2019-087106 (Japanese Patent Office) A method for activity recognition

OFFICIAL TITLE: 学習用データの生成装置、判定装置及びプログラム

LINK: <https://www.j-platpat.inpit.go.jp/p0200>

SUMMARY:

A method for training multiple pipelines of convolutional neural networks to achieve high accuracy in activity recognition

2. 2019-061338 (Japanese Patent Office) A method for deep neural network compression

OFFICIAL TITLE: 学習用データの生成装置、判定装置及びプログラム

LINK: <https://www.j-platpat.inpit.go.jp/p0200>

SUMMARY:

A method for compression neural networks (convolutional or otherwise) based on novel application of feature selection techniques.

Representative Publications

Multiagent Systems (Autonomous Negotiation)

Optimal Value of Information Based Elicitation During Negotiation, Yasser Mohammad and Shinji Nakadai, AAMAS 2019, Montreal, Canada pp. 242-250

Yasser Mohammad and Shinji Nakadai, "FastVOI: Ecient Utility Elicitation During Negotiations", PRIMA 2018, October 2018, Tokyo, Japan

Data Mining (Time Series Analysis)

Yasser Mohammad and Toyoaki Nishida, Exact multi-length scale and mean invariant motif discovery, Applied Intelligence, Springer, 44 (2), pp 322–339, March 2016 (DOI 10.1007/s10489-015-0684-8)

Yasser Mohammad and Toyoaki Nishida, On Comparing SSA-based Change Point Discovery Algorithms, IEEE SII 2011, 938-945 ([Best Paper Award](#))

Yasser Mohammad and Toyoaki Nishida, Constrained Motif Discovery in Time Series, New Generation Computing Journal, 27(2009)319-346

Human-Agent Interaction / Human-Robot Interaction

Yasser Mohammad and Toyoaki Nishida, Learning interaction protocols by mimicking: Understanding and reproducing human interactive behavior, Pattern Recognition Letters, (DOI doi:10.1016/j.patrec.2014.11.010)

Yasser Mohammad and Toyoaki Nishida, Learning where to look: Autonomous Development of Gaze Behavior for Natural Human-Robot Interaction, International Journal of Interaction Studies, Springer, , no. 32, pp 419-450, 2013.

Yasser Mohammad and Toyoaki Nishida, Fluid Imitation: Learning from Unplanned Demonstrations, International Journal of Social Robotics, , vol. 4, pp 369-382, 2012, Springer, DOI: 10.1007/s12369-012-0153-z

Yasser Mohammad and Toyoaki Nishida, Robust Learning from Demonstrations using Multidimensional SAX, ICCAS 2014, Korea (September 22-26, 2014), ([Outstanding Paper Award](#))

Yasser Mohammad and Toyoaki Nishida, Learning Interaction Protocols using Augmented Bayesian Networks Applied to Guided Navigation, IROS 2010, Taipei, Taiwan

Yasser Mohammad, Toyoaki Nishida, and Okada Shogo, Unsupervised Simultaneous Learning of Gestures, Actions and their Associations for Human-Robot Interaction, IEEE IROS 2009, MO, USA

Yasser F. O. Mohammad

Publications since 2005 (Partial list)

A. Books

- 1 Yasser Mohammad and Toyoaki Nishida, "Data Mining for Social Robotics", in preparation to appear from Springer in early 2016, ISBN 978-3-319-25230-8 [springer].
- 2 Nishida, A. Nakazawa, Y. Ohmoto, Y. Mohammad, "Converstional Informatics: A data intensive approach with emphasis on Nonverbal Communication", Springer 2014, ISBN 978-4431550396 [springer | amazon] downloaded 873 times in 2015
- 3 Yasser Mohammad, "Imitation in Robotics", in preparation to appear from CRS Press in 2020 (contract signed)

B. Invited Talks

- 1 Yasser Mohammad, "Fluid Imitation": Human-Robot Interaction: From Service to Industry (HRI-SI2018) workshop, RO-MAN 2018, Nanjing, China, August 27th – 31st 2018.
- 2 Yasser Mohammad, "SSA application to motif discovery and causality analysis in robotics", Third International Conference on SSA and its applications, Beijing, China, May 17th-May 20th 2012.

