

## Venkatesh Raman

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### Research Interests

Parameterized Complexity, Exact Exponential Algorithms, Data Structures, Sorting, Selection and Searching, Approximation and Randomized Algorithms

### Work Experience

Aug 1991 - Present    Faculty at the  
The Institute of Mathematical Sciences, Chennai.  
Professor H since February 2009.

Mar 1991 - Jul 1991    *Post-Doctoral Fellow* at  
The Department of Computer Science, University of Waterloo, Canada.

### Education

- Ph. D. in Computer Science, University of Waterloo, Waterloo, Ontario, Canada. (February 1991) Advisor: Professor Ian Munro
- M. Math. in Combinatorics and Optimization, University of Waterloo, Canada. (August 1986.)
- M. Sc. in Mathematics, IIT Kanpur, Kanpur, India 208016 (May 1984).

### PhD Students Supervised

1. Ashwin Jacob (defended in August 2022), currently at Ben Gurion University, Israel as a post-doc.
2. Arindam Biswas (defended in March 2022), currently at TU Ilmenau in Germany as a post-doc
3. Niranka Banerjee (defended in October 2021), currently at Research Institute of Mathematical Sciences, Kyoto University as a post-doc
4. Sankardeep Chakraborty (defended in March 2018), currently a Post-doctoral researcher at National Institute of Informatics, Tokyo
5. Diptapriyo Majumdar (defended in October 2018), currently an assistant professor at IIIT Delhi.
6. Varunkumar Jayapaul (Chennai Mathematical Institute, defended December 2017), currently an assistant professor at IIT Mandi.

7. Pratibha Choudhary (IIT Jodhpur, jointly supervised with Aritra Banik, defended on March 18, 2021), currently a post-doctoral researcher at Czech Technical University, Prague.
8. Geevarghese Philip (defended September 2011), currently an associate professor at Chennai Mathematical Institute (CMI).
9. Neeldhara Misra (jointly supervised with Saket Saurabh, defended September 2011), currently an associate professor at IIT Gandhinagar
10. Somnath Sikdar (defended August 2009), currently a senior Data Scientist at Aifora, Germany
11. Saket Saurabh (defended December 2007), currently a Professor H at IMSc Chennai
12. S. Srinivasa Rao (defended December 2001), currently an associate professor at NTNU, Norway.

### **Edited Proceedings/Journal Issues**

1. Proceedings of the 34th International Conference on Foundation of Software Technology and Theoretical Computer Science, FSTTCS 2014, December 15-17, 2014, New Delhi, India. LIPIcs 29, Schloss Dagstuhl - Leibniz-Zentrum fuer Informatik 2014, ISBN 978-3-939897-77-4 (with S. P. Suresh).
2. Space Efficient Data Structures, Streams and Algorithms, papers in honor of J. Ian Munro, springer verlag LNCS 8066 (with Andrej Brodnik, Alejandro Lopez-Ortiz and Alfredo Viola), August 2013.
3. Special Issue on Parameterized and Exact Computation, Algorithmica 64(1) 2012, Algorithmica 65(4) 2013 (with Saket Saurabh)
4. Proceedings of the 5th International Symposium on Parameterized and Exact Computation, Springer Verlag LNCS **6478** December 2010 (with Saket Saurabh).
5. Proceedings of the 19th International Conference on FST & TCS, Springer Verlag, LNCS **1738** (December 1999) (with C. Pandu Rangan and R. Ramanujam).

**Publications** Full list can be obtained from <https://dblp.org/pid/25/2134.html>

### **Other Professional Activities**

- Member of the Editorial Board of 'Indian Journal of Discrete Mathematics' (<http://ijdm.adma.co.in>).
- Member of the faculty team for Algorithms and Data Structures in the Certificate Program in Computer Science Education ([csedu.iiitd.ac.in](http://csedu.iiitd.ac.in)).
- Adjunct Faculty at IIT Jodhpur (2015-2018), ISI Bangalore (Jan-May 2014, and Jan-May 2015), IISER Pune (August-December 2019).
- Member of the ACM-India Executive Council since 2016. Vice-President during 2018-2020. Secretary during June 2020-2022 and President since July 2022.

- Initiated several regular events including Summer/Winter Schools for senior undergraduate students, ARCS event for PhD students, Teaching Partnership Program for College Teachers, CTiS conference for school teachers in computing.
- Member of the Board of Studies at IIITDM Trivandrum, PSG College of Technology Coimbatore, Amrita Vidyapeeth Coimbatore, Stella Marys College, Chennai.
- Member of the Steering Committee of FST&TCS Conference of Indian Association of Research in Computing Science, since December 2021.
- **Recent Program Committee Membership** WADS 2021, ISAAC 2021, COMPUTE 2020 (Co-Chair), COMPUTE 2019 (Co-Chair), FAW 2018, IPEC 2017, CALDAM 2018, 2017, FST & TCS 2014 (Co-Chair), IPEC (formerly IWPEC) 2010 (Co-Chair)
- Member of the steering committee of International Workshop on Parameterized Complexity from 2006 to 2010.
- Member, DST-DAAD (Indo-German) project on ‘Provably efficient exact algorithms for computationally hard problems’ 2005-2007.
- Member, DST-DAAD (Indo-German) project in ‘Algorithmic and Complexity Issues in Fixed Parameter (In)Tractability’ 1998-2000.
- Principal Investigator, Indo-UK DST project on ‘Highly Efficient Data Structures’ 2000-2002.
- Member of the council of Indian Association for Research in Computing Science (IARCS) 2002-2005.

#### **Selected visits to International Institutions**

- University of Waterloo, Canada (several short visits during the last thirty years including a sabbatical year during September 2012 to August 2013)
- University of Bergen, Norway
- MaxPlanck Institute for Informatics, Germany