

Curriculum Vitae

Name: Dr Ali Hussein Al-Timemy

Specialization: Biomedical Engineering/ Biomedical Signal Processing

Languages: Fluent in Arabic and English speaking, reading and writing

Contact details: Email: ali.altimemy@kecbu.uobaghdad.edu.iq

Mobile no.: +964 7901832546

ResearchGate page:

https://www.researchgate.net/profile/Ali_Al-Timemy

Google Scholar Citations:

<https://scholar.google.co.uk/citations?user=7O3wz-AAAAJ&hl=en>

Academic Qualifications,

No.	Certificate	College	University	Country	Year
1	PhD	Computing and Mathematics	Plymouth	UK	2013
2	MSc	Engineering	Nahrain	Iraq	2006
3	BSc	Engineering	Nahrain	Iraq	2003

Academic Career

No.	Position	Faculty	University/ Country	Dated (from - to)
1	Assistant professor	Al-Khwarizmi College of Engineering	Baghdad/Iraq	2017-till now
2	Fulbright Visiting Scholar	Engineering	University of Delaware/USA	June-Sept. 2018
3	Deputy head of the Biomedical Engineering Department	Al-Khwarizmi College of Engineering	Baghdad/Iraq	2016-2019
4	PhD student	Computing and Mathematics	Plymouth/UK	2009-2013
5	Lecturer	Al-Khwarizmi College of Engineering	Baghdad/Iraq	2009-2017
6	Assistant lecturer	Al-Khwarizmi College of Engineering	Baghdad/Iraq	2006-2009
7	Research assistant	College of Engineering	Nahrain/Iraq	2004-2005

Selected Publications

- O.W. Samuel, M. G. Asogbon, Y. Geng, Y., **A H Al-Timemy**, S. Pirbhulal, N. Ji, S. Chen, P. Fang, and G. Li, Intelligent EMG Pattern Recognition Control Method for Upper-Limb Multifunctional Prostheses: Advances, Current Challenges, and Future Prospects. *IEEE Access*, 7, pp.10150-10165, 2019
- **A H Al-Timemy**, G Bugmann, J Escudero, Adaptive Windowing Framework for Surface Electromyogram-Based Pattern Recognition System for Transradial Amputees, *Sensors* 18 (8), 2402
- A Fernández, **A H Al-Timemy**, F Ferre, G Rubio, J Escudero, Complexity analysis of spontaneous brain activity in mood disorders: A magnetoencephalography study of bipolar disorder and major depression, *Comprehensive psychiatry* 84, 112-117, 2018
- RN Khushaba, **A H Al-Timemy**, A Al-Ani, A Al-Jumaily, A Framework of Temporal-Spatial Descriptors based Feature Extraction for Improved Myoelectric Pattern Recognition, *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, 25(10), 1821-1831, 2017.
- RN Khushaba, **A H Al-Timemy**, S Kodagoda, K Nazarpour, Combined influence of forearm orientation and muscular contraction on EMG pattern recognition, *Expert Systems with Applications* 61, 154-161, 2016
- GR Naik, **A H Al-Timemy**, HT Nguyen, Transradial amputee gesture classification using an optimal number of sEMG sensors: an approach using ICA clustering, *IEEE Transactions on Neural Systems and Rehabilitation Engineering* 24 (8), 2016
- **A H Al-Timemy**, RN Khushaba, G Bugmann, J Escudero, Improving the performance against force variation of EMG controlled multifunctional upper-limb prostheses for transradial amputees, *IEEE Transactions on Neural Systems and Rehabilitation Engineering* 24 (6), 2016
- **A. H. Al-Timemy**, G. Bugmann, J. Escudero, and N. Outram, "Classification of finger movements for the dexterous hand prosthesis control with surface electromyography," *IEEE Journal Biomed. Heal. Informatics*, vol. 17, no. 3, 2013.
- K. Nazarpour, **A. H. Al-Timemy**, G. Bugmann, and A. Jackson, "A note on the probability distribution function of the surface electromyogram signal," *Brain Res. Bull.*, vol. 90, pp. 88–91, 2013.

Research Collaborations

No.	Name of the	University	Country
1	Dr Javier Escudero	University of Edinburgh	UK
2	Dr Rami Khushaba	University of Technology	Australia
3	Prof. Kosai Raoof	University of Maine	France
4	Dr Guido Bugmann	University of Plymouth	UK
5	Dr Fabrizio Sergi	University of Delaware	USA
6	Dr Ganesh Naik	Western Sydney University	Australia
7	Dr Oluwarotimi W. Samuel	Chinese Academy of Sciences	China
8	Dr Musa Wali	Middle Technical University	Iraq
9	D Kianoush Nazarpour	Newcastle University	UK

No.	Name of the	University	Country
10	Dr Alberto Fernández	Complutense University	Spain
11	Dr Angkoon Phinyomark	University of New Brunswick	Canada

