

CURRICULUM VITAE

MOHAMED HASAN

Assistant Professor

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RESEARCH WEB PAGES:

Research gate: https://www.researchgate.net/profile/Mohamed_Hasan4

Academia: <https://benha.academia.edu/MohamedHasan>

Google scholar: <http://scholar.google.com/citations?user=9CHVP1oAAAAJ&hl=en>

RESEARCH INTERESTS

- Visual SLAM
- Probabilistic Robotics
- Computer Vision
- Image Processing
- Machine Learning
- Flying Robots
- Intelligent Control Systems
- Nonlinear Control Systems

EDUCATION

- **Ph.D Mechatronics and Robotics**
2010 –2013: Egypt-Japan University of Science and Technology, E-JUST.
 - Joint program with Osaka University, Japan.
 - Research Area: Visual SLAM.
 - Thesis Title: Hierarchical Object-based Visual SLAM System for Indoor Mobile Robot Navigation.

- **M.Sc. Electrical Engineering**
2003 – 2007: Benha University, Egypt.
 - Research Area: Control of Flying Robots.
 - Thesis Title: Aviation Control System for a Flying Robot.
- **B.Sc. Electrical Engineering**
1996 – 2001: Benha University, Egypt.

EMPLOYMENT HISTORY

University/Company	Duration	Position	Department
Egyptian Ministry of Communications & Information Technology - Information Technology Institute (ITI)	2015-Present	Part-Time Lecturer	Mechatronics Engineering
French University in Egypt (UFE)	2014- Present	Part-Time Lecturer	Electrical Engineering
British University in Egypt (BUE)	2014- Present	Part-Time Lecturer	Mechanical Engineering
Benha University, Egypt	2013- Present	Assistant Professor	Electrical Engineering
Osaka University, Japan	2012-2013	Researcher	Media Integrated Communication Laboratory
EJUST	2010-2013	PhD Student	Mechatronics and Robotics
Benha University, Egypt	2007-2010	Lecturer Assistant	Electrical Engineering
Benha University, Egypt	2003-2007	Teaching Assistant	Electrical Engineering

TECHNICAL SKILLS

- Solid background in mathematics, statistics and physics.
- Excellent programming skills (C++)
- Simulation Tools: OCTAVE, MATLAB and SIMULINK.
- Design and development of embedded systems.

TEACHING EXPERIENCE

- Advanced Electronic Measurements.
- Sensors, Measurement and Data Acquisition.
- Robotics Engineering.
- Artificial Intelligence for Engineers.
- Embedded Systems Design.
- Automatic Control Engineering.
- Simulation of Dynamic Systems.
- Applied Microcontroller Programming.
- Logic Control Systems and PLC's.
- Advanced Electronics Systems.
- Digital Electronics Design.
- Industrial Electronics.
- Electrical Testing.

POSTGRADUATE COURSES (E-JUST 2010-2011)

- Advanced Mathematics and Statistics.
- Computer Vision.
- Intelligent Control Systems.
- Neural Networks and Fuzzy Systems.
- Seminars on Machine Learning.
- Advanced Robotics.

CONSULTATIONS

- TOSHIBA AL-ARABY Company, Egypt, 2008-2009.
- ETQAN for Smart Solutions Company, Egypt, 2008-2010.

HONORS AND AWARDS

- One-year research fellowship at Babaguchi laboratory, Osaka University, Japan, 2012.
- Egyptian Government Research Scholarship, 2010 (*Three Years-PhD Scholarship*).
- Prize of the best design of robot, given to our faculty team, ROBOCON Egypt, 2004.
- Distinguished Student Award, Benha University, 2001, (for being the first of 90 students of my graduation class).
- Distinguished Student Award, Benha governorate, 1996, (for being the first of students of my Secondary (high) school).

LANGUAGES

- Arabic (Mother Tongue). - English (TOEFL IBT 103).
- German (Intermediate). - Japanese (Beginner).

PUBLICATIONS

- **Research Reports**

- M. Hasan, "Development of A Four-Rotors Flying Robot", April 2009, Benha University.

- **Refereed Journals**

1. **M. Hasan**, A. Abouelsoud and H. Abdelkader, "A Robust Nonlinear Controller for Autonomous Helicopter Landing", Scientific Bulletin, Faculty of Engineering, Ain Shams University, Vol. 42, No. 3, 30 September, 2007.
2. **M. Hasan**, N. Babaguchi, M. Abdellatif and A. Shoukry, "Hierarchical Object-Based Maps for Mobile Robot Navigation," *Submitted*.
3. **M. Hasan** and M. Abdellatif, "Closed-Form Depth Computing for Monocular Visual SLAM," *Submitted*.
4. **M. Hasan**, "Bottom-Up Top-Down Hierarchical Detection of Rectangles in Images," *Submitted*.

- **Conference Papers**

1. **M. Hasan** and M. Abdellatif, "Experimental Verification of Direct Depth Computing Technique for Monocular Visual SLAM Systems," International Conference on Innovative Engineering Systems (ICIES), pp. 142-147, Egypt, 2012.
2. **M. Hasan** and M. Abdellatif, Fast Template Matching of Objects for Visual SLAM, the International Conference on Intelligent Robotics and Applications (ICIRA 2012), Montreal, Canada (Selected and published in Lecture Notes in Artificial Intelligence, LNAI 7508, pp. 473-483, 2012).
3. **M. Hasan** and M. Abdellatif, Monocular Depth from Motion Using a New Closed-Form Solution, the International Conference on Intelligent Robotics and Applications (ICIRA 2012), Montreal, Canada (Selected and published in Lecture Notes in Artificial Intelligence, LNAI 7508, pp. 484-493, 2012).

REFERENCES

1. Prof. Noborou Babaguchi, Osaka University, Japan
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2. Prof. Amin Shoukry, Egypt-Japan University of Science and Technology, E-JUST, Egypt
(amin.shoukry@ejust.edu.eg).
3. Prof. Mohamed Abdellatif, Future University, Egypt
(malatif40@gmail.com).
4. Assoc. Prof. Ayman Abbas, The British University in Egypt
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