Ibrahim A. Hameed
PhD, SMIEEE, Professor, Associate Editor at IEEE TAI, Founder of a startup Deep Tech As

2025

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1. Education and Employment:

1.1. Education

- BSc degree in Industrial Electronics and Control Engineering from Menoufia University, Egypt, 1998.
- MSc degree in Intelligent Control Engineering from Menoufia University, Egypt, 2005.
- PhD degree in Artificial Intelligence from Korea University (ranked #3 in S. Korea, #74 in Asia, according to QS world ranking), Seoul, South Korea, 2010.
- PhD degree in field robotics/autonomous systems from Aarhus University (ranked #21 in Europe and #69 worldwide), Aarhus, Denmark, 2012.

1.2. Employment

02.2025 – present	Head of Robotics Research Group, Faculty of Science and Technology (RealTek), Norwegian University of Life Sciences (NMBU), Norway.
08.2024 – present	Member of the Research and Research Education Committee of the Faculty of Science and Technology, Norwegian University of Life Sciences (NMBU), Norway.
10.2024 – 10.2026	Golden Jubilee Fellow at De La Salee University (DLSU), Manila, Philippines.
07.2024 – present	Visiting Professor at the Technical University of Ostrava (VSB-TUO), Czech Republic.
12.2023 – present	Full Professor at the Norwegian University of Life Sciences (NMBU), Norway.
08.2024 – present	Adjunct Professor at the Norwegian University of Science and Technology (NTNU), Norway.
05.2018 – 08.2024	Professor at the Norwegian University of Science and Technology (NTNU), Norway.
02.2018 – 08.2022	Department deputy head of research and innovation at NTNU.
02.2018 – 08.2024	Member of sustainable digital transformation research group (SDT), NTNU.
07.2021 – 08.2023	Member of the faculty advisory group for gender equality and diversity ombudsmen, NTNU.
02.2018 – 08.2024	Fast medlem ved Fakultetets Utvalg for forskning og forskerutdanning (NTNU/IE) – A member of the Research and Research Education Committee of the faculty.
06.2018 – 02.2022	Head of the international master program in simulation and visualization, NTNU.
12.2017 – 05.2023	Founder and coordinator of Social Robots Lab (SRL) in Ålesund.
01.2016 – 04.2018	Associate Professor, Department of ICT and Natural sciences (IIR), NTNU.
05.2015 – 12.2015	Associate Professor, Ålesund University College (HiÅ), Ålesund, Norway.
09.2014 – 04.2015	Postdoctoral researcher, Section of Signal and Information Processing, Dept. of Electronic Systems, Aalborg University, Denmark.
01.2013 – 08.2014	Postdoctoral researcher, Section of Automation and Control, Dept. of Electronic Systems, Aalborg University, Denmark.
09.2014 – 05.2015	Visiting lecturer, University of Southern Denmark (SDU) in Slagelse, Denmark.
03.2011 – 12.2012	Assistant Professor, Dept. of Industrial Electronics and Control Engineering, Faculty of Electronics Engineering, Menoufia University, Egypt.

1.3. Volunteer work/membership

02.2023 – present	Secretary of IEEE Norway Section
01.2023– present	Associate Editor of IEEE Transactions in AI
01.2019 – 08.2024	Scientific board member of IoT@NTNU
03.2019 – 02.2025	Elected Chair of IEEE Computational Intelligence Society (CIS), Norway Chapter.
04.2018 - present	Founder and head of AI and Robotics interest group, Den Norske Dataforening (Norwegian Computer Association): https://www.dataforeningen.no/faggruppe/ai-and-robotics/
01.2016 – present	Senior Member of IEEE (SMIEEE).
09.2021 – 09.2023	ACM member.
04.2023 – present	Member of Den Norske Dataforening (Norwegian Computer Association)

2. Scientific Experience and Visibility

2.1. Research interests

- Strong experience in developing various systems using Artificial Intelligence, Machine Learning, Expert System, Optimization, Deep Learning, Federated Learning, Adversarial Machine Learning, and its applications in various domains.
- Guidance, Navigation, and Control (GNC) of field robotics and autonomous ships.
- Development of social robots and their applications in health care and education.
- Strong experience in small and large language models (SLMs and LLMs) and its uses in solving various problems.
- Strong programming skills in Python, Matlab, and prompt engineering.