C. International Journals

- 1 Mohammad, Y., Matsumoto, K., & Hoashi, K. (2019). Selecting orientation-insensitive features for activity recognition from accelerometers. *IEICE Transaction on Information and Systems*, 102(1), 104-115.
- 2 Yasser Mohammad, K. Matsumoto, and K. Hoashi, "Primitive activity recognition from short sequences of sensory data", *Applied Intelligence*, Springer, Volume 48, Issue 10, pp 3748–3761, 2018
- 3 Yasser Mohammad and Toyoaki Nishida, Exact multi-length scale and mean invariant motif discovery, *Applied Intelligence*, Springer, 44 (2), pp 322–339, March 2016 (DOI 10.1007/s10489-015-0684-8)
- 4 Yasser Mohammad and Toyoaki Nishida, Why should we imitate robots? Effect of back imitation on judgment of imitation skill, *Social Robotics*, Springer, August 2015, 7(4), pp 497-512 (DOI 10.1007/s12369-015-0282-2)
- 5 Yasser Mohammad and Toyoaki Nishida, Learning interaction protocols by mimicking: Understanding and reproducing human interactive behavior, *Pattern Recognition Letters*, (DOI doi:10.1016/j.patrec.2014.11.010)
- 6 Yasser Mohammad and Toyoaki Nishida, Shift Density Estimation based Approximately Recurring Motif Discovery, *International Journal of Applied Intelligence*, Springer, 42(1), pp 112-134, 2015
- 7 Yasser Mohammad and Toyoaki Nishida, Learning where to look: Autonomous Development of Gaze Behavior for Natural Human-Robot Interaction, *International Journal of Interaction Studies*, Springer, , no. 32, pp 419-450, 2013.
- 8 Yasser Mohammad and Toyoaki Nishida, Fluid Imitation: Learning from Unplanned Demonstrations, *International Journal of Social Robotics*, , vol. 4, pp 369-382, 2012, Springer, DOI: 10.1007/s12369-012-0153-z [pdf]
- 9 Yasser Mohammad and Toyoaki Nishida, Using Physiological Signals to Detect Natural Interactive Behavior, *Applied Intelligence*, 13(1) 79-92, 2010 [pdf]
- 10 Yasser Mohammad and Toyoaki Nishida, A Cross-Platform Robotic Architecture for Autonomous Interactive Robots, *International Journal of Applied Intelligence*, Vol. 32, No. 2, 2010, pp 148-163 [pdf]
- 11 Yasser Mohammad and Toyoaki Nishida, Constrained Motif Discovery in Time Series, *New Generation Computing Journal*, 27(2009)319-346 [pdf]
- 12 Yasser Mohammad and Toyoaki Nishida, Interaction Between Untrained Users and a Miniature Robot in a Collaborative Navigation Controlled Experiment, *International Journal of Information Acquisition*, World Scientific Publishing Company. Vol. 5, No. 4, April 2009, pp 291-308.[pdf]
- 13 Yasser Mohammad and Toyoaki Nishida, Towards Combining Autonomy with Interaction for Social Robots. Accepted for *AI & Society Journal*, Springer, (DOI 10.1007/s00146-009-0196-3), vol. 24, no. 1 (2009), pp 35-53 [pdf]
- 14 Yasser Mohammad and Toyoaki Nishida, Interactive Perception for amplification of intended behavior in complex noisy environment. *AI & Society Journal*, Springer, (DOI 10.1007/s00146-007-0137-y), vol. 23, no. 2, March 2009, pp 167-186 [pdf]
- 15 Toyoaki Nishida, Kazunori Terada, Takashi Tajima, Makoto Hatakeyama, Yoshiyasu Ogasawara, Xu Yong, Yasser F. O. Mohammad, Kateryna Tarasenko, Taku Ohya, and Tatsuya Hiramatsu, "Towards Robots as an Embodied Knowledge Medium", *IEICE Trans. On Inf. & Sys.*,vol E89-D, No 6, June 2006, pp: 1768-1780 [pdf]

