

Debasish Ray Mohapatra

[debasishray19.github.io](https://github.com/debasishray19)

debasishray@ece.ubc.ca

EDUCATION	University of British Columbia , Vancouver, Canada	Jan 2025 (Expected)
	Ph.D., Electrical and Computer Engineering	
	<ul style="list-style-type: none">• Advisor: Dr. Sidney Fels, P.Eng.	
	University of British Columbia , Vancouver, Canada	2017 - 21
	M.A.Sc., Electrical and Computer Engineering	
	<ul style="list-style-type: none">• Thesis: Talking Tube - A novel approach for vocal tract acoustic modelling using the finite-difference time-domain (FDTD) method.• Advisor: Dr. Sidney Fels, P.Eng.	
	Siksha ‘O’ Anusandhan University , Bhubaneswar, India	2009 - 13
	B.Tech., Electronics and Communication Engineering	
	<ul style="list-style-type: none">• Project: Image segmentation based on mutual information• Advisor: Sunita Samant, M.Tech.	
PROFESSIONAL EXPERIENCE	Tata Consultancy Service (TCS) Software Test Engineer	2014 - 17
	<ul style="list-style-type: none">• Functional and regression testing of the front-end (Web app) and back-end (ETL system) applications.	
RESEARCH EXPERIENCE	VocalTractLab , TU Dresden, Germany	2022
	Visiting Research Scholar (June-August)	
	Project: A comparative analysis of vocal tract centreline determination algorithms.	
	Advisor: Dr.-Ing. Peter Birkholz	
	Human Communication Technologies Lab , UBC, Canada	2018 - Present
	Graduate Research Assistant	
	Project: Vocal tract acoustic modelling.	
	Advisor: Dr. Sidney Fels, P.Eng.	
TEACHING EXPERIENCE	University of British Columbia , Canada	
	Teaching Assistant	
	Human-Computer interfaces in engineering design, CPEN 441	
	Introduction to computation in engineering design, APSC 160	
	Introduction to microcomputers, CPEN 211	
	University of British Columbia , Canada	
	Peer Tutor, Center for Accessibility	
	Computational thinking, CPSC 100	
	Basic algorithms and data structures, CPSC 221	
FELLOWSHIPS & GRANTS	<ul style="list-style-type: none">• Interspeech Student Travel Grant, ISCA (600 EUR)	2022
	Travel grant to attend Interspeech 2022 at Incheon, South Korea	
	<ul style="list-style-type: none">• UBC Language Sciences Trainee Travel Fund, UBC (3000 CAD)	2022
	Travel fund for a short-term visit to TU Dresden, Germany	

AWARDS & HONORS

- **Graduate Student Travel Award**, UBC 2022
(500 CAD)
- **Go Global Self-Directed Research Award**, UBC 2022
(1500 CAD)
- **Graduate Covid Program Delay Tuition Award**, UBC 2021
(1917 CAD)
- **President's Academic Excellence Initiative PhD Award**, UBC 2021-Present
(1545 CAD/year)
- **International Tuition Award**, UBC 2018-Present
(3200 CAD/year)
- **Certification of Appreciation for outstanding contribution**, TCS 2015

MISCELLANEOUS Leadership & Volunteer

- **Human Communication Technologies Lab Ambassador**
Role: Voluntarily worked as the lab representative for the HCT lab, UBC.

Students Mentored

- Rongshuai Wu, University of British Columbia, 2022

REFEREED CONFERENCE PROCEEDINGS

- [6] **Mohapatra, D.**, Fleischer, M., Zappi, V., Birkholz, P., & Fels, S. (2022). *“Three-dimensional finite-difference time-domain acoustic analysis of simplified vocal tract shapes”*, Interspeech, pp. 764-768, Incheon, Korea.
- [5] **Mohapatra, D.**, Saha, P., Liu, Y., Gick, B., & Fels, S. (2021). *“Vocal tract area function extraction using ultrasound for articulatory speech synthesis”*, Proceedings of the Speech synthesis workshop (SSW), pp. 90-95, Budapest, Hungary.
- [4] **Mohapatra, D.**, Zappi, V., & Fels, S. (2020). *“A comparative study of two-dimensional vocal tract acoustic modeling based on Finite-Difference Time-Domain methods”*, International seminar on speech production (ISSP), pp. 154-157, Rhode Island, USA.
- [3] **Mohapatra, D.**, Zappi, V., & Fels, S. (2019). *“An extended two-dimensional vocal tract model for fast acoustic simulation of single-axis symmetric three-dimensional tubes”*, Interspeech, pp. 3760-3764, Graz, Austria.
- [2] **Mohapatra, D.**, & Fels, S. (2018). *“Limitations of source-filter coupling in phonation”*, Proceedings of the Acoustic week in Canada (AWC), pp. 60-61, British Columbia, Canada.
- [1] Saha, P., **Mohapatra, D.**, Srungarapu, P., & Fels, S. (2018) *“Sound-Stream II: Towards real-time Gesture Controlled articulatory sound synthesis”*, Proceedings of the Acoustic week in Canada (AWC), pp. 58-59, British Columbia, Canada.