2.2. Scientific Publications

Full list of publications: https://scholar.google.no/citations?user=XSEnidMAAAAJ&hl=en

- Examples of international journals: Expert Systems with Applications, Robotics and Autonomous Systems, International Journal of Social Robotics, Computers and Electronics in Agriculture, International Journal of Innovative Computing Information and Control, Biosystems Engineering, Journal of Intelligent and Robotic Systems, International Journal of Advanced Robotic Systems, Art Therapy, IEEE access, ISA Transaction, Virtual Reality, etc.
- Examples of international conferences: IEEE World Congress on Computational Intelligence (WCCI), IEEE International Conference on Real-time Computing and Robotics, European Conference on Modelling and Simulation (ECMS), IEEE International Conference on Fuzzy Systems, International Conference of Computers Supported Education (CSEDU), IEEE Symposium Series on Computational Intelligence (SSCI), Genetic and Evolutionary Computational Conference Companion (GECCO), etc.

2.3. Visibility and Citations

Google Scholar lists around 200 different publications, with more than 8400 citations within an h-index of 45 and an i10-index of 128 (as in February 2025). The most cited paper has 628 citations, the second most cited paper has 576 citations, the third most cited paper has 490 citations, and 15 papers have received citations in the range from 125+ to 380 citations.

2.4. Standing in the Community

Awards:

- Best Paper Award April 2016:

  I. A. Hameed, Z.-H. Tan, N.B. Thomsen, and X. Duan (2016). User acceptance of social robots. In Proceedings of the 9th International Conference in Computer-Human Interaction (ACHI 2016), Venice, Italy, pp. 274-279.
- Final List of Best Paper Award June 2016:

  I. A. Hameed, R.T. Bye, O.L. Osen, B.S. Pedersen, and H.G. Schaatun (2016). Intelligent Computer Automated Crane Design using an Online Crane Prototyping Tool. In Proceedings of the 30th European Conference on Modeling and Simulation (ECMS), Regensburg, Germany.
- Best Research Paper Award Feb. 2017:

  H. Mohamed, **I. A. Hameed**, R. Seidu (2017). Adaptive Neuro Fuzzy Inference System for Predicting Norovirus in Drinking Water Supply. In Proceedings of the IEEE International Congress in Health Informatics, Riydeh, KSA.
- Top 25 most productive researchers in IE faculty and 2nd most productive researcher at NTNU Ålesund campus in 2017 - 2022.
- Top 500 most productive researchers across Norway in 2021 according to forskerforum https://www.forskerforum.no/disse-forskerne-publiserte-mest-i-2021/.
- Top 300 most productive researchers in Norway in the period from 2019-2022 according to khrono https://khrono.no/disse-forskerne-publiserer-mest-i-norge/798196.

Organizing committee member:

- First Teleno-NTNU AI-Lab Hackathon (17-18 March 2017 - Ålesund Track): A member of the organizing committee for the first Hackathon on Telco related problems and data with machine learning).
- First Social Robots Workshop, NTNU in Ålesund (November 2017): In this workshop, private and public sectors were invited to discuss future use of social robots in various areas of common interest. The workshop has attracted active participants from Ålesund Kommune, Haram Kommune, Eidet Omsorgssenter, Arena for Læring om Velferdsteknologi (ALV), Norwegian Maritime Competence Center (NMK), Sprebanken Møre, Cappelen Damm AS, etc.
- First Machine Learning Hackathon in Ålesund (October 2018): Sponsored by Sparebanken Møre and Telenor to take place at NTNU-Sparebanken Møre TEFT lab.