D. Book Chapters (Refereed)

- 16 Yasser Mohammad, *Natural HRI*, Wiley handbook of HCI, ed, Kent L. Norman, Jurek Kirakowski, pp. 641-655 [pdf].
- 17 Yasser Mohammad and Toyoaki Nishida, Mining Causal Relationships in Multidimensional Time Series: Combining Constrained Motif Discovery with Granger Causality, in *Intelligent Systems for Knowledge Management*, ed. Ngoc Thanh Nguyen and Edward Szczerbicki, *Studies in Computational Intelligence*, Springer [pdf]
- 18 Yasser Mohammad and Toyoaki Nishida, Modeling Interaction Dynamics during Face-to-Face Interactions, in *Modeling Emotions for Realizing Intelligence*, ed. Toyoaki Nishida, Lakhmi Jain, Colette Faucher, Springer [pdf]

- 19 Yasser Mohammad and Toyoaki Nishida, Learning Interaction Structure using a Hierarchy of Dynamical Systems, In Opportunities and Challenges for Next-Generation Applied Intelligence, edited by Been-Chian Chien and Tzung-Peiong, Studies in Computational Intelligence, Springer, pp. 253-258 [\[pdf\]](#).

E. Major International Conferences/Workshops

- 20 Enrique Areyan Viqueira, Amy Greenwald, Yasser Mohammad, Empirical Mechanism Design under Uncertainty, Uncertainty in AI, 2019 (accepted)
- 21 Yasser Mohammad, Shinji Nakadai, Amy Greenwald, NegMAS: A platform for situated negotiations, Twelfth International Workshop on Agent-based Complex Automated Negotiations (ACAN2019) in conjunction with IJCAI 2019, Macau, August 2019
- 22 Yasser Mohammad and Shinji Nakadai, Optimal Value of Information Based Elicitation During Negotiation, AAMAS 2019, Montreal, Canada pp. 242-250
- 23 Yomna Rayan, Yasser F. O. Mohammad, Samia A. Ali, Multidimensional Permutation Entropy for Constrained Motif Discovery. ACIIDS (1) 2019: 231-243
- 24 Heracleous P., Mohammad Y., Yasuda K., Yoneyama A. (2019, April), Speech emotion recognition using spontaneous children's corpus, CICLing 2019, La Rochelle, France.
- 25 Heracleous, P., Takai, K., Yasuda, K., Mohammad, Y., & Yoneyama, A. (2018, September). Comparative Study on Spoken Language Identification Based on Deep Learning. In 2018 26th European Signal Processing Conference (EUSIPCO) (pp. 2265-2269). IEEE.
- 26 Mohammad, Y., Matsumoto, K., & Hoashi, K. (2018, April). Deep feature learning and selection for activity recognition. In Proceedings of the 33rd Annual ACM Symposium on Applied Computing (pp. 930-939). ACM.
- 27 Yasser Mohammad and Shinji Nakadai, "FastVOI: Ecient Utility Elicitation During Negotiations", PRIMA 2018, October 2018, Tokyo, Japan
- 28 Yasser Mohammad and Shinji Nakadai, "Utility Elicitation During Negotiation with Practical Elicitation Strategies", IEEE International Conference on Systems, Man, and Cybernetics SMC 2018, Miyazaki, Japan
- 29 Heracleous, P., Mohammad, Y., Takai, K., Yasuda, K., & Yoneyama, A. (2018, June). Spoken Language Identification Based on I-vectors and Conditional Random Fields. In 2018 14th International Wireless Communications & Mobile Computing Conference (IWCMC) (pp. 1443-1447). IEEE
- 30 Heracleous P., Mohammad Y., Yasuda K., Yoneyama A., 2018, A Study on Far-field Emotion Recognition Based on Deep Convolutional Neural Networks, CICLing, March 18 to 24, 2018 • Hanoi, Vietnam
- 31 Heracleous P., Mohammad Y., Yasuda K., Yoneyama A., 2018, I-vectors and Deep Convolutional Neural Networks for Language Identification in Clean and Reverberant Environments, CICLing, March 18 to 24, 2018 • Hanoi, Vietnam
