

# Tejaswinee Kelkar

PHD, MS, BE, B.Mus, AMuSTCL

Post box 1133 Blindern 0318 Oslo Norway

☎ (+47) 45448254 | ✉ tejaswineek@gmail.com | 🌐 tejaswinee.com | 📺 shockmonger | 📺 tejaswinee-kelkar | 🐦 @shockmonger

## Education

---

Doctor of Philosophy

RITMO CENTER OF EXCELLENCE, UNIVERSITY OF OSLO

Oslo, Norway

May. 2016 - Nov. 2019

- Dissertation: Computational Analysis of Melodic Contour and Body Movement

M.S. in Computer Science and Engineering by Research

IIIT HYDERABAD (INTERNATIONAL INSTITUTE OF INFORMATION TECHNOLOGY)

Hyderabad, India

September 2012 - December. 2015

- Thesis: Applications of Gesture and Spatial Cognition in Hindustani Vocal Music

B. Music (Sangeet Prabhakar) in North Indian Classical Music

PRAYAG SANGEET SAMITI

Allahabad, India

April 2014

First Division By Correspondence

AMus TCL Diploma in Western Classical Composition

TRINITY COLLEGE OF MUSIC, LONDON

London, England

December 2012

90 Credits for Musical Skills and Stylistic Development (Diploma By Examination)

Bachelor of Engineering in Industrial Engineering

RTM NAGPUR UNIVERSITY

Nagpur, India

April 2010

- Bachelors Thesis: Maintenance Optimization in Cattle Feed Manufacturing Plant

## Employment

---

Doctoral Research Fellow

RITMO CENTER OF EXCELLENCE, UNIVERSITY OF OSLO

Oslo, Norway

May. 2016 - May. 2020

- 75% Research and 25% Teaching Position

VLEAD Project

PROJECT ENGINEER

IIIT Hyderabad, India

2014 May - 2016 February

- Set up a virtual lab for Hindustani Music at <http://music.virtual-labs.ac.in>
  - Created a database of ragas
  - Created, designed, and developed 25 experiments, and conducted User Testing
- Cognitive Science Lab, IIIT Hyderabad

Hyderabad

RESEARCH ASSISTANT - HCI

- Funded by Intel Ltd., worked on cognitive load minimization through design intervention
- Environments used: Javascript, HTML,
- Worked on error and exception handling design schemata

2012 September - 2015 September

Hyderabad Western Music Foundation (HWMF)

Hyderabad

MUSIC TEACHER

- Taught music theory, and voice to group and individual classes
- Conducted community singing instruction open to all

2012 September - 2016 February

## Publications

---

- Kelkar, T (2019, May). *Computational Analysis of Melodic Contour and Body Movement*. Doctoral Thesis submitted to the Faculty of Humanities, University of Oslo
- Kelkar, T, Roy, U, & Jensenius, A. (2018, September). *Evaluating a collection of Sound-Tracing Data of Melodic Phrases* In Proceedings of the International Society for Music Information Retrieval Conference (ISMIR 2018). IRCAM, Paris.
- Patel-Grosz, Pritty; Grosz, Patrick Georg; Kelkar, Tejaswinee & Jensenius, Alexander Refsum (2018). Coreference and disjoint reference in the semantics of narrative dance, In Uli Sauerland & Stephanie Solt (ed.), *Proceedings of Sinn und Bedeutung 22*, vol. 2, ZASPiL 61. Leibniz-Zentrum Allgemeine Sprachwissenschaft (ZAS). Chapter in Vol. 2. s 199 - 216
- Kelkar, T, Jensenius, A. *Analyzing free-hand sound tracings of melodic phrases*. Applied Sciences Special Issue on Sound and Music Computing. Eds: Lokki, Tapio; Valimaki Vesa; Serafin Stephania.
- Kelkar, T, Jensenius, A. (2017, July). *Representation Strategies in Two-handed Melodic Sound Tracing*. In Proceedings of the International Conference on Movement Computing (MOCO 2017). Goldsmiths, University of London, London.
- Kelkar, T, Jensenius, A. (2017, July). *Exploring Melody and Motion Features in "Sound Tracings"*. In Proceedings of the Sound and Music Computing Conference (SMC 2017). Espoo, Finland.
- Kelkar, T., Mavalankar, A., Choppella, V. (2015, December). *Generation of Quizzes and Solutions based on Ontologies - a Case for a Music Problem Generator*. In Proceedings of IEEE Technology for Education Conference (T4E). NIT Warangal, India.

