This special issue of the Chemical and Biochemical Engineering Quarterly journal consists of 7 selected papers which were presented at the 4th International Symposium on Environmental Management – Towards Circular Economy (SEM2016), held in Zagreb, Croatia, December 7–9, 2016. SEM2016 was organized by the Faculty of Chemical Engineering and Technology of the University of Zagreb in cooperation with the University of Patras (GR), University of Nova Gorica (SI), University of Tuzla (BA), Faculty of Chemical Technology, University of Split (HR), Karlovac University of Applied Sciences (HR) and ODRAZ, Sustainable Community Development (HR). The conference brought together 120 environmental professionals and experts involved in the application of environmental assessment and management in businesses, scientific institutions, governmental agencies and civil society organizations from 12 countries all over the world. The scientific program of the conference included 4 plenary lectures, 9 invited lectures, 21 section lectures and 38 posters. The conference was traditionally devoted to the fundamental aspects and practical application of environmental management, this time with special emphasis on the concept of Circular Economy.

The principle objective of the SEM2016 conference was to give a broad overview of recent achievements in the field of environmental management and to discuss the latest advancements. The event was directed toward providing a venue for the fruitful interaction and exchange of ideas, estimating and discussing the current state of novel technologies, and new methods and approaches applied through this multi-, inter- and cross-disciplinary field of environmental management and engineering. The plenary lecturers, invited lecturers, and all conference participants marked a high level of the presentations.

More than 15 papers, the shorter versions of which were published in the Conference Proceedings, have been considered for publication in the Chemical and Biochemical Engineering Quarterly journal. After thorough conference and journal reviewing, the most valuable papers, dealing with the new solutions on environmental management, covering various engineering aspects, were selected. Hence, two original papers deal with water and wastewater treatment: azo dye removal by photocatalytic composite based on conductive polymers, and heavy metals removal by adsorption on modified zeolite. Waste management is covered in two papers: aerobic and anaerobic treatment of agro-industrial waste and hazard assessment of jarosite waste. Development of new “green” materials and technologies are represented in three papers dealing with development of new ceria nanocrystal catalysts, green synthesis of sucrose acetates and biodegradable polymer packaging.

We would like to thank all the authors and reviewers for their contributions to making this issue relevant reference material. Finally, we thank the editorial board of the Chemical and Biochemical Engineering Quarterly journal for giving us the opportunity to publish this special issue.