Syamantak Das

Curriculum Vitae

CONTACT INFORMATION	FB 3, Mathematik/Informatik Universität Bremen Bibliothekstraße 28359 Bremen, Germany

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WEBPAGE · http://cslog.uni-bremen.de/sdas/

RESEARCH INTERESTS

Algorithmic problems both of theoretical interest as well as application oriented. I take specific interest in the area of approximation and online algorithms for combinatorial optimization problems.

WORK EXPERIENCE

Universität Bremen, Bremen, Germany

Postdoctoral Researcher, Mathematik/Informatik, October 2017 - Present

Max Planck Institut für Informatik, Saarbrücken, Germany

Visiting Postdoc, Algorithms and Complexity Group, Jan 2016 - September 2016

EDUCATION

Indian Institute of Technology Delhi, New Delhi, India

Ph.D., Computer Science and Engineering, Jan 2010 - December 2015
- Thesis: *Scheduling with Outliers to Minimize Load and Flow-time*
- Advisers: Naveen Garg and Amit Kumar
- GPA: 9.8/10.0

Indian Institute of Technology Kharagpur, West Bengal, India

M.S., Information Technology, Aug 2009
- Thesis: *Resistance Extraction and Current Density Profiling of Lateral Power Arrays*
- Adviser: Amit Patra and Shamik Sural
- GPA: 8.8/10.0

Jadavpur University, West Bengal, India

B.E., Computer Science and Engineering, June 2005
- Percentage: 80.2 (1st Class Honors)

South Point High School, West Bengal, India

West Bengal Higher Secondary Examination (Class XII), 2001
- Percentage: 88.8

South Point High School, West Bengal, India

West Bengal Secondary Examination (Class X), 1999
- Percentage: 91.2

REFEREED CONFERENCE PUBLICATIONS	1. Parinya Chalermsook, Syamantak Das, Bundit Laekhanukit, Daniel Vaz *"Beyond metric embedding: approximating group steiner trees on bounded treewidth graphs"*, ACM-SIAM Symposium on Discrete Algorithms (SODA) 2017.

1. Parinya Chalermsook, Syamantak Das, Bundit Laekhanukit, Daniel Vaz
   "Beyond metric embedding: approximating group steiner trees on bounded treewidth graphs", ACM-SIAM Symposium on Discrete Algorithms (SODA) 2017.

2. A Roy Choudhury, Syamantak Das, Naveen Garg, Amit Kumar
   "Rejecting jobs to minimize load and maximum flow-time", ACM-SIAM Symposium on Discrete Algorithms (SODA) 2015.

3. A Roy Choudhury, Syamantak Das, Amit Kumar
   "Minimizing weighted ℓ_p-norm of flow-time in the rejection model", IARCS Foundations of Software Technology and Theoretical Computer Science (FSTTCS) 2015.

REFEREED JOURNAL PUBLICATIONS

1. Suman K. Bera, Syamantak Das, Amit Kumar,
   "Minimizing average flow-time under knapsack constraint", Theoretical Computer Science (2016).(Preliminary version in *COCOON 2014*)

2. Syamantak Das, Shamik Sural, Amit Patra,
   "Resistance Estimation and Current Density Profiling for Lateral Power Arrays", IEEE Transactions on Computer Aided Design of Integrated Circuits and Systems, Vol.28, No.6, pp.837-845, 2009.

SUBMITTED MANUSCRIPTS

1. Parinya Chalermsook, Syamantak Das, Bundit Laekhanukit, Daniel Vaz
   "Better Sparsifier: Improved approximation algorithm for group steiner forest on bounded treewidth graphs", 2017

2. Syamantak Das, Andreas Wiese
   "On minimizing the makespan when some jobs cannot be scheduled on the same machine", 2017

CONTRIBUTIONS OF THESIS

- Introduces a new model for competitive analysis of online scheduling algorithms where one can *reject* a fraction of the input

- Closes a gap in understanding of an offline scheduling problem with outliers through application of iterative rounding technique

COMMUNITY SERVICES

Served as sub-reviewer for ESA, SODA, ICALP, FSTTCS

INDUSTRY EXPERIENCE

Cadence Design Systems(I) Pvt. Ltd.

Member of Technical Staff   Sept 2007 - Dec 2009
Worked as a part of the Research and Development team for Analog Integrated Circuit Solutions. Our team was involved in the development of software tools that are essential for designing modern IC chips. Specifically, I was responsible for Post Processing and Visualization Tools which are useful for analysis and viewing of simulation results

PROGRAMMING LANGUAGE SKILLS

I have industry experience of coding in C/C++ and Unix Shell Scripting

- Prof. Naveen Garg
  Department of Computer Science and Engineering
  Indian Institute of Technology Delhi
  Hauz Khas, New Delhi - 110016, India
  Email : naveen@cse.iitd.ac.in

- Prof. Amit Kumar
  Department of Computer Science and Engineering
  Indian Institute of Technology Delhi
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- Prof. Dr. Nicole Megow
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  28359 Bremen, Germany
  Email : nicole.megow@uni-bremen.de

- Dr. Parinya Chalermsook
  Department of Computer Science
  Aalto University
  02150, Finland
  Email: parinya.chalermsook@aalto.fi

- Dr. Andreas Wiese
  Department of Industrial Engineering and Center for Mathematical Modeling
  Universidad de Chile, Chile
  Email : awiese@dii.uchile.cl