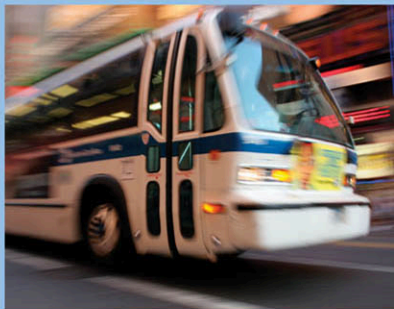




Urban Public Transportation Systems



2013



Proceedings of the
3rd International
Conference on
Urban Public
Transportation Systems

ASCE

Edited by
Steven L. Jones Jr., Ph.D.



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URBAN PUBLIC TRANSPORTATION SYSTEMS 2013

PROCEEDINGS OF THE THIRD INTERNATIONAL CONFERENCE ON
URBAN PUBLIC TRANSPORTATION SYSTEMS

November 17–20, 2013
Paris, France

SPONSORED BY
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EDITED BY
Steven L. Jones, Jr., Ph.D.



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Preface

The Third International Conference on Urban Public Transportation Systems was held at the prestigious Conservatoire National des Arts et Métiers (CNAM), in Paris France, on November 17-20, 2013. The conference follows a tradition of workshops and conferences sponsored by the American Society of Engineers (ASCE) intended to address themes related to improving mobility, accessibility and, ultimately, quality of life through advances in the field of transportation systems. The First International Conference on Urban Public Transportation Systems was held in Miami, Florida, during March 21-25, 1999 and the second on was held April 14-18, 2002 in Alexandria, Virginia.

The Third International Conference on Urban Public Transportation Systems was sponsored by the Public Transportation Committee (PTC) of the ASCE Transportation and Development Institute. The conference proceedings represent state-of-the-art and practice papers covering the following topics:

- Planning, Environment, and Finance
- Operations & Maintenance
- Infrastructure and Design
- Innovative Systems and Practices

The review process for conference papers began with a call for abstracts. Following their review, draft papers were submitted and reviewed by an international pool of reviewers from academia, private industry and public organizations. In all, 75 papers were reviewed by an international pool of reviewers from academia, private industry and public organizations. Where necessary, some papers underwent a second review and revision process. The final product of the efforts of all involved is this set of conference proceedings comprising 41 peer-reviewed conference papers.

On behalf of the conference organizers at-large and the PTC, we wish to thank all of the authors, presenters, session chairs, reviewers and the ASCE staff and consultants that made this conference and these proceedings possible. Particular gratitude is extended to Debby Tucker and Patrick Driscoll for assistance with the paper management system and their patience and flexibility throughout the process. Finally, we would like to dedicate these Proceedings to the life and work of Jean-Claude Ziv.

Steven L Jones, Jr., Ph.D., *Conference Co-Chair and Proceedings Editor*

Walter Kulyk, P.E., *Conference Chair*

Murthy Bondada, Ph.D., P.E., *Honorary Conference Chair*

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