

Ahmed Saad Ali Mohammed

Assistant Professor in the Mechanical Engineering Department, Faculty of Engineering, Assiut University, Assiut, Egypt, 71516

1- Personal Data:

Name:	Ahmed Saad Ali Mohammed	
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Nationality:	Egyptian	
Date of Birth:	March 28, 1979	
Home Address:	Qift, Qena, Egypt	
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Military Service:	Done	
Language:	Arabic, Native language. English, First foreign language. Russian, second foreign language.	
Current contact address	Assistant Professor Mechanical Engineering Department, Assiut University, 71516 Assiut, Egypt	
Google scholar	https://scholar.google.com.eg/citations?hl=ar&user=jTmPpAwAAAAJ&view_op=list_works	

2- Education:

<p>PhD in Mechatronics Engineering, Southern Federal University, Russia (2012) PhD. thesis title: “Control of ground robots in nondeterministic environments with obstacles of a practical class”</p>
<p>M. Sc. in Mechanical Engineering, University of Assiut (2007). M.Sc. thesis title: “Haptic Force Display System for Virtual- Reality Surgery Simulators”</p>
<p>B. Sc. in mechanical Engineering, Assiut University (2001) Graduation project:” Water level/flow control system using PLC”</p>

3- Employment

Demonstrator Mechanical Engineering Department, Assiut University, Egypt	2002- 2007
Assistant lecturer Mechanical Engineering Department, Assiut University, Egypt	2007 - 2011
Manager of the R&D department at the Integrated Technology Transfer Unit (ITTU) at Assiut University	2013 - 2016
Assistant Professor , Mechanical Engineering Department, Assiut University, Egypt.	2012 - Present

4- Courses Taught:

Under graduate courses

Automatic control	: Assiut University, Egypt
Programmable Logic Controllers PLC	: Assiut University, Egypt
Mechatronics System Design	: Assiut University, Egypt
Object Oriented Programming C++	: Assiut University, Egypt
Mechatronics Laboratories	: Assiut University, Egypt
Mechanical Engineering Lab.	: Assiut University, Egypt
Industrial Process Control	: Assiut University, Egypt
Industrial Process Control	: El Minia University, Egypt

Graduate courses:

Advanced topics in Mechatronics	: Assiut University, Egypt
Automotive and Mechatronics	: Assiut University, Egypt
Mobile robot	: Assiut University, Egypt

5- Research Interests

My principal research interests lie in the field of:

- Mechatronics system
- Automatic control
- Mobile robot
- Electro-Hydraulic System.
- Industrial Process control

6- Publications:

Journal Papers

1. Ghazaly, N.M, Ahmed, A.E.-N.S, Ahmed S.Ali. and El-Jaber, G.T.A, H_{∞} control of active suspension system for a quarter car model, International Journal of Vehicle Structures and Systems Vol 8, No 1, pp. 35-40, 2016.
2. R. M. Mostafa, S. A. Ahmed, and A. Nassr, "Power Regulation for Variable Speed Variable Pitch HAWT Pitch and Torque Control Strategy," Res. J. Appl. Sci. Eng. Technol., vol. 12, no. 3, p. 366–374., 2016.
3. A. K. M. Hassan, H. Hasan-Ali, S. R. Demetry, R. Refaat, and S. A. Ahmed, "Early sheath removal after percutaneous coronary intervention using Assiut Femoral Compression Device is feasible and safe. Results of a randomized controlled trial," Egypt. Hear. J., vol. 67, no. 1, pp. 69–77, 2015.
4. A. K. M. Hassan, H. Hasan-Ali, and S. A. Ahmed, "A new femoral compression device compared with manual compression for bleeding control after coronary diagnostic catheterizations," Egypt. Hear. J., vol. 66, no. 3, pp. 233–239, 2014.
5. M. A. Hussein, S. A. Ahmed, F. A. Elmisery, and R. Mostafa, "Motion Control of Robot by using Kinect Sensor," Res. J. Appl. Sci. Eng. Technol., vol. 8, no. 11, pp. 1384–1388, 2014.
6. Али А.С. Алгоритм управления движением мобильного робота в неопределенной среде // Изв. КБНЦ РАН, № 1(39). 2011.С. 9 – 14.
7. Пшихопов В.Х., Али А.С. Обход локальных минимумов функции ошибки при движении робота в неопределенной среде // Известия высших учебных заведений. Северо-Кавказский регион. Технические науки. № 6(164). 2011. С. 26 – 31.
8. Али А.С., Федоренко Р.В., Крухмалев В.А, " Система управления автономным колесным роботом Скиф-3 для априори неформализованных сред ", Известия ЮФУ. Технические науки. Тематический выпуск «Перспективные системы и задачи управления». – №3(104). – Таганрог: Изд-во ТТИЮФУ, С. 132–143, 2010.

