Abstract

Hawk-Eye is the camera based ball-tracking system that enables players to challenge line-calling decisions on the courts of major tennis events such as Wimbledon. Paul McIlroy uncovers the machine vision technology behind the verdict on the big screen. He describes how the International Tennis Federation tested and accredited the system as an officiating aid and the technical challenges overcome to meet their stringent criteria for accuracy and reliability. He also reveals the pitfalls encountered in taking a vision system out of the lab and attempting to integrate it into the unforgiving world of broadcast television in remote corners of the earth.

Bio

Paul McIlroy (MEng, Cambridge) has worked for Hawk-Eye Innovations Ltd for 5 years. In 2005 he was appointed Technical Director and led the development team responsible for the accuracy increase required for umpiring use in tennis. He has recently worked on a goal-line system for soccer, a snooker product and further developed the Hawk-Eye cricket system with a view to future umpiring use.