

## Editor's Notes

Welcome to the last issue of the year. The main feature of this issue is a special topic section on Mobile Sensor Network Technology, Sensor Data Processing and Deployment. In addition, we present an article titled *Edgar F. Codd (August 23, 1923 – April 18, 2003): a tribute and personal memoir*, and contributions from the following regular sections: ACM TODS Developments, Database Principles, Distinguished DB profiles, Influential Papers, Book Reviews, Workshop Reports, and Research Centers.

The first article is written by C.J. Date in memory of E.F. Codd and his unique contributions to relational database technology. E.F. Codd's relational data model not only placed the database field on a solid mathematical foundation but also played a critical role in making the DB industry to be a multi-billion dollars industry. The second article is contributed by Rick Snodgrass, the editor in chief of ACM TODS, covering various developments in this top database archival journal.

The special section on Sensor Network Technology, Data Processing, and Deployment, is guest edited by Vijay Kumar. As Vijay stated in the Call for Papers, the rapid advances in sensor network technology present many interesting challenges in large scale streaming data management. Most of the sensors today (mobile or still) have programmable ability to gather massive amount of spatial and temporal data over vast geographical areas. Embedded sensor networks are massively distributed systems consisting of a large numbers of autonomous, interconnected sensory nodes, continuously sensing data of locally occurring phenomena. They can be deployed on a large scale in resource-limited and harsh environments such as earthquake/rubble zones, ecological contamination sites, or military battlegrounds. This special topic section is dedicated to featuring research work in sensor system infrastructure, sensor data processing (data capture, validation and consistency preservation), and sensor technology deployment. Due to the large number of submissions, we finally accepted 17 articles, with 10 articles presented in this issue and 7 articles to appear in the March 2004 issue. The ten papers presented in this issue focus on topics ranging from sensor data stream processing, sensor data mining, sensor mobility, sensor data capture and validation, to sensor deployment. The remaining seven articles to appear in the next issue devote to issues in designing distributed sensor network architecture, especially security, reliability, recovery in distributed sensor systems.

The rest of this issue contains contributions for regular sections. The *Database Principles* section presents an article on reasoning about regular path queries. The *Distinguished DB Profiles* section editor Marianne Winslett describes an interview with Pat Selinger. In this interview, Dr. Selinger shared with us her experiences and insights on several issues of common interest, including why the System R was so successful, what interactions the System R team had with the INGRES and QBE teams, how to make a successful technology transfer, what it takes to be a good manager, how to manage difficult people, and more. The *Influential Papers* section presents discussions on three papers that have influenced some people in their research. The *Book Reviews* section provides you with interesting book reviews on three recent books, including *Web Caching and Replication* by Michael Rabinovich and Oliver Spatscheck; *Data on the Web: From Relational to Semistructured Data and XML* by Serge Abiteboul, Peter Buneman, and Dan Suciu, and *Spatial Databases with*

*Application to GIS* by Philippe Rigaux, Michel Scholl, and Agnes Voisard. This issue also shares with you four reports featuring workshops on data warehousing, agent-oriented software engineering, flexible query answering, and data integration on the Web. This issue ends with an article in the *Research Centers* section describing the database engineering research in the University of Namur.

I would like to thank the guest editor Vijay Kumar and the authors for their collective efforts in putting together an excellent special section on Sensor Technology and Sensor Data Management. My special thanks are also due to the contributing associate editors, and all authors for their high quality work.

On behalf of the entire editorial board, I wish you a happy holiday season.

Ling Liu

Atlanta, October 2003