- 32 Yasser Mohammad, Kazunori Matsumoto, and Keiichiro Hoashi. A dataset for activity recognition in an unmodified kitchen using smart-watch accelerometers. In Proceedings of the 16th International Conference on Mobile and Ubiquitous Multimedia (MUM '17). ACM, New York, NY, USA, 63-68 (2017).
- 33 Mostafa Hussein, Yasser Mohammad, Samia Ali, Toyoaki Nishida, COLDC: A ROS Package for Continuous Learning from Demonstration: teaching a robot to write, IEEE International Conference on Mechatronics and Automation (ICMA), August 2017, Takamatsu, Japan pp. 651-657, 2017.
- 34 Yasser Mohammad and Toyoaki Nishida, MC²: An integrated toolbox for change, causality, and motif discovery, IEA/AIE, August 2016, Morioka, Japan
- 35 Yasser Mohammad and Toyoaki Nishida, Cultural difference in back-imitation's effect on the perception of robot's imitative performance, IEEE RO-MAN's workshop on Cultural Robotics, Kobe, Japan, August 2015
- 36 Mostafa Hussein, Yasser Mohammed, and Samia A. Ali, Learning From Demonstration Using Variational Bayesian Inference, IEA/AIE 2015, Seoul, Korea
- 37 Yasser Mohammad and Toyoaki Nishida, Simple Incremental GMM Modeling using Multidimensional Piecewise Linear Segmentation for Learning from Demonstration, 3rd International Conference on Industrial Application Engineering (ICIAE), Japan, 2015 ([Best Presentation Award](#))
- 38 Toyoaki Nishida, Masakazu Abe, Takashi Ookaki, Divesh Lala, Sutasinee Thovuttikul, Hengjie Song, Yasser Mohammad, Christian Nitschke, Yoshimasa Ohmoto, Atsushi Nakazawa, Takaaki Shochi, Jean-Luc Rouas, Aurelie Bugeau, Fabien Lotte, Zuheng Ming, Geoffrey Letournel, Marine Guerry and Dominique Fourer, Synthetic Evidential Study as Augmented Collective Thought Process -- Preliminary Report, 7th Asian Conference on Intelligent Information and Database systems (ACIIDS), Indonesia, 2015
- 39 Toyoaki Nishida, Atsushi Nakazawa, Yoshimasa Ohmoto, Christian Nitschke, Yasser Mohammad, Sutasinee Thovuttikul, Divesh Lala, Masakazu Abe, Takashi Ookaki, Synthetic Evidential Study as Primordial Soup of Conversation, 10th International Workshop on Databases in Networked Information Systems (DNIS), Japan 2015
- 40 Yasser Mohammad and Toyoaki Nishida, Robust Learning from Demonstrations using Multidimensional SAX, ICCAS 2014, Korea (September 22-26, 2014), ([Outstanding Paper Award](#))
- 41 Yasser Mohammad and Toyoaki Nishida, Human-like motion of a humanoid in a shadowing task, 5th International Workshop on Collaborative Robots and Human Robot Interaction (CR-HRI 2014), part of the 2014 International Conference on Collaboration Technologies and Systems (CTS 2014), Minneapolis, Minnesota, USA, 2014
- 42 Yasser Mohammad and Toyoaki Nishida, Scale Invariant Multi-length Motif Discovery, The 27th International Conference on Industrial, Engineering and Other Applications of Applied Intelligent Systems ,Kaohsiung, Taiwan, 2014
- 43 Shiho Tatsumi, Yasser Mohammad, Yoshimasa Ohmoto, Toyoaki Nishida, "Detection of Hidden Laughter for Human-agent Interaction", Knowledge-Based and Intelligent Information & Engineering Systems 18th Annual Conference, KES-2014 Gdynia, Poland, September 15-17, 2014
- 44 Divesh Lala, Yasser Mohammad, Toyoaki Nishida, A joint activity theory analysis of body interactions in multiplayer virtual basketball, HCI 2014.
- 45 Yasser Mohammad, Toyoaki Nishida, and Atsushi Nakazawa, Exact Motif Discovery of Length-Range Motifs, The 6th Asian Conference on Intelligent Information and Database Systems (ACIIDS) , Bangkok, Thailand 2014

