# SIXTH

## INTERNATIONAL PURDUE CONFERENCE ON CONCRETE PAVEMENT

# "DESIGN AND MATERIALS FOR HIGH PERFORMANCE"

**NOVEMBER 18-21, 1997** 

Radisson Plaza and Suite Hotel 8787 Keystone Crossing Indianapolis, Indiana 46240 U.S.A.

# **VOLUME 1**

#### FOREWORD

These are the proceedings for the Sixth International Purdue Conference Pavement "Design and Materials for High Performance." This is the sixth in a planned series of such conferences to bring together experts from all over the world to discuss state-of-the-art issues in this subject area. The conference will cover all aspects of the design, evaluation, performance, and structural rehabilitation of Portland Cement Concrete pavements, including new and innovative techniques. In addition, the conference addresses the innovations of high performance concrete that are applicable to concrete pavements. Papers dealing with other topics such as bases, joints, and drainage will also be presented.

The First International Conference on Concrete Pavement Design was held at Purdue University on February 15-17, 1977. The Second International Conference on Concrete Pavement Design was held in Indianapolis, Indiana on April 14-16, 1981. Both of these conferences were quite successful, thanks to the tireless efforts of their chairman, Eldon J. Yoder, Professor of Civil Engineering at Purdue University. Eldy was very active in planning the Third International Conference until his untimely death in June 1983. The Third Conference was dedicated to his memory and to his many contributions to the engineering profession. It was held on April 23-25, 1985 at Purdue University. The Fourth and Fifth conferences were also held on the Purdue campus, in 1989 and 1993, respectively. The Sixth Conference is being held at the Radisson Inn at Keystone at the Crossing in Indianapolis.

The papers presented in these proceedings were selected from the 100 synopses submitted in response to the initial call for papers in January of 1996. The papers selected for presentation at the conference were reviewed in two stages. First, there was a review of the synopses and secondly, the papers of the selected synopses were reviewed. Due to the many fine papers submitted, the Program Committee decided also to publish some of the excellent papers which could not be included in the conference program. The papers published in these proceedings have been organized in the same format as that of the general program, as follows:

Wednesday morning, November 19	Opening Session
Wednesday afternoon, November 19	Concurrent Sessions on topics: Design, Materials, Overlays, and Performance
Thursday morning, November 20	Concurrent Sessions on topics: Construction, Evaluation, Overlays, and Performance
Friday morning, November 21	Concurrent Sessions on topics: Construction, Performance, Analysis, Texturing

The format of the conference allows presenters to make formal presentations of their papers followed by questions from the audience and responses by the authors. Interaction between authors and attendees will be encouraged throughout the conference. There will be a poster session, vendor exhibits, and several field trips available at this conference.

The compilation of these proceedings and the conference program would not have been possible without the generous efforts of the Program Committee members in reviewing and selecting the final papers and presentations. The Program Committee members are identified on the next page. Special thanks to the Federal Highway Administration for its financial assistance in publishing this preprint. Finally, the efforts and cooperation of the authors of the papers in these proceedings are deeply appreciated. These efforts have enabled us to publish a quality document that will constitute an excellent reference tool for engineers engaged in highway design, construction, and maintenance for many years to come.

Charles F. Scholer, Conference Chairman Purdue University, School of Civil Engineering West Lafayette, Indiana 47907-1284

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