



# Curriculum Vitae

## Prof. Ahmed Yousef Ben Sasi

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### Personal Data

Position:	Professor
Nationality:	Libyan
Marital Status:	Married
Date & Place of Birth:	04/11/1969, Misurata – Libya
Work Place:	College of Industrial Technology CIT
Hobbies:	Reading, Sports Activities

### Education

- 1992 (B.Sc. Degree) Bachelor of Applied Science in Computer Engineering from Engineering Faculty – Libya (Achieved with first-class).  
Project: “Simulation of Data Link Layer using Decision-tree Protocol”.
- 1999 (M.Sc. Degree) Master of Applied Science in Advanced Control Engineering from UMIST University – UK (Achieved with Distinction).  
Dissertation: “Stereo Vision Optimisation Using Dynamic Programming”
- 2005 (Ph.D .Degree) Maintenance and Advanced Control Engineering from Manchester School of Engineering, University of Manchester - UK (Achieved with very minor corrections).  
Thesis: "The Exploitation of Instantaneous Angular Speed for Machinery Condition Monitoring"

### Professional Experience

- 1992 – 1997 Teaching Assistant and Laboratory Organiser at Engineering Faculty– Tripoli
- 1994 – 1997 Head of Computer Maintenance Department at Engineering Faculty– Tripoli
- 1994 – 1997 Part-time Lecturer at Institute of High Institute of Computer Technology– Tripoli
- 1995 – 1997 Projects Supervisor at Institute of High Institute of Computer Technology– Tripoli
- 1999 – 2001 Lecturer and Staff Member at Control Engineering Department UMIST– UK
- 2001 – 2005 Staff Member and IAS Research Projects Group Leader at Manchester University– UK
- 2005 – date Part-time Lecturer at High Institute of Industry– Misurata
- 2005 – 2006 Lecturer at Engineering Faculty– Tripoli
- 2005 – 2007 Part-time Lecturer at Tripoli University– Tripoli
- 2005 – 2007 Head of Computer and Control Engineering Department at Engineering Faculty– Tripoli
- 2006 – 2008 Referee Member of SATAL Engineering Journal Paper at Engineering Faculty– Misurata
- 2006 – 2008 Part-time lecturer at Libyan Academy of Postgraduate Graduate Studies– Tripoli
- 2008 – date Part-time lecturer at Libyan Academy of Postgraduate Graduate Studies– Misurata
- 2008 – date Part-time lecturer of Postgraduate Graduate Studies at Engineering Faculty– Misurata

2010 – 2011 Head of Postgraduate Graduate Department at College of Industrial Technology– Misurata  
2011 – 2021 Dean of College of Industrial Technology– Misurata

## Research Interests

- AI Applications
- Machine and Deep Learning Applications
- Digital Image Processing and Computer Vision Applications
- Neural Network Applications
- Genetic Algorithms and Fuzzy Logic Applications
- Optimisation Techniques
- Data Hiding/Encryption and Information Retrieval
- Medical Control Applications
- Fault Detection and Diagnosis Systems
- Condition Monitoring Applications
- Microcontroller-based Applications
- PLC-based Control Applications
- Modeling and Simulation of Electro-mechanical Systems
- IAS and Vibration Monitoring
- Adaptive and Self-tuning Algorithms Development
- Optimal and Multi-variable Control

## Academic Experience & Skills

Taught Courses:

- Computer Fundamentals
- Digital System Design
- Applied Numerical Methods
- Data acquisition systems
- Computer Graphics
- Digital Image Processing
- Data Structures and Algorithms
- OOP
- Microprocessors
- Microcontrollers
- Artificial Neural Networks
- Applied Genetics and Fuzzy Logic
- Digital Signal Processing
- Digital and Analog Control Systems
- Multi-variable Control
- Operating Systems
- Optimal Control
- Optimisation Techniques
- Artificial Intelligence

Software and  
Programming:

- Matlab
- Python
- Visual Basic.NET
- Visual C++/C#
- Power Station Fortran

- Delphi
- R-Language
- Java
- PLC Programming

Other  
Activities/Certificates  
:

- Supervision of more than 20 B.Sc and 18 M.Sc projects.
- Took part in several one-day and weekly research seminars.
- Published research papers in several reputable local and global world conferences and journal papers.
- Head of 1<sup>st</sup> Industrial Technology Conference 2017 (Refereed)
- CCNA1 Certificate.