- 46 Yasser Mohammad and Toyoaki Nishida, Why should we imitate robots?, 13th International Conference on Autonomous Agents and Multiagents Systems (AAMAS), 2014 <extended abstract>
- 47 Yasser Mohammad, oyoaki Nishida, and Atsushi Nakazawa, Arm Pose Copying for Humanoid Robots, IEEE International Conference on Robotics and Biomimetics, ROBIO 2013, Shenzhen, China
- 48 Yasser Mohammad and Toyoaki Nishida, What is human-like motion in a shadowing task, IEEE IROS 2013 Workshop: Towards social humanoid robots: how to make interaction human-like?, Tokyo, Japan
- 49 Yasser Mohammad and Toyoaki Nishida, Tackling the Correspondence Problem: Exact solution for a Humanoid Upper Body, International Conference on Active Media Technology 2013, October, 2013, Maebashi, Japan
- 50 Divesh Lala, Toyoaki Nishida, and Yasser Mohammad, Unsupervised gesture recognition system for learning manipulative actions in virtual basketball, iHAI 2013
- 51 Yasser F. O. Mohammad, Toyoaki Nishida: Approximately Recurring Motif Discovery Using Shift Density Estimation. IEA/AIE 2013: 141-150
- 52 Yasser Mohammad and Toyoaki Nishida, Learning Sensorimotor Concepts Without Reinforcement, AAAI Summer Symposium on Life Long Machine Learning 2013, Stanford, USA
- 53 Yasser Mohammad and Toyoaki Nishida, Unsupervised Discovery of Basic Human Actions from Activity Recording Datasets, IEEE/SICE SII 2012, Kyushu, Japan
- 54 Yasser Mohammad and Toyoaki Nishida, Self-Initiated Imitation Learning Discovering what to imitate, ICCAS 2012, Jeju, South Korea
- 55 Yasser Mohammad and Toyoaki Nishida, G-SteX: Greedy Stem Extension for Free-Length Constrained Motif Discovery, IEA/AIE 2012
- 56 Yasser Mohammad and Toyoaki Nishida, Common Sensorimotor Representation for Self-Initiated Imitation Learning, IEA/AIE 2012
- 57 Yasser Mohammad and Toyoaki Nishida, CPMD: A Matlab Toolbox for Change Point and Constrained Motif Discovery, IEA/AIE 2012
- 58 Yasser Mohammad and Toyoaki Nishida, Discovering Causal Change Relationships Between Processes in Complex Systems, IEEE SII 2011, pp. 12-17 [\[pdf\]](#)
- 59 Yasser Mohammad and Toyoaki Nishida, On Comparing SSA-based Change Point Discovery Algorithms, IEEE SII 2011, 938-945 ([Best Paper Award](#)) [\[pdf\]](#)
- 60 Yasser Mohammad and Toyoaki Nishida, Incremental Gesture Discovery for Interactive Robots, IEEE ROBIO 2010, Tianjin, China [\[pdf\]](#)
- 61 Yasser Mohammad and Toyoaki Nishida, Learning Interaction Protocols using Augmented Bayesian Networks Applied to Guided Navigation, Taipei, Taiwan, IROS 2010 [\[pdf\]](#)
- 62 Yasser Mohammad and Toyoaki Nishida, Learning Spontaneous Nonverbal Behavior using a Three Layers Hierarchy, 10th WSEAS International Conference on Applied Computer Science, Iwate, Japan, October 2010 [\[pdf\]](#)
- 63 Yasser Mohammad and Toyoaki Nishida, Unsupervised Learning of Interactive Behavior for HRI, RSS 2010 Workshop on Learning for Human Robot Interaction Modeling, Zaragoza, Spain, June 2010 [\[pdf\]](#)
- 64 Yasser Mohammad and Toyoaki Nishida, Down-Up-Down Behavior Generation for Interactive Robots, accepted for The Twenty Third International Conference on Industrial, Engineering & Other Applications of Applied Intelligent Systems (IEA/AIE 2010), June 2010, Spain [\[pdf\]](#)
