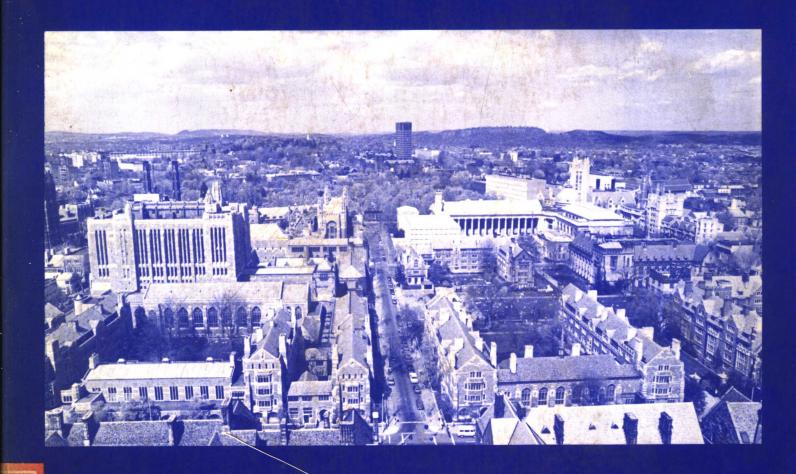
# Proceedings of the Twelfth Annual Northeast Bioengineering Conference



Editor Stelios C. Orphanoudakis

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March 13–14, 1986 Yale University New Haven, Connecticut

Editor
Stelios C. Orphanoudakis

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## Proceedings of the Twelfth Annual Northeast Bioengineering Conference

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#### **PREFACE**

The Twelfth Northeast Bioengineering Conference was held on March 13–14, 1986 on the Yale University campus in New Haven, Connecticut.

This regional conference serves as a forum for the exchange of technical and scientific information between engineers, physicians, and other scientists interested in bioengineering research, development, and education. The Proceedings are published to provide a printed record of the meeting which can be made available to both Conference participants and the general scientific community. The papers contained in this volume have been contributed by conference participants and were selected on the basis of abstracts which underwent peer review. The final manuscripts were reviewed by the Editor only as to length and format. The technical content remains the responsibility of the individual authors.

The conference consisted of 18 scientific sessions held over a two day period. These sessions covered a number of different areas of bioengineering research including instrumentation, biomechanics, bioelectric phenomena, medical imaging, digital signal processing, image analysis, medical artificial intelligence, control, modeling and simulation, tissue characterization, and the treatment of cancer. This year, the plenary session address, entitled "Targeting Engineering Research to Impact Medical Practice", was given by Alfred R. Potvin, Ph.D. Conference participants had the opportunity to interact informally at a banquet held in the evening of the first day, which was followed by a presentation on "Vision and Medical Instrumentation" made by C. Carl Jaffe, M.D.

We would like to take this opportunity to thank the sponsors of the conference, invited speakers, steering committee, reviewers, session chairs, conference staff, and the conference participants for helping to make the conference a success.

Stelios C. Orphanoudakis Editor and Chairman James S. Duncan Program Co-Chairman

April, 1986 Yale University New Haven, Connecticut

# Roster of the Northeast Bioengineering Conferences

Conference	Year	Location
First	1973	University of Vermont
Second	1974	Worcester Polytechnic Institute
Third	1975	Tufts University
Fourth	1976	Yale University
Fifth	1977	University of New Hampshire
Sixth	1978	University of Rhode Island
Seventh	1979	Rensselaer Polytechnic Institute
Eighth	1980	Massachusetts Institute of Technology
Ninth	1981	Rutgers University
Tenth	1982	Dartmouth College
Eleventh	1985	Worcester Polytechnic Institute
Twelfth	1986	Yale University
Thirteenth	1987	University of Pennsylvania and Drexel University

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Alfred R. Potvin, Ph.D Medical Instrument Systems Research Division, Eli Lilly and Company, Indianapolis, IN

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