Małgorzata Sikora is a graduate of the Faculty of Mechanical Engineering at Lodz University of Technology, obtaining two Master of Science and Engineering degrees: a Diploma with Distinction in Management and Production Engineering in 2005 and a Diploma in Mechanics and Mechanical Engineering in 2006, specialising in machine tools, machining and machine technology.

In 2005 she started doctoral studies in the field of machine design and operation and worked as an assistant at the Institute of Machine Tools and Production Engineering at Lodz University of Technology, working as an assistant. In 2010, she defended her doctoral dissertation with distinction on "Analysis and testing of hydrostatic properties of radial-thrust bearings for machine tool spindles" and took the position of an assistant professor. Since 2019 she has been working as a university professor.

In the last period of her studies, she also gained industrial experience as a technician and production engineer in companies such as BSH Sp. z o. o. and Hutchinson Poland Sp. z o. o. Later, she completed a one-year industrial internship at ZUTMAR, where she participated in the development and testing of new products. She also collaborates with other companies, learning new techniques and technologies.

Since 2016, she has been the Vice-Dean for Education (until 2019 for Education and Accreditation). During this time, she was responsible for creating the documents for accreditation of the degree programs offered by the faculty and the introduction of new degree programmes. She supervised the implementation of "Act 2.0" in the field of education and actively participated in three projects aimed at improving the quality of education at the Faculty of Mechanical Engineering of Lodz University of Technology. The aim of all Małgorzata Sikora's activities in the field of education is to involve students in the teaching process and provide them with the skills of independent and creative thinking, cooperation in a group and improvement of practical skills required in industrial conditions. She has been a member of several faculty and university committees.

Małgorzata Sikora's research interests include the topic of machine tools for metal cutting, in particular the broad issues of precise spindle bearings, and the study of machining processes of difficult-to-machine materials with special emphasis on their technological and economic optimization. She has authored or co-authored over 30 articles, two chapters in a monograph, co-authored two patents and one utility model application. She has conducted or is involved in conducting four research projects related to manufacturing process improvement and mobile robot design. In 2017 ÷ 2020 she was a representative of Lodz University of Technology in the Council of Partners of the Advanced Technology Centre "AERONET - Aviation Valley".

Małgorzata Sikora actively participates in the work of the Association of Polish Engineers and Technicians (SIMP) as a member of the Board of SIMP branch in Lodz and organises cooperation with faculty authorities. He is a member of the main competition committee of the National Competition for the Diploma and the President's Award of SIMP for the best mechanical diploma thesis prepared and defended at a Polish technical university. He is a member of the Scientific Society of Machine Tools and Tools SIMP, where he is the Vice President.