- 65 Yasser Mohammad, Toyoaki Nishida, and Shogo Okada, Autonomous Development of Gaze Control for Natural Human-Robot Interaction, International IUI2010 workshop on Eye Gaze in Intelligent Human Machine Interaction [\[pdf\]](#)
- 66 Yasser Mohammad, Toyoaki Nishida, and Okada Shogo, Unsupervised Simultaneous Learning of Gestures, Actions and their Associations for Human-Robot Interaction, accepted for IEEE IROS 2009 (October 11 to 15, MO, USA) [\[pdf\]](#)
- 67 Yasser Mohammad and Toyoaki Nishida, Robust Singular Spectrum Transform, the Twenty Second International Conference on Industrial, Engineering & Other Applications of Applied Intelligent Systems (IEA/AIE 2009), June 2009, Taiwan [\[pdf\]](#)
- 68 Yasser Mohammad and Toyoaki Nishida, Measuring Naturalness During Close Encounters Using Physiological Signal Processing, accepted as a full paper for the Twenty Second International Conference on Industrial, Engineering & Other Applications of Applied Intelligent Systems (IEA/AIE 2009), June 2009, Taiwan ([Best Paper Award](#)) [\[pdf\]](#)
- 69 Yasser Mohammad and Toyoaki Nishida, Learning Interaction Structure using a Hierarchy of Dynamical Systems, accepted as a short paper for the Twenty Second International Conference on Industrial, Engineering & Other Applications of Applied Intelligent Systems (IEA/AIE 2009), June 2009, Taiwan [\[pdf\]](#)
- 70 Yasser Mohammad, Yong Xu, Kenichi Matsumura, and Toyoaki Nishida, The H³R Explanation Corpus: Human-Human and Base Human-Robot Interaction Dataset, The Fourth International Conference on Intelligent Sensors, Sensor Networks and Information Processing (ISSNIP), Sydney, Australia, December 2008 [\[pdf\]](#)
- 71 Yasser Mohammad and Toyoaki Nishida, Constrained Motif Discovery, International Symposium on Data Mining and Statistical Science, Tokyo, Japan, September 2008, pp 16-19 [\[pdf\]](#)
- 72 Yasser Mohammad and Toyoaki Nishida, Human Adaptation to a Miniature Robot: Precursors of Mutual Adaptation, In Proceedings of IEEE 17th International Symposium on Robot and Human Interactive Communication (IEEE Ro-Man 2008), Munich, Germany, pp 124-129 [\[pdf\]](#)
- 73 Yasser Mohammad and Toyoaki Nishida, Getting Feedback from a Miniature Robot, In Proceedings of IEEE International Conference on Informatics in Automation (ICIA 2008), June 2008, China, 941-947 [\[pdf\]](#)
- 74 Yasser Mohammad, Mutual Intention in Human-Robot Teams (Abstract), In Proceedings of First Egyptian Japanese International Symposium on Science and Technology (EJISST 2008), June 2008, Japan, pp 122-122
- 75 Yasser Mohammad, Toward Learning Interactive Behavior, In Proceedings of IEEE ICRA NEWHRI workshop 2008 (May 2008), Pasadena, USA [\[pdf\]](#)
- 76 Yasser Mohammad and Toyoaki Nishida, Reactive Gaze Control for a Humanoid Robot, In Proceedings of IEEE International Conference on Robotics and Mechatronics (RAM 2008), September 2008, China, pp 47:54 [\[pdf\]](#)
- 77 Yasser Mohammad and Toyoaki Nishida, Toward Agents that can Learn Nonverbal Interactive Behavior, In Proceedings of IAPR Workshop on Cognitive Information Processing, June 2008, Greece, pp 164-169 [\[pdf\]](#)
- 78 Yasser Mohammad and Toyoaki Nishida, A Cross-Platform Robotic Architecture for Autonomous Interactive Robots,