- Program committee (PC) member: GECOO 2018, SIMS 2018, CSEDU 2018. EFITA WCC Congress 2017, ICARSC 2017, CSEDU 2017, ARIN 2016, RST 2016, CSEDU 2016, ECMS 2016, CSEDU 2015, CSEDU 2014.
- Conference chair: 36th international conference on modelling and simulation ECMS 2022 Ålesund, Norway
- Evaluation panel member: Evaluator of the FCT "Call for R&D Projects in All Scientific Domains - 2022" of the "Electrical and Electronic Engineering" Evaluation Panel.
- Evaluation panel member: Evaluator of the FCT "Individual Call to Scientific Employment Stimulus - 6th Edition" of the "Electrical, Electronic and Information Engineering" Evaluation Panel, 2023.
- Track chair, ECMS 2023, Florence, Italy.

Guest Editor:

- Special issue titles: Securing IoT-based Critical Infrastructure, Internal Journal of Computers and Electrical Engineering, Elsevier, and Cognitive Horizons: Exploring the Synergy of Artificial Intelligence in E-Learning Environments at Electronics.

2.5. Dissemination/Outreach

Dissemination of research results to the public:

- Social Robotics: How could robots be integrated into our everyday lives? https://www.telenor.com/social-robotics-how-could-robots-be-integrated-into-our-everyday-lives/
- Use of robots in nursing homes: http://omsorgsforskning.no/nyheter/robot_i_omsorgen
- Programming Pepper robots for the opening of NMK Ålesund https://www.youtube.com/watch?v=Gg26uBAtzfk
- Bestemor og bestefar i aktivitet med Pepper, NRK TV, November, 2017 https://tv.nrk.no/serie/distriktsnyheter-moere-og-romsdal
- Sosiale roboter er ikke fremtiden de er her nå, November 17th, 2017, https://www.youtube.com/watch?v=GaYPkVbKjoY
- Åndalsnes Avis. Dette er ikke framtida, dette er nå: Roboten Pepper var deltaker på Innovasjonsfestivalen.
- Automatic genetic programming and the developments of artificial intelligence. Al-Taqaddum Al-Ilmi, Kuwait Foundation for the advancement of Sciences (HFAS), vol. 9, October 2015, pp. 22-25.
- Allan turning the founder of the modern computer science. Al-Taqaddum Al-Ilmi, Kuwait Foundation for the advancement of Sciences (HFAS), vol. 9, October 2015, pp. 26-27.

Keynote speaker:

- 1st International Forum of Artificial Intelligence at SU, SA, Future of Deep Learning, 02.2021.
- 2nd International Conference on Engineering, Science and Technology (ICEST2021), Luxor, Egypt. 02.2021
- AI to Empower Disabled Women, Workshop, SRGE & Cairo University, 12.2020
- 3rd International Conference on Intelligent Technologies and Applications (INTAP) 2020 – NTNU Gjøvik Norway.
- 6th International Conference on Data Science and Machine Learning Applications at PSU, SA http://www.ieeepsu.org/cdma/, 02.2020
- 3rd International conference on innovations in computational intelligence and computer vision 2022 (ICICV-2022), Japiur, India (22-24 Nov 2022) - https://icicv.co.in.
- ICIST 2024 conference in Vilnius, Lithuania on 17-18 October 2024 - https://icist.ktu.edu/
- Participation in Arab Global Scholars (AGS), HBKU Qatar, sponsored by Qatar Foundation in the period from 2-5 November 2024.

3. Pedagogical Qualifications:

3.1. Pedagogical Training

- Aalborg University Education Lab., Aalborg University, Denmark (2013 – 2014):

Course number	Course title	Period	Credit hours
1	Introduction to Problem Based Learning, Erik de Graaff and Lars Peter Jensen, UNESCO Chair in Problem-Based Learning in Engineering Education	28-29.08.2013 09.10.2013	24
2	Scientific Research Methodology Introduction to Project examination and group assessment, UNESCO Chair in Problem-Based Learning in Engineering Education	10.12.2013	8

3	Effective planning of student-centered teaching and learning, Dr. L. Dee Fink, Aalborg University Teaching Day 2014	09.04.2014	8

- NTNU, 2018:

Course number	Course title	Period	Study points
1	NTNU PhD supervision Seminar	12-13.03.2018	-
2	Pedagogisk utviklingsprogram (PEDUP) for nyansatte i vitenskapelige stillinger ved NTNU.	23.01.2018 - 06.11.2018	15

3.2. Teaching experience

Experience in teaching at both undergraduate and graduate levels using problem- and project-based learning approaches.

