

SOMDEV KAR

Associate Professor (Linguistics) | Department of Humanities & Social Sciences | IIT Ropar

Associate Faculty, Centre for Applied Research in Data Science (CARDS), IIT Ropar

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[Google Scholar](#) | [ORCID](#) | [ResearchGate](#) | [LinkedIn](#) | [Homepage](#)

ACADEMIC PROFILE

Linguist specialising in Phonetics and Phonology, with particular expertise in Optimality Theory and the sound systems of South Asian languages (Indo-Aryan, Dravidian, and Tibeto-Burman). Research combines theoretical analysis with field-based, experimental, corpus-based, statistical, and computational methods. Current work focuses on evolutionary traces in Indian languages and linguistic traditions, linguistic phylogeny through speech-vector analysis, vulnerable and lesser-studied languages, and the interface between linguistic theory and natural language processing. More than fifteen years of academic experience at IIT Ropar, with substantial contributions to doctoral and postdoctoral supervision, externally funded research, international collaboration, laboratory development, curriculum design, and institution-building.

Indian Institute of Technology Ropar, India

Associate Professor, Department of Humanities & Social Sciences ([HSS](#))

2018 – Present

Associate Faculty, Centre for Applied Research in Data Science ([CARDS](#))

2025 – Present

RESEARCH AREAS

Phonetics and Phonology • Optimality Theory • South Asian Languages • Evolutionary Linguistics • Linguistic Phylogeny • Language Documentation • Distributed Morphology • Natural Language Processing • Experimental and Computational Speech Analysis

ACADEMIC APPOINTMENTS

Indian Institute of Technology Ropar, India

2010 - 2018

Assistant Professor (Linguistics)

Qatar University, Doha, Qatar

2010

Visiting Assistant Professor

Kasturba Medical College, Manipal University, India

2009 - 2010

Guest Faculty

NAISH College, Bangalore University, India

2009 - 2010

Visiting Faculty

Central Institute of Indian Languages (CIIL), Mysore, India

2008 - 2010

Fellow, Linguistic and Cultural Documentation of Sikkim

Leibniz-Centre General Linguistics (ZAS), Berlin, Germany

2008

Scientific Employee, DFG Schwerpunktprogramm 1234

University of Tübingen, Germany

2005 - 2008

Scientific Employee and Assistant Researcher, SFB441-B15

Linguistic Survey of West Bengal Tribes, Government of West Bengal

2002 - 2003

Assistant Scholar

EDUCATION

- **University of Tübingen, Germany** 2009
PhD in Linguistics, *Magna cum laude*
- **University of Hyderabad, India** 2004
MA in Applied Linguistics
- **University of Calcutta, India** 2002
BA (Honours) in Linguistics

PUBLICATIONS

Peer-Reviewed Journal Articles

1. Jacob, Ashitha Rachel, and Somdev Kar. 2026. "Low Vowel Raising in Malayalam." SN Social Sciences 6: 51. DOI: 10.1007/s43545-026-01313-y.
2. Sarkar, Sharmistha, Somdev Kar, and Amalesh Gope. 2026. "Exploring tonal contrasts in Dharamshala Tibetan using mathematical modeling, statistical modeling, and machine learning algorithms." Language & Linguistics. DOI: 10.1075/lali.00260.sar.
3. Kumari, Priyeshi, and Somdev Kar. 2026. "Onomatopoeia in Maithili: A Correspondence Analysis in Optimality Theory." Journal of Universal Language 27(1): 63-98. DOI: 10.22425/jul.2026.27.1.63.
4. Kumari, Priyeshi, and Somdev Kar. In press. "Metathesis in Maithili." Dialectologia.
5. Venkatakrishnan, Ramprashanth, and Somdev Kar. 2025. "Sonorant gemination in Old Tamil." Bhasha: Journal of South Asian Linguistics, Philology and Grammatical Traditions 4(1): 95-122. DOI: 10.30687/bhasha/2785-5953/2025/01/005.
6. Narzary, Albina, Pankaj Dwivedi, Selvaraj Arulmozi, and Somdev Kar. 2025. "Aspects of language contact among the Hajongs of the Goalpara district of Assam." International Journal of Dravidian Linguistics 54(2): 82-117.
7. Sarkar, Sharmistha, and Somdev Kar. 2024. "Word stress pattern in Dharamshala Tibetan: An Optimality Theoretic formalization." Concentric: Studies in Linguistics 50(2): 113-145. DOI: 10.1075/consl.00036.kar.
8. Raza PP, Thamanna, and Somdev Kar. 2024. "Intervocalic Gemination in Mappila Malayalam: Evidence from Perso-Arabic Loanwords." SKASE Journal of Theoretical Linguistics 21(1): 2-31.
9. Chand, Gulab, and Somdev Kar. 2020. "Reduplication initiated through discourse markers: A case of Hadoti" Dialectologia 25: 115-139. DOI: 10.1344/Dialectologia2020.25.6.
10. Kar, Somdev, and Hubert Truckenbrodt. 2019. "Syllable structure and stratification in Bangla." Journal of South Asian Languages and Linguistics 6(1): 1-25. DOI: 10.1515/jsall-2019-2008.
11. Chand, Gulab, and Somdev Kar. 2017. "Sonority and reduplication in Hadoti." Journal of Universal Language 18(2): 1-37. DOI: 10.22425/jul.2017.18.2.1.
12. Dwivedi, Pankaj, and Somdev Kar. 2017. "On Documenting Low Resourced Indian Languages: Insights from Kanauji Speech Corpus." Dialectologia 19: 67-91.
13. Chand, Gulab, and Somdev Kar. 2017. "Revival of Endangered Languages: A Case Study of Hadoti." International Journal of Dravidian Linguistics 46(2): 153-170.
14. Dwivedi, Pankaj, and Somdev Kar. 2016. "Kanauji of Kanpur: A Brief Overview." Acta Linguistica Asiatica 6(1): 101-119. DOI: 10.4312/ala.6.1.101-119.
15. Kar, Somdev. 2013. "Complex onsets in regional varieties of Bangla." Language Sciences 40: 212-220. DOI: 10.1016/j.langsci.2013.06.001.
16. Kar, Somdev. 2013. "Slot-specific glide formation in Bangla." International Journal of Dravidian Linguistics 42(1): 67-83.