- New Trends in Artificial Intelligence (The Twenty First International Conference on Industrial, Engineering & Other Applications of Applied Intelligent Systems (IEA/AIE 2008), June 2008, Poland), pp 108-117 ([Best Paper Award](#)) [[pdf](#)]
- 79 Yasser Mohammad and Toyoaki Nishida, Intention Through Interaction: Toward Mutual Intention in Real World Interactions, New Trends in Artificial Intelligence (Proceedings of IEA/AIE 2007, Kyoto, Japan), pp: 115:125 [[pdf](#)]
- 80 Yasser Mohammad and Toyoaki Nishida, "TWO LAYERS ACTION INTEGRATION FOR HRI, Action Integration with Attention Focusing for Interactive Robots", In Proceedings of the International Conference on Informatics in Control, Automation & Robotics (ICINCO 2008), Funchal, Maderia, Portugal, May 2008,pp 41-48 [[pdf](#)]
- 81 Yasser Mohammad and Toyoaki Nishida, Natural Listening Robot for AAL Applications, In Proceedings of the first International Workshop on IUI for Ambient Assisted Living (IUI4AAL 2008) in conjunction with the IUI 2008 conference, Canari Islands, Spain [[pdf](#)]
- 82 Yasser Mohammad and Toyoaki Nishida, Natural Listening for a Humanoid Robot, In Proceedings of the International Conference on Informatics Education and Research for Knowledge-Circulating Society 2008 (ICKS 2008), IEEE Press, pp 153- 156 [[pdf](#)]
- 83 Yasser Mohammad and Toyoaki Nishida, TalkBack: Feedback from a Miniature Robot, In AI 2007: Advances in Artificial Intelligence, 20th Australian Joint Conference on Artificial Intelligence, Gold Coast, Australia, December 2007, pp 357-366 [[pdf](#)]
- 84 Yasser Mohammad, Taku Ohya, Tatsuya Hiramatsu, Yasuyuki Sumi, Toyoaki Nishida, Embodiment of Knowledge into the Interaction and Physical Domains Using Robots, In Proceedings of the International Conference on Control, Automation and Systems, 17-20 October 2007, Seoul Korea, pp:737-744 [[pdf](#)]
- 85 Yasser Mohammad and Toyoaki Nishida, A New, HRI Inspired, View of Intention and Intention Communication. In Proceedings of AAAI-07 WS-06 Human Implications of Human-Robot Interactions Workshop, (July 22–July 28, Vancouver, Canada), 2007, pp 21-27 [[pdf](#)]
- 86 Yasser Mohammad and Toyoaki Nishida, EICA: Combining Autonomy with Interaction for Social Robots. In Proceedings of Social Intelligence Development 2007 Workshop (SID07), (July 2–4, Trento), 2007, pp 227-236 [[pdf](#)]
- 87 Yasser Mohammad and Toyoaki Nishida, NaturalDraw: Interactive Perception Based Drawing for Everyone. Proceedings of the 12th international conference on Intelligent user interfaces (IUI2007) (January 27-January 31, Honolulu, Hawaii, USA), 2007, pp: 251-260 [[pdf](#)]
- 88 Yasser Mohammad and Toyoaki Nishida, Interactive Perception for amplification of intended behavior in complex noisy environment. In Proceedings of Social Intelligence Development 2006 Workshop (SID06), (March 24–March 26, Osaka, Japan), 2006, pp: 173 – 187 [[pdf](#)]
- 89 Yasser F. O. Mohammad, Hany M. Harb, Yousef B. Mahdy, Montaser M. Mohammed, "Overcoming Kerberos Structural Limitations", 38th Annual Conference of Statistics, Computer Sciences and Operations Research Proceedings 2003, Cairo, Egypt, pp: 172-187 [[pdf](#)]

F. Other publications/talks

- 90 Y. Mohammad, "Analysis and commentary to PRIANAC and ANAC", Pacific Rim International Automated Negotiation Agents Competition (PRIANAC) in conjunction with PRIMA 2018, Tokyo, Japan.
- 91 Heracleous P., Mohammad Y., Yoneyama A., 1-R-50 Feature Selection Using Deep Neural Networks for Speech Emotion Recognition, Acoustic Society of Japan Annual Meeting 2018
- 92 Yasser Mohammad, Mutual Intention in Human-Robot Teams, In Proceedings of First Egyptian Japanese International Symposium on Science and Technology (EJISST 2008), pp 122-122, June 2008