■ Thesis Supervision:

No.	Research Title	Branch	M.Sc. / PhD.	Year
1	Investigation of dextrous control of upper limb prostheses with wearable EMG	Biomedical Engineering	MSc.	2019
2	Novel Voice control of Upper limb prostheses	Techniques of Medical equipment	MSc.	2019
3	Development of EMG Measurement System for the Control of Upper Limb Prostheses for High-Level Amputee	Techniques of Medical equipment	MSc.	2019
4	Classification of muscle diseases with machine learning and EMG signals	Biomedical Engineering	MSc.	2016
5	Design and Implementation of Prosthetic Hand with Intrinsic Design controlled with sEMG	Mechatronics Engineering	MSc.	2015

■ University Teaching:

No.	Branch	Material	Year
1	Biomedical Engineering	Biomedical Signal processing, Medical Measurements	2014-2016
2	Biomedical Engineering	Biomedical Signal processing	2016-till now
3	Biomedical Engineering	Medical Imaging	2007, 2008
4	Biomedical Engineering	Clinical Engineering	2007, 2008 and 2014

■ Conferences Participation

No.	Conference Title	Year	Place
1	Fourth International Conference on Advances in Biomedical Engineering(ICABM)	2017	Beirut
2	The third Middle East Conference in Biomedical Engineering	2016	Beirut
3	The Annual International Conference for the Society of Biomedical Engineering, (EMBC)	2015	Milano
4	The 11th Annual Workshop on Computational Intelligence (UKCI), ,	2011	Manchester

No.	Conference Title	Year	Place
5	The Annual International Conference for the Society of Biomedical Engineering, (EMBC)	2013	Osaka
6	Towards Autonomous Robotic Systems Conference (TAROS 2010)	2010	Plymouth
7	The International Conference on Applied Bionics and Biomechanics (ICABB), Venice	2010	Venice

Awards and Certificates of Appreciation:

No.	Name of Awards or Certificate	Donor	Year
1	Visiting research follow	University of Maine, France	March 2019
2	Letter of Appreciation	Minster of Higher Education and Scientific Research	2019
3	Fulbright Visiting Scholar 2018	Fulbright organization and University of Delaware	2018
4	Letter of Appreciation	Minster of Higher Education and Scientific Research	2017
5	Letter of Appreciation	President of Baghdad University	2017
6	Letter of Appreciation	Dean of Al-Khawarizmi College of Engineering	2017
7	Letter of Appreciation	Dean of Al-Khawarizmi College of Engineering	2015
8	Letter of Appreciation	Dean of Al-Khawarizmi College of Engineering	2014
9	Letter of Appreciation	Minster of Higher Education and Scientific Research	2014
10	Letter of Appreciation	Dean of Al-Khawarizmi College of Engineering	2014
11	Best Poster Award	The 2nd Postgraduate Conference for Computing: Applications and Theory (PCCAT),	2011
12	Letter of Appreciation	President of Baghdad University	2008

Full list of publications

- GK Sharba, MK Wali, **A H Al-Timemy**, Real-time classification of shoulder girdle motions for multifunctional prosthetic hand control: A preliminary study, The International journal of artificial organs, 42 (9), 2019
- O.W. Samuel, M. G. Asogbon, Y. Geng, Y., **A H Al-Timemy**, S. Pirbhulal, N. Ji, S. Chen, P. Fang, and G. Li, Intelligent EMG Pattern Recognition Control Method for Upper-Limb

Multifunctional Prostheses: Advances, Current Challenges, and Future Prospects. IEEE Access, 7, pp.10150-10165, 2019