17. Kar, Somdev. 2012. "Voicing agreement in Bangla word-medial clusters." *Indian Linguistics* 73(1-4): 175-184.
18. Kar, Somdev. 2008. "Gemination in Bangla: An Optimality Theoretic Analysis." *Dhaka University Journal of Linguistics* 1(2): 87-114. DOI: 10.3329/dujl.v1i2.3718.

Books, Edited Volumes, Chapters and Reference Works

1. Arif, Hakim, Shishir Bhattacharja, Obaidul Hamid, Sayeedur Rahman, Aditi Ghosh, and Somdev Kar, eds. 2024. *Matribhashapedia: IMLI Linguistic Encyclopedia of Mother Languages*, Vol. 1. Dhaka: International Mother Language Institute.
2. Kar, Somdev. 2024. "Articulation," "Articulatory Phonetics," "Aspirated Sound," "Aspiration," "Auditory Phonetics," and "Cardinal Vowel." In *Matribhashapedia: IMLI Linguistic Encyclopedia of Mother Languages*, Vol. 1. Dhaka: International Mother Language Institute.
3. Dwivedi, Pankaj, and Somdev Kar. 2018. "Phonology of Kanauji." In *Advances in Hindi Language Teaching and Applied Linguistics*, 189-220. Munich: Lincom Europa.
4. Kar, Somdev. 2010. *Syllable Structure of Bangla: An Optimality Theoretic Approach*. Newcastle upon Tyne: Cambridge Scholars Publishing.

Selected Digital Educational Publications

- Kar, Somdev. 2018. "Introduction to Optimality Theory" and "Constraint families: Faithfulness and Markedness." INFLIBNET ePG Pathshala, peer-reviewed modules.
- Kar, Somdev. 2010. Review of Sailaja Pingali, *Indian English*. *LINGUIST List* 21-2755.

RESEARCH GRANTS AND FUNDED PROJECTS

1. **Evolutionary Traces in Indian Language and Linguistic Tradition** 2025-2026
Project Director; ICSSR, New Delhi; ₹10.50 lakh.
2. **Language, Culture, and Survival: A Sociolinguistic and Ethnographic Exploration of the Birhor PVTG Across Indian States** 2025 - 2028
Co-Project Director; ICSSR, New Delhi; multidisciplinary PVTG research project; ₹16 lakh.
3. **Speech Vector Approach to Linguistic Phylogeny of Indian Languages** 2024 - 2025
Principal Investigator, IIT Ropar; with Prof. Shu-Kai Hsieh, National Taiwan University, Taiwan; Indo-Taiwan Joint Research Centre; ₹1.50 lakh.
4. **Generation of speech corpus and the study of phonetic and phonological properties of the Limbu language of Sikkim** 2010 - 2013
Principal Investigator; IIT Ropar ISIRD project. ₹3.60 lakh.
5. **Current Issues in Biolinguistics and Evolutionary Linguistics** 2022
GIAN Course Coordinator; foreign expert Prof. Koji Fujita, Kyoto University; sanctioned amount ₹6.08 lakh.

