## (12) UK Patent Application (19) GB (11) 2 357 207 (13) A

(43) Date of A Publication 13.06.2001

(21) Application No 0001008.2

(22) Date of Filing 18.01.2000

(30) Priority Data

(31) 9929193

(32) 10.12.1999

2.1999 (33) GB

(71) Applicant(s)

Roke Manor Research Limited (Incorporated in the United Kingdom) Roke Manor Research, Old Salisbury Lane, ROMSEY, Hampshire, SO51 0ZN, United Kingdom

(72) Inventor(s)

David Sherry Paul Hawkins

(74) Agent and/or Address for Service

Derek Allen Siemens Shared Services Limited, Intellectual Property Department, Siemens House, Oldbury, BRACKNELL, Berkshire, RG12 8FZ, United Kingdom (51) INT CL<sup>7</sup>
A63B 71/06 , G01C 11/06 , G01S 17/42

(52) UK CL (Edition S ) H4D DLAB D716 D718 D755 D775 D782

(56) Documents Cited

US 5868578 A US 5798519 A US 5498000 A
Electronic Telegraph, 5 August 1998, Charles Randall,
"LBW scheme has appeal"

(58) Field of Search

UK CL (Edition R.) H4D DLAB DLPC DLRP DLVX INT CL<sup>5</sup> A63B 71/06, G01C 3/08 3/10 3/18 11/00 11/06, G01S 11/12 17/42 17/58 ONLINE: WPI, EPODOC, JAPIO

## (54) Abstract Title Ball tracking and trajectory prediction

(57) A video processing system uses at two cameras to determine the 3D position of a ball in a series of frames. The future trajectory of the ball is calculated. The system uses at least four cameras so as to allow some redundancy in the system. The established trajectory is used to establish the likely occurrence of an event, principally for Ibw determination in cricket. The location of the ball is preferably established by an algorithm that does not rely upon the colour of the ball. A statistics generator may be used to record data relating to the ball track to be used in the decision making process. The field of view of each camera may be minimised so as to maximise the resolution of the ball. The system may be automatic or manual, have active/idle modes and produce a virtual replay of the ball's trajectory.

