

Chris Hinde

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Professor Hinde gained a BSc in Mathematics from Bristol University. He then worked for Bristol Tutor Group before undertaking a PhD in cybernetics at Brunel University. He then moved back to Bristol University joining the Computer Applications Group in the Department of Architecture as a Research Assistant. After spending about 5 years in Architecture he was then appointed as a lecturer in the then Computer Studies Department.

He was promoted to Senior Lecturer in 1992 and then to a personal chair in Computational Intelligence. On partial retirement in 2011 he was made Emeritus Professor which is his current position.

Professor Hinde's main interests are centred around Computational Intelligence and within that, reasoning under uncertainty, evolutionary systems and neural networks form the main themes.

He was programme co-chair for IEA/AIE2003 and Workshop general chair for UKCI04. He has served on the programme committee for several conferences and regularly referees conference and journal papers.

He is currently a member of the EPSRC Peer Review college. He was the founder of the Graphics Design and Intelligent Systems research group, which has since become Intelligent and Interactive Systems research group, of which he is leader.

He has held research grants almost continuously for the last 30 years and has published over 150 peer reviewed papers.

Fuzzy Sets

C.J. Hinde[‡]

Abstract The theory of Fuzzy sets is presented from the basic fundamentals to some of the more esoteric versions. Fuzzy sets are strongly linked to probability theory, however it is possible to discuss the probability of a fuzzy event and also the fuzziness of a probability. Once the fundamentals have been established a range of extensions are presented. The extensions include various methods of representing uncertainty about the value of the fuzzy membership values. This leads to the fuzziness of a fuzzy event, or type 2 fuzzy sets. As well as uncertainty and vagueness it is also possible to represent and calculate with inconsistent evidence. The distinction is made between inconsistency and contradiction. Whereas inconsistency or contradiction can render a semi-complete reasoning system incapable of making deductions the proper representation of inconsistency makes it possible to reason about inconsistency.

keywords fuzzy sets

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