Conferences and workshops papers

1. Ibrahim, Khalil Ghazaly, Nouby and Ahmed S.Ali. Simulation Control of an Active Suspension System Using Fuzzy control & H_{∞} Control Methods, The 16th International Conference on Control, Automation and Systems (HICO, Gyeongju, South Korea October 16~19, 2016)
2. Ibrahim, Khalil, and Ahmed S. Ali, "Development a force feedback control of robot manipulator." In Control, Automation and Robotics (ICCAR), 2016 ,2nd International Conference on, pp. 34-37. IEEE, 2016.
3. V. K. Pshikhopov and S. A. Ahmed, "Hybrid motion control of a mobile robot in dynamic environments," 2011 IEEE Int. Conf. Mechatronics, pp. 540–545, 2011.
4. S. A. Ahmed and Pshikhopov v Kh, "Motion control of Differential Wheeled Mobile Robot in Unknown Environments," in fifth Assiut University Int. Conf. on Mech. Eng. Advanced Tech for indust.prod., 2010, vol. 15, pp. 335–342.
5. Али А.С. Оценка методов построения траекторий автономного мобильного робота // Современные технологии в задачах управления, автоматизации и обработки информации: Труды IXX Международного научно-технического семинара. 2010. Алушта, С. 24.
6. Пшихопов В.Х., Али А.С. Управление мобильными роботами в неопределенной среде с близко расположенными выпуклыми препятствиями // Труды научно-технической конференции «Искусственный интеллект и управление» (ИИУ-2011). 2011. С. 186 – 189.
7. Пшихопов В.Х., Али А.С. Обход локальных минимумов функции ошибки на основе позиционно-траекторного управления при движении робота в неопределенной среде // Всероссийская научная школа «Микроэлектронные информационно-управляющие системы и комплексы» Новочеркасск, 2011. С. 175– 179.
8. Pshikhopov V.Kh., Ahmed S. Ali. Hybrid control algorithm of mobile robot motion in unknown environments // Труды международной конференции «Автоматизация управления и интеллектуальные системы и среды» (АУИСС– 2010). С. 31– 34.

9. S. A. Ahmed, M. E. H. Eltaib, and A. A. Abo-ismail, "Mechatronics Force Display system for Virtual Surgery Simulator," in International Workshop on Mechatronics Education, 2006.
- 10.S. A. Ahmed, M. E. H. Eltaib, and A. A. Abo-ismail, "Haptic Force Display System for Virtual Reality," in Fourth Assiut University Int. Conf. on Mech. Eng. Advanced Tech for indust.prod., 2006, vol. 14, pp. 497–503.

7- Supervisory Experience

Graduate Students (finished under my supervision.)

