

# Sujit Prakash Gujar

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## CONTACT INFORMATION

E - Commerce Laboratory,  
Department of Computer Science and Automation,  
Indian Institute of Science, Bangalore-560012, India.  
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## RESEARCH INTERESTS

Game Theory and Mechanism Design, Algorithmic Game Theory, Mechanism Design for Heterogeneous Settings, Optimal Mechanism Design, Redistribution Mechanisms, Online/Dynamic Mechanism Design, Multi-Agent Systems. Algorithmic Mechanism Design. Mechanism Design for Carbon Economics. Optimization. Cryptographic Game Theory. (Privacy in Auctions) Cryptography, Information Security.

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## EDUCATION

**P.h.D.** [2006 - Current]  
Department of Computer Science and Automation (CSA),  
Indian Institute of Science (IISc), Bangalore, India.  
**Advisor:** Prof Y Narahari.  
**CGPA:** 6.9/8.0.

**M.E.(ISE.)**, [2004 - 2006]  
Department of Computer Science and Automation (CSA),  
Indian Institute of Science (IISc), Bangalore, India.  
**Thesis Title:** Measures for Classification and Detection in Steganalysis  
**Thesis Supervisor:** Prof. C E Veni Madhavan.  
**CGPA:** 7.2/8.0 **Rank 1**

**B.E. (ECE)**, [1997 - 2001],  
Govt. College of Engineering, Pune  
**Score:** 70.00%

**HSC**, [1995-1997],  
Maharashtra State Board of Secondary and Higher Secondary Education.  
**Score:** 90.00%

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## SUMMER INTERNSHIP

Prof David C Parkes. Harvard EconCS Group, School of Engineering and Applied Sciences, *Harvard University*. (Summer 2009.)

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## PUBLICATIONS

### Journal Publications

Dinesh Garg, Y. Narahari, Sujit Gujar, “*Foundations of Mechanism Design: A Tutorial - Part 1: Key Concepts and Classical Results.*” *Sadhana - Indian Academy Proceedings in Engineering Sciences*, Volume 33, Part 2, pp 83-130, April 2008.

Dinesh Garg, Y. Narahari, Sujit Gujar, “*Foundations of Mechanism Design: A Tutorial - Part 2: Advanced Concepts and Results.*” *Sadhana - Indian Academy Proceedings in Engineering Sciences*, Volume 33, Part 2,ssss pp 131-174, April 2008.

### Book Chapters

Y. Narahari and Sujit Gujar, “*Auctions in Electronic Commerce*”. Invited Book Chapter in: *The Handbook of Technology Management*, Volume III, pg 612-625, John Wiley and Sons.

### Conference Publications

Sujit Gujar, James Zou and David Parkes, “*Dynamic House Allocation*”, In the Proceedings of 5<sup>th</sup> Multidisciplinary Workshop on Advances in Preference Handling (M-PREF '10), 2010. *To Appear*.

Sujit Gujar and David Parkes, “*Dynamic Matching with a Fall-back Option*”, In the Proceedings 19th European Conference on Artificial Intelligence (ECAI '10), 2010. *To Appear*.

James Zou, Sujit Gujar and David Parkes, “*Tolerable Manipulability in Dynamic Assignment without Money*”. In the Proceedings 24th AAAI Conference on Artificial Intelligence (AAAI '10), 2010. *To Appear*.

Sujit Gujar and Y. Narahari, “*Redistribution Mechanisms for Assignment of Heterogeneous Objects*”. *Formal Approaches to Multi-Agent Systems*, (FAMAS'09). Torino, Italy.

Sujit Gujar and Y. Narahari, “*Optimal Multi-Unit Combinatorial Auctions with Single Minded Bidders*”. The 11th IEEE Conference on Commerce and Enterprise Computing (CEC'09), pp 74-81.

Sujit Gujar and Y Narahari, “*Redistribution of VCG Payments in Assignment of Heterogeneous Objects*”. In Proceedings of the 4th International Workshop on Internet

and Network Economics (WINE), 2008, pp 438-445.

Sujit Gujar and Y Narahari, “*An Optimal Multi-Unit Combinatorial Procurement Auction with Single Minded Bidders*”. Managing Complexity in a Distributed World, a Centenary Conference of Division of Electrical Sciences, Indian Institute of Science, (MCDES) 2008.

Sujit P Gujar and C E Veni Madhavan, “*Measures for Classification and Detection in Steganalysis*”, In Proceedings of 3<sup>rd</sup> Workshop on Computer Vision, Graphics and Image Processing- WCVGIP 2006, pp. 210-214, January 2006.

### Working Papers

Akash Das Sarma, Sujit Gujar, Y Narahari, “*Truthful Multi-Armed Bandit Mechanisms for Multi-Slot Sponsored Search Auctions*”, Working Paper, Electronic Commerce Laboratory, Department of Computer Science and Automation, Indian Institute of Science, Bangalore, India May 2009. *Communicated*.

Sujit Gujar and Y. Narahari, “*Optimal Multi-Unit Combinatorial Auctions*”. Working Paper, Electronic Commerce Laboratory, Department of Computer Science and Automation, Indian Institute of Science, Bangalore, India April 2009. *Communicated*.

Sujit Gujar and Y. Narahari, “*Redistribution Mechanisms for Assignment of Heterogeneous Objects*”. Working Paper, Electronic Commerce Laboratory, Department of Computer Science and Automation, Indian Institute of Science, Bangalore, India February 2009. *Communicated*.

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### COURSE WORK AT IISc

ME Courses (Grade)		PhD Courses (Grade)
Cryptography (S)	Game Theory(S)	Analysis-I (S)
Network Storage and Security.(S)	Design and Analysis of Algorithms(A)	Topology(A)
Data Structures(B)	E-commerce(S)	Linear Algebra(A)
Computational Methods of Optimization(A)	Computer Communication Network (A)	Topics in Approximation Algorithms(B)
Discrete Structures(A)	Pattern Recognition(B)	

### Other Courses (Audit)

Stochastic Modeling and Applications, Topology-II, Discrete Structures, Analysis-II (Measure Theory), Topics in Graph Theory, Algebra and Computation, Modeling and Algorithms for large data sets, Calculus on Manifolds. Stochastic Approximation Algorithms.

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## ACADEMIC HONORS

Recipient of Infosys Fellowship.

**Rank 1**, ME ISE, IISc, 2004-2006 batch.

GATE Score **99.66** percentile, MHRD Scholarship holder.

Stood 5th in '**Ganit Parangat**' state level (Maharashtra) examination.  
Ganit Parangat is Mathematical examination conducted at school level for testing mathematical abilities.

Selected through **IIT JEE** (Joint Entrance Examination) for admission to IIT. (AIR2255).

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## SKILLS

Proficient in Programming for multiprocessor environment.

Programming Languages: C, C++, MFC, Java.

Tools: Matlab, VC++, Netbeans, Eclipse.

Operating Systems Exposure: Windows, Linux. RTOS: Symbian, RTLinux, WinCE.

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## INDUSTRY EXPERIENCE

I worked as Software Engineer in PACE Soft Silicon Pvt. Ltd. (July 2001 - July 2004). During this period I acquainted various skills such as programming for multiprocessor environment, cryptography, network security and multimedia related technologies. I got exposure to work with various embedded OS/ RTOS, (Real Time Operating Systems) on different platforms.

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## REFERENCES

Available on request.

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