Vishwa Prakash HV

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Education

Chennai Mathematical Institute *Ph.D. in Computer Science* *Aug 2020 - Present*

- Supported by TCS Research Scholar Fellowship.
- **Specialization:** On Existance and Computation of Fair and Efficient Allocations of Indivisible Resources.
- **Ph.D. Advisor:** Prof. Prajakta Nimbhorkar.

Chennai Mathematical Institute *M.Sc. in Computer Science* *Aug 2018 - May 2020*

- Supported by Cognizant Foundation Scholarship for Promoting Excellence.
- **CGPA:** 8.61 out of 10.
- **Thesis:** Disjoint Stable Matchings in Linear Time.
- **Advisors:** Prof. Geevarghese Philip and Prof. Prajakta Nimbhorkar.

Visvesvaraya Technological University *B.E. in Information Science and Engineering* *Aug 2014 - May 2018*

- Graduated with First Class with Distinction.
- **Project:** *Detection of safety helmets and triple riding on two wheeler using SVM classifier* GitHub

Publications

Fair and Efficient Allocation of Indivisible Mixed Manna

Siddharth Barman, *Vishwa Prakash HV*, Aditi Sethia, Mashbat Suzuki

The 21st Conference on Web and Internet Economics ***(WINE), 2025***.

EFX Exists for Three Types of Agents

Vishwa Prakash HV, Pratik Ghosal, Prajakta Nimbhorkar, Nithin Varma

In the Twenty-Sixth ACM Conference on Economics and Computation ***(EC), 2025***.
Presented at the workshop on Algorithmic Mechanism Design, FSTTCS 2024.

Fair and Efficient Completion of Indivisible Goods

Vishwa Prakash HV, Ayumi Igarashi, Rohit Vaish

The 39th Annual AAAI Conference on Artificial Intelligence **(AAAI), 2025**.
Presented at COMSOC Video Seminar Rump session.

Almost EFX for Three (and More) Types of Agents

Pratik Ghosal, *Vishwa Prakash HV*, Prajakta Nimbhorkar, Nithin Varma

The 39th Annual AAAI Conference on Artificial Intelligence **(AAAI), 2025**.
Presented at 6th Games, Agents, and Incentives Workshop **(GAIW) 2024**.

Weighted Proportional Allocations of Indivisible Goods and Chores: Insights via Matchings

Vishwa Prakash HV, Prajakta Nimbhorkar

In the 23rd International Conference on Autonomous Agents and Multiagent Systems **(AAMAS), 2024**.

Fair Healthcare Rationing to Maximize Dynamic Utilities

Aadityan Ganesh, Pratik Ghosal, *Vishwa Prakash HV*, Prajakta Nimbhorkar

In the 27th Pacific-Asia Conference on Knowledge Discovery and Data Mining **(PAKDD), 2023**.

Disjoint Stable Matchings in Linear Time

Aadityan Ganesh, *H. V. Vishwa Prakash*, Prajakta Nimbhorkar, Geevarghese Philip

In the 47th International Workshop on Graph-Theoretic Concepts in Computer Science **(WG) 2021**

Preprints Under Submission

Almost and Approximate EFX for Few Types of Agents *arXiv:2508.15380*
Vishwa Prakash HV, Ruta Mehta, Prajakta Nimbhorkar

Best of Both Worlds Guarantees for Equitable Allocations *arXiv:2505.05809*
Umang Bhaskar, *Vishwa Prakash HV*, Aditi Sethia, Rakshitha

Experience

Visiting Researcher *May 2025 – Aug 2025*
Indian Institute of Science (IISc), Bangalore
- Worked on Fair and Efficient Allocation of Mixed Manna with Prof. Siddharth Barman.

Visiting Researcher *March 2025*
University of Illinois Urbana-Champaign (UIUC)
- Worked on Approximate EFX allocations with Prof. Ruta Mehta.

Visiting Researcher *Feb 2023 – Apr 2023*
Indian Institute of Technology, Delhi
- Worked on Envy Free Allocations with Dr. Rohit Vaish.

Visiting Researcher *June 2023*
University of Tokyo, Tokyo
- Worked on Fair and Efficient completion of allocations with Dr. Ayumi Igarashi.