- Kelkar, T., Ray, A., & Choppella, V. (2015, June). *SangeetKosh: An Open Web Platform for Music Education*. In Proceedings of the The 15th IEEE International Conference on Advanced Learning Technologies (ICALT), June 2015, Taiwan.
- Roy, U., Kelkar, T., & Indurkha, B. (2014, June). *TrAP: An Interactive System to Generate Valid Raga Phrases from Sound-Tracings*. In Proceedings of the 2014 conference on New interfaces for musical expression (NIME '14). Goldsmiths, University of London, London.
- Kelkar, T., & Indurkha, B. (2014 June). *A motion-based approach to analysis, notation and creation of Hindustani Music*. Proceedings of xCoAx2014: Computation Communication Aesthetics and X. Universidade do Porto, Porto.
- Kelkar, T., Gadepalli, P., & Indurkha, B. (2013, December). *An Assistive Tool to Improve Usability of Error Dialogs*. In proceedings of IEEE Conference on Technologies and Applications of Artificial Intelligence (TAAI), Taiwan.

## Performances

---

Nov 2019	Utopia with MusicLab, Oslo World Festival	Oslo
Oct 2019	Improverk - Kelkar and Sreshtha, Kafe Hærverk	Oslo
Sep 2018	Depot. Depository. Rays: 7 Channel Sculptural Soundscape, Fotogalleriet, Oslo	Oslo
2017-2018	Data Jockeying with MusicLab, MusicLab with Institute of Musicology and Realfagsbiblioteket, UiO	Oslo
Sep 2017	'Cliche Raga - Neural Network Performance', at MMM...Alone and all of her sex	University of Oslo
Apr 2014	An Evening Of Musical Conversations, Saptaparni Hyderabad	India

## Key Positions

---

2017-2018	Organizer for Reading Group on Signal Analysis, Department of Musicology	Oslo
2018-2019	Deputy Staff Representative, Steering Committee for the Faculty of Humanities	Oslo
2017-2019	Election Committee Representative, Department of Musicology	Oslo
2018-2019	Deputy PhD Student Representative, PhD Program Board, Faculty of Humanities	Oslo

## Teaching

---

Co-Teacher in the MCT (Masters in Music, Communication and Technology) Program	Oslo
MCT4047 MUSIC AND MACHINE LEARNING	September 2019
• Responsible for programming Jupyter notebooks to help students learn Python, Librosa, and Scikit-Learn, and teaching deep learning models.	
Girl Music Tech Camp	University of Oslo
INSTRUCTOR, COURSE DESIGNER	Oct 2019
• Designed and taught a five-day intensive workshop for high school women students to learn about music technology.	
Sound Synthesis with Little Bits	University of Oslo
INSTRUCTOR	August 2019
• Designed and taught Little Bits and sound synthesis.	
LINK Center for University Pedagogy	University of Oslo
CERTIFIED IN THE GENERAL PEDAGOGICAL TRAINING PROGRAMME	Fall 2019
• Basis competence course in pedagogy including peer-review for instructors, and a pedagogical development paper assignment.	

## Programming Languages

---

<b>Operating Systems</b>	Linux, Mac OS X, Windows
<b>Programming</b>	Python, HTML/Javascript, Matlab, C/C++, Max
<b>Packages and Libraries</b>	Scikit, Pandas, Librosa, Keras
<b>Specialized Tools</b>	LateX, Logic Pro 10, Sibelius, Sonic Visualizer, Praat, Adobe Photoshop

## Press

---

Jan 2020	Noen Forsker På Musikk Helt På Ekte, Now's the Time, Jazznytt	Oslo
2016	Exceptional Engineers: Tejaswinee Kelkar On Her Experiments With Indian Classical Music And Beyond, Crazy Engineers Blog	Pune
April 2014	Unapologetically Vocal, The Hindu Newspaper	Hyderabad

## Languages

---

<b>English, Hindi, Marathi</b>	Native Proficiency
<b>Japanese, Norwegian</b>	B2/C1 Proficiency
<b>Sanskrit, French, Tamil, Telugu</b>	Conversational