1 Basics

Name Ramit Das

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Phone No. 9051106631

Institution The Institute of Mathematical Sciences, (HBNI), Chennai.

DOB 15-09-1991

Gender Male

Category General

Whether Disabaled No

2 Academic Qualifications

	Degree	Year	Subject	University (or Institute)	CGPA
1.	B.E	2014	CST	IIEST, Shibpur	8.35
2.	M.Sc.	2016	CS	CMI, Chennai	8.44
3.	PhD	2023	TCS	IMSc, Chennai	60 credits

3 PhD

Institute **The Institute of Mathematical Sciences**, Chennai, India

Discipline Senior Research Fellow, Theoretical Computer Science

Advisor Dr. R. Ramanujam

Area of Study Formalisation of Pure Strategy Games using Logic, Least Fixed Point Logic, Propositional Dynamic Logic, Large Games, Social Network Games

Thesis Title : A Logical Study of the Improvement Graphs formed from Games

Status Thesis submitted and under review

Duration Currently Pursuing (2016 -)

4 Work Experience

S.No.	Position held	Name of the Institute	From	To	Pay Scale
1.	Masters	CMI, Chennai	2014	2016	6,000
2.	JRF	IMSc, Chennai	2016	2018	18,000
3.	SRF	IMSc, Chennai	2018	2022	35,000
4.	Visit	IIT, Kanpur	5-9-2022	31-1-2023	20,000

5 Awards and Qualifications

S.No.	Award	Awarding Agency	Year
1.	Qualified for TIFR	TIFR	2016
2.	Qualified for JEST	DAE	2014
3.	GATE(CSE) ranked 785	GATE	2014
4.	Qualified for ACM, ICPC(regionals)	ICPC	2012, 2013
5.	WBJEE ranked 717	WBJEE	2010

6 Publications

S.No.	Author(s)	Title	Name of Journal or Conference	Page	Year
1.	Ramit Das, Anantha Padmanabha, R. Ramanujam	Implicit quantification for modal reasoning in large games	Synthese	accepted	2023
2.	Ramit Das, Anantha Padmanabha, R. Ramanujam	Reasoning in Large Games with Unboundedly Many Players	LORI proceedings	41-57	2021
3.	Ramit Das, R. Ramanujam	A logical description of strategizing in social network games	LNGAI 2021	107-119	2021
4.	Ramit Das, R. Ramanujam, Sunil Simon	Reasoning about Social Choice and Games in Monadic Fixed-Point Logic	TARK 2019	106-120	2019

7 Other Information

7.1 Talks

1. Gave a talk on, An introduction to **Descriptive Complexity** at IIT Kanpur's student seminar series called SIGTACS, in January 2023.
2. Gave a **presentation talk** in a summer school hosted by Council of Scientific and Industrial Research, CSIR, and Central Scientific Instruments Organisation, CSIO, and Ashoka University, India for the Summer Institutes of Computational Social Science, SICSS, 2022. This was an interesting summer school that consisted of participants engaging in **Experimental Game Theory**. It needed us to form a team and submit some preliminary investigation on a problem of our choice. I lead our team for this activity.
3. Gave an **online talk** on basics of descriptive complexity called **Descriptive complexity - An Introduction** at the 21st annual meet of Calcutta Logic Circle, CLC, January, 2022.
4. Gave an **online talk** on the ideas linking **game theory and logic** in a student seminar at IIT Kanpur logic series in 2021.
5. Gave an **online talk** at the *TCS Seminar* series held at *IMSc* itself in 2021 regarding the work presented in the conferences LNGAI and LORI.

6. Gave **online talks** for the LNGAI and LORI conferences on the conference material respectively in 2021.

7. Gave an **offline talk** at the TARK conference held at Toulouse, France in 2019.

8. Gave the **logic and automata tutorials** for the summer school at IMSc during 2018.

9. Talked about the notion of connectivity (**Konigsberg's bridge problem and linked mobius strips when cut**) to school children aimed at promoting women in science in IMSc in 2017.

7.2 Non Academic Activities

1. Organised the Fresher's Program at IMSc in 2017.

2. Hosted the Badminton Tournament at IMSc in 2020

   Had a feel of **real life Game theory** when came up with a **complicated auction mechanism** to distribute players.

   Had a feel of solving a **NP-hard scheduling problem** when solving a conflict free match scheduling problem with given constraints of playable and non playable dates within the tournament line up.

   Also took part in the tournament and won it with the team.

3. Designed a process for the servicing of food at the institute during the last covid phase.

   Formalised the mess problem - identified the variables that played an important part in the problem we faced and also understood how they were linked with each other.

   Designed a **constitutional draft** for the mess committee - a committee to be in charge of solving the mess problem which was dynamically going to vary over time. The constitution was supposed to provide the framework within which the solutions to the mess problem could be articulated.

   Successfully **executed** our solution with my team and got good reviews from the then members of the mess.

4. Was playing in the winning team at the Football tournament in IMSc in 2019 and the runners up team in 2020.

7.3 References

1. **Dr. R. Ramanujam**, jam@imsc.res.in

2. **Dr. Sunil Simon**, simon@cse.iitk.ac.in

3. **Dr. Sujata Ghosh**, sujata@isichennai.res.in

4. **Dr. Abhisekh Sankaran**, abhisekh.sankaran@tcs.com