Profile

Emad Ebeid is a Danish-Egyptian engineer currently working as a full professor at the Institute of Mechanical and Electrical Engineering at the University of Southern Denmark. He obtained his Ph.D. in Embedded Systems from the University of Verona, Italy, with a European Doctorate label in 2014. In addition, Ebeid also leads the SDU Digital and High-Frequency Electronics section.

Ebeid specializes in the design of Autonomous Drone Systems for infrastructure inspection and interaction. His research focuses on leveraging cutting-edge technologies such as MPSoCs and FPGAs to develop an advanced reconfigurable onboard unit. This unit is instrumental in controlling the drone's operations, enabling it to detect and grasp powerlines for recharging.

In addition to his research, Ebeid serves as the Coordinator for the EU H2020 Drones4Safety project and the Innovation Fund Grand Solutions Drones4Energy project. His extensive involvement in EU projects spans various domains, including embedded systems, robotics, drones, IoT, and smart grids. He is an IEEE Senior member.

Professional Experience

2023 - now	Full Professor, Head of Unit
2022- 2026	PI of Horizon Europe SPADE project
2020 - 2023	Project Coordinator of EU H2020 Drones4Safety project.
2019 - 2023	PI of H2020 Aerial-Core project.
2019 - 2023	Associate Professor at the University of Southern Denmark, Denmark.
2019 - 2022	Project Leader of Grand Solutions IFD Drones4Energy project.
2018 - 2020	PI and Work package leader of H2020 TeamPlay project.
2017 - 2019	Project coordinator of SDU LightHouse Drones for Energy project.
2017 - 2019	Assistant Professor at the University of Southern Denmark, Denmark.
2014 - 2016	Post doctoral researcher at Aarhus University, Denmark.
2011- 2014	Ph.D. fellow at Verona University, Italy.

Teaching Experience

Since 2007, Ebeid has been teaching and assisting master's and bachelor's degree students in electronics, communication, and computer engineering field of study. He has co-supervised several Ph.D., master's, bachelor's thesis projects.

2021 - now	Digital Programmable Electronics, Bachelor's degree, 5 ECTS
2020 - now	Embedded Systems, Master degree, 5 ECTS
2019:	Robot Electronics
2019	System Design of Intelligent Collaborating Systems, Master degree, 5 ECTS
2017 - 2019	Expert in Teams (Southern Denmark University, Bachelor's degree, 10 ECTS)
2017	Programming of robots and other physical devices (Southern Denmark University, Master's degree, 5ECTS)
2016	Middleware and Communication Protocols for Dependable System (Aarhus University, Master's degree, 5 ECTS)
2015 - 2016	IP-based Wireless Communication and Internet of Things, (Aarhus University, Master degree, Teaching Assistant)
2012 - 2014	Software Engineering (Verona University, Master, Teaching Assistant)
2012 - 2014	Computer Architecture and Operating Systems (Verona University, Master, Teaching Assistant)
2011 - 2014	Networked Embedded Systems (Verona University, Master, Teaching Assistant)
2007 - 2010	Teaching Assistant in different courses in digital electronics and communication engineering bachelor degree program

Professional memberships and other related functions

2017 - Now	IEEE Senior member
2014 - Now	Session organizer and member of Technical Program Committee at the Euromicro Conference on Digitial System Design (DSD)
2011 - Now	Member of IEEE and IEEE ComSoc.

Teaching and supervision

System Design of Intelligent Collaborating Systems, (F20)

Ebeid, E. S. M.
07/02/2020 → 23/05/2020

System Design of Intelligent Collaborating Systems, (F19)

Ebeid, E. S. M.
04/02/2019 → 29/05/2020

Robot Electronics, (E19)

Ebeid, E. S. M.
05/09/2019 → 23/01/2020

Programming of robots and other physical devices, (F17)

Ebeid, E. S. M.
07/02/2017 → 31/05/2017

Masters Thesis - 40 ECTS, (F19)

Ebeid, E. S. M.
03/09/2018 → 30/06/2019

Masters Thesis - 30 ECTS, (F19)

Ebeid, E. S. M.
04/02/2019 → 30/06/2019

Masters Thesis - 30 ECTS, (E19)

Ebeid, E. S. M.
02/09/2019 → 24/01/2020

Information technology in an automation context (F18)

Ebeid, E. S. M.
05/02/2018 → 31/05/2018

Experts in Teams, (E17)

Ebeid, E. S. M.
04/09/2017 → 31/01/2018

Experts in Team Innovation, (E18)

Ebeid, E. S. M.
03/09/2018 → 31/01/2019

Teaching Philosophy

I believe the fundamental goal of teaching is to enhance the learning process. There are many different circumstances and contexts for learning. Although everyone is capable of learning, a student's desire to learn is a vital pre-condition to effectively mastering new concepts and skills. There are multiple learning styles: some students learn best in lecture atmospheres, some are motivated by discussion, and others absorb best when they read and reflect on what they have read. The classroom setting can encourage or inhibit learning depending on the dominant learning style of each student. However, the instructor creates the learning habits in which will be absorbed by the students. If the instructor does not

show interest in the subject and a passion for learning, students are less likely to put forth the effort to learn in that class.

Therefore my mission, as a lecturer, is to create an atmosphere that fosters learning. One of the best ways which I have learnt during Teacher Training course to foster learning is to use new teaching strategies such as blended learning to have a more effective classes than purely face-to-face or purely online classes. Therefore, I treat subject matter as interconnected, emphasizing that everything students are learning fits together into a holistic understanding of the world, from which they develop their personal world view. I believe this is best accomplished when I am thinking about a general research methodology.

Teacher training

Teacher Training Programme at Centre for Teaching & Learning, Aarhus University, Denmark, 2016.