Abstract

Heart disease is one of more serious diseases which are considered as the first reason that causes deaths in the world. Therefore, the need arises to find new ways to maintain the safety of patients. The pacemaker is the important device that helps for regulating the heart rate and ensures its survival in the normal range of human heart. This paper proposed methods to control the pacemaker based on the model predictive control and neural predictive control. The results show the model predictive control with neural network gives the better performance with zero overshoot.

References


Index Terms

Computer Science

Control Systems

Keywords

Model predictive control, neural predictive control, pacemaker, heart rate.