

Dr Hiranmay Ghosh

Dr Hiranmay Ghosh is Principal Scientist, Multimedia Research Group at TCS Innovation Labs, New Delhi. His current research interests include Multimedia Systems, Computer Vision, Human-Computer Interface and Semantic Web.

TCS Innovation Labs is an R&D offshoot of TCS, which is one of the top ten software majors in India (<http://www.tcs.com>).

Dr Ghosh completed his Ph.D. in the year 2003 from the Department of Electrical Engineering, Indian Institute of Technology (IIT), Delhi after having pursued his B.Tech. from the Institute of Radiophysics and electronics, Calcutta University in the year 1977.

Before working with TCS, he has earlier worked with CMC Limited, Calcutta (1978-79), Electronics Corporation of India Ltd (ECIL), Hyderabad / Calcutta (1979-1985), M.N. Dastur & Co., Calcutta (1985-1985), Centre for Development of Telematics (C-DOT), Delhi (1985-2000), Tata Infotech Limited, Delhi (2000-2006).

He has co-authored several publications and made other significant contributions in various areas of his research interests. He is a senior member, IEEE, an adjunct faculty at IIT Delhi and member of Advisory Committee, Emerging Trends in AI Research, CSI-SIGAI. He is also member of the IEEE Software Engineering standards committee.

Professional associations and recognitions:

- Senior member, IEEE
- Adjunct Faculty, IIT Delhi
- Member, Advisory Committee member, Emerging Trends in AI Research, CSI-SIGAI
- Organizing co-chair, International Conference on Pattern Recognition and Machine Intelligence
- (PReMI), 2009
- Member of IEEE Software Engineering standards committee, 1995-2000 Great Achievement Award, C-DOT

Recent publications

In Journals

1. Hiranmay Ghosh, Sunil Kumar Kopparapu, Tanushyam Chattopadhyay, Ashish Khare, Sujal Subhash Wattamwar, Amarendra Gorai, Meghna Pandharipande. Multimodal indexing of Multi-lingual News Video. *International Journal of Digital Multimedia Broadcasting*. (In press).
2. H. Ghosh, G. Harit and S. Chaudhury. Using ontology for building distributed digital libraries with multimedia contents. *World Digital Library*, 1(2), Dec 2008, pp. 83-100.
3. H. Ghosh and S. Chaudhury. Distributed and Reactive Query Planning in R-MAGIC: An Agent based Multimedia Retrieval System. *IEEE Trans KDE*, 16(9), Sep 2004.

4. N. Rajarathnam, S. Bhange and H. Ghosh. Web Enabled Call Center. *IETE Technical Review*, 18(4), Jul-Aug 2001
5. H. Ghosh, S. Chaudhury, C. Arora and P. Nirankari. Image: An Extensible Agent based Architecture for Image Retrieval. *International Journal on Digital Libraries*, 2(4), May 2000.
6. H. Ghosh and H.M. Gupta. Multipoint Multimedia Communication. *IETE Technical Review*, 17(1), Jan-Feb 2000.

Book Chapters

1. S Chaudhury and H Ghosh. Ontology based access to heritage artefacts on the web. In *Multimedia Information Extraction and Digital Heritage Preservation*. Ed. B.B. Chaudhuri and U. Munshi. Springer (in press)
2. H.Ghosh, S. Chaudhury, K. Kashyap and B. Maiti. Ontology Specification and Integration for Multimedia Applications. In *Ontologies: A Handbook of Principles, Concepts and Applications in Information Systems*, Ed. R. Sharman, R. Kishore and R. Ramesh. Springer, 2007, pp. 265-296

