C.V. for Hatem Algabroun

Website: https://lnu.se/en/staff/hatem.algabroun/
Contacts: hatem.algabroun@lnu.se

Research interest lie in predictive maintenance and condition monitoring, smart maintenance systems, and the broader digitalization of industrial processes.

Education

2020	Doctor of Philosophy (PhD) in Terotechnology, Mechanical Engineering Dept., Faculty of Technology, Linnaeus University, Sweden. Title "*On the development of a new digitalized maintenance approach for factory of the future*"
2017	Licentiate degree in Terotechnology, Mechanical Engineering Dept., Faculty of Technology, Linnaeus University, Sweden. Title "*On the development of a maintenance approach for factory of the future implementing Industry 4.0*"
2010	Master of Engineering Science (MScEng), Biomedical Engineering Dept., Faculty of Engineering, University of Malaya, Malaysia, Thesis title "*Study of Carbon Black-Epoxy based fat tissue phantom and its dielectric properties at microwave frequencies"*
2006	Higher Diploma Certificate in Automatic Control Engineering, Higher Electronic Professions Institute, Tripoli, Libya.

Academic positions and appointments

2022/01/01 – present	Assistant professor /Senior Lecturer at the department of mechanical engineering; Linnaeus University, Sweden
2017/11/01 – 021/12/31	Research assistant at the mechanical engineering department; Linnaeus University

Received research grants in the last 5 years:

ERUF project: SMART-DAT; role: project leader; timeline: 23-09-01 - 26-12-31; objective: implementing recent technologies within digitalization and automation of industry, budget: 15 582 875 SEK

KK-expertkompetensprojekt "Smart Industri" Steg 2: role : Smart maintenance area leader; time line: 2022-09-01 - 2027-08-31; objective: delivering courses at the master level for companies, budget: 21 500 000 SEK.

Teaching:

Currently teaching: Material Planning and Production Control I (1MT020) 7.5 cr., Research Methods and Opposition (2MT345) 7.5 cr. Master's level: Condition Monitoring and Predictive Maintenance (4MT081) 3.5 cr., Doctoral-level: Swedish Perspectives on Maintenance Research: Past, Present, and Future (5 hp).

Taught courses: MATLAB (1MT032) 7.5 cr., Reliability and Maintenance Technology (1MT331) 7.5 cr., Facility Planning (2MT029) 7.5 cr., and the coordinator of the bachelor level Thesis in Industrial Engineering (2MT14E) 15 cr.

Supervision:

Abdelhakim Deboucha	Ph.D. student	2024 November – present
Nils Johansson	Industrial Ph.D. student	2023 August – present
Muntaser Mohamed	Postdoc	2024 July – present
Quentin Pontico	Master exchange student	2024 May – October 2024
Maxime Riou	Master exchange student	2023 September – Januari 2024
Aucher Stéphanie	Master exchange student	2023 June – October 2023
Simon Karlsson & Zaki Ghulami	Bachelor's degree project	2023 Jan – 2023 May
Jonathan Brauer, Jonathan Schmidt Eriksson	Bachelor's degree project	2022 Jan – 2022 May
Emil Nordestedt	Bachelor's degree project	2022 Jan – 2022 May
Robin Axeborg, Tim Åkesson	Bachelor's degree project	2021 Jan – 2021 May

Selected publications (for the last 5 years):

- Nuttah, M. M., **Algabroun, H**., Linhares, C., & Håkansson, L. (2025). Creative Destruction and Technological Paradigms in Manufacturing: A Large-Scale Review and Framework for Technology Portfolio Assessment. *IEEE Transactions on Engineering Management*.
- **Algabroun, H**., Håkansson, L. (2025). Parametric Machine Learning-Based Adaptive Sampling Algorithm for Efficient IoT Data Collection in Environmental Monitoring. *Journal of Network and Systems Management*. 33 (1)
- Ainin, A., **Algabroun, H.,** Linhares, C.D.G. (2025). Augmented Reality for Training in Small and Medium-Sized Manufacturing Companies. *In EuroVis 2025.*
- **Algabroun, H**., Bokrantz, J., Al-Najjar, B., Skoogh, A. (2022). Development of digitalised maintenance : a concept. *Journal of Quality in Maintenance Engineering*. 28 (2). 367-390.
- Ziada, O., Schauerte, T., Pocorni, J.K., **Algabroun, H**., Bolmsjö, G., et al. (2022). Robotic Window Assembly : A Simulation Study and a Proposed Self-Adaptive Software Architecture. *Proceedings of the 10th Swedish Production Symposium*. 111-121.
- **Algabroun, H**. (2020). Dynamic sampling rate algorithm (DSRA) implemented in self-adaptive software architecture : a way to reduce the energy consumption of wireless sensors through event-based sampling. *Microsystem Technologies*. 26 (4). 1067-1074
- **Algabroun, H.,** Al-Najjar, B., Jonsson, M. (2020). A framework for the integration of digitalised maintenance systems with relevant working areas : A case study. *4th IFAC Workshop on Advanced Maintenance Engineering, Services and Technologies - AMEST 2020*. 185-190.