

**Lecture Notes in Computer Science**

**1346**

Edited by G. Goos, J. Hartmanis and J. van Leeuwen

Advisory Board: W. Brauer D. Gries J. Stoer

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# Foundations of Software Technology and Theoretical Computer Science

17th Conference

Kharagpur, India, December 18-20, 1997

Proceedings



Springer

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Cataloguing-in-Publication data applied for

**Die Deutsche Bibliothek - CIP-Einheitsaufnahme**

**Foundations of software technology and theoretical computer**

**science : 17th conference, Kharagpur, India, December 18 - 20, 1997  
; proceedings / S. Ramesh ; G. Sivakumar (ed.). - Berlin ; Heidelberg  
; New York ; Barcelona ; Budapest ; Hong Kong ; London ; Milan ;  
Paris ; Santa Clara ; Singapore ; Tokyo : Springer, 1997**

**(Lecture notes in computer science ; Vol. 1346)**

**ISBN 3-540-63876-8**

**CR Subject Classification (1991): F.3-4, D.3, D.1, I.2, F.1-2, G.2**

**ISSN 0302-9743**

**ISBN 3-540-63876-8 Springer-Verlag Berlin Heidelberg New York**

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Printed in Germany**

**Typesetting: Camera-ready by author  
SPIN 10652655 06/3142 - 5 4 3 2 1 0 Printed on acid-free paper**

## Preface

The Foundations of Software Technology and Theoretical Computer Science conference, held annually in India, is a well established forum for researchers to present original research results. It is now organized by the Indian Association of Research in Computing Science (IARCS, <http://www.imsc.ernet.in/~iarcs>).

This year's conference is the seventeenth in the series. It attracted 68 submissions from as many as 15 countries. Each submission was reviewed by at least three referees including one program committee member. Based on the reviews, 18 submissions were selected at the program committee meeting held on July 26, 1997 at the Indian Institute of Technology, Bombay. We thank all the reviewers for their assistance in ensuring the high quality of the program.

One of the attractions of the FSTTCS conference is the invited talks. It is a great pleasure for us to thank the five invited speakers for this year— Ed Clarke, Deepak Kapur, Madhu Sudan, Vijaya Ramachandran, and Moshe Vardi— for readily agreeing to give talks and for providing written submissions for the proceedings.

This year's conference is preceded by a two-day workshop on randomized algorithms. Special thanks to Vijaya Ramachandran, Edgar Ramos, Aravind Srinivasan, Sandeep Sen, and Madhu Sudan for their participation in the workshop.

The conference and the workshop are held on the campus of Indian Institute of Technology, Kharagpur. We thank the local organizers and IIT Kharagpur for providing the infrastructural support. We also thank the governmental agencies (DST, DOE, AICTE, INSA) and other organizations (IEEE Kharagpur, Synetics Corporation, Viewlogic Systems, Compaq Computer Asia, Digital Equipment (India) Ltd., Alumnus Software, Motorola India Electronics Ltd., Price Waterhouse Associates, Vedika Software, and Modi Xerox Ltd.) who have extended financial support.

Special thanks to our students Parag Deshmukh, Sridhar Iyer, and Ramesh Babu, and to the office staff of our department for their help in various ways. We also thank Alfred Hofmann, Anna Kramer, and the staff at Springer-Verlag for their continued support in bringing out the proceedings.

IIT Bombay  
October 1997

S. Ramesh  
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