Courses taught at the Norwegian University of Life Science (NMBU), Ås, Norway:

- Control technology and automation (TEL240), Winter 2024, 2025 https://www.nmbu.no/emne/TEL240

Courses taught at the University of Southern Denmark SDU, Denmark:

- Systems Developments, BSc, Høst 2014
- Business Statistics, BSc, Høst 2014

Courses taught at NTNU, Norway:

- Control Systems (IE203612), BSc, Vår 2016 - 2020 https://www.ntnu.no/studier/emner/IE203612#tab=omEmnet
- Intelligent Systems (IE303312), BSc, Høst 2015 - 2020 https://www.ntnu.edu/studies/courses/IE303312#tab=omEmnet
- Topics in Artificial Intelligence (IE501714), MSc, Vår 2016 - 2017 https://www.ntnu.edu/studies/courses/IE502014#tab=omEmnet
- Machine learning (IE500618), MSc, Høst 2018 – present https://www.ntnu.edu/studies/courses/IE500618#tab=omEmnet
- Swarm Intelligence (IE501714), MSc, Høst, 2016 - 2017, Vår 2018 https://www.ntnu.edu/studies/courses/IE501714#tab=omEmnet
- Specialization project IE505718: https://www.ntnu.edu/studies/courses/IE505718/#tab=omEmnet
- Specialization course IE505818: https://www.ntnu.edu/studies/courses/IE505818/#tab=omEmnet

Courses taught at Molde University College, Norway:

- IBE505 Industrial digitalization, Vår/Spring 2022, 2025 https://www.himolde.no/studier/emner/log/2022/var/ibe505.html

New Course development:

- Machine Learning IE500618 – MSC course – starting 2018. https://www.ntnu.no/studier/emner/IE203612#tab=omEmnet
- Advanced deep learning with Python DT8807 – PhD course – starting Spring 2021 https://www.ntnu.no/studier/emner/DT8807#tab=omEmnet
- EVU (Continuing education) courses: IE600320 and IE600120 – 2021

Teaching awards and nomination:

- Nominated by students for best teacher in 2020 and 2022 - Studentenes Studiekvalitetspris 2020 and 2022 – where the selection criteria were based on learning methods, learning environment and quality development.

3.3. Supervision

PhD students:

PhD candidate	University	Role	status
M. I. Abdo (2012 – 2016) (greenhouse climate control)	Menoufia University, Egypt	Co. supervisor	Completed
H. Mohammed (2016–2018) (machine learning for water safety)	NTNU, Norway	Co. supervisor	Completed
Mengtao Sun (2018-2022) (NLP application in low-resource languages)	NTNU, Norway	Main supervisor	Completed
Hammad Shah (2020-2024) (social robots for elderly care)	NTNU, Norway	Main supervisor	Completed
Muhammad Umair (2020-2024) (digital twin for smart city applications)	NTNU, Norway	Main supervisor	completed
Saumitra Dwivedi (2020) (data driven methods for complex systems)	NTNU, Norway	Co. supervisor	Planned 2025

Sanjeev Kumar (autonomous vessels for identification and mapping of ocean plastic)	NTNU, Norway	Main supervisor	Planned 2026
Håvard Pedersen Brandal (LLMs for robot control)	NMBU, Norway	Co. supervisor	Planned 2027

4. Examiner

Professor qualification committees:

1) Sunith Bandaru, Dept of Production Engineering, School of Engineering Sciences, University of Skovde, Sweden, 2024.

PhD examiner/head of examination committees:

1) Mohib Ullah, NTNU, Gjøvik, Norway, 2019.
2) Naila Habib Khan, IMS, Pakistan, 2019.
3) Congcong Wang, NTNU, Gjøvik, Norway, 2020.
4) G. Prabakaran, Anna University, Chennai, India, 2020.
5) Rajasekar A., Hindustan Institute of Technology and Science, Padur, Kelambakkam, Chennai, India, 2021.
6) Yuantian Miao, Faculty of Science, Engineering and Technology (FSET) Swinburne University of Technology, Australia, 2021.
7) Rabia Naseem, NTNU, Gjøvik, Norway, 2021.
8) Mahesh Kumbhar, University of Skovde, Sweden, 2023.
9) Abhishesh Pal, NMBU, Ås, Norway, 2024.
10) Vipul Nair, University of Skovde, Skovde, Sweeden, 2024.
11) Ahmed Hassan Yassein, Beni-Suef University, Egypt, 2024.
12) Abid Ali, Université Côte D'Azur, France, 2024.
13) Ruslan Sorano, University of Oslo, Norway, 2025.

