

## Research Interest

Experimentation (A/B Testing), Online Platforms, Adaptive Learning and Applied Probability.

## Education

- 2019 – 2025    📖 **Kellogg School of Management, Northwestern University, Evanston, IL.**  
Ph.D. candidate in the Department of Operations.  
Advisor: Achal Bassamboo.
- 2014 – 2018    📖 **Indian Institute of Technology Delhi, India.**  
B.Tech in Mechanical Engineering.

## Work Experience

- 2018 – 2019    📖 **Tata Institute of Fundamental Research, Mumbai, India.**  
Junior research fellow in the department of STCS.  
Advisor: Sandeep Juneja.

## Publications and Working Papers

- Asymptotically Optimal Adaptive A/B tests for Average Treatment Effect - V. Deep, A. Bassamboo and S. Juneja. *Under Review at Management Science*.
  - Abridged version Published at ICML (International Conference on Machine Learning) 2024.
  - Covered by Kellogg Insight (link).
  - Accepted at INFORMS Workshop on Data Science 2024.
  - Selected at the Cornell ORIE Young Researchers Workshop 2024.
  - **Won first place in the Flash Talk competition at CMU Inform's YinzOR 2023.**
- Exact Optimal Fixed-width Confidence Interval Estimation for the Mean - V. Deep, A. Bassamboo, S. Juneja and A. Zeevi. *Published at WSC (Winter Simulation Conference) 2022, 713-723*.
  - **Finalist for Best Contributed Theoretical Paper at WSC 2022.**
- Learning to Ask the Right Questions: A Multi-armed Bandits Approach - V. Deep, A. Bassamboo, S. Juneja and A. Zeevi. *Available at SSRN. To be submitted to Management Science by October 2024*.
- Asymptotically Optimal Confidence Intervals for the Mean - V. Deep, A. Bassamboo and S. Juneja. *To be submitted to International Conference on Artificial Intelligence and Statistics (AISTATS) by 15th October 2024*.

## Work in Progress

- Learning Regimes for Average Treatment Effect in A/B testing - V. Deep, A. Bassamboo and S. Juneja. *To be submitted at Management Science*.

## Academic Achievements

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- Won first place in the Flash Talk competition at CMU Informs YinzOR 2023.
- Finalist for Best Contributed Theoretical Paper at WSC 2022.
- Selected for student scholarship for the 2024 INFORMS Workshop on Data Science.
- Selected for a presentation at the Trans-Atlantic Doctoral Conference 2021.
- Selected for a Travel Grant to present at INFORMS APS Conference 2023.
- Doctoral Fellowship at Kellogg School of Management, 2019-2024.
- All India Rank 675 among nearly 0.15 million students in JEE Advanced 2014.
- All India Rank 140 among nearly 1 million students in JEE Mains 2014.
- Ranked 4th in the Mechanical Engineering department amongst 60 students at IIT Delhi, 2018.

## Teaching Experience

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Kellogg School of Management, Northwestern University.

1. Graduate Course: Stochastic Foundations - OPNS 516 (Spring 2021, 22, 23 ).
2. MBA Course: Introduction to Operations Management - OPNS 430 (Fall 2020, 21, 22 ).
3. MBA Course: Designing and Managing Business Processes - OPNS 440 (Winter 2022, 24 ).
4. Undergraduate Course: Operations and Supply Chain Management - MA 324 (Spring 2024).
5. Executive-MBA Course: Strategic Decisions in Operations - OPNSX 454 (Spring 2024, Fall 2024).

## Professional Services

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1. Webmaster: Stochastic Networks, Applied Probability, and Performance (SNAPP) seminar, 2023-24.
2. Reading group for Learning and Experimentation at Kellogg School of Management, Spring 2022.
3. Reviewer for Operations Research Letters.

## Selected Presentations

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1. Asymptotically Optimal Adaptive A/B tests for Average Treatment Effect.
  - DSI Annual Meeting 2024, Phoenix, November 2024.
  - INFORMS Annual Meeting 2024, Seattle, October 2024.
  - Netflix Research Methodology Seminar (virtual), October 2024.
  - Cornell ORIE Young Researchers Workshop 2024, Ithaca, October 2024 (poster presentation).
  - Data-Driven Decision Processes: From Theory to Practice, TTIC Workshop, Chicago, August 2024 (poster presentation).
  - MSOM Conference, Minneapolis, July 2024.
  - Inaugural Chicago Operations Day, Chicago, June 2024 (poster presentation).
  - CMU Informs YinzOR 2023, Pittsburgh, August 2023 (flash talk).

- INFORMS Applied Probability Conference 2023, Nancy, France, July 2023 (poster presentation).
  - INFORMS Annual Meeting 2023, Phoenix, October 2023.
2. Exact optimal fixed-width confidence interval estimation for the mean.
- Winter Simulation Conference 2022, Singapore.
  - Northwestern IEMS-OM joint Seminar 2022, Evanston.
  - INFORMS Applied Probability Conference 2023, Nancy, France.
3. Learning to Ask the Right Questions: A Multi-armed Bandits Approach.
- Trans-Atlantic Doctoral Conference 2021 (Virtual).
  - INFORMS Annual Meeting 2021, Anaheim, California.
  - Stochastic Networks Conference 2022, Cornell University, Ithaca (poster presentation).
  - MSOM Conference 2023, Montreal.

## References

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### **Prof. Itai Gurvich**

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### **Prof. Sandeep Juneja**

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Ashoka University, India.  
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### **Prof. Assaf Zeevi**

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