1. Abdallah Farrage Abd EL-Rahiem (*M.Sc Candidate, Mechanical Engineering*): **"Experimental Evaluation of an Adaptive Fuzzy Control Scheme for Robotic manipulators". Assiut University 2011-2014**
2. Mohammed Ali Hussein (*M.Sc Candidate, Mechanical Engineering*): **"Motion Control of Robot by Using Kinect Sensor" ". Beni-Suef University 2010-2014**
3. Mahmoud Assem Hussein (*M.Sc Candidate, Mechanical Engineering*): **"Haptic control development of robotic arm". 2011-2014**
4. Rana Mamdouh Mostafa (*M.Sc Candidate, Mechanical Engineering*): **"Pitch and torque control for variable speed horizontal axis wind turbine". Assiut University 2013- 2016**
5. Abd El-Nasser Sharkawy Ahmed (*M.Sc Candidate, Mechanical Engineering*): **"Intelligent Control on Active Suspension System" South Valley University 2013-2016**

8- Published books:

- Robot control in the medium with obstructions as part of "Control instrumentation and automatics: service and repair" (in Russian) ISSN 2074-7969, 2014

9- Research Projects

S	Project Title	Funding Organization	Project End Date	Budget	Role in Project
1	Strengthening of the research and educational capacity on advanced technology of Assiut University	Ministry of Education in Korea	2016-2018 First phase	400,000 \$	Member (Industry-University cooperation research)
2	Design and manufacturing of double decker car of passenger train	ASRT	2015-2016	3000,000 EGP	PI

3	Design, development and manufacturing of floating fish feed extruder complete production plant)	ASRT	2015-2016	7000,000 EGP	Control engineering
4	Deeping the local component of Anhydrous ammonia injecting machine to soil	funded by the ASRT	2014-2015	300,000 EGP	PI
5	Empowering the Bottom of the Pyramid – BOP via The Egyptian Social Innovation Cluster, As partner with Misr El Kheir Foundation	RDI	2014-2016	100,000 Euro	PI
6	Design, develop and manufacture mobile fab. Lab. (Tok-Tok fab, lab.) as an mobile industrial and innovation training unit	funded by the ASRT	2013-2014	700,000 EGP	Mechatronic engineering
7	Development of Mechatronics Courses Undergraduate Project (DMCUP) in Faculty of Engineering, Assiut University.	HEEPF	2003-2004	1000,000 EGP	Lab engineering

10- Research activities as a reviewer:

#	Journal/Conference	Remarks
1	Asian Journal of Control	IF = 1.4
2	Journal of Engineering Science	
3	Assiut University Int. Conf. on Mech. Eng. Advanced Tech for indust.prod	

11- Selected Graduations students Projects

S	Project Title	Funding Organization	Project End Date	Role In Project
1	PID Water level control using PLC based on SCADA system	Assiut University	2017	Supervisor
2	Automatic Cut and Strip Machine	ASRT	2017	Supervisor
3	Autonomous Navigation for Flying Robots	Assiut University	2016	Supervisor
4	Two Wheel Self-Balancing Robot	Assiut University	2016	Supervisor
5	CNC with Plasma cutting tools	Assiut University	2015	Supervisor
6	Dosing and Mixing System Using PLC and SCADA by HMI technology	Assiut University	2014	Supervisor
7	Design And Manufacturing Of A 3kw	ASRT	2013	Supervisor

	Vertical Wind Turbine designed to suit the Egyptian climate			
8	Design and Production of Numerical Controlled Dynamic Balancing Machine”	ASRT	2012	Supervisor
9	Supervisor in Robocon 2007-2008	Assiut University	-2006 2008	Supervisor

12- Awards and Achievements

Certificate of Appreciation Egyptian engineering day	Smart village conference center	2016
The 2 nd Cairo International of Exhibition and Innovation	Cairo	2015
The First Egypt-Japan Workshop on Practical Education for Mechatronics and Robotics, Egypt-Japan University for Science and Technology, E-JUST.	Alexandria, Egypt.	2014
The 1 st Cairo International of Exhibition and Innovation	Cairo	2014
Effective participation and whole activities in the scientific sessions on the conference of 4th Assiut University international conference on mechanical engineering for industrial production,	Assiut University	2006.
Syndicate of Egyptian Engineers Award for first Class Honor	Egyptian Engineering Syndicate	2002.
Honor Degree for First Class Position	Assiut University	2001
The Prize of Prof. Dr/Fathi Abdallah Abd Elhafiz	Assiut University	2000
The Prize of Prof. Dr. Mohamed Ramadan El-Sadik (2nd year Mech.)	Assiut University	1999.