MSc and BSc students:

- Supervised several master thesis projects in Egypt and Norway – supervised Second Best AI master thesis at NTNU 2018.
- Supervised several BSc groups in the period from 2015- 2022 in various domains.

5. Administrative and Research Management Qualifications:

5.1. Administration

- Member of the development committee of the master program in Simulation and Visualization (MSc S&V)
- Head and research coordinator of Social Robots Lab in Ålesund
- Head of the international master program in Simulation and Visualization (2018-2022)
- Deputy head for research and innovation, NTNU (2018 – 2022)
- Head of IEEE CIS Norway Chapter (2019-2025)
- Head of AI & Robotics interest group DND.

5.2. Research projects

- SUSDOCK: Sustainable control of docks (Rumex spp.) – Synergies of detection, mapping, and innovative control (14,6) 2025-2028.
- THCS: transforming health and care systems https://www.thcspartnership.eu/ (Health care of the future, 4.5 MNOK). Predicting Care Needs of Older Adults in the Healthcare System through AI-enabled Analysis of Patient-Monitoring Data (PAI) (project number 101432100).
- MAP: Machine learning Approach for obesity and metabolic state Prediction (University of Oslo), Ahus, WP leader.
- Utvikling av sjølvbetjeningsløysingar som legg til rette for auka gjenvinning av avfall - development of self-service solutions that facilitate increased waste recycling (FoU-prosjektet 328280).
- Marine plastic pollution sweet spot – WP leader - https://www.ntnu.no/sustainability/calls/marine-plastic-pollution-sweet-spot
- Ocean plastic Policy (PlastOPol). RFF. 0.5 MNOK, 2020.
- Excited min project (Center for Excellent IT Education): an expert system to reduce uncertainties in student's evaluation - Et ekspertsystem for å redusere usikkerhet i studenters evaluering - 50 KNOK - 2018 (project number 80430018).
- Pilotering av sosial robot i omsorgssenter: design av norsk chatbot for bedre menneske-maskin interaksjoner i fremtiden, RFF Mid Norge (500 KNOK).

- Digital Transformation project: Person-Centered Robotics Care in Nursing Homes (PRCare) joint funding for 2 PhD students by faculty of information technology and electrical engineering (IE)/faculty of medicine and health sciences (MH) NTNU, 2018.
- Søknad om Posisjoneringsstøtte (POS) for posisjonering mot Hosisont2020 (ePhorte nr. 2017/414-166 og 167) (80 KNOK).
- Social Robot i Newton Room (with NMK): funded by 100 KNOK by IE Faculty and 400 KNOK by Sparebank1 (total 500 KNOK) - 2017
- Social Robot i Omsorgssente (Social robot in nursing homes): MobPro, Prosjeknummer 2017/05 - 200 KNOK - 2017.
- Excited min project (Center for Excellent IT Education): Expert System for Students' Evaluation - 50 KNOK - 2017.
- VRI research project: Artificial Intelligence for Winch Design, grand no. 249171.
- Impact of Climate Change on the Association between Weather and Waterbrone Diseases, WP IV (PI is Prof. Razak Seidu), grand no. 244147/E10.
- VRI research project: Artificial Intelligence for Crane Design, grand no. 241238.
- InnoBooster Project: Robotics Auto Route Planning (RARP) funded by the ministry of Science, Education and Higher Education of Denmark in Cooperation with Conpleks AS[1].
- Durable Interaction with Socially Intelligent Robots (iSocioBot) – funded by Ministry of Science, Innovation and Higher Education (DFF) http://socialrobot.dk/.
- ASETA (adaptive Surveying and Early treatment of crops with a Team of Autonomous vehicles, http://www.es.aau.dk/projects/aseta/), funded by the Danish Council for Strategic Research (13M DKK).