## Language Skills

- **Arabic** (Mother tongue)
- **English** (Fluently spoken and written)

## Professional Affiliations

- Member of the **I**ntermediate **A**ngular **S**peed **C**ondition **M**onitoring and **C**ontrol Research Group **IASCMC**, University of Manchester, UK.
- Reviewer for **SATAL** Engineering Journal Paper at Faculty of Engineering– Misurata.
- Member of Institute of Electrical and Electronics Engineers **IEEE**.
- Reviewer for International Journal of Mechanical Systems and Signal Processing **MSSP**.

## Publications

1. **Ben Sasi A.**, Payne B., York A., Gu F., and Ball A., (2001) *Condition Monitoring of Electric Motors Using Instantaneous Angular Speed*, MARCON, 5<sup>th</sup> Annual Maintenance and Reliability Conference, May, Gatlinburg, Tennessee, USA.
2. **Ben Sasi A.**, Payne B., Gu F., and Ball A., (2001) *The Exploitation of Instantaneous Angular Speed for Condition Monitoring of Electric Motors*, Condition Monitoring and Diagnosis Engineering Management (COMADEM), Proceedings of the 14<sup>th</sup> International Congress, Manchester, UK, pp. 311-318.
3. Pietruszkiewicz R., El-Shtewi H., **Ben Sasi A.**, Gu F., and Ball A (2001) *The Communication of Control and Maintenance Data over a Single Digital Automation Network Using Intelligent Sensors and Distributed Processing*, 5<sup>th</sup> Annual Maintenance and Reliability Conference (MARCON), Gatlinburg, Tennessee, USA.
4. Pietruszkiewicz R., El-Shtewi H., **Ben Sasi A.**, Gu F., and Ball A., (2001) *The Physical Combination of Control and Condition Monitoring*, 14<sup>th</sup> International Congress on

Condition Monitoring and Diagnostic Engineering Management (COMADEM), Manchester, UK.

5. **Ben Sasi A.**, Parchment D., Payne B., and Ball A., (2002) *Detection of Induction Motor Rotor Bar Faults Using Instantaneous Angular Speed*, 6<sup>th</sup> Annual Maintenance and Reliability Conference (MARCON), Gatlinburg, Tennessee, USA.
6. Abuitbel M., King D., **Ben Sasi A.**, Abouzakhar N. and Manson G., (2002) *Optimization of Adaptive Partial Response Equalization for Data Storage Channels*, Proceedings of the London Communications Symposium (LCS 2002), University College, London, p241-244, September 9-10.
7. **Ben Sasi A.**, Albarbar A., Soobramaney P., Gu F., and Ball A., (2003) *Diesel Engine Condition Monitoring Using Instantaneous Angular Speed Extracted from the Alternator Voltage Output*, 6<sup>th</sup> Annual Maintenance and Reliability Conference (COMADIT), Oxford, UK, pp. 408-422.
8. Shandoli A., Ball A., Zahawi A., and **Ben Sasi A.**, (2003) *Detection of Rotor Bar Faults in Cage Induction Motors Using Instantaneous Phase Variation*, 6<sup>th</sup> Annual Maintenance and Reliability Conference (COMADIT), Oxford, UK pp. 408-422
9. **Ben Sasi A.**, Gu F., Payne B., and Ball A., (2005) *Instantaneous Angular Speed Monitoring of Electric Motors*, International Journal of Quality in Maintenance Engineering (JQME), Vol. 10 No. 2, June pp. 123-135.
10. **Ben Sasi A.**, Gu F., Li Y., and Ball A., (2006) *A Validated Model for the Prediction of Rotor Bar Failure in Squirrel-Cage Motors Using Instantaneous Angular Speed*, International Journal of Mechanical Systems and Signal Processing MSSP.
11. **Ben Sasi A.**, and Ball A., (2006) *Instantaneous Angular Speed Alternator-based Diesel Engine*, Proceedings of the 4<sup>th</sup> Libyan Arab International Conference on Electrical and Electronic Engineering (LAICEEE) Tripoli, Libya, Volume II, pp. 191-204.
12. **Ben Sasi A.**, and Ball A., (2008) *Instantaneous Angular Speed Monitoring and Control of a Reciprocating Compressor Model*, CM2008/MFPT2008 Condition Monitoring and Control Conference, Edinburgh, UK.
13. **Ben Sasi A.**, and Elmalki M., (2010) *Sliding Table Controller for Diabetes Glucose-Insulin System*, ICDDT, Dubai.
14. **Ben Sasi A.**, and Elmalki M., (2010) *Blood Glucose-Insulin Self-regulating System for Diabetes Using Fuzzy Logic*, ICINCO 2010, Portugal.
15. **Ben Sasi A.**, and Elmalki M., (2012) *A Fuzzy Controller for Blood Glucose-Insulin System*, Journal of Signal and Information Processing JSIP.