13- Computer skills:

Packages: PLC, SCADA Programming (Hardware, Software)
 Microcontroller programming (PIC, AVR, Arduino)
 LabVIEW (Instrumentation and Control System)
 MATLAB (Control System Design)

Automation studio (Hydraulic systems)

MS office and Linux operating system.

Languages: C++, ROS QNX Momentics ide.

14- Training, Extra Studies& Knowledge

- Visiting Korea as a member of a joint research work between faculty of engineering Assiut university and Korea University of technology and education, Republic of Korea.
- NI Academic Day 2017' in New Cairo, Egypt.
- Juhayna Food Industries -Assiut (Visitor 2014,2015)
- Fish Food Production Factory, Elmanzala (3 months,2014)
- Elglaa factory of milk production, as a maintenance engineer, (2002-2004).
- I had been trained in The Sugar factory in Dishna, (summer, 1999).
- I had been trained in Aluminum factory in nag- hamadi-Qena, (summer, 1998)

15- Consultation

- Consultant of the science and technology committee at Assiut University
- Research and Development manager in integrated technology transfer unit at Assiut University

16- Technical Experience:

- PLC Trainer from Assiut University to Samsung Electronic Egypt and LG Electronic Egypt as one activities of cooperation project between Assiut University and KOREATECH university, South Korea,2017
- Design and manufacture of railway double-decker train carriagewith cooperation with SEMAF Egypt, 2015
- Developing and updating control systems in Fish feed production factory at el Manzala,2015
- Manufacture and development of small vertical wind turbines for the use of the home to be suitable for the conditions of the Egyptian,2014
- 20012–now Industrial Control Instructor, Faculty of Engineering at Assiut University, Egypt. Worked as a PLC programmer and Trainer at Automation Lab.

17- Professional Membership;

- Syndicate of Egyptian Engineers

أنشطة جامعية:

أولاً: المشاركة في أعمال الجودة و إعداد الكلية للاعتماد:

عملت كمنسق لبرنامج هندسة الميكاترونيات والروبوتات بقسم الهندسة الميكانيكية لإعداد ملف كلية الهندسة للتقدم للإعتماد من خلال تنفيذ المهام التالية:

- تحديد نواتج التعليم المستهدفة لكل مقرر يدرس بالقسم.
- إقتراح طرق التدريس والتقييم الملائمة لكل مقرر يدرس بالقسم.
- مساعدة أعضاء هيئة التدريس في ملئ نماذج توصيف المقرر وتقرير المقرر.
- مراجعة مصفوفة البرامج المختلفة في ضوء نواتج التعليم المستهدفة من كل مقرر.

ثانياً: المشاركة في عضوية اللجان بكلية الهندسة:

- عضو لجنة لوضع تصور لللائحة جديدة لقسم الهندسة الميكانيكية ووضع الخطوط العريضة لللائحة (يوليو 2016 م)
- عضو اللجنة الفنية للأنشطة العلمية بكلية الهندسة
- عضو لجنة المختبرات والأجهزة العلمية بكلية الهندسة (من 1 أكتوبر 2016 م حتى الآن)
- عضو المكتب الإستشاري بكلية الهندسة: شاركت في عدد من العمليات الاستشارية

ثالثاً: الاشراف على معامل الميكاترونيات والروبوتات بكلية الهندسة

رابعا: الاشراف على نادى العلوم والتكنولوجيا بجامعة اسيوط