Talks

Popular Matching with One-Sided Preference *at Theory CS Winter School 2024, IISc Bangalore* *Dec 2024*

EFX Exists for Three Types of Agents *at FSTTCS 2024 Workshop on Algorithmic Mechanism Design, IIT Gandhinagar* *Dec 2024*

Proportional Allocations of Indivisible resources: Insights via Matchings *at Knowledge Representation and Multiagent Systems Conventicle, UNSW and at AAMAS 2024, Auckland* (Recording) *May 2024*

Proportional Allocations of Indivisible resources: Insights via Matchings *at Dartmouth College* (Recording) *March 2023*

Matching Techniques to Tackle Proportional Allocations *at Indian Institute of Technology, Madras* *Feb 2023*

When Economics meets Graph Theory *at Chennai Mathematical Institute, India* *Sept 2023*

EFX Allocations for Four Agents with Three Types of Valuations *at University of Tokyo, Japan* *May 2023*

Fair Healthcare Rationing to Maximize Changing Utilities *at PAKDD 2023, Osaka, Japan* *May 2023*

Diverse Stable Matching *at Indian Institute of Technology, Delhi* (also at *WG 2021*) *Mar 2023*

Honors and Awards

Recipient of TCS Research Scholar Program Fellowship *TCS* tcs-rsp *Jun 2023*

Recipient of ACM India - IARCS Travel Grant *ACM, IARCS* (link) *Mar 2024*

Recipient of AAMAS Student Scholarship *AAMAS 2024* (link) — *Mar 2024*

Recipient of AAAI Student Scholarship *AAAI 2025* (link) — *Jan 2025*

Recipient of ACM EC Student Travel Grant *ACM EC 2025* — *Jul 2025*

Recipient of ACM India - IARCS Travel Grant *ACM, IARCS* (link) — *Mar 2025*

Outstanding Poster Award *Winter School on Algorithms for Graphs and Games, IIT Jodhpur* — *Dec 2022*

Recipient of Google Cloud Research Credits *Google* — *Mar 2022*

MSc funded by Cognizant Foundation Scholarship for Promoting Excellence *Cognizant* — *Aug 2019*

Completed with Gold Medal *Cisco® CCNA Routing and Switching: Connecting Networks, as a part of Cisco Networking Academy®* — *Apr 2017*

Teaching Assistantship

Algorithm Design Techniques *CMI* — *Jan 2025*

AML23: Advanced Machine Learning 2023 *CMI* — *Jan 2023*

ACM India Winter School on Algorithms and Lower Bounds *hosted by CMI & IIT-M, Chennai* — *Jan 2022*

- Sponsored by National Academy of Sciences, India.

TOC2021: Theory of Computation *CMI* — *Sept 2021*

DMML2021: Data Mining and Machine Learning *CMI* — *Apr 2021*

ADAL2020: Advanced Algorithms *CMI* — *Aug 2020*

ALGO2019: Algorithms and Data Structures *CMI* — *Aug 2020*

Professional Services

Program Committee Chair *AAAI Conference on Artificial Intelligence (AAAI 2026)* — *2026*

Reviewed Paper *Mathematics of Operations Research (INFORMS)* — *2025*

Reviewed Paper *International Symposium on Algorithms and Computation (ISAAC 2025)* — *2025*

Reviewed Paper *European Symposium on Algorithms (ESA 2025)* — *2025*

Reviewed Paper *The 16th International Symposium on Algorithmic Game Theory (SAGT)* — *May 2023*

Reviewed Paper *Social Choice and Welfare (Springer Nature)* — *Jan 2025*

Organizer of Theory CS-Group Seminar Series-2023 *CMI* — *2022,2023*

Volunteer and Email Moderator *Indian Association for Research in Computing Science (IARCS)* — *2025*

OpenSource Contributions

Contributed to OpenCV *Worked on Histogram of Oriented Gradients samples for OpenCV* — *Apr 2018*

Worked as Language Translator for the open source app My Expenses *Translated the app to Kannada* — *Mar 2020*

Active contributor on *AskUbuntu* — *2016 - 2023*