A new era of medical informatics bioengineering technologies to assist self tissue regeneration process

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Bioengineering is a discipline that advances knowledge in engineering, biology and medicine and improves human health through cross-disciplinary activities that integrate the engineering sciences with a very broad area of study, where medical informatics is a scientific/systematic field of study that deals with the acquiring, storage, retrieval and processing of medical, biological and associated data, information and knowledge for the purpose of problem solving and decision making. Bioengineering can include elements of electrical and mechanical engineering, computer science, materials, chemistry and biology. This breadth allows specialization in their areas of interest and collaborates widely with researchers in allied fields. The areas of bioengineering technology, such as tissue engineering, biomechanics and biomechatronics plays an important role to stimulate self cell regeneration, bone healing and muscles reconstruction. The ultimate goal of this technologies are to improve the quality of health care, research and education in medicine and health and manage greater quantities of data and more complex data over time specially for restorative medical fields.

Biography

Tamer M Nassef is currently an Assistant Professor in the Department of Computer and Software Engineering at Misr University for Science and Technology, Egypt. He teaches undergraduate courses as well as graduate courses in the Oral and Dentistry College at Cairo University and Biomechatronics Department at Ain Shams University. He has completed his MSc in Computer Diagnosing Systems in 2008 and PhD in Modeling Tissue Engineering Systems in 2011 at Cairo University.

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