6. International Networking and Collaboration:

- Education (2 PhD degrees) from South Korea and Denmark.
- Conducting research projects and academic collaboration with international partners.
- Organization of conferences (i.e., PC member of more than 12 conferences and a chair of ECMS 2022 conference).
- Chairing two special sessions in international conferences in Italy 2016 and Japan 2017.
- Serving as a panelist in an international conference in Italy in 2016.
- Keynote speaker in many different events.

7. Industrial Collaboration and Experience:

Collaboration with Industry and public sector can be summarized as follows:

- John Deere Co., USA (11.2015 - present): development of water shade models for agricultural fields with complex surface topography.
- Yoongpoong Co., South Korea (http://www.youngpoongcorp.com/) (March 2006 – Dec. 2008): R&D optimization of zinc refinery process.
- NuriSolutions, South Korea (http://www.nurisolution.co.kr/) (Jan. 2008 – August 2008): Introduction to Islamic banking.
- John Deere, USA (http://www.deere.com/) (10. 2014 – 07.2015): development and testing 3D field coverage path planning algorithms.
- Conpleks Innovation ApS, Denmark (http://www.conpleks.com) (05.2015 – 07. 2015): development of automatic route planning package for football fields and grass cutting.
- Seanoics AS, Norway (http://www.seaonics.com/) (2016 – 2017): development of automated crane and winch design tools: 2 VRI projects 1) Artificial Intelligence for Crane Design, grand no. 241238, and 2) Artificial Intelligence for Winch Design, grand no. 249171.
- First Scandinavia, Norway (http://firstscandinavia.org/en) (10.2017 – 02-2018): development of social robots as teaching assistant in Newton Rooms.
- Norwegian Maritime Competence Center (NMK), Norway (www.normarkom.no) (10.2017 - present): development of social robots as a receptionist and programming three robots for the opening of NMKII https://www.youtube.com/watch?v=Gg26uBAtzfk.
- Sparebanken Møre: Programming Pepper for the opening of TEFT Lab.
- Telenor: Hackathon in AI https://www.ntnu.edu/ailab/hackaton.
- Ålesund International School: BSc project - NAO robot as an assistant.
- Ediet Omsorgsenter: use of Pepper robot as a personal trainer for elderly https://www.youtube.com/watch?v=1Hj9BMd2O1U.
- Intelecy: machine learning for industrial IR (BSc project predictive maintenance), https://www.intelecy.com/.

[1] www.conpleks.com

- Ålesund kommune, United for smart and sustainable cities (U4SSC) Lab., and United for Future Lab Norway through several research projects.
- Offshore Simulation Center (OSC).

8. Selected publications:

[1] Abdel-Basset, M., Alrashdi, I., Hawash, H., Sallam, K., & Hameed, I. A. (2023). Towards efficient and trustworthy pandemic diagnosis in smart cities: A blockchain-based federated learning approach. *Mathematics, 11*(14), 3093. https://doi.org/10.3390/math11143093

[2] Alam, T. M., Shaukat, K., Hameed, I. A., Khan, W. A., Sarwar, M. U., Iqbal, F., & Luo, S. (2021). A novel framework for prognostic factors identification of malignant mesothelioma through association rule mining. *Biomedical Signal Processing and Control*, 68, 102726. https://doi.org/10.1016/j.bspc.2021.102726

[3] Alam, T. M., Shaukat, K., Khelifi, A., Khan, W. A., Raza, H. M. E., Idrees, M., & Hameed, I. A. (2022). Disease diagnosis system using IoT empowered with fuzzy inference system. *Computers, Materials and Continua*, 5305-5319.

