



## PROFESSIONAL PROFILE



**Dr. Marwa Ismail** joined MedQuest College in 2017 to not only develop the Biomedical Equipment Technology program but she serves as the Program Director and teaches several courses. Dr. Ismail has over 15 years of experience related to electronics, medical equipment, and mathematical pedagogies as well as over one decade of instructional experience teaching college-level biomedical courses at schools such as Sullivan University, Brown Mackie College and the University of Louisville. Dr. Ismail holds a Bachelors and Masters Degree in Biomedical Engineering at Cairo University in Egypt, and a PhD in Electrical and Computer Engineering from the University of Louisville.

Dr. Ismail has also been a consultant for several hospital organizations overseas by assisting with facility layout and equipment installation. She also oversaw the maintenance and repair of medical equipment used in the delivery of care in healthcare facilities. In addition, she has vast experience in software languages and assisting with the development of those programs. (LIST NAMES OF SOFTWARE). Her passion is helping students succeed and being the best they can be and her beliefs motivate her to strive for perfection. As Program Director, Dr. Ismail knows exactly what students need to be successful in the technology-driven Kentucky healthcare landscape. The ideal student for the Biomedical Equipment Technology program at MedQuest has an interest in, “math, information technology, networks. [This person] likes to repair stuff and play with equipment to see how it works” said Dr. Ismail. “It is very important for students to have the basics of electronics” she goes on to say. 40% of this program deals with hands-on training, because Dr. Ismail along with MedQuest College understands student needs and the demands of rapidly changing technologies impacting healthcare nationally.

Emerging technology is increasing demand for healthcare technology specialists. “The medical field is vastly growing, especially here in Louisville. This increases the demand for Biomedical Equipment Technicians. When I speak with collaborators, they mention they are always seeking skilled and qualified Biomedical Technicians.” Dr. Ismail's experience, intellect and overall contribution to the Biomedical industry has contributed her a reputation amongst her peers.

During her professional career, Dr. Ismail has collaborated on many projects and has over 40 published articles in the medical imaging field. Her contribution to and direction in many of the documented articles along with her experience and intellect is what earned Dr. Ismail the reputation she has gained amongst her peers in the Biomedical field. Many employers are seeking out the students who are under the direction of Dr. Ismail knowing the skills taught and knowledge gained will be top-knotch. She looks forward to sparking a passion for the profession within her students.

### PROJECTS

- [Early detection of autism from MRI scans](#)
- [Signal Processing for Biomedical Applications](#)
- [Retina Diagnosing](#)
- [Temporal analysis of pseudoprogression and brain tumor recurrences on routine MRI](#)
- [Colon Cancer Diagnosis](#)

### PUBLISHED WORK

- PLOS | ONE: [A fast stochastic framework for automatic MR brain images segmentation](#)
- American Association of Physicians in Medicine: [A computer-aided diagnostic system for detecting diabetic retinopathy in optical coherence tomography images](#)
- American Psychological Association: [Studying autism spectrum disorder with structural and diffusion magnetic resonance imaging: A survey.](#)

### PUBLISHED ARTICLES (Google Scholar)

- <https://scholar.google.com/citations?user=MmhEAf0AAAAJ&hl=en>