Relational Database Management Systems (RDBMSs) have been the predominant database systems during the past decades; they are established and mature systems with a declarative standard language SQL that offers complex operations (like joins) and their tabular data format is simple, strong, widely used, and easy to understand. However, recent developments in distributed storage systems and large amounts of data, so-called “Big Data,” have revealed some inherent weaknesses of the relational model. The new research challenges that will be addressed in this workshop are related to the emerging methods and techniques leveraged in NoSQL databases, the alternative technologies for solving different Big Data workload–related problems, the emerging database technologies and applications (mobile databases, multimedia databases, geographical information systems, biological/bioinformatics databases, sensor data management), the NoSQL advantages in social networking and semantic Web applications, the emerging pan-European data infrastructure that will enable interoperability, interlinking, and reuse of open data in public and also commercial services, and the need for enhanced security in the forthcoming business models (e-government, e-commerce).

The 2nd International Workshop on NoSQL Databases, Emerging Database Technologies, and Applications (NoSQL-Net 2015) was held at the Universitat Politècnica de Valencia, Spain, in conjunction with the 26th International Conference on Database and Expert Systems Applications (DEXA 2015). It was organized by Lena Wiese (Knowledge Engineering Research Group, Georg-August-Universität Göttingen, Germany), Valentina Janev (Institute “Mihajlo Pupin,” University of Belgrade, Republic of Serbia) and Irena Holubova (Department of Software Engineering, Charles University in Prague, Czech Republic). The workshop is intended to be a meeting point for the research communities of Big Data data management. It aims to instigate discussion and new collaboration between researchers of the two communities.

The program committee of the workshop consisted of 10 researchers and specialists from seven different countries representing 10 institutions, both from academia and industry. To ensure high objectivity, each of the submitted papers was reviewed by at least three Program Committee members for its technical merit, originality, significance, and relevance to the workshop. Finally, the Program Committee chairs decided to accept 66% of the submitted papers.

After the successful first two years providing several interesting ideas and research problems, we believe that NoSQL-Net will become a traditional annual meeting opportunity for the whole community.

NoSQL-Net 2015 Organizers