


# Utsav Sadana

Postdoctoral Fellow | Desautels Faculty of Management, McGill University

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 Montréal, QC, Canada

## Academic History

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**McGill University, Montréal, Canada**

May 2021 – Present

**Postdoctoral Fellow** at GERAD

Mentors: Mehmet Gumus, Erick Delage & Angelos Georghiou

**HEC Montréal, Montréal, Canada**

Aug. 2017 – May 2021

**Ph.D.** in Management Science

Advisor: Georges Zaccour

**University of Illinois at Urbana-Champaign (UIUC), USA**

Sep. 2019 – Feb. 2020

**Visiting Ph.D.** student at Coordinated Science Lab

Advisor: Tamer Başar

**Indian Institute of Technology Kanpur, India**

Jul. 2012 – May 2017

**B.Tech** in Materials Science and Engineering (with distinction) & **M.S.** in Economics

## Work Experience

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**ORT France, Paris**

Summer 2015

**Research Intern**

Mentor: Dr. Michel Rudnianski

## Publications

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### Journal Papers

1. **U. Sadana**, P.V. Reddy, T. Başar and G. Zaccour, “Sampled-Data Nash Equilibria in Differential Games with Impulse Controls”, *Journal of Optimization Theory and Applications*, 2021.
2. **U. Sadana**, P.V. Reddy and G. Zaccour, “Nash equilibria in nonzero-sum differential games with impulse control”, *European Journal of Operational Research*, 2021.

### Book Chapter

1. M. Rudnianski, **U. Sadana**, and H. Bestougeff, “Bayesian Networks and Games of Deterrence”, *Recent Advances in Game Theory and Applications*, Springer, 2016.

### Preprints

1. **U. Sadana**, P.V. Reddy and G. Zaccour, “Feedback Nash Equilibria in Differential games with Impulse Control”, under review.
2. **U. Sadana** and E. Delage, “The value of randomized strategies in distributionally robust risk averse network interdiction games”, *revision requested*.

## Selected Awards and Honors

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- GERAD Postdoctoral Fellowship. 2021 – 2022
- FRQNT Postdoctoral research scholarship (B3X). 2021 – 2023
- PBEEE Quebec-India PhD Research Scholarship. Awarded to 3 Indian Ph.D. students. 2019 – 2021
- FRQNT Doctoral Research Award (B2X). Ranked 1 among 10 selected for this award. 2019 – 2021

- FRQNT International Internship scholarship for a 6-month internship at UIUC, Illinois. 2018
- J.A. DeSève Excellence Scholarship, HEC Montréal. Awarded to 1 Ph.D. student every year. 2018
- J.A. DeSève Admission Scholarship, HEC Montréal Foundation. 2017 – 2021
- Admission Scholarship, Chair of Game Theory and Management, GERAD & HEC Montréal. 2017 – 2021
- Graduate Research Award (MHRD, India) to pursue Masters at IIT Kanpur. 2016
- Merit-cum-Means Scholarship, IIT Kanpur. 2013, 2014, 2015
- Summer Research Scholarship, ORT France, Paris. 2015
- Secured 3<sup>rd</sup> position amongst 90 teams in Manthan National Youth Competition, India. 2013

## Talks

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- **Nash equilibria in nonzero-sum differential games with impulse control.**
  - Virtual Informal Systems Seminar, McGill and GERAD Oct. 2020
  - Workshop on Differential Games, Stony Brook Center for Game Theory, NY, USA Jul. 2020
  - Optimization Days, Montréal, Canada, May 2019
  - 11th Workshop on Dynamic Games in Management Science, Montréal, Canada Oct. 2019
- **The value of randomized strategies in distributionally robust risk averse network interdiction problems**
  - Canadian Operational Research Society (CORS) Annual Conference (virtual) Jun. 2021
  - INFORMS Annual Meeting (virtual) Nov. 2020
  - CRC-DMU Seminar Series (virtual) Jun. 2020

## Academic Service

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- **Co-organizer** of the online seminar series *Dynamic Games and Applications*
- **Reviewer** for Operations Research Letters, The IEEE Control System Letters, and IEEE Transactions on Systems, Man, and Cybernetics: Systems
- **Session assistant** for an Information Theory session at Allerton Control Conference, 2019

## Social Initiatives & Mentorship

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**Workshop, Mathematics and Statistics Help Center, HEC Montréal** Apr. 2019 – May 2019

- Prepared content (lecture notes, handouts, and slides that covered basics of linear algebra and probability theory) for conducting a workshop to help the incoming Master's students, in the field of economics, finance, and quantitative methods in management.

**Inclusive Development of Informal Sector Workers** May 2013 – Oct. 2013

Team Project, Citizens for Accountable Governance (CAG)

- Proposed structural layout for registration and grievance redressal of Informal Sector workers.