16. Ben-Ahmeida A., and **Ben Sasi A.**, (2012) *Improved Image Retrieval Based on Fuzzy Colour Feature Vector*, 4<sup>th</sup> International Conference on Graphic and Image Processing ICGIP, Singapore.
17. Fannes Y., and **Ben Sasi A.**, (2013) *Off-line Signature Recognition based on Angle Features and Artificial Neural Network Algorithm*, Journal of Electronic Science and Technology JEST, Barcelona, Spain 2013.
18. **Ben Sasi A.**, and Elmalki M., (2013) *Design and Analysis of a Sliding Table Controller for Diabetes*, Journal of Intelligent Control and Automation ICA.
19. **Ben Sasi A.**, and Elmalki M., (2013) *The Exploitation of Using Sliding Table Controller in Blood Glucose-Insulin System for Diabetes*, International Conference on Advances in Control Engineering ACE 2013, Istanbul, Turkey.
20. **Ben Sasi A.**, and Elmalki M., (2013) *Model-Less Versus Model-Based Controllers for Diabetes*, IEEE SMC Systems Science and Engineering 2013, IEEE International Conference on Systems, Man, and Cybernetics, Manchester, UK.
21. فاطمة علي المحجوب, البشير علي الجبو, أحمد يوسف بن ساسي (2017), *التجزئة غير الأنوية للكلمات العربية: تحديات وحلول*, مؤتمر التقنية الصناعية الأول, 1<sup>st</sup> CIT Conference of Industrial Technology Proceedings, الفترة 17-18 مايو 2017, مصراتة ليبيا.
22. فاطمة علي المحجوب, البشير علي الجبو, أحمد يوسف بن ساسي (2017), *تصميم وتنفيذ خوارزمية لتجزئة الكلمات العربية*, مؤتمر التقنية الصناعية الأول, 1<sup>st</sup> CIT Conference of Industrial Technology Proceedings, الفترة 17-18 مايو 2017, مصراتة ليبيا.
23. Almadhoun F, and **Ben Sasi A.**, (2018), *A Hybrid DWT-DCT Algorithm for Digital Image Watermarking*, LICEET 2018 Libyan International Conference on Electrical Engineering and Technologies between 04-06 March 2018, Paper No. 484, Tripoli, Libya.
24. Smaida M, Yaroshchak S., and **Ben Sasi A.**, (2021), *Learning Rate Optimization in CNN for Accurate Ophthalmic Classification*, International Journal of Innovative Technology and Exploring Engineering (IJITEE) ISSN: 2278-3075, Volume-10 Issue-4, February 2021 pp. 211-216.