Welcome to the Proceedings of ACOUSTICS 2004. This volume contains papers presented at the 2004 Annual Conference of the Australian Acoustical Society, held on Queensland's Gold Coast in November 2004. The annual conference of the Australian Acoustical Society has a long history and has developed as an important forum for the dissemination of information relating to the science and practice of acoustics in Australia.

The theme for ACOUSTICS 2004 was *Transportation Noise and Vibration - The New Millennium*. This is the first time that our annual conference has focused on this important and growing field of acoustics. The major sub-themes were underwater acoustics and architectural and building acoustics. 140 abstracts, covering a broad range of topics, were submitted for inclusion in the technical program. After abstract review, authors were invited to submit full papers. The Technical Review Committee, which included over 50 professionals and academics working in acoustics and vibration, reviewed the manuscripts. Ultimately, the final technical program for the conference included 111 papers.

The major theme was well supported with papers covering road, rail and air transportation noise and vibration. Following from the success of recent Australian Acoustical Society Conferences, the program included a strong underwater acoustics contingent, with both the physical and bio-acoustic aspects featured. May 2004 saw the introduction of the new acoustical provisions of the Building Code of Australia. ACOUSTICS 2004 proved to be an ideal forum for discussion of this major development.

Four workshops, *Wheel/Rail Noise and Vibration, The New Building Code of Australia, Building Design for Transportation Noise Control* and *Low-Noise Road Surfaces*, were an integral part of the technical program. In addition, a Short Course entitled *Environmental and Transportation Noise - Planning and Enforcement Issues* was conducted prior to the commencement of the main technical program.

The editors thank all authors for their efforts in contributing to the technical success of the conference. We also sincerely thank the Technical Review Committee for their assistance in reviewing the large number of papers submitted. As these proceedings are published prior to the Conference, we look forward to an exciting technical program and to a successful ACOUSTICS 2004.

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