

Demands on industrial research differ from those in academic institutions. Though they are complementary, industrial research focuses more on practical issues, shorter timelines, and end-user needs, while academic research tends to focus more on theoretical issues and have longer-term timelines. They both have novel breakthroughs and attend to healthcare needs.

This special issue of *EMB Magazine* is aimed at highlighting healthcare technology from the aspect of industrial and clinical applications. Industrial research work is driven by user needs and clinical insights. The user can be the physician, nurse, patient, healthcare system, hospital, manufacturer of the medical system or device, etc. Hence, collaboration with clinical institutions is a necessity. Research work resulting from such collaboration focuses on the problem at hand without necessarily having to push the theoretical scientific or engineering envelope. By focusing on patient problems, applied research brings aspects to healthcare solutions that theoretical research does not.

EMBS is proposing the launch of a new Journal in 2011 in collaboration with the *American Medical Association (AMA)* and the *American College of Clinical Engineers (ACCE)*. This new Journal will focus on development and use of applications for advanced technology by industry engineers, and clinical practitioners & engineers. It will also provide a forum in which practitioners, engineers, and developers may have open dialogue through which to collaborate improving healthcare technology for the future. This special issue of *EMB Magazine* is a preamble to such a journal.

Submission should detail highly advanced engineering methodologies with a high potential impact on biomedical applications and healthcare technology. Authors may wish to use the following list as an acceptance selection guide:

1. Appropriateness of product or application to benefit the patient or the healthcare system
2. Level of difficulty of the problem tackled
3. Level of difficulty of the engineering methodologies used to tackle the problem

Manuscripts can be 5-7 pages in length, where color illustrations are free of charge, and font size is 11 and double spaced. For your submission to be considered, please send all of the following to l.bowlby@ieee.org:

Word Document as a source file for the text
High Definition, High resolutions file for graphics, equations
PDF file that combines the text and graphics, 2 column style

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