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Preface

These proceedings contain the papers presented at the Sixth Annual Conference on Evolutionary Programming (EP97) held jointly with the 1997 IEEE International Conference on Evolutionary Computation (ICEC97) at Indiana University Purdue University Indianapolis, in Indianapolis, Indiana.

This year marked several important milestones for the conference, common for a scientific event moving from infancy into maturity. First is the co-location of the conference with ICEC97 and the joint sponsorship with the IEEE Neural Networks Council. The opportunity to hold a joint conference has allowed the breadth and depth of research standard for the Conference on Evolutionary Programming to reach a larger audience. For that opportunity we thank the ICEC97 committee and the IEEE Neural Networks Council. Second, the venue itself, Indianapolis, is the first city outside of San Diego to host an EP event. While it is never easy to leave home for the first time, it was a step the conference needed to take to continue growing. And lastly, where previous EP proceedings were produced after the event, this year marked the first attempt to produce the proceedings prior to the conference. With each of these changes, the Conference on Evolutionary Programming better defines its role as a forum for the presentation and dissemination of the highest quality research covering all methods and techniques in the field of evolutionary computation.

While many of the traditions of the conference were interrupted this year, the papers in this volume demonstrate that our tradition of publishing quality research over a wide range of topics is intact. The papers collected here cover a number of the field's important contemporary research topics. Special sessions on *Evolving Social Systems*, *Evolutionary Computation Theory and Analysis*, and *Issues in Adaptability* anchored the more traditional themes of *Evolutionary Optimization Issues*, *Enhanced Evolutionary Operators*, and the application of these techniques to difficult engineering problems. In addition, the strong collection of Genetic Programming articles, a fixture of the conference for four years now, belies the close association between GP and EP that extends well beyond similar names.

Thanks to the program committee and to all our friends behind the scenes in San Diego and Indianapolis who helped to pull this joint conference together. And a special thanks to all of our colleagues, domestic and abroad, whose hard work and continued support made this conference worthwhile.

February 1997

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