SELECTED INDUSTRY AND NLP CONSULTANCY

Total: 12

- **AI Multilingual Benchmark (Plumeria V2 - Bengali)** 2024 - 2025
Linguistic Auditor; Appen Butler Hill Group, USA.
- **Gender De-biasing / NLP (Bengali)** 2023 - 2024
Independent Consultant; Appen Butler Hill Group, USA.
- **Cleopatra Sentiment Analysis (Bengali)** 2018 - 2019

Independent Consultant; Clarasoft / Appen, USA.

- **Bengali morphology, sentiment analysis and named-entity annotation** 2016 - 2018
Independent Consultant; Oracle / Appen, USA.
- **NLP for Indian English and Bengali** 2011 - 2016
Independent Consultant; Microsoft Corporation / Appen, USA.
- **TTS testing and phonetic evaluation for Indian English** 2010
Consultant; Acapela Group Sweden AB.

DOCTORAL AND POSTDOCTORAL SUPERVISION

Completed PhD Supervision

1. Dr. Gulab Chand - The Phonology of Reduplication in Hadoti: An Optimality Theoretic Approach (2018).
2. Dr. Pankaj Dwivedi - Phonology and Sociolinguistics of Kanauji (2019).
3. Dr. Thamanna Raza PP - Phonological Adaptation of Perso-Arabic Origin Words in Mappila Malayalam (2024).
4. Dr. Sharmistha Sarkar - The Phonetics and Phonology of Word Stress and Tone in the Dharamshala Variety of Tibetan (2024).
5. Dr. Priyeshi Kumari - Phonological Processes in Maithili: An Optimality Theoretic Account (2025).
6. Dr. Ashitha Rachel Jacob - Phonological Changes in Malayalam: An Optimality Theory Perspective (2026).

Ongoing PhD Supervision

- Pahi Gogoi - Phonology of Bishnupriya Manipuri: An Optimality Theoretic Perspective.
- Soham Sadhukhan - TBD

Postdoctoral Mentorship

1. Dr. Albina Narzary - NTS-India Postdoctoral Fellowship (MoE, Govt of India), 2024-2026.
2. Dr. Kalyani Pradhan - NTS-India Postdoctoral Fellowship (MoE, Govt of India), 2024-2026.

RESEARCH LEADERSHIP AND LABORATORY DEVELOPMENT

- Founder/developer, **Speech Laboratory**, IIT Ropar (2024): dedicated facility for empirical phonetic and phonological experiments, speech recording, data collection and analysis, including a soundproof recording room (to be completed) and adjacent control room.
- Founder/developer, **Language and Linguistics Laboratory**, Department of HSS, IIT Ropar (2010): teaching facility established with 30 computer workstations, headphones, language-learning software and power backup.
- Research group leadership through **Speech@IIT Ropar**, with work spanning Indo-Aryan, Dravidian and Tibeto-Burman languages and integrating theoretical phonology, field data, sociolinguistics, speech analysis and computational methods.

TEACHING AND CURRICULUM DEVELOPMENT

Teaching experience at undergraduate, postgraduate and doctoral levels at IIT Ropar and IIM Amritsar, since 2010, including large interdisciplinary HSS classes and specialised courses in linguistics. Recent

student feedback has been consistently strong (“very good” to “excellent”), with a rating of 4.81/5 for Sound Patterns in Human Language.

Courses Developed

UG: Fundamentals of Linguistics; Morphology; Laboratory Phonology; Introduction to Phonetics and Phonology.

PG/PhD: Natural Language Processing; Sound Patterns in Human Language; English Syntactic Structure; Topics in Optimality Theory; Computational Phonology.

Selected Courses Taught

Sound Patterns in Human Language • Topics in Optimality Theory • Fundamentals of Linguistics • Introduction to Phonetics and Phonology • Laboratory Phonology • Morphology • Language Processing • English Syntactic Structure • History of Technology • Understanding India / Indian Ethos and Knowledge Systems.

Professional and Executive Education

- NLP module, Post Graduate Certificate in Artificial Intelligence & Deep Learning, TSW-IIT Ropar joint programme (2020-2021).
- NLP module, Industrial Training in Artificial Intelligence & Machine Learning, NIELIT-IIT Ropar joint programme (2021-2025).