- E. Campbell, A. Phinyomark, **A H Al-Timemy**, R. Khushaba, G. Petri and E. Scheme, Differences in EMG Feature Space between Able-Bodied and Amputee Subjects for Myoelectric Control. In 2019 9th International IEEE/EMBS Conference on Neural Engineering (NER), pp. 33-36, 2019
- **A H Al-Timemy**, G Bugmann, J Escudero, Adaptive Windowing Framework for Surface Electromyogram-Based Pattern Recognition System for Transradial Amputees, Sensors 18 (8), 2402
- A Fernández, **A H Al-Timemy**, F Ferre, G Rubio, J Escudero, Complexity analysis of spontaneous brain activity in mood disorders: A magnetoencephalography study of bipolar disorder and major depression, Comprehensive psychiatry 84, 112-117, 2018
- RN Khushaba, **A H Al-Timemy**, A Al-Ani, A Al-Jumaily, A Framework of Temporal-Spatial Descriptors based Feature Extraction for Improved Myoelectric Pattern Recognition, IEEE Transactions on Neural Systems and Rehabilitation Engineering, 25(10), 1821-1831, 2017.
- **A H Al-Timemy**, Boosting-Based Decision Tree for Improved Screening of Vibroarthrographic Signals, Proceedings of Fourth International Conference on Advances in Biomedical Engineering, 2017.
- **A H Al-Timemy**, An investigation of feature combinations of time-domain power spectral descriptors feature extraction for myoelectric control of hand prostheses, Proceedings of Fourth International Conference on Advances in Biomedical Engineering, 2017.
- RN Khushaba, A Al-Ani, **A Al-Timemy**, A Al-Jumaily, A fusion of time-domain descriptors for improved myoelectric hand control, Computational Intelligence (SSCI), IEEE Symposium Series on, 1-6, 2016
- RN Khushaba, **A Al-Timemy**, S Kodagoda, K Nazarpour, Combined influence of forearm orientation and muscular contraction on EMG pattern recognition, Expert Systems with Applications 61, 154-161, 2016
- **A H Al-Timemy**, RN Khushaba, J Escudero, A comparison of post-processing techniques on the performance of EMG based pattern recognition system for the transradial amputees, Biomedical Engineering (MECBME), 2016 3rd Middle East Conference on, 46-49, 2016
- **A H Al-Timemy**, RN Khushaba, J Escudero, Selecting the optimal movement subset with different pattern recognition based EMG control algorithms, IEEE 38th Annual Engineering in Medicine and Biology Society (EMBC), 2016
- RN Khushaba, **A Al-Timemy**, A Al-Ani, A Al-Jumaily, Myoelectric feature extraction using temporal-spatial descriptors for multifunction prosthetic hand control, IEEE 38th Annual Engineering in Medicine and Biology Society (EMBC), 2016.
- GR Naik, **A H Al-Timemy**, HT Nguyen, Transradial amputee gesture classification using an optimal number of sEMG sensors: an approach using ICA clustering, IEEE Transactions on Neural Systems and Rehabilitation Engineering 24 (8), 2016
- **A H Al-Timemy**, RN Khushaba, G Bugmann, J Escudero, Improving the performance against force variation of EMG controlled multifunctional upper-limb prostheses for transradial amputees, IEEE Transactions on Neural Systems and Rehabilitation Engineering 24 (6), 2016
- RN Khushaba, L Greenacre, **A H Al-Timemy**, A Al-Jumaily, Event-related Potentials of Consumer Preferences, Procedia Computer Science 76, 68-73, 2015
- RN Khushaba, A Al-Timemy, S Kodagoda, Influence of multiple dynamic factors on the performance of myoelectric pattern recognition, 37th Annual IEEE Engineering in Medicine and Biology Society (EMBC), 2015

- **A H Al-Timemy**, A Brochard, G Bugmann, J Escudero, Development of a Highly Dexterous Robotic Hand with Independent Finger Movements for Amputee Training, Lecture Notes in Computer Science, 291-293, 2014
- **A H Al-Timemy**, G. Bugmann, J. Escudero, and N. Outram, "Classification of finger movements for the dexterous hand prosthesis control with surface electromyography," IEEE J. Biomed. Heal. Informatics, vol. 17, no. 3, 2013.
- K. Nazarpour, **A. H. Al-Timemy**, G. Bugmann, and A. Jackson, "A note on the probability distribution function of the surface electromyogram signal," Brain Res. Bull., vol. 90, pp. 88–91, 2013.
- **A H Al-Timemy**, A Fernandez, J Escudero, Spectral analysis of resting state magnetoencephalogram activity in patients with bipolar disorder, 36th Annual International Conference of the IEEE Engineering in Medicine and Biology, 2014.
- **A H Al-Timemy**, G Bugmann, J Escudero, N Outram, A preliminary investigation of the effect of force variation for myoelectric control of hand prosthesis, 35th Annual International Conference of the IEEE Engineering in Medicine and Biology, 2013.
- **A H Al-Timemy**, J Escudero, G Bugmann, N Outram, Protocol for site selection and movement assessment for the myoelectric control of a multi-functional upper-limb prosthesis, 35th Annual International Conference of the IEEE Engineering in Medicine and Biology, 2013.
- **A H Al-Timemy**, G Bugmann, N Outram, J Escudero, H Li, Finger Movements Classification for the Dexterous Control of Upper Limb Prosthesis Using EMG Signals, Lecture Notes in Computer Science 7429, 434-435, 2012.
- **A H Al-Timemy**, G Bugmann, J Escudero, K Nazarpour, Surface EMG Signal is Less Gaussian at Lower Contraction Levels, UKIERI Workshop, 15, 2011

References:

1- Dr Javier Escudero,

The University of Edinburgh, UK

Email: Javier.Escudero@ed.ac.uk

2- Dr Kianoush Nazarpour

Newcastle University, UK

Email: Kianoush.Nazarpour@newcastle.ac.uk

3- Prof. Kosai Raoof,

LAUM, Le Mans University,

Email: kosai.raoof@univ-lemans.fr

4- Dr Rami Khushaba,

University of Technology Sydney, Australia

Email: rkhushab@gmail.com