Govind S. Sankar

E-mail: govind.subash.sankar@duke.edu

Research Interests

Matching problems, Online Algorithms, Parameterized Complexity, Approximation Algorithms and Approximability

Education

Duke University, Durham, USA **2021** - Present
PhD Student, Department of Computer Science.

Indian Institute of Technology, Madras, Chennai, India **2016 - 2021**
Dual Degree (Bachelor + Master) of Technology in Electrical Engineering. CGPA: 9.53/10
Minor in Computing.

Publications

1. **Govind S. Sankar**, Anand Louis, Meghana Nasre, and Prajakta Nimbhorkar. Matchings with group fairness constraints: Online and offline algorithms. In *Proceedings of the Twenty-Ninth International Joint Conference on Artificial Intelligence, (IJCAI)*, 2021
2. Dániel Marx, **Govind S. Sankar**, and Philipp Schepper. Degrees and gaps: Tight complexity results of general factor problems parameterized by treewidth and cutwidth. In *48th International Colloquium on Automata, Languages, and Programming, (ICALP)*, 2021

Teaching Experience

Teaching Assistant, Indian Institute of Technology, Madras

- Pseudorandomness
  Graduate elective with ~ 5 students.
- Advanced Graph Algorithms
  Graduate elective with ~ 20 students.
- Languages, Machines and Computation
  Undergraduate core course with ~ 80 students.

Graded assignments and tests, held office hours, and conducted tutorial sessions.

Relevant Coursework

- Approximation Algorithms
- Theory of Computation
- Pseudorandomness
- Game Theory
- Sublinear Algorithms
- Computability & Complexity
- Cryptography
- Information Theory
- Design & Analysis of Algorithms
- Topics in Complexity Theory
- Theory Toolkit
- GPU Programming

Professional Experience

Agnikul Cosmos Chennai, India
Software Development Intern **Dec 2017 - Aug 2018**
Developed a Matlab-based tool to simulate the trajectory of a rocket. The tool was validated by members of the Indian Space Research Organization (ISRO) and National Institute of Advanced Studies.

Miscellaneous

- Volunteer for the National Service Scheme, India in the Science Teaching Kit project aimed at introducing children from rural areas to Science.
- Headed the Quiz Club at IIT Madras and managed a team of 20 coordinators that oversaw all quizzing activities at the Indian Insititute of Technology, Madras.

Honours and Awards

- KVPY Fellowship (2014)
- NTSE Scholarship (2012)