

# Curriculum Vitae

## Surender Baswana

Professor

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### Research Interest

Design and analysis of computer algorithms, especially Graph algorithms, Dynamic algorithms, Fault-Tolerant structures, Randomized algorithms.

### Education

Degree	Institute	Department	Year
Bachelor of Technology	Indian Institute of Technology Delhi	Comp. Sc. and Engg.	1997
Master of Technology	Indian Institute of Technology Delhi	Comp. Sc. and Engg.	1999
PhD	Indian Institute of Technology Delhi	Comp. Sc. and Engg.	2005

*Important Note:* PhD thesis was submitted in October 2003, but the thesis defence could be held in July 2005 due to delay in the reports of the examiners. So the PhD degree could be awarded only in August 2005. I have uploaded the scanned copy of the PhD Degree certificate as well.

### Employment

Professor (August 2016 - onwards)

Deptt. of Comp. Sc. & Engg., I.I.T. Kanpur.

Associate Professor (December 2010 - July 2016)

Deptt. of Comp. Sc. & Engg., I.I.T. Kanpur.

Assistant Professor (July 2006-November 2010)

Deptt. of Comp. Sc. & Engg., I.I.T. Kanpur.

Postdoctoral Researcher

(October 2003- June 2006)

Max. Planck Institute of Computer Science  
Algorithms & Complexity group,  
Saarbruecken, Germany.

### Supervision of students

Number of <b>PhD</b> thesis supervised	3 (One thesis was co-supervised with Prof. Sandeep Sen )
Number of <b>Masters</b> thesis supervised	17

### Sponsored Projects

1. Title of the project: Dynamic Graph Algorithms

Duration: October 2014-September 2017

Sponsors: University Grants Commission (UGC) of India and Israel Science Foundation

Funding Amount: INR 38,40,000 (Around 60,000 US Dollar).

## Research Publications

Journals	Publication year
ACM Transactions on Algorithms	2006, 2010, 2012
SIAM Journal of Computing	2010, 2015, 2017
Algorithmica	2002, 2013, 2016
Random Structures and Algorithms	2007
Journal of Algorithms	2007
Theoretical Computer Science	2009
Information Processing Letters	2008

There are a total 25 publications in peer reviewed conferences. Find below the 15 publications appearing in Tier 1 (or Premium) conferences.

Peer Reviewed Conference	Publication year
ACM-SIAM Symposium on Discrete Algorithms (SODA)	2003,2004,2005, 2008,2012,2016
International Colloquium on Automata Languages and Programming (ICALP)	2003,2008, 2014, 2017
ACM Symposium on Theory of Computing (STOC)	2002, 2016
IEEE Symposium on Foundation of Computer Science (FOCS)	2006, 2011
Computer Aided Verification (CAV)	2008

## Professional Services

- *Programme Committee member FSTTCS 2012*  
Served as a PC member for 32nd Conference on Foundations of Software Technology and Theoretical Computer Science held during December 15-17, 2012 at Hyderabad, India.
- *Programme Committee member ICALP 2005*  
Served as a PC member (Algorithms track) for 32nd International Colloquium on Automata, Languages and Programming held during July 11-15, 2005 at Lisboa, Portugal.

## Awards and Achievements

### Research:

- Received certificate for exceptional contribution for the development of the software for the joint seat allocation in central government funded technical institutes of India in 2015.  
This software was based on the adaptation of the Gale-Shapey algorithm of stable marriage in Indian setting: incorporating various complex business rules of admissions. This software led to a significant reduction in the vacancies in these institutes. [Visit my homepage for details]
- Young Engineer Award from Indian National Academy of Engineering for the year 2009.
- Research I Fellowship for years 2007-2010 by Research I Foundation, Department of Computer Science and Engineering, IIT Kanpur.
- Outstanding Ph.D. Dissertation Award by IBM India Research Lab in 2005.

### Teaching :

- *Gopal Das Bhandari Memorial Distinguished Teacher award* by the graduating batch of the year 2010 across all disciplines in IIT Kanpur.
- *Best Faculty Award* by the graduating batches of the Department of Comp. Sc. & Engg., IIT Kanpur for the years 2010, 2011, 2012, 2013, 2015, and 2017.