In peer reviewed conferences

1. Ashish Khare and Hiranmay Ghosh. Smart Store: A mobile phone based shopping aid for the retail stores. *India HCI 2010*, Mumbai, March 2010.
2. Surjeet Mishra and Hiranmay Ghosh. Ontology-based Visualization and Navigation in an online Digital Library. *International Conference on Digital Libraries (ICDL'10)*, New Delhi (India), February 2010.
3. Surjeet Mishra and Hiranmay Ghosh. Effective Visualization and Navigation in a Multimedia Document Collection using Ontology. In *Proc. Pattern Recognition and Machine Intelligence (PReMI'09)*, Ed. S. Chaudhury, et al., Springer LNCS, December 2009, pp. 501 -506.
4. Ashish Khare, Hiranmay Ghosh, Sujal Wattamwar, Aniruddha Sinha, Brojeshwar Bhowmick, K.S. Kschidanand Kumar, Sunilkumar Kopparapu. Multimodal interactions in modern automobiles. *Workshop on Multimodal Interfaces for Automotive Applications (MIAA)*, *International Conference on User Interfaces(ICUI)*, Flor da (USA), February 2009
5. Ashish Khare, Hiranmay Ghosh and Jaideep Jagannathan. Shopping by Example: A new Shopping Paradigm in Next Generation Retail Stores. *International Conference on Computer Vision and Applications (VISAPP)*, Lisbon (Portugal), February 2009.
6. Sujal S Wattamwar, Surjeet Mishra and Hiranmay Ghosh. Multimedia Explorer: Content Based Multimedia Exploration. *IEEE Tencon*, Hyderabad (India) November 2008
7. Sujal Wattamwar and Hiranmay Ghosh. Spatio-Temporal Query for Multimedia Database. *Workshop on Multimedia Semantics*. ACM Multimedia Conference 2008,

Vancouver (Canada), October 2008

8. Hiranmay Ghosh, P. Poornachandra, Anupama Mallik and Santanu Chaudhury. Learning Ontology for Personalized Video Retrieval. *International Work shop on Many Faces of Multimedia Semantics (WMS07), ACM Multimedia*, Augsburg (Germany) September 2007.

9. Gaurav Harit, Santanu Chaudhury and Hiranmay Ghosh. Using Multimedia Ontology for generating conceptual annotations and hyperlinks in video collections. *International conference on Web Intelligence*, Hong Kong, December 2006

10. Hiranmay Ghosh, Gaurav Harit and Santanu Chaudhury. Ontology based interaction with multimedia collection. *International Conference on Digital Libraries*, New Delhi, Dec 2006

11. T. Karthik, Santanu Chaudhury and Hiranmay Ghosh. Specifying Spatio-Temporal Relations in Multimedia Ontologies. *International Conference of Pattern Recognition and Machine Intelligence*, Kolkata, Dec 2005

12. Brindaduti Maiti, Hiranmay Ghosh and Santanu Chaudhury. A Framework for Ontology Specification and Integration for Multimedia Applications. *Knowledge Based Computer System (KBCS 2004)*, Hyderabad, Dec 2004.

13. Neha Arora and Hiranmay Ghosh. Concept based Retrieval in a Painting Database. *Knowledge Based Computer System (KBCS 2004)*, Hyderabad, Dec 2004.

14. Gaurav Harit, Santanu Chaudhury and Hiranmay Ghosh. Managing Document Images in a Digital Library: An Ontology Guided Approach. International Workshop on Document Image Analysis for Libraries (DIAL-04), Palo Alto (USA), Jan 2004.

15. Hiranmay Ghosh, S. Pal and Santanu Chaudhury. An Economic Framework for Agent based Product Recommendation on Internet. *Indian International Conference on Artificial Intelligence (IICAI-2003)*, Hyderabad, Dec 2003.

16. Hiranmay Ghosh, Deepansh Malik and Santanu Chaudhury. GyanMantra: An Interactive Question Answering System. *Indian International Conference on Artificial Intelligence (IICAI-2003)*, Hyderabad, Dec 2003.

17. Hiranmay Ghosh and Santanu Chaudhury. WindowShopper: Guided Shopping in e-market. *Knowledge Based Computer Systems (KBCS-2002)*, Mumbai, Dec 2002.

18. Hiranmay Ghosh, N. Rajarathnam and Santanu Chaudhury. Knowledge Representation for Web based Services in a Multi-cultural Environment. *IEEE International Workshop on Website Evolution (WSE-2001)*, Florence, Nov 2001.

19. Hiranmay Ghosh, Santanu Chaudhury, A. Gupta and S. Gupta. Knowledge based Query Interpretation for Multimedia Retrieval in an Open Distributed Environment.

Conference on Knowledge Based Computer Systems (KBCS-2000), Mumbai, Dec 2000.