

---

## PREFACE

---

This issue contains papers selected from those presented at two important conferences that took place in Venice, organised by the Wessex Institute of Technology and the Politecnico di Milano. They deal with Urban Water Systems and Water Contamination.

In the first section, papers are included related to the Design, Construction, Maintenance, Monitoring and Control of Urban Water Systems. As cities continue to expand, their urban infrastructures need to be re-evaluated and adapted to new requirements related to the increase in population and the growing areas under urbanization. The Conferences considered these problems and dealt with two main topics: water supply systems and urban drainage. Topics such as contamination and pollution discharges in urban water bodies, as well as the monitoring of water recycling systems are currently receiving a great deal of attention from researchers and professional engineers working in the water industry. Water distribution networks often suffer substantial losses which represent wastage of energy and treatment. Effective, efficient and energy saving management is necessary in order to optimize their performance. Sewer systems are under constant pressure due to growing urbanization and climate changes, and the environmental impact caused by urban drainage overflows is related to both water quantity and water quality.

The second part of this issue deals with the Modelling, Monitoring and Management of Water Pollution. The Conferences discussed the environmental problems caused by the discharge of pollutants into natural waste bodies and other water systems. The contributions covered a wide variety of topics related to physical mechanisms of mixing and dilution, chemical and biological processes, mathematical modelling, data acquisition and measurement among many others.

The papers contained in this issue make a significant contribution to the solution of Urban Water and Water Quality problems. Management of all these aspects requires the development of specialised computer tools that can respond to the increased complexity of water systems.

The problems presented are by definition of a very interdisciplinary nature, requiring the collaboration of many types of scientists. It is also important that experiences are shared on an international basis, something that is reflected in the many countries represented in the authors' affiliations. This issue helps to establish a continuous exchange of information between scientists from different disciplines and diverse countries around the world.

These papers, like others presented at Wessex Institute Conferences, are referenced by CrossRef and appear regularly in suitable reviews, publications and databases, including referencing and abstract services. They are also archived online in the WIT eLibrary (<http://witpress.com/elibrary>) where they are permanently available to the international scientific community.

The editors would like to thank the authors for their contributions, as well as the members of the International Scientific Advisory Committees for their invaluable help in reviewing the papers.

*The Editors  
Venice, 2016*