[4] Blindheim, K., Solberg, M., Hameed, I. A., & Alnes, R. E. (2022). Promoting activity in long-term care facilities with the social robot Pepper: A pilot study. *Informatics for Health and Social Care*. https://doi.org/10.1080/17538157.2022.2086465

[5] El-Hussieny, H., & **Hameed, I. A.** (2024). Obstacle-aware navigation of soft growing robots via deep reinforcement learning. IEEE Access, 12, 38192-38201. https://doi.org/10.1109/ACCESS.2024.3375340

[6] El-Hussieny, H., **Hameed, I. A.**, & Nada, A. A. (2023). Deep CNN-based static modeling of soft robots utilizing absolute nodal coordinate formulation. Biomimetics, 8(8), 611. https://doi.org/10.3390/biomimetics8080611

[7] Gribbestad, M., Hassan, M. U., & Hameed, I. A. (2021). Transfer learning for prognostics and health management (PHM) of marine air compressors. *Journal of Marine Science and Engineering*, 9(1), 47. https://doi.org/10.3390/jmse9010047

[8] Gribbestad, M., Hassan, M. U., Hameed, I. A., & Sundli, K. (2021). Health monitoring of air compressors using reconstruction-based deep learning for anomaly detection with increased transparency. *Entropy*, 23(1), 83. https://doi.org/10.3390/e23010083

[9] Gröling, M., Huang, L., & **Hameed, I. A.** (2023). An unmanned system for automatic classification of hazardous wastes in Norway. In Arai, K. (Ed.), Intelligent Systems and Applications. IntelliSys 2023. Lecture Notes in Networks and Systems (Vol. 824). Springer, Cham. https://doi.org/10.1007/978-3-031-47715-7_10

[10] **Hameed, I. A.** (2014). Intelligent coverage path planning for agricultural robots and autonomous machines on three-dimensional terrain. *Journal of Intelligent Robotic Systems, 74*, 965–983. https://doi.org/10.1007/s10846-013-9834-6

[11] **Hameed, I. A.** (2016). Using natural language processing (NLP) for designing socially intelligent robots. In *2016 Joint IEEE International Conference on Development and Learning and Epigenetic Robotics (ICDL-EpiRob)* (pp. 268-269). Cergy-Pontoise, France. https://doi.org/10.1109/DEVLRN.2016.7846830

[12] **Hameed, I. A.** (2017). Coverage path planning software for autonomous robotic lawn mower using Dubins' curve. In *Proceedings of the 2017 IEEE International Conference on Real-time Computing and Robotics (RCAR)* (pp. 517-522). IEEE. https://doi.org/10.1109/RCAR.2017.8311915

[13] **Hameed, I. A.** (2017). Coverage path planning software for autonomous robotic lawn mower using Dubins' curve. *2017 IEEE International Conference on Real-time Computing and Robotics (RCAR)*, 517-522. https://doi.org/10.1109/RCAR.2017.8311915

[14] **Hameed, I. A.** (2020). Multi-objective solution of traveling salesman problem with time. In A. Hassanien, A. Azar, T. Gaber, R. Bhatnagar, & M. F. Tolba (Eds.), *The International Conference on Advanced Machine Learning Technologies and Applications (AMLTA2019)* (Vol. 921, Advances in Intelligent Systems and Computing). Springer, Cham. https://doi.org/10.1007/978-3-030-14118-9_13

[15] **Hameed, I. A.**, Bochtis, D. D., Sørensen, C. G., & Nøremark, M. (2010). Automated generation of guidance lines for operational field planning. *Biosystems Engineering, 107*(4), 294-306. https://doi.org/10.1016/j.biosystemseng.2010.09.001

[16] **Hameed, I. A.**, Bochtis, D. D., Sørensen, C. G., & Vougioukas, S. (2012). An object-oriented model for simulating agricultural in-field machinery activities. *Computers and Electronics in Agriculture, 81*, 24-32. https://doi.org/10.1016/j.compag.2011.11.003

[17] **Hameed, I. A.**, Bochtis, D. D., Sørensen, C. G., Jensen, A. L., & Larsen, R. (2013). Optimized driving direction based on a three-dimensional field representation. *Computers and Electronics in Agriculture, 91*, 145-153. https://doi.org/10.1016/j.compag.2012.12.009

[18] **Hameed, I. A.**, Bochtis, D., & Sørensen, C. A. (2013). An optimized field coverage planning approach for navigation of agricultural robots in fields involving obstacle areas. *International Journal of Advanced Robotic Systems, 10*(5). https://doi.org/10.5772/56248

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