



Colloquium Talks

The Past, Present and Future of Databases: A 50 Year Perspective

by Professor Dr. Shamkant Navathe,
Georgia Institute of Technology, Atlanta, USA

October 6th, 2023, 9:00 - 11:00

Theatre Room (5104A)

Abstract

In this talk Prof. Navathe will present his unique perspective based on the last five decades he has spent studying and contributing to the database systems and database technology. He will cover the evolution of this technology from its inception till now. He will cover the various phases of development during which different models and systems became prevalent. He will discuss the landmark publications and give his detailed views about the solid grounding of the relational data model and his work on the ER model. He will mention the Turing Award winners in databases and his personal interactions with them. He will speak about the trends in products and the progression of issues addressed in research. Finally, he will present his thoughts about the challenges and opportunities that database researchers will face in the future.

Biography

Shamkant (Sham) Navathe is a professor and the founder of the database research group at the College of Computing, Georgia Institute of Technology (Georgia Tech), Atlanta, since 1990. He is well known for his work on database modeling, database conversion, database design, distributed database design, database integration, and bioinformatics applications. His more recent work has been on data visualization and query equivalence.

He was the General Co-chairman of the 1996 International VLDB (Very Large Data Base) International conference in Bombay, India. He was also program co-chair of ACM SIGMOD 1985 International Conference and General Co-chair of the 1995 IFIP WG 2.6 Data Semantics Workshop in Atlanta. He has been an associate editor of ACM Computing Surveys, and IEEE Transactions on Knowledge and Data Engineering. He is best known for his textbook Fundamentals of Database Systems, with R. Elmasri (Addison Wesley, Edition 7, 2016) - which has been the leading database textbook worldwide since it was introduced in 1989. The book has been translated into Chinese, Korean, French, German, Spanish, Italian, Portuguese, Greek, Polish, Arabic, Basque etc. He has also co-authored the book "Conceptual Design: An Entity Relationship Approach" (Addison Wesley, 1992) with Carlo Batini and Stefano Ceri.

Prof. Navathe was elected a fellow of the Association for Computing Machinery (ACM-2014) and is the recipient of the IEEE Computer Science, Engineering and Education Impact award in 2015.

Navathe holds a Ph.D. from the University of Michigan in 1976, an M.S. from Ohio State in 1970 and a B.E. from Indian Institute of Science in 1968. He has been the primary advisor of 25 Ph.D. students placed in academia and industry. He has over 200 refereed publications in journals and conferences.