Artificial Intelligence (AI) in Biomedical Engineering

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Abstract

Artificial intelligence (AI) refers to the simulation of human intelligence in machines that are programmed to think like humans and mimic their actions. Recent advances and applications of artificial intelligence (AI) in medicine via emphasizing this research area with novel biomaterials technology have shown great interest in medical applications. The way AI rapidly processes large amounts of information and arrives at likely causes for symptoms can drastically reduce the diagnosis-treatment-recovery cycle for many patients. The present seminar is divided into two parts; in the first part I will discuss the basic principle of the AI technology. In the second part, I will discuss the recent applications of AI technology in healthcare. I will further show some of our recent project in which AI technology has been used in biomedical engineering including in cancer, diabetes, biosensor, and tissue engineering.

Biography

Dr. Hossein Hosseinkhani, Chemical Engineer, has 30 years of experience in biomedical engineering in both academia and industry in biomedical engineering research and development, which includes several years of basic science research experience in a number of premier institutions related to the structure and function of biomaterials, and in polymer-based medical implants development in the medical device industry.

He is inventor of 22 International patents, several of which are licensed to companies acting in the biomedical fields and translated to 7 commercial products. He authored more than 100 scientific papers published on peer-reviewed Journals, 5 books (H-index: 46 Google Scholar). He is the founder of Matrix, Inc. a world leading biotech company dedicated to healthcare technology to improve patient's quality of life.