SELECTED INVITED, PLENARY AND RESOURCE-PERSON LECTURES

Total: 31

1. Plenary lecture, “Patterns of Gemination in Indian Languages: Evidence from Bangla and Old Tamil,” SCONLI-16, EFL University, Hyderabad, 2026.
2. Resource person, Two-day Colloquium on Phonology and Sociolinguistics, University of Hyderabad, 2026.
3. Resource person, Workshop in Phonological Theory, IIT Delhi, 2025.
4. “Endangered languages in Asia: Concern for Indian Languages,” Ravenshaw University, Cuttack, 2024.
5. “Studying Linguistics: Are we adaptive enough in a changing world?” Amity University, Noida, 2024.
6. “Evolutionary Phonology: Only humans have full language!” University of Dhaka, Bangladesh, 2024.
7. Resource person, Summer School on Language Documentation, CIIL, Mysore, 2022.
8. “Computational approaches to forensic linguistics,” IIT Patna, 2022.
9. “Doing Phonology: Rules and Constraints,” Central University of Rajasthan, 2020.
10. “PRAAT: Analysis of Speech Sounds in Human Languages,” IIT Delhi, 2020.
11. Resource person, Bootcamp on Theoretical and Experimental Phonology, CIIL, Mysore, 2019.
12. Resource person, Workshop on “Exploring Optimality Theory,” IIT Bombay, 2019.
13. Visiting Scientist, Linguistic Research Unit, Indian Statistical Institute (ISI), Kolkata, 2019.
14. Resource person, Advanced Workshop on Laboratory Phonetics and Phonology, CIIL, Mysore, 2017.
15. Resource person, Workshop on “Introductory Phonetics,” Graphic Era Hill University, Dehradun, 2016.
16. “Optimality Theory: A theory of variation rather than a theory of universals,” Indian Statistical Institute (ISI), Kolkata, 2014.

SELECTED CONFERENCE PRESENTATIONS

Total: 25

1. Jacob, Ashitha Rachel, and Somdev Kar. "Low vowel raising in Malayalam." ICOLSI-47, Jadavpur University, 2025.
2. Kar, Somdev. "Endangered languages in Asia: The curious cases of (Dharamshala) Tibetan and Kanauji." International Mother Language Institute, Dhaka, Bangladesh, 2024.
3. Jacob, Ashitha Rachel, and Somdev Kar. "Vowel reduction in Malayalam." ICOLSI-46, University of Kashmir, 2024.
4. Venkatakrishnan, Ramprashanth, and Somdev Kar. "Sonorant consonant gemination in Old Tamil." ICOLSI-45, Aligarh Muslim University, 2023.
5. Jacob, Ashitha Rachel, and Somdev Kar. "Front vowel lowering in Malayalam." SALA-37, Ca' Foscari University of Venice, Italy, 2023.
6. Sarkar, Sharmistha, and Somdev Kar. "Tonal System in (Dharamshala) Tibetan: An Optimality Theoretic Account." AJL7, Tokyo, Japan, 2022.
7. Kumari, Priyeshi, and Somdev Kar. "Partial Reduplication in Maithili." Australian Linguistic Society Annual Conference, Melbourne, Australia, 2022.
8. Raza PP, Thamanna, and Somdev Kar. "Phonological Nativisation of Perso-Arabic loanwords in Mappila Malayalam." FASAL-12, University of Utah, USA, 2022.
9. Chand, Gulab, and Somdev Kar. "Reduplication initiated through discourse markers: A case of Hadoti." Linguistics Beyond and Within, Lublin, Poland, 2016.
10. Dwivedi, Pankaj, and Somdev Kar. "Sociolinguistics and Phonology of Kanauji." INALCO, Paris, France, 2016.
11. Kar, Somdev. "Gemination before liquids in Bangla." ICPP 2011, Kyoto University, Japan, 2011
12. Kar, Somdev. "Treatment of word-initial clusters in non-standard Bangla." ICOSAL-9, Punjabi University, Patiala, 2010.

ACADEMIC AND PROFESSIONAL SERVICE

Editorial Service

- Associate Editor, SN Social Sciences (Springer Nature).

Conference and Workshop Organisation

- Organiser, Bridging Research on Cognition and Speech (BROCAS 2019), IIT Ropar, in collaboration with CIIL, Mysore.
- Organiser, Bridging Research on Cognition and Speech (BROCAS 2018), IIT Ropar, in collaboration with CIIL, Mysore.

Selected Session Chair and Panel Roles

- Session Chair, ICOLSI-47, Jadavpur University, 2025.
- Session Chair, Reclaiming Adivasi Roots conference, Ravenshaw University, 2024.
- Session Chair, ICOLSI-43, CIIL Mysore, 2021.
- Panelist, "Speech as the new way of interacting with systems," TSW, IIT Ropar, 2020.

AWARDS AND RECOGNITION

- DST International Travel Grant to attend ICPP 2011, Kyoto University, Japan.

- Fellow, Central Institute of Indian Languages, 2008-2010.
- PhD dissertation awarded *Magna cum laude* (Very Good), University of Tübingen, Germany, 2009.

LANGUAGES KNOWN

Bengali (Native); English (Fluent); Hindi (Advanced); German (Basic); Sanskrit (Basic)