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Editorial

EDUCATION IN BIOMEDICAL ENGINEERING

WHILE ALL engineering students receive some in-depth coverage in a number of subject areas, getting it all together requires a broader view. Biomedical engineering is a case in point.

Biomedical engineering is an area that exemplifies the interdisciplinary nature of engineering and its educational process. The biomedical engineer receives training in aspects of electrical, and mechanical engineering as well as in the physical sciences and the humanities. In the education of the biomedical engineer the incorporation of design and ethics courses further demonstrates the interdisciplinarity of the professional environment.

The environment in which the biomedical engineer works also demonstrates a strong affinity with the human condition both physical and mental. This makes it an attractive area for students who feel that as engineers they should be more involved with the direct needs and care of people. The field has, therefore, a certain magnetism for prospective students who are contemplating whether to study a technical subject or opt for the humanities.

Technologically and scientifically advanced tools are operated and designed by engineers for the medical field. Common diagnostic tools such as MRI are constantly being improved to incorporate new applications of the physical sciences in engineering. This is why healthcare is a big industry requiring heavy financial commitments from the private and public sectors. But the demand for biomedical engineering graduates has been variable; as graduates they often compete for jobs with those from traditional engineering disciplines. In recent years though, a steady demand for biomedical engineers has developed and the limited number of well established providers of biomedical engineering education have proved quite successful.

John Webster, our guest editor, put together this special issue. His hard work and thoughts resulted in the excellent selection of papers, proving the interdisciplinary point. I wish to express my compliments to him and gratitude for his work. I also wish to thank the international team of authors from varying engineering backgrounds who contributed to this interesting issue and made it possible.

The papers for this issue were handled electronically at all stages, from submission to printing, this final publication being the only hard copy. With this issue we also commenced the electronic transfer of proofs to authors, eliminating the slower and more costly mailing process. This procedure all along the way, through reviewing, editing, typesetting, and proof-reading, to printing, will in future help to reduce our publication lead times.

Michael S. Wald